A DIAGNOSTIC STUDY OF KYRGYZ REPUBLIC'S FREE ECONOMIC ZONES AND INDUSTRIAL PARKS

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CAREC

Central Asia Regional Economic Cooperation Program

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Notes:
In this publication, “$” refers to United States dollar.
Corrigenda to ADB publications may be found at http://www.adb.org/publications/corrigenda.
ADB recognizes “China” as the People’s Republic of China, “Kyrgyzstan” as the Kyrgyz Republic, and “Russia” as the Russian Federation.

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Abbreviations

ADB	Asian Development Bank
AIIB	Asian Infrastructure Investment Bank
ASCM	Agreement on Subsidies and Countervailing Measures
ASEAN	Association of Southeast Asian Nations
CAG	Comptroller and Auditor General (of India)
CAREC	Central Asia Regional Economic Cooperation (Program)
CIS	Commonwealth of Independent States
CET	common external tariff
CEZ	coastal economic zone
CIT	corporate income tax
DTA	domestic tariff area
EAEU	Eurasian Economic Union
EOU	export-oriented unit
EPZ	export processing zone
ETDZ	economic and technological development zone
FDI	foreign direct investment
FEZ	free economic zone
FTZ	free trade zone
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GSP	Generalized System of Preferences
GVC	global value chain
ha	hectare
HIDZ	high-tech industrial development zone
HTP	High Technology Park
IASP	International Association of Science Parks and Areas of Innovation
ICRIER	Indian Council for Research on International Economic Relations
IP	industrial park
IPZ	industrial production zone
IT	information technology
km^2	square kilometer
MAT	minimum alternate tax
MFN	most favored nation
MNE	multinational enterprise
OECD	Organisation for Economic Co-operation and Development
PPP	public–private partnership
R&D	research and development
SEZ	special economic zone
SFZ	Shannon Free Zone
SMEs	small and medium-sized enterprises
SPFTZ	China (Shanghai) Pilot Free Trade Zone
TAA	trade adjustment assistance
TFP	total factor productivity
VAT	value-added tax
WTO	World Trade Organization

Currency Equivalents

(as of 2016)

Currency unit	–	som (Som)
Som1.00	=	$0.01
$1.00	=	Som69.15

Executive Summary

A Diagnostic Study of the Kyrgyz Republic's Free Economic Zones and Industrial Parks

A. Background

As approved by the Asian Development Bank (ADB) in December 2014, the Regional Policy and Advisory Technical Assistance for Supporting Industrial Park Development in the Central Asian Regional Economic Cooperation (CAREC) Region is intended to improve the policy framework for planning, developing, and upgrading industrial parks (IPs) in member countries of the CAREC Program, in order to increase the region's productivity and international competitiveness. It focuses on two pilot countries, the Kyrgyz Republic and Kazakhstan, which best represent the different levels of progress among the CAREC developing member countries with regard to their IPs and other special types of economic zones. Indeed, the 13th CAREC Ministerial Conference, held in Bishkek, Kyrgyz Republic, on 5–6 November 2014, endorsed a framework for economic corridor development and for the operationalization of this framework through a memorandum of understanding on the Almaty–Bishkek Corridor Initiative, the first effort to promote cooperation between the Kyrgyz Republic and Kazakhstan at the city level.

It was envisaged that this technical assistance (TA) would consist of two components. The first involves a pilot diagnostic study of each of these two countries, whose zones do not appear to have met with much success. The purpose of each diagnostic study is to evaluate the zones' performance and, in the light of this evaluation, suggest general and specific guidelines as to how the zones might be overhauled (if not abolished in some instances). The second component of this TA entails outlining a strategic framework for each of the two countries' zones, with the ultimate goal of driving both countries' industrial development. It was also envisaged that the two diagnostic studies together with the strategic frameworks would provide useful lessons for other CAREC countries.

The key question, therefore, is whether economic zones can serve as cost-effective catalysts for inclusive economic growth and development—rather than as mere enclaves—in these two quite different countries, given the evolving regional and global economic environments. For example, whereas Kazakhstan's economy is well-endowed with natural resources, particularly oil and gas, which account for over 60% of its exports and nearly 25% of its gross domestic product (GDP), the Kyrgyz Republic's main export is labor, whose remittances account for around 30% of its GDP. Moreover, Kazakhstan's per capita GDP is roughly 10 times that of the Kyrgyz Republic. As both countries are located in Central Asia, however, neither has direct access to seaports, so they both share certain market disadvantages—for instance, long distances and, for some destinations, multiple border crossings to reach main logistics hubs and global markets.

B. The Purpose of the Diagnostic Study

This diagnostic study provides an overview of the features, functions, and effectiveness of the Kyrgyz Republic's five existing free economic zones (FEZs), its High Technology Park (HTP), and proposed industrial production zones (IPZs) in order to identify and correct their shortcomings and formulate guidelines in accordance with international rules and best practices, so as to enhance their contributions to the success of the country's economic development strategy (although the strategy does not even mention the zones or the HTP at present). In this diagnostic study, attention is focused mainly on FEZs and the HTP, as the IPZs have yet to be established. The main purpose is to highlight the principal features of the FEZs, the HTP, and the proposed IPZs; in the case of the FEZs, it also evaluates the zones' performance, especially with regard to their objectives of attracting export-oriented activities and investment, including foreign direct investment (FDI), and creating highly paid employment. At the same time, this diagnostic study suggests how the FEZs and the HTP could be modified to improve their cost-effectiveness. Clearly, the FEZs and the HTP need to be adapted to the evolving international economic environment, especially given the Kyrgyz Republic's recent accession to the Eurasian Economic Union

(EAEU) and the PRC's new "One Belt, One Road" initiative, as well as its adherence to multilateral and regional trade rules. This is in addition to its membership of the World Trade Organization (WTO). These agreements are facilitating the country's integration into regional and global value chains (GVCs). Participation in GVCs, which account for 80% of world trade, presents the Kyrgyz Republic with opportunities to gain access to international markets and thereby exploit not only its comparative advantage, but also to benefit from scale economies together with transfers of new technology and know-how, all of which are major sources of improved total factor productivity (TFP), and thus living standards.

