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INDUSTRIAL POLICY COVERAGE IN IMF SURVEILLANCE— BROAD CONSIDERATIONS

IMF staff regularly produces papers proposing new IMF policies, exploring options for reform, or reviewing existing IMF policies and operations. The Report prepared by IMF staff and completed on February 29, 2024, has been released.

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INDUSTRIAL POLICY COVERAGE IN IMF SURVEILLANCE—BROAD CONSIDERATIONS

EXECUTIVE SUMMARY

Industrial policy (IP) is back. IP refers to targeted government interventions aimed at supporting specific domestic firms, industries, or narrowly defined economic activities to achieve certain national (economic or non-economic) objectives. Since the mid-2010s, countries have increasingly used IP to guide structural transformation of their economies amidst the COVID-19 pandemic, escalating geopolitical tensions, and pressures to accelerate the green transition. Recent discriminatory IP measures implemented in some countries have triggered countermeasures in others, putting global trade and economic integration at risk. In the past, IP was often used to protect infant industries, to foster industrialization, and to promote economic diversification. However, the evidence on the net economic benefits of IP has been mixed.

IP can potentially help address market failures, but the bar to get it right is high. The use of IP may be justified in the presence of well-identified externalities, coordination failures or public input under-provision. But to be effective, IP measures should be well-targeted, time-bound, cost-effective, transparent, and deliver on their objectives, while preserving domestic macroeconomic stability, fiscal and external sustainability. Given the high risk of resource misallocation, IP would have to be well-designed to mitigate incentives for rent seeking and corruption, which requires robust institutions. Policymakers should avoid implementing IPs that breach international commitments and harm trading partners.

IP should be covered in IMF surveillance when it is deemed macro-critical or has the potential to generate significant cross-border spillovers. It is the same standard as for any other policies. Macro-criticality means that a given policy can significantly affect present or prospective balance of payments or domestic stability. The scope of staff's analysis and policy advice depends on the IP type and objectives, as well as on available information and expertise. If IP is driven by national security motives, staff should assess its domestic economic impact and cross-border spillovers but not provide policy advice.

This note outlines broad considerations for deploying IP and guiding principles for its coverage in IMF surveillance. It explains the "when" and "how" country teams would have to engage with authorities on IP issues, and outlines areas where the expertise and collaboration with other international organizations may be needed. The note also provides examples of IP coverage in recent Article IV consultations, such as the use of trade measures (Indonesia), green IP (the USA and the Euro Area), special economic zones (Saudi Arabia), and state-owned enterprises (China).

This is an umbrella paper for a series of how-to notes on IP. Its goal is to frame the IP discussion at the current juncture, outline broad considerations for IP coverage in IMF surveillance, present a compilation of existing guidance for IMF staff that applies to IP and highlight some areas that will require further elaboration in subsequent how-to notes.

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INTRODUCTION

1. Industrial policy (IP) is making a strong comeback.[1] IP can be narrowly defined as targeted government interventions ("vertical policies") aimed at supporting specific domestic firms, industries, or narrowly defined economic activities to achieve certain national (economic or non-economic) objectives. IP differs from "horizontal policies" which aim to improve the general business environment for all firms and industries in an economy. This can include measures such as strengthening the rule of law and governance, promoting the ease of doing business, or developing infrastructure. Until the mid-1980s, IP—mainly trade protectionist policies known as import-substitution industrialization—was used by countries to protect infant industries, support national champions, or foster economic diversification. During the era of trade and capital flows liberalization, most countries opted for less government interventions in the economy and the removal of barriers to trade and investment.[2] Text analysis of IMF Article IV Staff Reports reveals that the term "industrial policy" regained attention around the 2010s, particularly in advanced economies (AEs) (Cherif, Engher, and Hasanov 2020, 2023). The use of restrictive trade measures surged with the intensification of trade tensions in 2017-18 and with the onset of the COVID-19 pandemic (Figure 1, panel 1).[3]

2. IP resurgence of recent years has been driven by both economic and non-economic considerations. The pressing challenges related to climate change, demographic, and digital transitions as well as increased geopolitical rivalry, have made the case for guided structural transformation more compelling and revived interest in IP. Notwithstanding data limitations, the available data suggest that the latest IP wave (2023) has been mainly led by AEs (Figure 1, panel 2) and has been motivated by competitiveness, climate mitigation, supply chain resilience, and national security considerations (Figure 1, panel 4, Evenett et al., 2024). The sector/product focus of IP shifted from medical goods, which dominated during the COVID-19 pandemic, to advanced technologies and their inputs. In 2023, the sectors that have seen most IP activity have been military-civilian dual use products and advanced technology products, including semiconductors and low-carbon technologies, as well as their upstream inputs, such as critical minerals (Figure 1, panel 3).

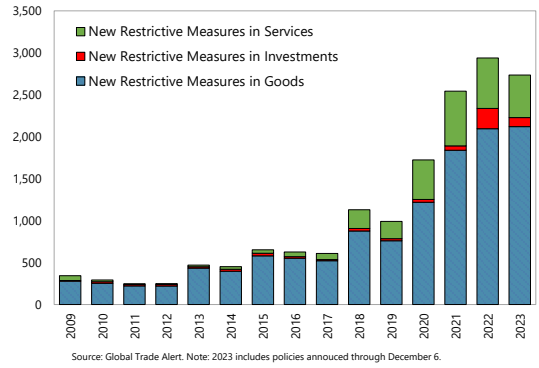
[1] The term "industrial policy" was coined to describe efforts to support exports or establish heavy industries. Over time targeted sectors and policies have grown broader, but the label "industrial policies" has stuck. In this note, the term "industrial policies" refers to policies that target any sector.

[2] Some AEs have continued to use elements of IP related to innovation or national security. Examples include defense procurement (preferential treatment for domestic defense companies when awarding contracts such as the Buy American Act in the U.S.), strategic trade controls (export controls and regulations on the transfer of sensitive technologies, especially those with potential military applications or implications for national security), grants, tax incentives and subsidies to support research and development (R&D) in strategic industries and tech development in general, intellectual property protection, strategic infrastructure investments (such as in research universities, national laboratories, and infrastructure related to advanced manufacturing).

[3] The Global Trade Alert reports that, between November 2008 and December 2021, more than 32,500 protectionist policy interventions were implemented globally, outnumbering the 6,900 trade-liberalizing ones (WEF 2022). Policy tools of a "defensive" nature are more actively used in traditional sectors such as minerals, metals, and chemicals, and to a lesser extent in textiles and clothing, electrical machinery, and transport equipment (WTO, 2020).

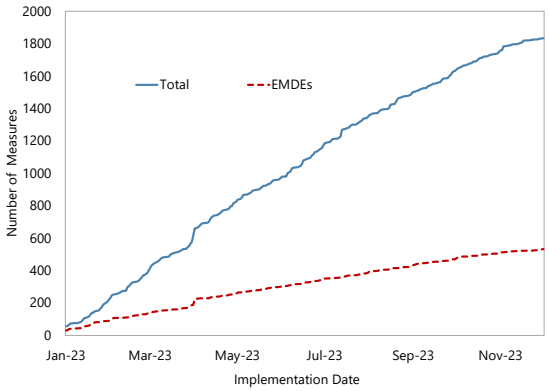
Figure 1. The Resurgence of Industrial Policies

Number of New Trade Restrictive Measures

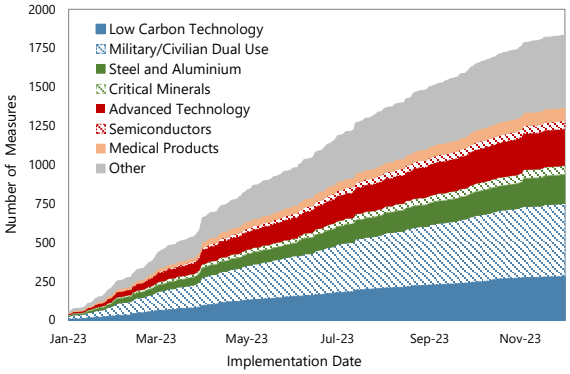


Source: Global Trade Alert. Note: 2023 includes policies annouced through December 6.

New Industrial Policy Announcements

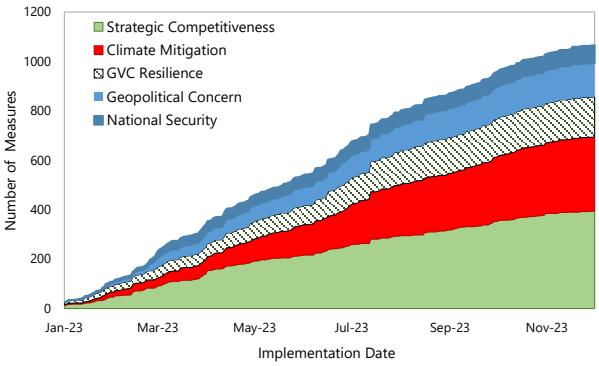


New Industrial Policies by Sector



Note: Cumulative stock of measures. For measures affecting multiple sectors, each sector is given equal weight.

New Industrial Policies by Stated Objective



Note: Cumulative stock of measure with IP-related motive.
For measures with multiple motives, each motive is given equal weight.

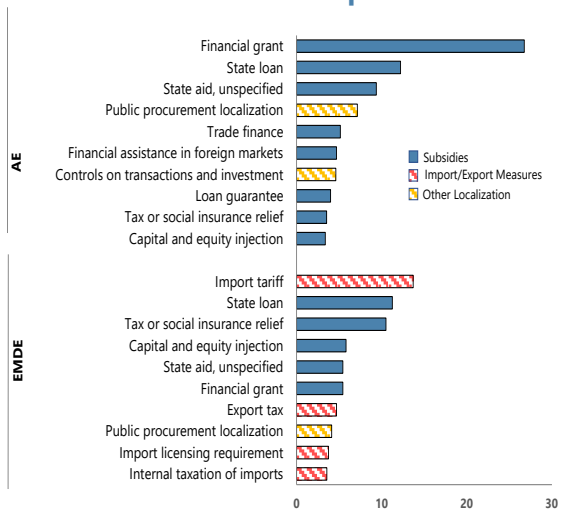
Source: Global Trade Alert, Evenett et al. (2024), authors' calculations.
Note: Figures include border (e.g., export bans) and behind-the-border (e.g., subsidies) measures associated with IP that are trade distorting. The data in Evenett et al. (2024) are the result of a monitoring initiative by the IMF SPR Trade Team in collaboration with the Global Trade Alert (GTA) called the New Industrial Policy Observatory (NIPO). It collects information from official sources on IP-related measures implemented from January 2023 in a set of 75 jurisdictions, their motivation, and the products and sectors they target. The database is updated monthly by GTA. The real-time data are affected by a "revelation bias" as information becomes available at different speeds across various jurisdictions. EU-wide measures are recorded only once, but measures by individual EU member states are counted separately.