C. Methodology and Concepts

1. The Crucial Role of Transparency

This diagnostic study is essentially an exercise in transparency aimed at evaluating, by means of cost-benefit analysis, the cost-effectiveness of the Kyrgyz Republic's FEZs and HTP as instruments of economic policy. Transparency provides the basis for evidence-based policy making and thus public accountability.

For the purpose of this diagnostic study, transparency consists of the following three key elements:

(i) a description of the explicit and/or implicit objectives and legal and institutional framework of the FEZs, HTP, and proposed IPZs, and of the zones' and park's main features;
(ii) a computation of the costs of the existing FEZs and HTP, including expenditures on infrastructure, tax revenues forgone owing to tax preferences, the administrative costs of operating the zones, the compliance costs borne by FEZ and HTP enterprises, and the undesirable side effects (including the loss of efficiency); and
(iii) an assessment of the benefits of the FEZs and HTP, including their contributions to exports, investment, and job creation.

Cost-benefit analysis throws light on the cost-effectiveness of zones and parks (and of their particular features) in achieving their objectives and providing benefits, most notably: increasing and diversifying exports, attracting FDI (and associated technologies), creating more highly paid employment, and integrating local enterprises into GVCs. It thus provides a sound fiscal basis for modifying the features of the FEZs and HTP in order to improve their cost-effectiveness (if they are not replaced by alternative policy instruments). For example, the revenues forgone as a consequence of tax incentives might be better spent on public investments in basic infrastructure, in or around the FEZs and HTP or elsewhere. Transparency is not only necessary for ensuring the cost-effectiveness of the FEZs and HTP overall, but also that of their particular features (such as tax preferences, criteria for eligibility to operate in the FEZs or HTP, the role and financing of their managing companies) and of public spending on infrastructure. The effects of these features on the zones' performance can be difficult to disentangle, however. The lack of basic infrastructure, for example, could reduce the benefits of the particular features of the FEZs and HTP.

Whereas the objectives and legal and institutional framework concerning the Kyrgyz Republic's existing FEZs, HTP, and proposed IPZs, as well as their main features, are reasonably clear, little data were available on the fiscal and other costs of the various features of FEZs and the HTP, especially tax preferences and infrastructure, thereby hampering the cost-benefit analysis. Nor were any data available concerning FDI in these zones. This lack of data means that policies concerning FEZs and IPZs are being made largely in the dark.

An additional formidable impediment to cost-benefit analysis, and thus to transparency, encountered by the ADB team was the difficulty in determining the extent to which exports, investments, and employment in the FEZs and HTP have been *incremental*, that is, if they would *not* have occurred in the absence of the FEZs and HTP (or of some of their specific features). Hence, the data obtained from the authorities and interviews conducted with FEZ and HTP officials and residents concerning, for example, exports, investments, and employment induced by the FEZs and HTP must be interpreted very cautiously. Exports from the FEZs and HTP, together with investment and employment in these zones and the park, may have merely displaced exports, investments, and employment that would have been generated in the rest of the country. A lack of incrementality would clearly reduce the benefits of the zones and the park relative to their costs, and thus diminish their cost-effectiveness.

2. The Importance of Total Factor Productivity and Its Proxies

If not an explicit objective, the ultimate test of the success of the Kyrgyz Republic's FEZs, HTP, and proposed IPZs (and, indeed, of its overall economic development strategy) is the extent to which they improve TFP, which is the key to unlocking Central Asia's potential for higher growth. The TFP of economic sectors and individual enterprises reflects the efficiency with which all the factors of production, including capital and labor, are used. It is thus a key determinant of the international competitiveness of Kyrgyz enterprises, and of the economy's performance as a whole. An improvement in the TFP would:

(i) enable domestically produced goods and services to compete against imports and, at the same time, pave the way for economic diversification and export-led growth;
(ii) attract FDI, which not only augments the domestic stock of capital, but serves as a conduit for the diffusion of new technologies and managerial know-how, and can induce linkages with local suppliers by providing improved access to GVCs (usually involving multinational enterprises), and thus to international markets; and
(iii) create more productive, and therefore higher-paid, employment.

The efficient reallocation of resources from low-productivity sectors, such as agriculture, toward more productive manufacturing and service activities, in accordance with the Kyrgyz Republic's comparative advantage, would obviously improve overall TFP. However, TFP growth is also the result of improved TFP *within* sectors and firms, as the most efficient enterprises gain greater market shares at the expense of those lagging behind (allocative efficiency) and as competition induces the remaining enterprises in a sector to improve their productivity (enterprise efficiency). Other important sources of TFP growth are economies of scale and, in the long run, technological progress, managerial know-how, human capital, and improvements in basic infrastructure.

Unfortunately, no recent data on TFP are available from the Kyrgyz authorities, whether in the aggregate, by sector, or by individual FEZ (or in the HTP). So attention in this study is focused on certain proxies for TFP, specifically, the extent to which FEZs (and the HTP) have increased and/or diversified their exports; attracted investment, especially FDI; and created highly paid jobs. These proxies were among the initial economic objectives of the FEZs (and the HTP), which is not surprising, given that export- and FDI-oriented firms tend to be more productive, and therefore to pay higher wages. It follows that the Kyrgyz Republic's Trade Policy Strategy should be aimed primarily at facilitating export orientation (rather than import substitution) and inward FDI.

3. Facilitation Measures versus Incentives

In evaluating the Kyrgyz Republic's FEZs and HTP, a clear distinction is made in this study between measures that facilitate trade and FDI by removing domestic market distortions that affect competition, and more proactive measures, such as incentives that promote certain activities, possibly on the grounds that such activities are "strategic" or more vulnerable to "market failure." Facilitation involves the removal of impediments to the reallocation of domestic resources and to competition in reasonably well-functioning markets, in accordance with the Kyrgyz Republic's comparative advantage. Incentives involve the more challenging task of having the government successfully pick potential "winners" consistently. The danger is that political pressure or favoritism, rather than the firms' competitive potential, will drive the selection process.

4. Market Failure

Nonetheless, incentives may be justified as a means of correcting market failure, which arises when markets do not fully reflect the social costs and benefits of private economic activities. For example, research and development (R&D) is a major determinant of technological progress, and thus of TFP growth, but the social benefits tend to exceed the private benefits. Consequently, too little R&D would be undertaken if the markets were left to their own devices. In such circumstances, it may be legitimate for the government to intervene, provided that the magnitude of the gap between the private and social benefits of R&D can be measured accurately and that a cost-effective incentive can be designed to stimulate sufficient R&D to bridge that gap without any substantial adverse consequences. Interestingly, almost every technology that makes the iPhone smart was funded by government. Even in the case of R&D, however, governments are seldom capable of correcting market failure in a cost-effective way.

A related source of market failure concerns basic infrastructure (especially transport, energy, water, sewage and waste disposal, telecommunications and internet facilities, security, health, and education), which can often be characterized as a "public good." By definition, public goods generate positive "externalities," in the sense that they deliver social benefits over and above what individuals or businesses would find it profitable to provide; so public goods tend to be under supplied in a competitive market. Needless to say, few goods are purely "public," a fact that provides a rationale for the use of public–private partnerships (PPPs) to provide quasi-public goods. Interestingly, in the case of investments in certain kinds of infrastructure, feasibility studies carried out on behalf of the Kyrgyz authorities suggest internal rates of return in the range 14%–39%, which, judging from the National Bank's current interest rate of 5% (on 30 May 2017), is much more than the cost of debt finance. This suggests that public investment in basic infrastructure (in FEZs, IPZs, or elsewhere in the economy) would be arguably more cost-effective than tax incentives (especially corporate tax holidays) for investments whose incremental effects are highly dubious—except perhaps in the case of R&D. This is partly because tax incentives are, in any event, seldom the main determinant of investment.

D. The Main Features of the Kyrgyz Republic's Free Economic Zones and High Technology Park

Tax preferences are among the main features of FEZs (see the table below) and the HTP. Some of these preferences are arguably intended to facilitate trade, while others constitute investment incentives. Whereas the former do not generally break WTO or EAEU rules, the latter may do so insofar as they constitute "prohibited" subsidies (if they are contingent on import substitution or exports) or "actionable" subsidies (if they are "specific" and have "adverse effects" on the Kyrgyz Republic's trading partners).

Until recently, goods produced in the FEZs and sold in the domestic market were subject to a full value-added tax (VAT) only when the proportion of the goods sold in the domestic market exceeded 30% of the total goods produced by a FEZ resident in a given year. As a consequence of the EAEU Treaty and Customs Union Agreement, however, goods that are exempted from tariffs and indirect taxes when imported into FEZs must be subject to those tariffs and taxes when entering the rest of the territory of the Kyrgyz Republic or the territory of any other EAEU-member country. This places firms supplying the domestic market from inside and outside the

Free Economic Zone Tax Preferences (%)

Type of Tax	Inside Free Economic Zones	Outside Free Economic Zones
Import tariff	0	6.9[a]
Export tax	0	various rates
VAT (standard rate)	0	12.0
CIT	0	10.0
Property tax	0	0.8
Land tax	0	various rates

CIT = corporate income tax, MFN = most favored nation, VAT = value-added tax.

[a] Simple average applied MFN tariff rate (2016).

Sources: Kyrgyz authorities; World Trade Organization (WTO), International Trade Centre (ITC), and the United Nations Conference on Trade and Development (UNCTAD). 2017. *World Tariff Profiles 2017.* Geneva. https://www.wto.org/english/res_e/booksp_e/tariff_profiles17_e.pdf.

zones on the same tax footing. In the case of an inverted tariff, producers supplying goods to the domestic and EAEU markets from the zones are allowed to choose either the tariff rate that applies to the imported inputs or the tariff rate that applies to the finished goods. There are no rules preventing the Kyrgyz Republic from granting full tariff drawbacks and rebates of indirect internal taxes to domestic firms supplying goods and services to zone-based enterprises. Such drawbacks and rebates could facilitate the development of value chains linking firms located inside and outside the zones. Tariff exemptions and drawbacks would be especially beneficial in view of fact that the Kyrgyz Republic's simple-average-applied most-favored-nation (MFN) tariff rate increased from 4.6% in 2014 to 7.4% in 2015 and then fell to 6.9% in 2016 as a consequence of the country's adoption of the EAEU's common external tariff (CET). The simple average CET rate is expected to approach 8.4% in 2020.

The other main features of the FEZs include:

(i) public managing companies (i.e., general directorates) that provide limited services and are responsible for infrastructure development in return for a mandatory fee of 1% or 2% charged on business turnover on a full cost-recovery basis;
(ii) partially streamlined regulations and procedures, especially those regarding tax and customs clearance;
(iii) "negative" instead of "positive" lists of eligible activities, largely confined to manufacturing; and
(iv) few linkages to the domestic economy with respect to input suppliers and to educational and research institutions.