3. Policy tools deployed in pursuit of IP objectives vary, depending on countries' fiscal, institutional, and administrative capacity. Most of the recent IPs have been implemented through *subsidies*, but AEs and EMDEs differ in their choice of subsidy instruments—AEs tend to rely on direct financial grants, state loans, and other forms of state aid, while EMDEs opt for state loans, tax relief, and capital injections (Figure 2). Trade restrictions on imports and exports are also more

frequently used by EMDEs, possibly reflecting their more limited fiscal or administrative capacity.[4] Looking back over the past decade, the use of subsidies has been more prevalent in EMDEs, contributing to the sizable stock of "legacy" measures that are still in place (Figure 3). The use of other policy instruments has been relatively similar across income groups over the same period.

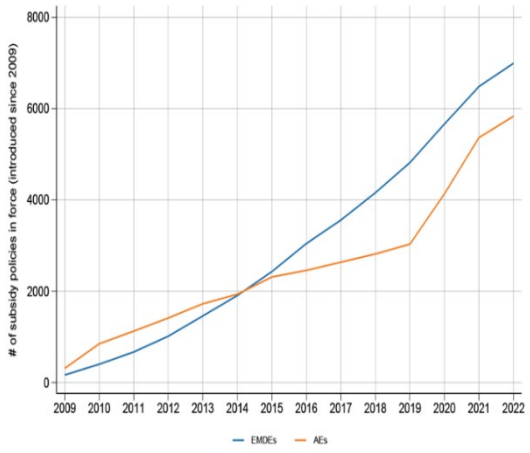
4. Many commonly used IP tools tend to discriminate between domestic and foreign producers. Examples include local content requirements (LCRs), preferential access to raw materials for domestic producers, subsidies for domestic companies that are not available to foreign entities, or preferential access to credit for domestic firms.[5] Policies may not always be *de jure* discriminatory but can be *de facto* discriminatory, such as digital services taxes with high sales thresholds, effectively targeting only foreign suppliers, or subsidies where only local firms (either by ownership or by residency) would meet the eligibility criteria. Policies could also differentiate between domestic companies by favoring certain entities within a given sector or geographical area. In contrast, non-discriminatory instruments include policy measures that do not distinguish companies based on a specific criterion, such as residency or firm size, and can include subsidies or tax incentives for all companies in the targeted sector.

Figure 2. Industrial Policy Tools (2023), by Income Group



Source: Evenett et al. (2024)

Figure 3. Historical Use of Subsidies (2009-22), by Income Group



Source: Evenett et al. (2024)

[4] Based on data analysis using machine-learning Juhász et al. (2023) find that both AEs and EMDEs use trade finance, state loans, financial grants, and local sourcing requirements. However, the relatively high reliance on import tariffs in the case of EMDEs (about one tenth of their IP measures employed over the last two decades) generally require lower administrative capacity and still constitute an important source of government revenues.

[5] Examples of discriminatory policies include import restrictions on foreign firms to shield domestic producers from competition or granting exclusive privileges to a specific firm or industry, thereby creating barriers for new entrants, export restrictions on critical commodities (for example, export ban on nickel ore in Indonesia) or local content requirements in the U.S. Inflation Reduction Act).

5. IP can significantly affect domestic economy and/or generate cross-border spillovers. IP can potentially deliver net economic benefits if well-designed, directed to address specific market failures and based on competition-enhancing principles and sound cost-benefit analysis. Because IP aims to alter incentives of private firms, it also entails a risk of resource misallocation and government capture that can become more apparent over time. IP can also affect trade, investment, and financial flows as well as global market prices which could have significant implications for trade partners and the global economy. Therefore, IP design, implementation, and governance are critical to minimize distortions, avoid or mitigate government failures, contain fiscal costs, and minimize negative cross-border spillovers.[6]

6. This note aims to provide a conceptual framework and guiding principles for the coverage of IP in IMF surveillance. IP issues fall under the purview of IMF surveillance when they are deemed macro-critical and/or have the potential to trigger significant cross-border spillovers. This is the same standard as for any other policy, with fiscal, monetary, and financial policies always considered macro-critical. The objective of the note is to provide an overview of pertinent issues, drawing on existing internal guidance as well as internal and external analytical and policy work to inform the coverage of IP issues in IMF surveillance, including those motivated by strategic non-economic objectives and the green transition.[7] The note does not aim to provide a comprehensive framework for assessing IP or a catalog of IP applications and recommendations.

7. The note is structured as follows. Section II proposes a working definition of IP for the purposes of IMF surveillance, distinguishes IP from economy-wide policies ("horizontal policies"), and discusses IP objectives and tools. Section III reviews the academic literature and highlights the main factors associated with successful IP. Section IV outlines broad considerations—a conceptual framework—for assessing IP. Section V discusses "when" and "how" IP issues would be covered in IMF surveillance, including IP motivated by non-economic objectives. The section also provides examples of IP coverage in the recent Article IV consultations with China, Euro Area, Indonesia, Saudi Arabia, and the United States. Section VI discusses collaboration with other international organizations and Section VII outlines the next steps.

IP DEFINITION, OBJECTIVES, AND INSTRUMENTS

8. IP typically refers to targeted government interventions aimed at steering the structural transformation of the domestic economy. Such policies are designed to develop or support specific domestic industries, firms, or narrowly defined economic activities to achieve certain economic or non-economic objectives that would not occur without such interventions (Cherif et al., 2022, Criscuolo et al., 2022, Spence, 2023, Juhász, Lane, Oehlsen and Pérez, 2023, and Juhász, Lane,

[6] A market distortive policy is any government intervention that affects relative prices and resource allocation. IP can fall within the boundaries of such policies as it intends to "shift" economic structures, prices, and marginal costs. Market distortive policies may not always be economically efficient. In this Note, the word "distortive policy" refers to a policy that can alter the relative price or the allocation of resources in an economically *inefficient* manner.

[7] Existing internal guidance includes coverage of structural reforms in surveillance (IMF, 2015; IMF, 2016; IMF, 2022) and trade policies in surveillance (IMF, 2010; IMF, 2024).

and Rodrik, 2023). [8] This definition of IP specifically excludes policies that apply to all sectors or forms of economic activity ("horizontal policies") such as active labor market policies or R&D support available to all firms and sectors. The definition also excludes any policy measures adopted for the purposes of maintaining domestic or balance of payment stability, although as discussed below the policy rationale may be difficult to discern.

9. The economic objectives of IP vary and tend to be context specific. Achieving IP economic objectives typically involves state intervention to address market failures, including the creation of new capabilities. IP is therefore seen by policymakers as a "corrective mechanism" to help achieve specific goals. A *domestically oriented* IP generally focuses on productivity, economic diversification, or economic development— more broadly, employment, the green transition, or national security. During 2020-21, IP measures have also been used in response to the COVID-19 pandemic. A *foreign-oriented* IP would aim to increase export market shares for certain products by supporting domestic producers. In practice, the delineation between domestically and foreign-oriented IP is often not clear-cut, especially when IP is motivated by multiple objectives. IP could also have non-economic objectives (see Table 1), and there could be instances where IP is adopted under pressure from domestic interest groups which lobby for more protection against competition or for more financial support.

10. An illustrative taxonomy in Table 1 highlights the differences between IP ("vertical policies") and "horizontal policies". External policy tools within IP can include trade policies such as export restrictions, export subsidies, import tariffs, LCRs, discriminatory domestic regulations or enforcement practices, and policies to attract or to limit foreign direct investment (FDI) in specific sectors. Special Economic Zones (SEZs) usually fall into this category as well, as they are designed to promote industrial activity and international trade through preferential fiscal and regulatory treatment, along with infrastructure support, typically within specific geographic zones and/or economic sectors. Meanwhile, domestic policy tools under IP include taxes, subsidies, concessional loans, grants, tax credits, "buy-domestic" policies, or government guarantees that are sector-specific as opposed to similar measures that are applied economy-wide. State-owned enterprises (SOEs) often serve as conduits for pursuing different policy objectives, including IP. Sector-specific regulations can also be an instrument of IP.

[8] Cherif et al. (2022) define IP as targeted sectoral interventions. Criscuolo et al. (2022) refer to interventions to structurally improve domestic business, with IP defined more broadly to include both horizontal and targeted policies. Spence (2023) offers a broader perspective, stating that the objective of IP is to change market outcomes to meet country's social and economic objectives. Spence and others like Chang (2002) observe that IP goes beyond interventions to tackle market failures, shaping the supply side or production structure of the economy, and the allocative efficiency of resources is not the only objective. Juhász et al. (2023) define IP as intentional state action directed at changing the long-run composition of the domestic economy.

Table 1. An Illustrative Taxonomy of IP Objectives and Tools

	Types of policies		Industrial Policy Objectives			
	Industrial Policy Objectives	Industrial Policy Objectives	Economic	Environmental	Social	Security
External policy tools	Trade regulatory environment	Export restrictions	•	•		•
		Export subsidies	•			
		Import restrictions	•	•		
		Local content requirements (LCR)	•		•	
	FDI promotion/facilitation	FDI restrictions and inducements	•			
	Trade finance promotion	Sector/activity specific trade finance	•			
	FDI regulatory environment	Policies affecting sale/transfer of technology	•			
		Restrictions on movements of people	•			
		Restrictions on joint ventures	•			
		Special economic zones (SEZ)	•			
	Deep trade agreements					
Domestic policy tools	General taxes	Sector/activity specific taxes	•			
		Domestic subsidies	•	•	•	
	Concessional loans	Sector/activity specific concessional loans	•	•		
	Grants	Sector/activity specific grants	•	•		
	Government guarantees	Sector/activity government guarantees	•	•		
	General R&D tax credits	Sector/activity specific R&D tax credits	•	•		
	State-owned enterprises	Sector/activity specific SOEs	•			•
	Public procurement policies	Public procurement related restrictions	•			
	Active labor market policies	Immigration policies/restrictions	•			•
Domestic Regulation	Product market regulations	Export licensing requirements	•			
	Product standards					
	Labor market regulation					
	Credit market regulation					
Complementary policies	Social policies					
	Education policies					
	Health policies					
	Housing policies					

Source: IMF staff
Note: The dots indicate a common use of specific policy tools corresponding to different IP objectives.

11. The use of IP tools has varied across countries and stages of economic development. At early stages of economic development, limited administrative capacity makes countries often rely on import tariffs to protect nascent industries and promote import substitution. In this context of limited administrative capacity, SEZs have often been used to attract foreign firms by offering unique regulations, infrastructure, and additional incentives (such as access to critical mineral resources) that are not available in the rest of the country. Upon reaching higher-income status and stronger administrative and fiscal capacity, countries generally tend to rely on more financially costly and complex policy levers such as targeted R&D support, tax incentives, public procurement, loan guarantees, or FDI screening. Tax incentives are widely used by EMDEs, though less so by AEs. When offering tax incentives, AEs are more likely to offer expenditure-based incentives (such as accelerated depreciation), as opposed to profit-based incentives (such as tax holidays) targeted at foreign investors, often on a discretionary basis.

IP EFFECTIVENESS: EMPIRICAL EVIDENCE

12. Getting IP right requires a comprehensive assessment of its benefits and costs to prevent inefficiencies and adverse cross-border spillovers. IP can be beneficial when it helps reduce market failures and economic externalities—this is understood as the difference between the social marginal benefit and costs of economic activities. However, there is substantial evidence that IP could lead to inefficiencies due to resource misallocation or rent seeking (Krueger and Tuncer, 1982; Rodrik, 2008). Furthermore, discriminatory provisions in IP run the risks of not only distorting the allocation of resources within countries, but also encouraging tit-for-tat retaliatory policies in trading partners, and ultimately distorting trade and investment flows. Governance and safeguards should therefore be prominently featured in IP design and assessment.

13. The empirical evaluation of net economic benefits of past IPs has been challenging.[9] *First*, it is difficult to define a counterfactual—what would have happened in the absence of IP (Rodrik, 2012; Lane, 2020). *Second*, the use of several policy tools at the same time makes it challenging to distinguish the effects of different policies and to appropriately isolate the contribution of IP to economic performance (for example, IP strategies in Asian Miracle Economies were complemented and supported by their ability to maintain high domestic saving rates). [10] *Third*, IP measures could have net cross-border spillover effects that are difficult to assess. For example, some studies find that trade and IP tensions, including retaliatory measures, can have positive effects on 'third' countries, including from knowledge spillovers, cost reductions and faster technology adoption (as for example, in the case of solar panels), as well as increased competition (Fajgelbaum et al., 2023). Other studies highlight that IP measures can trigger negative cross-border spillovers—distorting trade, diverting investment, or exacerbating adjustment costs in partner economies (WTO, 2020). Thus, a proliferation of trade distorting IP measures can undermine the international trade system.

14. Despite recent efforts to overcome methodological challenges, the empirical evidence on the net economic impact of IP is mixed. Recent surveys are provided by Lane (2020) and Juhász, Lane, Rodrik (2023). The new empirical research on IP focuses on micro- and sector-level (quasi- experimental) and historical evaluations of the impact of IP and improves the evaluation of endogenous intervention policies (Lane 2021, Kim, Lee and Shin 2022, and Choi and Levchenko 2022). Despite these improvements, the microeconometric evidence using within-country variations is mixed across empirical techniques (difference-in-difference, regression discontinuity design, propensity score matching, natural experiments) or recent multi-sector general equilibrium models (Bartelme et al 2019). Aghion et al (2015) highlights the need for pro-competitive IP, while Criscuolo

[9] There is a large literature on the role of unorthodox and place-based policies in the economic development of the Asian Miracles (e.g., Amsden, 1989, 2003, Wade, 1990, Woo 1991, and Chang, 2002). Historical accounts on the role of trade-related IP measures in economic transformation in the U.S., Germany, and Korea tend to reject the view that these policies were truly transformational (Irwin, 2023).

[10] This term typically refers to Hong Kong SAR, Singapore, South Korea, Taiwan Province of China, and Japan

et al (2019) notes that investment may help to meet a job creation objective, but not necessarily a TFP objective.

15. Case studies point to broad enabling factors behind the IP successes. The experience of Asian Miracles and other countries help provide useful insights. These include targeting sophisticated sectors with export-orientation, while enforcing competition and accountability (Cherif and Hasanov 2019b), as well as resource-intensive activities (Lebdioui, Lee, Pietrobelli 2020) or sectors with high network linkages to other sectors (Liu, 2019). In addition, the involvement of relatively large domestic export-oriented private firms in high-technology sectors appears to yield better outcomes than relying solely on SOEs or multinational corporations (Cherif and Hasanov 2019a). Hufbauer and Jung (2021) argue that in the U.S., IP has worked best when R&D support was provided across a whole sector while encouraging competition (DARPA, Renewable energy, Sematech, Advanced Technology Vehicles Manufacturing Loan Program).[11] Moreover, "hard" IP tools, such as tariff barriers or subsidies are rarely efficient, and instead, specialized financing schemes, export promotion agencies and public research institutes were found to yield better results. Finally—and importantly—IP is more likely to be successful if it is designed as part of an overall economic strategy that also includes economy-wide measures supporting human capital, innovation, infrastructure, or business climate to maximize efficiency gains, foster positive spillovers to the rest of the domestic economy, and avoid resource misallocation.

ASSESSING IP: A CONCEPTUAL FRAMEWORK

16. Drawing on recent studies, four broad sets of considerations can help guide IP evaluation. Drawing on a large body of work, including Criscuolo et al. (2022), Cherif and others (2022), Aghion and Combe (2023), Felipe and Rhee (2013), and Juhász, Lane, and Rodrik (2023), the main considerations/questions around the use of IP can be grouped under four headings – justification, design, cost-benefit assessment, and implementation – that are interlinked.

A. Justification

- *What are the IP objectives and is there a case for targeted government intervention?* IP can be considered if there is a well-identified market failure (e.g., under-provision of public inputs, negative externalities, coordination failures) that inhibits socially optimal outcomes.[12] The latter could include economic, social, environmental, or other outcomes. In such circumstances, IP could help to close the gap between private and social net returns that arise because of a specific market failure. The determination of target sectors should ideally consider the linkages

[11] G. C. Hufbauer and E. Jung (221). Scoring 50 Years of U.S. Industrial Policy, 1970–2020. Peterson Institute for International Economics.

[12] Market failure occurs when market equilibrium cannot be achieved—there are impediments for supply and demand to balance each other. It occurs when there are externalities, information failures, market power (monopoly, monopsony, etc.) or under-provision of public goods. Externalities occur when the private marginal benefit or cost differs from the social (economy wide) marginal benefit or cost. Tradable and R&D-intensive sectors are more likely to experience these externalities (see Ledyard, 2018).

between different sectors of the economy (see Liu (2019)). It should be noted that the first-best option would be to directly address the source of market failure. Similarly, the unilateral introduction of an IP measure in response to a perceived harmful policy by a trading partner that is seen as adversely impacting domestic firms would not be the first best option, rather the first best approach would be to resolve the issue cooperatively or through appropriate international processes such as the WTO dispute settlement mechanism.

- *Are there alternative policies that could help achieve the same policy objectives?* In some cases, the authorities' goals may be broader than addressing specific market failure or there may be other policies that could be used to achieve these goals (for example, see Box 4 on green IP). It would, therefore, be important to explore a broader range of policy options, some of which could be a priori less distortionary but still deliver comparable or superior outcomes (for example, a combination of horizontal policies, see Table 1). The comparison of different policy packages could be informed by the cost-benefit analysis as feasible (Section C).

B. Design

- *What is the best choice of IP instruments?* This involves selecting a consistent set of policy instruments aimed at achieving the stated policy goals, taking into account the country's institutional framework and implementation capacity (for detailed discussion of the choice of IP instruments, the channels through which they operate and potential complementarities, see Criscuolo et al., 2022).

- *Which complementary economy-wide policies could mitigate potential distortionary effects of IP?* When considering an IP, policymakers should aim at achieving a high degree of competitive neutrality, i.e., all firms in a given sector or industry, regardless of their age, size, ownership, and organizational structure, should have equal opportunities to compete in the market even after government intervention takes place.

- *Which complementary economy-wide policies are needed to ensure effectiveness of IP?* To be effective, IP may have to be complemented by policies that strengthen linkages with the rest of the economy. For instance, an IP aimed at boosting the high-tech sector may not yield the desired results if it is not supported by appropriate education, labor market, and perhaps, even immigration policies.

- *Is there a robust governance framework for IP?* IP should be supported by an appropriate governance framework to reduce the risks of rent-seeking, corruption, and distorted comparative advantage. This involves transparent mechanisms for project selection and regular monitoring and reviews, supported by credible expertise and fact-based approaches to decision-making, as well as clearly defined sunset clauses to ensure that IP support is phased out gradually.

- *Is there a clear role for the private sector?* IP cannot be successful unless the sector that benefits from it can eventually effectively function on its own. Thus, a greater private sector engagement

over time is critical to ensure that IP objectives are durably achieved. So, even when IP is initially implemented through SOEs, policies should be designed to help the private sector take over as IP objectives are being met.

- *What has been prior experience with similar IP measures?* Lessons learned from failure and success stories of prior IP programs should be reflected on, and internalized in any new proposed measures, where relevant.

C. Cost-Benefit Assessment [13]

- *What are the expected net benefits of IP for domestic economy?* IP can be considered when the benefits of addressing market failure through IP outweigh the costs and risks of intervention (given the design of IP - see Section B). Any IP, and especially an IP that may have macro-critical effects, should be subject to a comprehensive and rigorous cost-benefit assessment that captures direct and indirect costs and benefits for the economy, including fiscal and administrative costs as well as indirect costs due to potential resource misallocation (Box 1 provides a stylized example of the key elements of such an assessment).

Box 1. A Stylized Example

This Box presents a simple stylized example of some of the key elements of an assessment of net economic benefits associated with a particular IP instrument (from Juhász, Lane, Rodrik, 2023).

Suppose a government chooses to use subsidies to close a gap between private and social returns in a given industry that arise because of some market failures. The outcome can be expressed as follows:

$$g(s,\theta,\varphi) = \big(1-\theta(1-s)\big)A - \varphi\alpha(s), \text{ where}$$

1. g is a measure of economic performance;
2. A is some state variable that affects economic performance (e.g., the level of productivity);
3. θ is a market failure parameter ($\theta \in [0,1]$);
4. s is a subsidy ($s \in [0,1]$) which alleviates the distortion by closing the gap between private and social returns;
5. $\varphi\alpha(s)$ is fiscal or agency cost associated with a subsidy, where $\alpha(s)$ an increasing and convex function of s and φ captures the ability of government to intervene effectively, which depends on the quality of institutional frameworks.