Tax preferences are also a key feature of the HTP, including not only 15-year exemptions from the VAT, sales tax, and corporate income tax (CIT), but also reduced personal income taxes and social charges. However, eligibility for tax relief is conditional on 80% of a company's income being earned from exports in a given year. The other main features of the HTP are:

(i) a public management company (i.e., general directorate) that does promotional activities and offers other services in return for charge of 1% on business turnover on a full cost-recovery basis;
(ii) a "positive" (instead of "negative") list of eligible activities involving only software and IT services; and
(iii) little linkage to the domestic economy.

E. Empirical Evidence concerning the Performance of Free Economic Zones

Of the Kyrgyz Republic's five FEZs, only Bishkek and Naryn maintain some level of operations, partly because the other three lack sufficient basic infrastructure. The FEZs' total production amounted to a mere 1.2% of GDP in 2016, with the Bishkek FEZ accounting for virtually all of it. Enterprises manufacturing goods in the Bishkek FEZ exported only 32% of their total production in 2016, down from 39% in 2010. Hence, it is evident that FEZ enterprises are oriented more toward the domestic market than toward export markets, and this has become increasingly the case. As a result, goods exported from the FEZs in 2016 amounted to only 5.3% of the Kyrgyz Republic's total exports of goods. Insofar as the domestic market is not large enough to enable competing producers to exploit economies of scale (and agglomeration) to reduce their costs per unit of output, the orientation toward the domestic market constitutes an impediment to the improvement of TFP. In contrast, almost 80% of the HTP's production in 2016 was exported (mainly to Kazakhstan and the United States), although its share of total exports of goods and services was minuscule.

Among the main reasons for the FEZs' orientation towards the domestic market is undoubtedly the very low and often declining growth of the Kyrgyz Republic's TFP, which constitutes a major systemic obstacle to the international competitiveness of the country's exports. For this reason, firms may have little choice but to sell their products in the domestic market, where they are to some extent protected from foreign competition. However, the orientation of the FEZs toward the domestic market may also be partly due to the various tax preferences that enterprises have enjoyed in the FEZs until recently. These tax preferences have placed domestic producers operating outside the FEZs at a significant competitive disadvantage compared with those operating inside the FEZs.

One of the main objectives of the FEZs is to attract new investment, especially FDI, along with the transfer of technology and managerial know-how that generally comes with FDI, which could be major sources of improvement in TFP. Unfortunately, there are no data on how much FDI has actually flowed into the Kyrgyz Republic's FEZs. It is known that in 2015 the Bishkek FEZ attracted only $1.6 million of investments, down from roughly $5 million in 2013 and 2014. By contrast, in 2016, investment jumped to more than $6 million as a result of three new large investors in the Bishkek FEZ. It may well be, however, that little of this investment, and the employment it generated, was *incremental*. Indeed, tax preferences and other features of the FEZs (such as nontax incentives and provision of infrastructure) may have merely induced domestic and multinational enterprises to establish operations in the zones instead of in the domestic market.

The Bishkek FEZ employed only 2,450 people (roughly 1% of the country's total labor force) in 2015, compared with 3,100 in 2014. In 2016, however, total employment reached 3,700. Irrespective of whether these jobs were *incremental* or not, they do appear to be highly paid relative to the rest of the country. According to data provided by the Kyrgyz Republic's National Statistical Committee, the average monthly salary in 2016 was Som12,037 in all the FEZs and Som12,373 in FEZ Bishkek, compared with Som6,836 in those SMEs manufacturing outside the zones. As manufacturers in the FEZs are mainly SMEs, this suggests that the zones do, to some extent, succeed in creating relatively high paid jobs as far as manufacturing is concerned. On the other hand, in 2016 the average monthly salary in the country was Som14,479, which is considerably more than in the Bishkek FEZ. This reflects the fact that the highest salaries in the country are not in manufacturing, which is the main focus of FEZ Bishkek, but in other sectors, particularly mining as well as financial, transportation, information and communications services, where labor productivity is greater than in manufacturing.

While the relatively low wage rates in the Kyrgyz Republic would appear to constitute a comparative advantage, at least in the short-term, and could therefore play a role in attracting FDI to the country, these low wage rates necessarily reflect low labor productivity and TFP. Labor productivity can be improved, not just by increasing investment, but also by ensuring that the labor force is sufficiently educated and trained. Such investment in human capital is especially important in the long run. After all, education stimulates innovation and improves the labor force's receptivity to the adoption of new ideas and technologies.

F. Lessons from Abroad

An obvious success story concerning SEZs has been the People's Republic of China (PRC), although not in the case of all of its zones (apparently, some 70% have been unsuccessful). The PRC's experience with SEZs is perhaps of particular relevance to the Kyrgyz Republic because the Chinese SEZs were successfully used as instruments to enable the PRC's transition from a centrally planned to a market economy, one highly oriented toward exports and toward attracting FDI (and technology) in order to create opportunities for more highly skilled (and thus better-paid) jobs. In contrast, India's SEZs are generally considered to have been far less successful than the PRC's, largely because they have not met their export, investment, or employment targets. In India, SEZs have often been used as devices to avoid, if not evade, taxes. According to a recent study by ADB, however, Cambodia's SEZs appear to have met with some success.

G. Some General and Specific Guidelines concerning the Role and Design of Free Economic Zones and Proposed Industrial Production Zones

Overall, FEZs (and future IPZs) should be an integral part of a coherent economic development strategy, with the full cooperation of the relevant ministries and other bodies at various levels of government, along with clear objectives and viable numerical targets including the goal of improving TFP. As export- and FDI-oriented firms tend to have higher TFP, and therefore pay relatively high wages, FEZs and IPZs should be mostly oriented toward exports, rather than toward the domestic market. And the government should seek to attract inward FDI (and the new technologies and managerial know-how that usually come with it) to pave the way for the incorporation of Kyrgyz enterprises into GVCs. In order to ensure the transparency of FEZs and IPZs, notably regarding their cost-effectiveness in achieving their objectives (especially the improvement of their TFP), the FEZs and IPZs and their specific features should be regularly monitored and evaluated using cost-benefit analysis.

FEZs and IPZs should also focus on facilitating trade and attracting FDI in accordance with the WTO's Trade Facilitation Agreement (which the Kyrgyz Republic ratified on 6 December 2016), rather than on providing incentives, unless the latter can be justified on the grounds of "market failure"(as in the case of R&D, for example), and if they are in accordance with the WTO and EAEU rules on subsidies. Whereas facilitation measures are generally consistent with these international rules, incentives might not be.

Although the FEZs and IPZs should be outward-oriented, linkages should nonetheless be made with the domestic economy to ensure that they do not become mere enclaves, with little spillover of benefits into the domestic economy. Therefore, enterprises outside the FEZs and (future) IPZs should be placed, as much as possible, on an equal footing with the enterprises inside the FEZs and IPZs, especially as far as taxation is concerned. This would enable all enterprises to participate in GVCs. Indeed, the government should facilitate forward and backward linkages between enterprises in the FEZs or IPZs and enterprises outside, and with research and educational or training institutions outside the zones, thereby enabling the FEZs and IPZs to become centers of excellence. Links with educational or training institutions are especially important for ensuring the availability of a sufficiently educated and skilled labor force that would be receptive to new technologies and management methods.

In accordance with the foregoing general guidelines, FEZs and IPZs (as well as the HTP) should have the following main specific features:

(i) Border taxes and associated adjustments should be the same for firms inside and outside the zones; that is, sales by firms inside the zones to the "internal" EAEU market should be fully taxed, and sales by firms in the "internal" market to zone-based enterprises should be eligible for full and immediate tariff drawbacks and VAT rebates.
(ii) As CIT holidays are widely regarded as a relatively ineffective tax incentive, enabling tax avoidance, if not evasion, they should be abolished for the sake of economic efficiency and fiscal prudence.
(iii) Financial incentives should not be contingent on exports or import substitution, as that would involve subsidies prohibited under WTO rules. Nor should they be too selective, as such measures could be considered "specific" under WTO rules, and thus "actionable" inasmuch as they have "adverse effects" on the Kyrgyz Republic's trading partners. Subsidies for R&D used to be considered nonactionable under WTO rules, possibly on the grounds of "market failure," but this is no longer the case.
(iv) Instead of attempting to "pick winners," eligibility to invest and operate in the FEZs and IPZs should be based mainly on "negative" lists; these lists should be as short as possible so as to permit a wide range of activities, especially services, which accounted for the bulk of world trade growth in 2014.
(v) FEZs and IPZs should have access to high-quality basic infrastructure (notably electricity, water, waste disposal, transportation facilities and corridors; and telecommunications, including internet facilities). To the extent that basic infrastructure constitutes a "public good," it should be provided by the state, possibly with some private involvement, including PPPs and financing, based on an appropriate "user-pays" model.
(vi) Irrespective of whether they are privately or publicly owned or developed, FEZs and IPZs should be autonomous and self-financing, with full cost recovery if not-for-profit. Experiences in other countries suggest that this tends to minimize the large and sometimes wasteful costs incurred by the public sector when setting up such zones. It would also introduce greater market discipline into the management of the zones, thereby contributing to their long-term viability.
(vii) FEZs and IPZs should be sufficiently large to enable the enterprises operating in them to exploit economies of scale and agglomeration.
(viii) Necessary regulations should be streamlined and consolidated, with "single window" or "one-stop" arrangements, to enable compliance by enterprises and the prompt approval of their investments and operations in the zones.
(ix) Labor standards (including health and safety) and environmental standards in FEZs and IPZs should be in line with international norms and national laws.

(x) Not only should FEZs and IPZs be integrated into the national and regional economic development strategies to ensure coordination among zones, government bodies, and the private sector within each country, cross-border cooperation should also be encouraged among zones in different member countries of the CAREC Program.

H. Concluding Remarks

While legislative stability is desirable, the Kyrgyz Republic's FEZs, HTP, and proposed IPZs—and, indeed, its economic development strategy—should nonetheless be sufficiently flexible to adapt to domestic, regional, and global economic developments, including changes in global and regional trade. The FEZs and HTP (and future IPZs) could also possibly play a useful role in, among other things, paving the way for the implementation of the WTO's Trade Facilitation Agreement in helping the country cope with the intensified competition and changes in the pattern of trade resulting from its accession to the EAEU. As the economic environment and consequent fundamentals determining the structure of global trade evolve, the Kyrgyz Republic's FEZs and HTP will need to adapt accordingly (and in light of periodic evaluations of their performance). They can also serve a useful purpose to the extent that they enable experimentation in the country's otherwise insufficiently market-oriented economy. The failure of some FEZs and the HTP may be a price worth paying if others are successful. But the FEZs and HTP will require patience, planning, monitoring, and evaluation to ensure their cost-effectiveness. In any event, the FEZs, HTP, and future IPZs are always likely to be inferior to economy-wide reforms that reduce impediments to trade and FDI and thus improve the productivity and competitiveness of Kyrgyz enterprises.