The framework suggest i) that given the social costs of IP, it may be socially desirable for IP to be limited in scope (s <<1); ii) that not intervening may be socially optimal (s=0) in some cases; and iii) that the desirable degree of intervention depends on the size of market failure relative to the cost of intervention.

- *What are the current and future fiscal costs of IP?* The IP assessment should include estimates of the current and future fiscal costs related to IP measures, both on the revenue and expenditure side, where relevant, as well as on possible contingent liabilities and on the structure of fiscal

[13] For a reference on the theory and application of Cost-Benefit Analysis, see Jenkins et al. (2019).

incentives. A thorough assessment of the fiscal implications of IP is important to ensure that the cost of IP is well understood and well managed, especially in countries where fiscal space is limited.

- *What is the assessment of cross-border spillovers and spillbacks?* IP can have important spillovers and spillbacks, for example, when trading partners impose countervailing measures in response to discriminatory IP measures. Such effects should also be taken into account in the overall assessment of IP.

D. Implementation

- *Is IP compatible with fiscal sustainability, balance of payments and domestic stability?* Since IP is often implemented through fiscal instruments, it would be important to determine if a country has sufficient fiscal space so that IP implementation does not jeopardize fiscal sustainability or overall domestic stability. Similarly, the authorities should be mindful of the external stability risks when IP involves restrictive measures on cross-border trade, investment, or financial flows.

- *Is IP consistent with the country's legal obligations, including its WTO commitments?* Discriminatory IPs run the risk of encouraging retaliatory actions abroad, which could trigger adverse spillbacks.

- *Does the country have adequate capacity to implement IP?* The level and type of public support should be chosen to minimize government failures, for example, by establishing monitoring and evaluation mechanisms, ex ante defining the duration of interventions in a transparent manner, starting with smaller pilot projects before scaling them up when conditions allow.

IP COVERAGE IN IMF SURVEILLANCE

17. IP tends to involve a range of policy tools that are generally covered in IMF surveillance. Policies supporting the IP objectives could include fiscal (such as tax incentives, subsidies), financial (such as loans, guarantees), trade (such as tariff and non-tariff barriers, export controls), and structural measures (such as procurement policies, infrastructure, regulation). IMF staff would typically apply existing surveillance tools across these policy areas to assess domestic or cross-border economic effects of such measures. The IMF's surveillance mandate also requires staff to provide policy advice that can help achieve the authorities' stated economic objectives where relevant and feasible (Boxes 2 and 3) so long as these objectives are consistent with promoting the country's macroeconomic and balance of payments stability, as well as the stability of the International Monetary System (IMS).

A. The "When"

18. IP should be covered in IMF bilateral surveillance when it is deemed macro-critical. IP coverage in IMF surveillance is grounded in the 2012 Integrated Surveillance Decision (ISD), which integrates bilateral and multilateral surveillance and makes the Article IV Consultation a vehicle for

both. The ISD also establishes the macro-criticality standard in bilateral surveillance (see Box 2). Whether a given IP is macro-critical would depend on its type and scope, as well as on the country's macroeconomic, structural, and institutional characteristics. Fiscal, monetary, and financial policies would always be considered macro-critical. The macro-criticality assessment of IP would require judgement and may change over time. Consistent with this mandate, Article IV consultations should therefore also cover, where appropriate, inward spillovers and spillbacks from IPs adopted by other countries. [14]

19. Even if IP measures are not macro-critical domestically, they may still generate significant cross-border spillovers and warrant coverage in IMF surveillance. The ISD requires Article IV consultations to discuss spillovers arising from policies of individual members that may significantly influence the effective operation of the International Monetary System (IMS) (Box 2). For instance, significant outward spillovers can arise when a country imposes restrictions on exports of goods in markets where it controls a large share of global supply. Furthermore, the surveillance priorities established in the 2021 Comprehensive Surveillance Review (CSR)—notably, ensuring economic sustainability and preempting and mitigating spillovers—also support the coverage of IP in IMF surveillance.

Box 2. The Basis of IP Coverage in IMF Surveillance

IP should be covered in IMF surveillance when it is deemed macro-critical or if it has the potential to generate significant cross-border spillovers:

The macro-criticality standard in bilateral surveillance. The Integrated Surveillance Decision (ISD) establishes that Article IV consultations should always cover exchange-rate policies, as well as monetary, fiscal, and financial sector policies—both their macroeconomic aspects and macroeconomically relevant structural aspects. Other policies—such as those related to growth, job creation, income distribution, digitalization, climate, and gender—should be examined to the extent that they can significantly affect present or prospective balance of payments or domestic stability (i.e., are "macro-critical").

Cross-border spillovers. According to the ISD and the 2022 Surveillance Guidance Note (SGN), Article IV consultations should include a discussion of spillover effects of a member's economic and financial policies that may significantly influence the effective operation of the International Monetary System (IMS). Such policies could include IPs adopted by member countries. Outward spillovers are deemed significant if by themselves, or in combination with spillovers from other members' policies, or through their regional impact, enter macro-financial policy considerations of members representing a significant portion of the global economy.

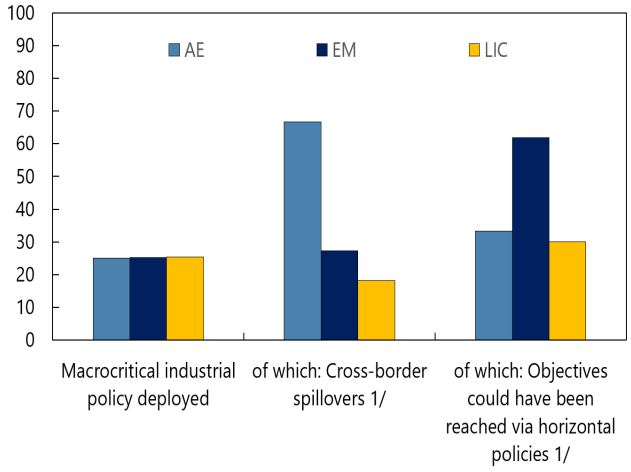
20. Many IP measures deployed in recent years are considered by staff to be macro-critical and/or with a potential to generate cross-border spillovers. According to the IMF staff survey conducted in August 2023, 48 countries used macro-critical IPs since end-2021, with 2/3 of macro-critical IPs in AEs seen as potentially triggering cross-border spillovers (Figure 4). Notably, in about 2/3 of cases of deployment of macro-critical IPs in EMDEs, country teams were of the view that

[14] Inward spillovers can arise when policies adopted in other countries influence domestic economy through trade and financial linkages. Outward spillovers can arise when policies adopted by a given country affect other countries. Spillback effects refer to adverse feedback effects on the source country.

these goals could have been achieved through horizontal policies. In AEs, IPs have been mainly motivated by climate and security considerations, while for EMDEs, the key motives include growth, diversification, and export performance (Figure 5).

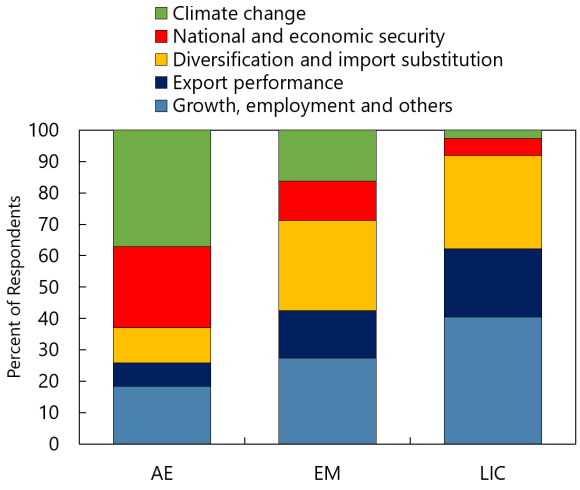
21. The timing and scope of coverage of IP issues in Article IV consultations should be based on staff's judgement. Ideally, IP measures should be discussed in Article IV consultations when they are *first introduced* and meet the criteria for coverage (Box 2). Thereafter, these measures would be re-assessed if and when there are significant changes—similar to the approach used under the 2022 Review of The Institutional View on The Liberalization and Management of Capital Flows. In some cases, country teams may decide to reassess "legacy" IP measures if they continue to weigh on economic performance and stability.

Figure 4. IMF Staff Survey: Macro-Criticality and Cross-Border Spillovers
(percent of respondents)



Source: IMF Staff.
[1]/Answers are not available for all countries that deployed a macro-critical IP. Each country can have multiple justifications.

Figure 5. IMF Staff Survey: Macro-Critical IPs, by Motive
(percent of responses)



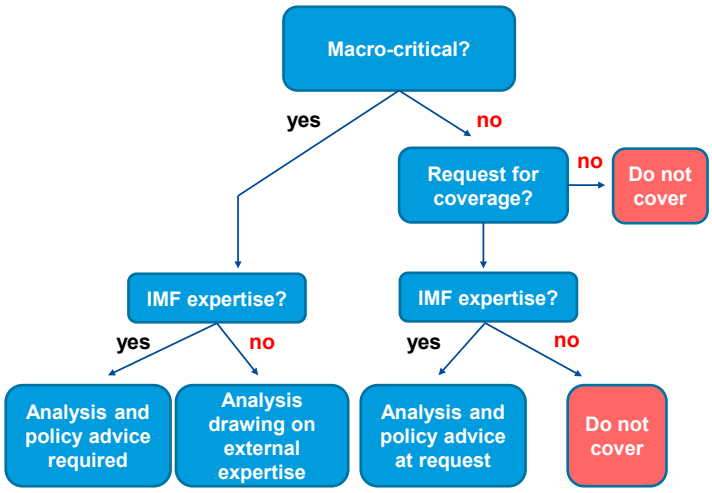
Source: IMF Staff.

B. The "How": General Considerations

22. When covering IP in Article IV consultations, country teams are encouraged to apply the broad considerations (Section IV), provide supporting analysis, and seek the authorities' views. The starting point would be to examine the IP measures relative to the broad considerations outlined in Section IV—the evidence of market failure, objectives, targeted firms, sectors or activities, benefits and costs, complementary policies, governance issues, and cross-border spillovers. These considerations could also help guide discussions with the authorities and would generally imply that IP support should be time-bound, cost-effective, transparent, and consistent with preserving domestic macroeconomic stability, fiscal and external sustainability, and avoiding negative cross-border spillovers.