Chapter I: Introduction and Background

1. Special economic zones have long been an important feature of national economic development strategies, especially for facilitating export-led growth. Special economic zones (SEZs) around the world have a number of different names, depending on the country in which they are located and their particular type; and the same name could mean different things in different countries. Special economic zones in Ireland, for instance, are called "industrial free zones" or "export free zones," while in the United States they are called "foreign-trade zones," and all goods produced there can theoretically be sold in the domestic market.[1] In developing countries that produce specifically for export, they are typically called "export processing zones"(EPZs). Those in the People's Republic of China (PRC), which tend to be less export-oriented than EPZs, are often called "special economic zones," although the most recent one established in Shanghai is called a "free trade zone" (FTZ).

2. These zones have proliferated to such an extent that there are now more than 4,000 of them in some 130 countries. Of the 66 million workers employed in the zones worldwide, the PRC accounted for over 60%, and the rest of Asia, 22%. By and large, these zones have been aimed at facilitating manufacturing rather than services, although that is now changing. For example, in the Shanghai Pilot Free Trade Zone, which was launched in September 2013 in order to test and refine economic reforms before their potential rollout nationwide, restrictions on foreign investment in 23 service sectors will be loosened, including those in banking, financial services, healthcare, and technology. SEZs are generally viewed as a useful tool for enhancing total factor productivity (TFP), which reflects the efficiency with which economic sectors and individual enterprises use all the factors of production, including capital and labor. It is thus a key determinant of the international competitiveness of Kyrgyz enterprises, and of the economy's performance as a whole. For this reason, TFP is key to unlocking Central Asia's higher growth potential;[2] attracting foreign direct investment (FDI), as well as associated technology transfers and managerial know-how; developing and diversifying exports, while maintaining trade barriers elsewhere in the economy; creating employment and improving on-the-job training; linking up with global value chains (GVCs); and piloting new policies. In the case of the Kyrgyz Republic, such zones may also be used to mitigate the adverse trade effects of the EAEU's customs union, including the substantial increase in tariff protection owing to the Kyrgyz Republic's adoption of the EAEU's common external tariff (CET) in 2015.

3. SEZs are broadly defined by the Asian Development Bank (ADB) as being "clearly defined geographically, with a single management or administration and separate customs area (often duty free), where streamlined business procedures are applied, and where physically located firms qualify for more liberal and effective rules than those in the national territory (covering, for example, investment conditions, international trade and customs, tariffs, and taxation)."[3] The features of such zones can vary widely from one country and zone to another.[4]

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1 Mary Jane Bolle and Brock R. Williams. 2013. U.S. Foreign-Trade Zones: Background and Issues for Congress. 7-5700. Congressional Research Service. Washington, D.C. https://fas.org/sgp/crs/misc/R42686.pdf

2 P. Mitra et al. 2015. *Estimating Potential Growth in the Middle East and Central Asia.* International Monetary Fund (IMF) Working Paper No. 15/62. Washington, DC. https://www.imf.org/external/pubs/ft/wp/2015/wp1562.pdf

3 ADB. 2014. Economic Zones: Instruments for Regional Production Networks and Supply Chains. Background paper for RCI Roundtable Conference. Manila. 17–18 November. Similarly, Claude Baissac observed that SEZs share two structural characteristics: they are formally delimited portions of the national territory and they are legal spaces with a set of investment, trade, and operating rules that are more liberal and administratively efficient than those prevailing in the rest of the national territory. The administration of the zone regime usually requires a dedicated governance structure, whether centralized or decentralized. The attributes of this structure vary according to the nature of the zone regime, the prevalent administrative culture, the number of existing zones, the role of the private sector in developing and operating the zones, and other factors. In addition, zones are usually provided with a physical infrastructure supporting the activities of the firms and economic agents operating within them. See: C. Baissac. 2011. Brief History of SEZs and Overview of Policy Debates. In T. Farole, ed. *Special Economic Zones in Africa: Comparing Performance and Learning from Global Experiences.* Washington, DC: The World Bank. http://elibrary.worldbank.org/doi/pdf/10.1596/978-0-8213-8638-5

4 EPZs, for example, are usually enclaves where foreign companies engaged in the manufacture of products for export enjoy preferential tax treatment compared with the rest of the economy. SEZs have more flexibility with regard to location and have a wider application than EPZs because they also grant such treatment to domestic economic sectors. Several other types of zones exist, each with its particular features. Incentives in those zones generally involve nontax benefits such as good infrastructure and cheap utilities, as well as reduced customs duties, income taxes, local taxes, and fees. See: Organisation for Economic Co-operation and Development (OECD). Options for Low Income Countries' Effective and Efficient Use of Tax Incentives for Investment. http://www.oecd.org/tax/tax-global/options-for-low-income-countries-effective-and-efficient-use-of-tax-incentives-for-investment-call-for-input.pdf

4. However, SEZs—for which land is often set aside and where exporters and other investors receive tariff, tax, and regulatory incentives—create distortions within economies. They also incur other costs, including expenditure on infrastructure investment and forgone tax revenues. While it is hoped that these economic distortions and costs are outweighed by increased trade, investment, and employment, in reality that does not always happen, and many SEZs fail. According to *The Economist*, "Performance data are elusive because the effects of zones are hard to disentangle from other economic forces. But anecdotal evidence suggests they fall into three broad categories: a few runaway successes; a larger number that come out marginally positive in cost-benefit assessments; and a long tail of failed zones that either never got going, were poorly run, or where investors gladly took tax breaks without producing substantial employment or export earnings."[5] For example, whereas the Shenzhen SEZ, established by the PRC in 1980 near Hong Kong, China, attracted thousands of foreign investors, and the policies tested there have spread to other cities¸ India has had hundreds of zones that failed to get going, including more than 60 in Maharashtra state alone.

A. Background

5. As approved by the Asian Development Bank (ADB) in December 2014, the Regional Policy and Advisory Technical Assistance for Supporting Industrial Park Development in the Central Asian Regional Economic Cooperation (CAREC) Region is intended to improve the policy framework for planning, developing, and upgrading industrial parks (IPs) in member countries of the CAREC Program, in order to increase the region's productivity and international competitiveness. It focuses on two pilot countries, the Kyrgyz Republic and Kazakhstan, which best represent the different levels of progress among the CAREC developing member countries with regard to their IPs and other special types of economic zones. Indeed, the 13th CAREC Ministerial Conference, held in Bishkek, Kyrgyz Republic, on 5–6 November 2014, endorsed a framework for economic corridor development and for the operationalization of this framework through a memorandum of understanding regarding the Almaty–Bishkek Corridor Initiative, the first effort to promote cooperation between the Kyrgyz Republic and Kazakhstan at the city level.

6. It was envisaged that this technical assistance (TA) would consist of two components. The first involves a pilot diagnostic study of each of these two countries, whose zones do not appear to have met with much success. The purpose of each diagnostic study is to evaluate the zones' performance and, in the light of this evaluation, suggest general and specific guidelines as to how the zones might be overhauled (if not abolished in some instances). The second component of this TA entails outlining a strategic framework for each of the two countries' zones, with the ultimate goal of driving both countries' industrial development. It was also envisaged that the two diagnostic studies together with the strategic frameworks would provide useful lessons for other CAREC countries.

7. The key question, therefore, is whether economic zones can serve as cost-effective catalysts for inclusive economic growth and development—rather than as mere enclaves—in these two quite different countries, given the evolving regional and global economic environments. For example, whereas Kazakhstan's economy is well-endowed with natural resources, particularly oil and gas, which account for over 60% of its exports and nearly 25% of its gross domestic product (GDP), the Kyrgyz Republic's main export is labor, whose remittances, mostly from the Russian Federation, account for around 30% of its GDP.[6] (Gold also accounts for a significant share of the Kyrgyz Republic's GDP and of its exports, destined mainly for Switzerland.) Moreover, Kazakhstan's GDP per capita is roughly ten times that of the Kyrgyz Republic.[7] As both countries are located in Central Asia, however, neither has direct access to seaports, so they both share certain market disadvantages—for instance, long distances and, for some destinations, multiple border crossings to reach main logistics hubs and global markets.

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5 *The Economist*. 2015. Special Economic Zones: Political Priority, Economic Gamble. 4 April. http://www.economist.com/news/finance-and-economics/21647630-free-trade-zones-are-more-popular-everwith-politicians-if-not. See also: 2015. Special Economic Zones: Not So Special. 4 April. http://www.economist.com /news/leaders/21647615-world-awash-free-trade-zones-and-their-offshoots-many-are-not-worth-effort-not

6 See International Monetary Fund (IMF). IMF Survey: Kyrgyz Republic Gets Loan to Boost Economy Amid Regional Slump. http://www.imf.org/external/pubs/ft/survey/so/2015/car051415a.htm. Remittances are also important for other Central Asian countries, notably Tajikistan and Uzbekistan.

7 The World Bank. GDP Per Capita (Current US$). http://data.worldbank.org/indicator/NY.GDP.PCAP.CD

B. Purpose

8. This diagnostic study provides an overview of the features, functions, and effectiveness of the Kyrgyz Republic's existing free economic zones (FEZs), High Technology Park (HTP), and proposed industrial production zones (IPZs), in order to identify and correct the shortcomings and suggest guidelines in accordance with international best practices regarding their future role in the country's economic development strategy. Currently, FEZs are not even mentioned in the strategy. Hence, this diagnostic study seeks to clarify the main objectives and characteristics of the Kyrgyz Republic's FEZs, HTP, and proposed IPZs. Accordingly, this diagnostic study evaluates the success of the FEZs and HTP in achieving their targets and objectives, and recommends how they might be modified to improve their effectiveness—or, indeed, how they might be replaced by more effective alternatives. As IPZs have yet to be established, attention is focused mainly on the existing FEZs and HTP.

9. Prima facie evidence suggests that the Kyrgyz Republic's FEZs and HTP have met with little success, despite (or perhaps because of) numerous legislative amendments, some possibly detrimental to investors; in fact, three FEZs were closed in 1998. Of its five existing FEZs, only Bishkek and Naryn maintain some level of operations. Most of the activity is in the Bishkek FEZ, where enterprises are oriented more toward the domestic market than toward export markets. As highlighted later in this study, FEZs in the Kyrgyz Republic have largely failed to increase and diversify exports, and to attract FDI (and associated new technologies). Enterprises manufacturing goods in the Bishkek FEZ exported only 32% of their total production in 2016, down from 39% in 2010. Apart from several major investments in the mining sector, the Kyrgyz Republic did not attract much FDI in 2015. Total new investment in the Bishkek FEZ was only $1.6 million in 2015, down from roughly $5 million in 2013 and 2014. In 2016, however, investment in the zone jumped to more than $6 million as a result of three new large investors. As for employment, after having reached 3,100 persons in 2014, only 2,450 were employed in the Bishkek FEZ in 2015 (compared with 1,200 in 1996). By contrast, 3,700 persons were employed there in 2016. Empirical evidence as to whether FEZs have resulted in relatively high wage jobs is mixed, depending on the data used. According to data provided by the Kyrgyz Republic's National Statistical Committee, the average monthly salary in 2016 was Som12,037 in all the FEZs and Som12,373 in FEZ Bishkek, compared with Som6,836 in those SMEs manufacturing outside the zones. As manufacturers in the FEZs are mainly SMEs, this suggests that the zones do, to some extent, succeed in creating relatively high paid jobs as far as manufacturing is concerned. The FEZs' lack of success has been due to, among other things, an ill-conceived incentive system, poor basic infrastructure and connectivity, and an insufficiently skilled labor force.