23. The scope of staff's analysis and policy advice would depend on available information and expertise. When assessing different aspects of IP, staff can draw on established IMF views on specific policy tools, including on fiscal, financial, structural, trade, and exchange-rate policies. A comprehensive assessment of IP may be challenging due to difficulties in disentangling its effects from other factors (see Section III) and lack of information or expertise. The existing guidance on the coverage of structural policies in surveillance (2015 Board Paper , Staff Note for the G20, 2022 Surveillance Guidance Note) recognizes that staff may not always be able to provide specific policy advice if there is insufficient information or expertise (Figure 6). Where quantitative analysis is not possible, staff can rely on qualitative assessments. Where information or expertise is limited, staff would have to prioritize coverage in areas of IMF's core expertise and where reliable information and analytical tools are available, i.e., fiscal, monetary, and financial aspects of IP (Indonesia 2023 Article IV provides an example, see Annex II).

Figure 6. Criteria for Coverage of Macro-Structural Issues in IMF Surveillance



Source: Surveillance Guidance Note, 2022

24. A comprehensive cost-benefit assessment of IP, if feasible, could provide valuable input into policy discussions. [15] Where data and analytical tools are available, staff can provide quantitative estimates of the net domestic benefits of IP and of cross-border spillovers:

- *Domestic benefits and costs:* The benefits could include positive effects of IP on economic performance, environmental or social outcomes. The costs could include fiscal costs, agency costs and other implementation costs, as well as potential losses due to resource misallocation or retaliation by trading partners. Such effects of IP can be estimated using general equilibrium models (for example, Paret and Voigts (2024) provide a model-based assessment of emissions

[15] For example, Cherif and Hasanov (2019b) identify enabling factors for successful government interventions, including support of sophisticated sectors, promoting export orientation, and not pursuing import substitution, supporting competition in both domestic and international markets, and implementing an accountability framework.

reduction, fiscal costs, and macro effects of the US Inflation Reduction Act) or using empirical models (see Lane (2020) and Juhász, Lane, Rodrik (2023) for recent surveys).[16] Some elements of assessment may require specialized expertise or granular data, in which case staff is encouraged to draw on expertise and analysis of other international organizations (Section VI).

- *Cross-border spillovers* of IP would include potential effects on global market prices, on cross-border trade, investment, and financial flows, and ultimately, on trading partners' economies. These effects could be estimated using, for example, partial equilibrium models,[17] and other empirical models (for example, Rotunno and Ruta (forthcoming) quantify the trade spillover effects of domestic subsidies). It should also be noted that the assessment may be sensitive to assumptions about potential retaliation by trading partners.

25. Where appropriate and feasible, staff can recommend alternative economic policies—more efficient, less distortionary, or less discriminatory—to achieve the stated IP economic objectives. To the extent allowed by available information and expertise, staff would have to examine alternative economic policies that can help achieve the stated IP economic objectives in a manner that is consistent with the balance of payments and domestic economic stability, and the stability of the IMS. For example, staff should flag if any of the fiscal or financial IP measures might pose risks to the country's balance of payments or domestic economic stability. On cross-border spillovers, staff should encourage the authorities to avoid policies that are inconsistent with their international obligations, including the WTO commitments, as well as with international tax and financial rules (IMF, 2024).

C. The "How": The Coverage of IP Driven by National Security Objectives

26. Fund staff should neither discuss the appropriateness of IP driven solely by national security objectives, nor propose alternative policies to achieve such objectives. Consistent with its mandate, the Fund is not an appropriate forum to discuss national security considerations (see Box 3). However, in line with the ISD, staff are required to cover the economic implications of macro-critical IPs in Article IV consultations, as well as those IPs that generate cross-border spillovers that may significantly influence the effective operation of the IMS. If an IP motivated by national security considerations also has intermediate economic objectives, staff should discuss the implications of policies adopted to reach such intermediate economic objectives and propose alternative policies geared toward those intermediate objectives, where appropriate and feasible—for instance, if there is a more efficient set of policy measures that could help achieve such objectives. IP framed under

[16] Given the likely wide range of uncertainty around these estimates, a sensitivity analysis could be useful as well.

[17] For example, direct price effects of export bans can be calculated through a partial equilibrium approach – delta quantity / elasticity – using the world share of the country's exports (in quantities) of the impacted product (simple average for a period of 3 years preceding the ban) and the trade elasticity at the product level (HS6) available from the literature (e.g., Fontagne et al. JIE 2018)

economic security arguments should be covered in Article IV Consultations if deemed macro-critical or can trigger substantial cross border spillover.

Box 3. IP Motivated by National or International Security Concerns

Countries may adopt policies motivated by national or international security considerations. The Fund has long recognized that it is not a suitable forum for assessing security concerns that may have led to the imposition of such policies. In the exercise of bilateral or multilateral surveillance, Fund analysis must be limited to analyzing the economic impacts and spillovers of such measures (if any), in line with the relevant standards for coverage (see Box 2).

Staff should not recommend alternative policies to achieve national or international security objectives. Where a member represents that the policy is adopted solely for the preservation of national or international security, staff should not offer advice on policy alternatives (Case 1). The Fund's involvement must be limited to assessing only the macroeconomic implications of such policies in Article IV consultations. There may be cases where a member represents that the policy has been adopted for multiple reasons. These include IP adopted under an umbrella that includes national security goals but also specifies interim economic goals (Case 2) or specifically. states additional economic objectives (Case 3). Staff can advise on alternative policies in pursuit of economic objective(s), but it should be clear that the recommendation refers to achieving the stated economic goals and not the security objectives. In determining the objective of a given policy, staff must ultimately defer to the authorities' representation.

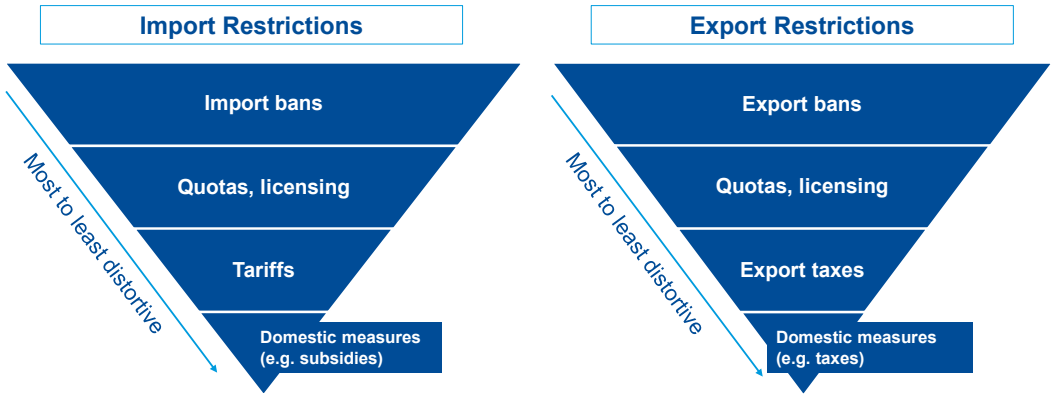
Case 1: **National security is the only objective**	• Staff should assess economic implications in line with the IMF mandate • Staff does not advise on the appropriateness of proposed policies or on alternative policies to achieve stated objectives
Case 2: **National security is an overarching objective, but there intermediate economic goals**	• Staff should assess economic implications in line with the IMF mandate • Staff can advise on how policies help achieve intermediate economic objectives but not the security objectives
Case 3: **Multiple objectives (economic and national security)**	• Staff should assess economic implications in line with the IMF mandate • Staff can advise only on policies implemented in pursuit of economic goals

Members should notify the Fund before imposing restrictions on international payments and transfers. A separate but related issue is the requirement of all members to notify the Fund of any intention to impose restrictions on payments and transfers for current international transactions that, in the judgment of the member, are solely related to the preservation of national or international security. As laid out under Decision No. 144-(52/51), where possible, the member authorities should notify the Fund before imposing such restrictions. There is an established framework in place for the submission of such notifications.

D. The "How": The Coverage of IP with Trade Provisions

27. The recourse to distortionary trade-related IP should be discouraged.[18] The use of trade measures in IP, such as trade restrictions including tariff and non-tariff barriers, LCRs, and export subsidies, could distort the economically efficient allocation of resources, including labor and capital, trigger similar policies in other countries, and ultimately, put the international trade system at risk. While the size of potential distortions associated with each measure varies depending on its scope and implementation, some measures tend to be more distortionary than others. For illustrative purposes, Figure 7 presents a schematic view of the ranking of export and import restrictive measures from the most to least distortive. When such trade distortive measures are contemplated as part of IP and meet the criteria for coverage in IMF surveillance (Box 2), staff would have to factually present these policies in the Article IV staff reports and discuss their effects, including rent-seeking problems, spillovers, potential retaliation, and reduced access to critical inputs and technologies.

Figure 7. Import and Export Restrictions



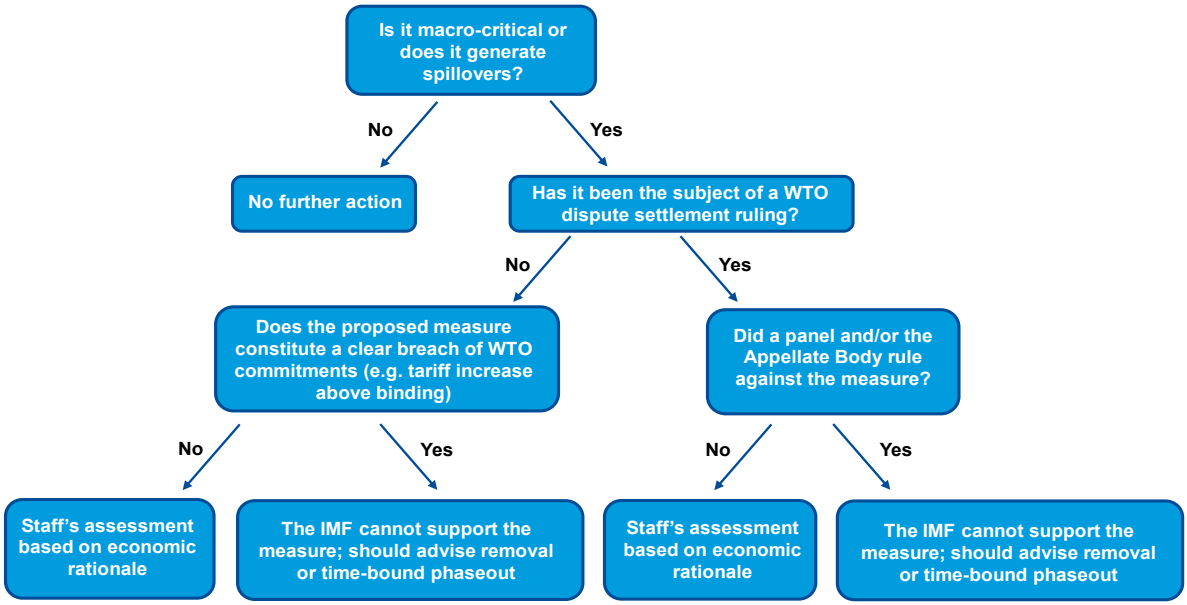
Note: These are intended as general guidance; the size of the distortion of an individual measure will vary depending on scope and implementation.

28. Staff should encourage the authorities to ensure consistency of IP measures with their WTO obligations. Fund policy advice and program conditionality must not contradict a member's WTO legal obligations—which cover various trade measures, including tariffs, and domestic measures, such as subsidies. Staff should seek to clarify the WTO consistency as early as possible with relevant experts. Where there is ambiguity or doubt about the WTO consistency of specific measures, the authorities should be encouraged to clarify potential conflicts before the measures

[18]For further details, see the companion How-To Note on Trade-Related IP (IMF 2024). Other important sources of the IMF's established trade policy guidance include: Board summing up, staff paper, and background papers for the 2023 IMF Trade Review; MD's joint event and joint staff paper on Subsidies, Trade, and International Cooperation; and Reference Note on Trade Policy, Preferential Trade Agreements, and WTO Consistency.

are implemented.[19] Figure 8 describes the main steps for a country team to consider (for further details see IMF 2024). The role of the IMF is neither to enforce nor to interpret the WTO rules nor to pass judgement on the WTO consistency of members' trade measures.[20] In cases where a measure does not breach WTO obligations, staff would have to provide advice based on economic arguments. For instance, the Fund may advise a country to liberalize trade beyond its WTO legal commitments, if warranted by the surveillance mandate. Moreover, policies that are WTO consistent can, at times, have unintended effects on the domestic economy or cross-border spillovers that staff can point out in its policy advice. When a WTO panel or the Appellate Body has not ruled on a disputed measure, staff assessment should be based on economic rationale. When a WTO panel or the Appellate Body has ruled against a measure, the IMF cannot support the measure.

Figure 8. Assessing IP and Consistency with the WTO



Note: It is not the role of the Fund or Fund staff to pass judgment on the WTO-consistency of trade and trade-related measures. This is the jurisdiction of the WTO, and definitive rulings normally are made only by WTO dispute panels and the Appellate Body. Fund staff have a responsibility, however, to be aware of the issues so that potentially inconsistent policy measures can be identified at an early stage and alternatives explored, averting the prospect of Fund staff inadvertently advising inconsistent measures. The *Reference Note on Trade Policy and WTO Consistency* further elaborates on these considerations.

[19] Guidelines/Framework for Fund Staff Collaboration with the New World Trade Organization, Decision No. 10968-(95/43), April 21, 1995.

[20] Under the IMF-WTO Cooperation Agreement, the Fund's staff shall consult with the WTO Secretariat on issues of possible inconsistency between measures under discussion with a common member and that member's obligations under the WTO Agreement. See Relations with World Trade Organization (WTO)—Fund-WTO Cooperation Agreement, Decision No. 11381–(96/105), adopted on November 25, 1996.

E. The "How": The Coverage of Green IP

29. Green IP has been increasingly used to address environmental externalities and market failures. Green IP refers to government strategies to promote the development of domestic innovation, adoption, and production of low-carbon technologies (LCT). Although carbon pricing is viewed as the most efficient policy to reduce carbon emissions, political constraints on raising energy prices and market failures in LCT could justify green IP. At the same time, green IP that relies on subsidies and tax incentives could pose macroeconomic and governance risks.[21] Like in other areas, staff would have to weigh the benefits and costs when assessing green IP and recommend more efficient alternatives, where needed. On benefits, staff could consider direct economic benefits, as well as indirect benefits—in the form of lower emissions and associated health outcomes. On costs, staff would have to include not only direct fiscal cost, but also contingent liabilities. If warranted, staff would have to also consider potential costs from retaliatory measures from other countries. Box 4 outlines broad considerations that can guide staff in helping the authorities achieve their stated green objectives while mitigating risks.[22] The Article IV Consultations for the U.S. and the Euro Area provide examples of the green IP coverage in bilateral surveillance (Annex II).

Box 4. Guiding Principles for Green IP

Green IP is subject to many of the same considerations as more traditional IP interventions (see ¶15-¶16), including market failure, government failure, political risks, and high fiscal costs. The nature of climate change as a global externality raises additional issues for the design and implementation of green IP. When assessing green IP, staff can consider the following five principles:

1. **Complement core decarbonization policies, notably carbon pricing.** Policies that accelerate the adoption, innovation, and production of low-carbon technologies could help achieve the stated objectives of green IP by addressing technology-related market failures, particularly for nascent technologies. Such policies should be assessed on a case-by-case basis.
2. **Minimize adverse spillovers**, **avoid creating technology transfer barriers, especially to developing countries, and avoid inconsistencies with the WTO obligations**. To prevent potential trade tensions, policies aimed at reducing carbon emissions should not discriminate between domestic and foreign producers or products. This will reduce adverse spillovers to other countries and the risk of retaliation. Policies should be consistent with relevant international legal obligations.
3. **Ensure support is time-bound, cost-effective, and transparent, while limiting fiscal burdens, other domestic costs, and negative effects on international markets.** To reduce fiscal costs, measures should be regularly monitored and evaluated. If support is provided through subsidies, they should be executed transparently through the budget, with clearly defined sunset clauses. If subsidies are targeted, it is preferable for those to be aimed at specific green activities (for example, green investment or adoption of renewable energy sources) rather than specific groups.

[21] For instance, green IP can endanger fiscal sustainability, trigger a wasteful global subsidy race, entail discrimination against foreign producers, trigger FDI outflows and loss of employment in trading partners, hamper green technological diffusion, and ultimately provoke retaliation by other countries.

[22] The Fiscal Monitor (October 2023), Chapter 1 discusses different mitigation instruments in the context of designing the appropriate policy mix to address climate change while assessing the impacts on debt and primary balance.

Box 4. Guiding Principles for Green IP (concluded)

4. **Conduct policies within an appropriate institutional framework to minimize implementation risks.** A strong governance framework is essential to avoid waste of public resources and minimize the risk of government failure, including rent seeking and capture. Green policy goals need to be clearly identified, whether development of new green technologies, their rapid deployment, or stimulation of consumer demand for less pollutive products. Transparency on the qualifications for receiving support and assessment of their benefits is required for proper policy evaluation.
5. **Coordinate globally on green IP measures.** International coordination can help improve the effectiveness and efficiency of green IP. Green IP is typically uncoordinated across countries and less effective to address the global climate problem than coordinated global action. Such an uncoordinated subsidy race could be inefficient and costly. International coordination in selected areas including data sharing, sectoral agreements, and patent pools could help reduce information asymmetry and uncertainty, promote market transparency, and accelerate innovation and deployment of technologies needed for global decarbonization.[1]

_____

Source: FAD Note (2023) "Green Industrial Policies."

[1] The joint IMF-OECD-WB-WTO paper on Subsidies, Trade, and International Cooperation also proposes cooperative actions to improve subsidy data and data dissemination, identify analytical priorities to help improve subsidy design, and promote fact-based dialogue on green and other subsidies among national governments

F. The "How": The Coverage of IP Supported by Special Economic Zones

30. In some cases, IP objectives can be supported by establishing special economic zones (SEZs). SEZs are considered an investment promotional tool as well as an IP tool when they target specific industries or value chain components. The main policy levers for SEZs include direct and indirect tax breaks, infrastructure support and public services, less stringent regulations, and administrative streaming and facilitation conducive to foreign investment. SEZs are often deployed as part of a national economic development strategy. The number of middle-income and low-income countries adopting SEZs has increased significantly over the last two decades (UNCTAD, 2019).

31. The assessment of costs and benefits of SEZs may be challenging as their effects are hard to disentangle from other policy measures. While SEZs can increase economic growth initially, the effect tends to be temporary, because many SEZs operate as enclaves with limited links to the rest of the domestic economy and can displace investments or facilitate profit-shifting rather than stimulating additional investment. SEZs must therefore be well-connected with the rest of the economy to ensure that the broader benefits targeted by SEZ-supported IP materialize (Annex I). For these reasons, staff would have to assess SEZs from several angles, including fiscal costs and regulatory incentives. For example, SEZs incur an upfront cost which requires fiscal resources that have an opportunity cost. SEZs tax incentives should be designed in an effective and efficient manner and comply with international tax standards. Establishing SEZs with infrastructure or temporary regulatory incentives should not be used as a substitute for addressing a wider infrastructure gap in the economy. The 2023 Article IV Consultation with Saudi Arabia provides an example of coverage of SEZ-supported IP (Annex II).

G. The "How": The Coverage of IP Supported by State-Owned Enterprises

32. State Owned Enterprises (SOEs) can play an important role in supporting IP. SOEs often operate in sectors with natural monopoly features or fixed infrastructure, or in sectors that are deemed strategically important. Many SOEs are among the largest companies in EMDEs and AEs, and some have multinational presence. SOEs often pursue noncommercial objectives and enjoy government support, including via state subsidies and preferential access to credit. In practice, the effectiveness of SOEs in pursuing policy mandates is mixed, with mandates often not clearly specified or adequately costed. The 2023 Article IV Consultation with China provides an example of IP coverage where SOEs are a key element of IP (see Annex II).

33. In cases where SOEs are explicitly used to pursue the stated IP objectives, staff should assess the economic implications of their activities if these are macro-critical or generate significant cross-border spillovers. Further, to the extent SOE creation is motivated solely by national or international security concerns, the Fund should not discuss the appropriateness of the measure or suggest policy alternatives. Importantly, the decision to nationalize industries or critical mineral deposits rests with the authorities and is subject to domestic and international laws. While providing policy advice, staff should refrain from recommendations that are inconsistent with the authorities' legal obligations and should remain neutral during any legal disputes that may arise due to such actions.

34. When IP is implemented through SOEs, staff's recommendations should include safeguards. The common concerns about SOEs are related to their efficiency, fiscal costs, and risks, as well as governance.[23] These concerns stem from SOEs' complex—and in some cases, politically motivated mandates—and limited transparency. In line with long-standing IMF advice, staff would have to reiterate the need for strong governance regulations and commercial practices. The appropriate safeguards could include the following:

- *Strong Institutional Frameworks*: SOEs often operate outside of traditional budget cycles and reporting, and therefore, additional efforts may be required to ensure strong corporate governance, transparent reporting practices, performance management, fiscal risks management, and costs oversight mechanisms.

- *Quantified Fiscal Costs and Risks:* Before policy decisions are assigned to SOEs, costs should be calculated to assess fiscal affordability over a predetermined time horizon, inform decisions on risk mitigation measures and clarify policy tradeoffs, even under uncertainty. IP implemented through SOEs should be identified as a quasi-fiscal activity, quantified, and reflected in the budget.

[23] In this context, the IMF frameworks and analysis to assess fiscal risks coming from SOEs could also be helpful. For instance, Fiscal Monitor (April 2020) Chapter 2, and Baum, Anja, Paulo A. Medas, Alberto Soler, and Mouhamadou Sy (2020). Managing Fiscal Risks from State-Owned Enterprises. IMF Working Paper, No. 20/213.

- *Continuous Monitoring:* SOEs require strong financial oversight to monitor fiscal costs and associated risks that are to be updated as events develop; scrutiny should be applied to SOEs' reported actual and estimated figures. Reporting obligations must set clear accountability lines for noncompliance and allow for regular evaluations by governments.

- *Impact on Competition and Markets:* Potential impact of SOEs' interventions on other market participants—domestic or international—needs to be assessed to minimize distortions to the competition environment and value chains. Economy-wide costs and benefits from interventions should be assessed.

COLLABORATION WITH EXTERNAL PARTNERS

35. As IP is inherently complex and multifaceted, IMF staff may not have sufficient expertise to carry out a comprehensive assessment. When faced with macro-critical issues outside the Fund's expertise, staff is still expected to analyze them—although without necessarily providing specific policy advice—seeking inputs from external partners and collaborating with them as necessary (Box 2). When it comes to IP, the main challenges—owing to limited expertise or data—may include undertaking comprehensive IP cost-benefit assessments, quantifying outward spillovers and spillbacks, and providing granular policy advice on alternative policies.

36. Staff would have to collaborate with other international organizations, where appropriate, to leverage their knowledge and expertise to help address IP surveillance gaps. For instance, OECD staff have developed a framework for analyzing IP in AEs (Criscuolo et al., 2022), which emphasizes the need to identify specific sectoral and economy-wide measures more likely to ameliorate the IP impact. An example of this approach is the carbon neutrality strategy implemented in the Netherlands, which relies on data-intensive model simulations to show the merits of combining carbon taxes to incentivize green investments, subsidies to reduce the cost of adopting green technology, and infrastructure spending for hydrogen development, to achieve more effective carbon emission reductions. Other organizations have also examined certain IP instruments in greater detail. For example, UNCTAD (2019) and the World Bank (2017) have conducted important work on SEZs across countries and UNIDO (2016) has examined the role of local content policies in LICs and EMDEs.

37. As more countries resort to IP to manage structural transformation, there is a need for deeper collaboration among international organizations on IP issues. Data gaps remain a key challenge to improve tracking of IP measures, benchmarking countries, assessing IP effectiveness, and facilitating fact-based policy coordination to mitigate harmful IP interventions. Some work is ongoing to improve the availability of cross-country data. For example, the Joint Subsidy Platform jointly developed by the IMF, OECD, the World Bank, and the WTO, is a step in the right direction, and further joint work is under way (IMF, OECD, WBG, and WTO, 2022; IMF 2023). Staff at the IMF have also initiated a collaboration with the Global Trade Alert to monitor new industrial policy measures in 75 jurisdictions (Evenett et al., 2024). The OECD recent effort to compare IP expenditures (Quantifying industrial strategies—QuIS) which builds on an harmonized methodology

is timely, but so far limited to only nine AEs. The work of the Platform for Collaboration on Tax that brings together IMF-OECD-World Bank to leverage their expertise towards improving resource mobilization is yet another example. Drawing on their respective expertise, international organizations can usefully coordinate data collection efforts on critical IP issues (e.g., green subsidies) and identify further actions to increase transparency and availability of information on IP measures adopted by countries.

NEXT STEPS

38. As more experience is gained, further guidance based on new analytical tools will be developed to help staff carry out more granular and comprehensive IP assessments. Future work will continue to focus on building databases of IP measures (both border and behind the border measures); developing analytical tools to facilitate identification of externalities, performing cost-benefit analysis, and assessing cross-border spillovers. Additionally, IP assessments will support peer learning through workshops with internal and external experts, providing further granular guidance in specific areas, such as green IP. These different work streams will also help to better tailor IP analysis and policy advice for different country groups (AEs and EMDEs).

Annex I. Special Economic Zones

1. There are several types of Special Economic Zones (SEZs). Free Trade Zones (FTZs) and Export Processing Zones (EPZs) generally aim at export-oriented activities, and often focus on facilitating exports. Comprehensive SEZs, science parks and regional development zones may involve domestic as well as foreign companies; they are more likely to have industrial policy goals and generate spillover benefits to the domestic economy than export-focused zones. SEZs are ideally fenced-in areas with their own customs controls to avoid leakage of non-taxed goods and services into the domestic economy, but they may not be restricted to a specific area. SEZs draw on a range of non-neutral policies, including tax, spending and other measures, to achieve industrial policy goals.

2. Tax measures. SEZs offer a wide variety of tax incentives, including for indirect (consumption and trade tariffs), direct (income) and property-related taxes. Indirect tax reliefs in fenced-in SEZs are generally less problematic than income tax incentives, as:

- Reduced tariffs for capital goods and intermediate inputs eliminate production distortions—a policy that would potentially also benefit the general economy.
- Remitting indirect taxes on exports facilitates international trade and does not infringe WTO rules.
- VAT deferral or exemption through SEZs is not necessary if exports are zero-rated and VAT administration and refunds run smoothly; however, as this is often not the case in developing countries, VAT deferral and exemption can provide a material benefit.
- In principle, any indirect taxes waived for SEZ exports should be fully reimposed on sales into the domestic economy. In practice, implementing this feature can face administrative challenges.

Many SEZs also offer business income tax incentives, which can be either profit- or expenditure-based and should comply with international tax standards.

- **Profit-based incentives.** They include reduced income tax rates and tax holidays. These types of tax incentives are of greatest value to high-profit investment projects that would often be undertaken without tax incentives. Concerns about profit shifting, and tax competition more broadly, are more serious in the context of profit-based Corporate Income Tax (CIT) incentives.

- **Expenditure-based investment incentives.** These include accelerated depreciation and investment tax credits that directly target investment expenditure. They have been found more efficient and effective at encouraging marginal investment.

- **Non-neutral income tax treatment of companies inside and outside the SEZs.** This can distort competition and create tax avoidance opportunities through domestic and international transfer pricing, which can erode the tax base outside of SEZs and raise administrative costs.

- **Global minimum tax.** The global minimum tax agreement of the Inclusive Framework will negate some income tax incentives, since large multinational companies will be required to pay at least the 15 percent minimum tax—either in the host country or elsewhere. (IMF, 2023, International Corporate Tax Reform (imf.org). The implementation of the global minimum tax could induce a trend towards using other tax incentives (for instance, custom duties or indirect taxes) and non-tax instruments (for instance, subsidies) which will need to be evaluated for their effectiveness and compliance with WTO rules.

- **Property tax breaks.** SEZ companies are also often exempted from both recurrent and transactional property-related charges. Recurrent taxes on real property are relatively efficient due to their immobile base, can encourage property development and often finance local public services. Thus, they should not be waived. Transaction taxes, such as stamp duties, deter the efficient reallocation of both real and financial assets, so alleviating these charges is less problematic.

3. Expenditure measures. Governments typically provide better and more reliable infrastructure such as roads, power, telecommunication, and water in SEZs than the rest of the economy. This entails a cost associated with the SEZs. However, establishing SEZs with good infrastructure should not substitute for remedying infrastructural failures across the wider economy. To ensure the spillover benefits targeted by industrial policies, the SEZs must be well interconnected with the rest of the country.

4. Other measures. SEZs are also provided with non-tax incentives. They operate under more liberal economic and legal frameworks on issues such as labor, land use, and foreign investment. They offer better public services with efficient customs, fast-track registration and licensing often through “one-stop-shop” services.

Annex II. Industrial Policy Coverage in Selected 2023 Article IV Consultations

A. China 2023 Article IV Consultation

1. Context. The role of the state in the economy and use of industrial policy have raised concerns about domestic distortions and, as a large systemic economy, have brought on tensions with trading partners. More recently, China's industrial policy has been characterized by a push towards homegrown innovation and reliance, intensified by supply chain disruptions, geoeconomic fragmentation, and a deteriorating external environment.

2. Goals. Develop homegrown technologies in specific sectors and enhance self-reliance.

3. Tools. China provides wide-ranging support to "priority" sectors through policies such as preferential access to credit, research funding, collaboration with state entities, and innovation tax breaks, as well as incentives for strategic manufacturing and science and technology firms and sectors.

4. Staff's assessment. The assessment and related policy advice centered on (i) the significant domestic challenges created by the continued use of industrial policy, including resource misallocation, excess capacity in targeted industries, and uneven-level playing field vis-à-vis private enterprises; and (ii) the role of such policies in trade distortion and in spillovers to the trading system and fragmentation pressures.

- Staff recommended pro-market reforms, including reducing barriers to interprovincial trade and better market integration at the national level to boost competition and productivity. Staff also noted the dominance of the public sector in "strategic key industries" and advised that this should be balanced by further market liberalization, particularly in services, and ensuring that competition policy is applied equally to state- and privately-owned firms. In addition, policies that would allow greater firm entry and exit could boost business dynamism and foster innovation, within both manufacturing and services.

- Staff recommended rolling back recent and longstanding industrial policies and accelerating SOE reform as means to contain domestic distortions and reduce spillovers. Specific recommendations included scaling back implicit guarantees to SOEs, eliminating cost advantages and preferential access to credit provided to SOEs, improving transparency and SOE governance, and fostering the orderly exit of unprofitable SOEs.

- Staff assessed that widespread state-intervention undermines the level playing field internationally and risks triggering retaliatory responses by trading partners that can lead to a slippery slope that fragments global supply chains. They advised the removal of protectionist provisions that discriminate between domestic and foreign producers and called for the phase-

out or removal of export controls, including those on critical minerals, noting that they should not be used to provide competitive advantage to domestic industries.

5. Coverage in past staff reports (2016-22): Discussion of industrial policy in recent staff reports has largely centered on the need (i) for SOE reform, particularly the removal preferential access to credit and implicit guarantees, and (ii) limiting intervention via non-market-based measures. Several staff reports acknowledged trading partners' concerns about the large role of the state in the economy and competitiveness concerns associated with the development of homegrown technologies, while also calling on the authorities to improve transparency and reduction of industrial subsidies.

B. The Euro Area 2023 Article IV Consultation

6. Context. The use of IP measures in the EU has accelerated following the supply disruptions triggered by the COVID 19 pandemic and Russia's invasion of Ukraine and the subsequent energy crisis. The EU's ambitious green plan is at the core of the bloc's economic strategy for the years to come to promote sustainable growth and significantly reduce emissions.

7. Goals. The IP is centered on investment in renewables and improvements in energy efficiency to accelerate the green transition, while achieving energy security, mitigate emissions, and enhance the competitiveness of Europe's green industrial sector.

8. Tools. A range of tools and instruments have been adopted: REPowerEU to reduce energy dependance, the extension of the Carbon Border Adjustment Mechanism (CBAM) and the Emission Trading System to more goods and sectors, and the introduction of the Green Deal Industrial Plan (GDIP) for achieving EU's green energy security goals, while ensuring the competitiveness of the EU clean tech industries. The GDIP relaxes EU state-aid rules, including for providing subsidies or tax incentives offered by other countries and designs country-specific schemes to support investment in the production of critical minerals and green products. Other tools implemented or being developed include the Foreign Subsidy Regulation, the EU FDI Screening Regulation, the upgraded Export Control Regulation, the Chips Act, and the Anti-Coercion Instrument.

9. Staff's assessment. The energy crisis is likely to accelerate green policy initiatives. While implementation of green policies is critical, the Carbon Border Adjustment Mechanism (CBAM) should be implemented in line with WTO, and—to the extent possible given the administrative difficulties—be based on actual embodied carbon content of traded products rather than benchmarks. The relaxation of state-aid rules could potentially lead to high fiscal costs, economic inefficiencies, and distortions, which underscores the value of developing a common perspective on the appropriate use and design of subsidies, preferably limited in scope, duration, and size, while these green policy initiatives should safeguard the integrity of the Single Market. Foreign subsidies, investment screening, and export controls should be narrowly targeted to specific objectives and should not be deployed to provide a competitive advantage to domestic industries.

C. Indonesia 2023 Article IV Consultation

10. **Context**. Indonesia is a large commodity exporter, world leader in production and exports of nickel ore, an important producer and exporter of tin, and a relevant—albeit smaller—participant in in the production of bauxite and copper; it is also a key global supplier of palm oil and fish. Indonesia has pursued prudent policies and has strong macro fundamentals. However, it faces productivity and diversification challenges as well as regional disparities, as the manufacturing sector lags ASEAN peers, including on complexity and value-added.

11. **Goals**. The IP Revival was launched by the National Development Plan 2020-24 which aims to transform Indonesia from a natural resource-dependent country into a modern and competitive economy. The Plan envisages Indonesia moving down the value chain on manufacturing and services to lift value added (*downstreaming*) from raw commodities, supporting subnational development, economic diversification, and high-quality job creation to reach high-income status by 2045.

12. **Tools**. The policy package focuses on priority sectors chosen down the value chain from Indonesia's key commodities. The main tools used are export restrictions on raw materials, domestic processing requirements, tax holidays, and subsidies (for instance, on energy/coal). The authorities have pursued a sequenced implementation. They started with a focus on nickel ore (Jan 2020), with the medium-to-longer term goal of domestically producing e-vehicle batteries. The approach has also been extended to other metals, including bauxite ; the eventual integration of palm oil and fisheries has also been flagged.

13. **Staff's assessment** included the following elements:

- Recommending that regular cost-benefit analysis inform the authorities' assessments of whether downstreaming policies are working or should be extended to other minerals**.** It was also recommended that industrial policies are designed in a way that does not hinder competition and innovation, while minimizing negative cross border spillovers.

- Discussing key costs and benefits. This was done either quantitatively or qualitatively, depending on feasibility**.** The discussion of benefits suggested an increase in realized investment (including foreign) in nickel ore smelters. This led to higher export values, supported by volumes and higher price for refined nickel, and increase in formal jobs in distant regions with lower income levels. Quantifiable costs were driven by foregone revenues and subsidies (i.e., fiscal costs), while costs from spillovers across borders (such as price effects in the global commodity markets) and the domestic impact of export restrictions (resource misallocation, rent seeking) were discussed qualitatively.

- Consistent with the Fund's mandate and policies, staff advised phasing out existing export restrictions and to not extend export restrictions to other commodities.

- Finally, staff stressed the need for broad-based structural reforms across sectors for a durable economic transformation. In line with advice from previous Article IV consultations with Indonesia, staff recommended reforms to strengthen labor market efficiency, investment climate, human capital development, infrastructure investment, and financial deepening.

D. Saudi Arabia Article IV Consultation

14. Context. Promoting economic diversification to reduce the economy's reliance on hydrocarbons is a key focus of Saudi Arabia's Vision 2030. The authorities are using IP—including in the recently unveiled National Industrial Strategy (NIS) and supported by other key initiatives and institutions such as the Saudi Green Initiative and the PIF, Saudi Arabia's SWF—to complement horizontal policies.

15. Goals. The NIS, a key pillar of the IP strategy, focuses on three main objectives: building industrial national resilience, becoming an integrated regional manufacturing hub, and expanding global leadership in selected economic sectors. The Saudi Green Initiative focuses on climate friendly investment to boost the renewable sector, while the PIF, utilizing its strong asset base and strategic economic partnerships, is committed to unlocking new sectors in the Kingdom.

16. Tools. The main tools take the form of government procurement and Special Economic Zones (SEZs). Guided by the Local Content Procurement Government Authority, the aim is to boost local potential through regulations. SEZs aim to catalyze the formation of business clusters by concentrating similar industries in one area, and address shortcomings in the broader economy by jumpstarting activity seamlessly in the SEZs, while broad-based reforms slowly bear fruit.

17. Staff's assessment:

- **Procurement rules**. While the authorities' commitment to remain WTO compliant is welcome, preferential policies, such as local procurement for government contracts, are discriminatory and should be avoided, including because they could trigger retaliatory actions by trading partners.

- **Rigorous evaluation of policy**. The authorities' plans to include a cost-benefit analysis, impact evaluation, strict exit criteria, claw-back mechanisms, sunset clauses and time-bound incentives are welcome as they would help minimize risks and phase out policies as needed. Such targeted interventions should not be a substitute for broad-based structural reforms, which should continue to be rolled out.

- **SEZs.** Domestic spillovers from SEZs remain uncertain, while picking winning industries is difficult as IP seems to include many sectors. Fiscal incentives can be burdensome and distortionary. Coordinated policies are needed to foster backward linkages and ensure value creation for the domestic economy.

- **Staff stressed the importance of the institutional set-up**. The authorities have a clear governance framework and a national incentives committee—which should govern all incentives (including through a working group with SEZs).

- **Emphasis should be on export orientation with a focus on technology and innovation rather than import substitution, as well as on policies to upskill and reskill the workforce.**

18. Coverage in past staff reports (2017-22): Discussion of industrial policy in recent staff reports has focused largely on ensuring that government support crowds in the private sector, is timebound and is linked to performance. Special Economic Zones are to be viewed as temporary solutions to frictions in the business environment until a well-structured regulatory framework and environment can be extended throughout the country. Improvements in human capital targeting specific skills needed in priority sectors are essential.

E. The United States 2023 Article IV Consultation

19. Motivation. Recent IP interventions in the US have occurred amid the hollowing out of the industrial base, the internationalization of supply chains, the rise of certain countries that the US perceives as not adhering to global trade rules, and elevated domestic inequality during the recent decades.

20. Goals. The IP goals include investing in sources of economic and technological strength, diversifying supply chains and strengthening their resilience, incentivizing minimum global labor, governance, and environmental standards, preserving national security, and delivering global public goods (e.g., climate, health).

21. Schemes. For achieving these multifaceted goals, the US authorities have designed the following schemes:

- The Inflation Reduction Act (US$386bn over 10 years) to support green energy, electric transportation, and energy efficiency, including through local content rules;

- The CHIPS Act (US$278bn over 10 years) focusing on workforce development, R&D, and incentives for semiconductor manufacturing, but also includes certain provisions that prevent companies which receive federal incentives from materially expanding their semiconductor manufacturing capacity in any “foreign country of concern” for a 10-year period;

- Build America, Buy America (about US$2,700bn over 10 years), which introduces domestic content procurement preference for infrastructure; and

- Bilateral and regional trade agreements (e.g., US–Japan Critical Minerals Agreement and the Indo-Pacific Economic Framework for Prosperity).

22. Staff's assessment. The assessment centered on (i) alerting the authorities to the inefficiencies of policies that include discriminatory provisions and (ii) evaluating the economic impact of other provisions that favor specific industries via more traditional tools, including carbon pricing.

- Staff noted that "Buy American" policies that favor domestic content and/or North American produced goods and services would distort trade and investment, increase fragmentation and retaliation risks, weigh on growth, productivity, and employment, and should be unwound.

- Staff assessed the impact of policies that favored specific industries, reduced corporate tax burden, and subsidized consumption. For example, impact assessments were conducted to examine the implications of the policies for emission reduction and the fiscal outlook. Staff also examined ways to potentially offset the negative impact of some of these measures on the US fiscal deficit.

23. Coverage in past staff reports (2017-22): Discussion of IP in recent staff reports has focused on several themes, including (i) the need for the authorities to be judicious in their use of import restrictions on national security grounds; (ii) the rollback of tariffs and other trade distortions that were introduced beginning in 2017; (ii) encouraging use of the multilateral trading system to find common ground on tariffs, farm and industrial subsidies, and services trade; (iii) calls for the elimination of the lower tax rate for exporters (the Foreign Derived Intangible Income) to provide a more level playing field for global investment decisions, and (iv) criticism of broad-ranging preferences to domestic over foreign production through the Base Erosion Anti-Abuse Tax provisions in the Tax Cuts and Jobs Act.

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