10. In light of its evaluation of the effectiveness of government measures in achieving their explicit objectives (such as diversifying and increasing exports, attracting FDI and new technology, and creating higher paid employment), as well as other important objectives (especially raising TFP, and thus the enterprises' international competitiveness), this diagnostic study recommends guidelines regarding the FEZs' and HTP's features, with these objectives in mind. These guidelines take into account, among other things, international best practices, including constraints on certain government measures owing to the Kyrgyz Republic's membership since 1998 of the World Trade Organization (WTO), and its participation in various regional trade agreements, especially in the Eurasian Economic Union (EAEU).

C. Main Aspects of the Free Economic Zones, High Technology Park, and Proposed Industrial Production Zones

11. In this diagnostic study, attention is focused on the following main features of the Kyrgyz Republic's FEZs, HTP, and (to a lesser extent) its proposed IPZs, with a view to recommending guidelines in accordance with international rules and best practices. These features and guidelines include:

(i) transparency regarding the benefits of the zones and park in relation to their costs;
(ii) the extent to which FEZs have attracted export- and FDI-oriented firms, which tend to be more productive and, therefore, to pay relatively high wages;
(iii) reliance on the facilitation of trade and investment, instead of on tax and nontax incentives;
(iv) facilitation of linkages with the local and regional economies, rather than the development of FEZs and the HTP as mere enclaves;

(v) fostering of centers of technological excellence in collaboration with local firms and with educational and research institutions;
(vi) streamlining the regulatory framework and procedures pertaining to business registration, investment approval, taxes and customs, land use, utility services, expatriate work permits, etc. (by means of one-stop or single-window facilities, for example);
(vii) the use of short "negative" lists, rather than "positive" lists, to determine the eligibility of particular economic activities;
(viii) permitting a wide range of service enterprises, as well as manufacturing, in the zones;
(ix) improved governance on the part of management companies—whether public, private, or public–private partnership (PPP)—and an improvement in their ability to contribute zone development;
(x) fee-based management and other services, with full cost recovery, if not-for-profit;
(xi) public provision of general (off-site) infrastructure, and the private provision of specific (on-site) infrastructure, including utility services;
(xii) the achievement of high environmental, labor, safety, health, and other standards; and
(xiii) coordination among the zones within the Kyrgyz Republic and with zones in other CAREC countries.

D. Economic Environment

12. The appropriate design and role of FEZs, HTP, and proposed IPZs cannot be considered in isolation from the prevailing economic environment, especially the deteriorating macroeconomic situation in the Kyrgyz Republic. Monetary policies, exchange rates,(especially) fiscal policies, as well as the structural features of the Kyrgyz economy, can all have implications for the design and functioning of the country's park and zones.

13. This diagnostic study is being undertaken in the context of the continuing adverse external and domestic shocks faced by the Kyrgyz economy. An economic slowdown; currency depreciations in the Russian Federation,[8] Kazakhstan, and elsewhere in the region; falling gold prices; and diminished workers' remittances,[9] reduced the Kyrgyz Republic's economic growth to 2.4% in 2015 (although the IMF expects growth to recover to 3.5% in 2017), worsened the country's external and fiscal balances, and weakened debt sustainability. Moreover, dry weather conditions have reduced both agricultural and hydroelectric-power production.[10]

14. The Kyrgyz Republic's tax regime, which involves only eight taxes, is very liberal. The personal and corporate income-tax rates are only 10%, and the value-added tax (VAT) is 12%, the lowest among the member countries of the EAEU and the Commonwealth of Independent States (CIS). The weakening of the fiscal situation (partly due to a recent program involving huge investments in infrastructure, particularly in the energy sector, financed by external borrowing, mainly from the PRC) has prompted the authorities to resume fiscal consolidation starting in 2016 in order to keep debt on a sustainable path. Fiscal consolidation will undoubtedly focus on both the forgone tax revenues and the costs of providing infrastructure for the FEZs and HTP. It may be that the tax revenues forgone due to tax incentives provided to enterprises in the FEZs and HTP, for example, could be better used to finance essential development needs, including not only basic infrastructure, but also education and vocational training.[11] (It is worth noting in this context that the internal rate of return on investment in some types of infrastructure is thought to be in the range of 14%–39%, considerably more than the cost of debt finance, judging from the Kyrgyz central bank's current policy interest rate of 5%.) Clearly, the commitment of the Government of the Kyrgyz

8 The Russian ruble lost more than half of its value relative to the US dollar in 2014.

9 Remittances from the Russian Federation to the Kyrgyz Republic fell by a third in the first six months of 2015, compared with the same period in 2014.

10 The basic infrastructure for hydroelectric power production has deteriorated since the 1990s, and is in very poor condition. As a consequence, in December 2015, the reduction in hydroelectric power production was compounded by an accident at the Toktogul hydroelectric power plant.

11 Although government expenditure on education more than doubled from 1.7% of GDP in 2010 to 4.5% in 2014, it is considerably less than the average OECD benchmarks of 6.0%–7.0%. While no data are available on the rates of return on investment in education in the Kyrgyz Republic, evidence from abroad suggests that the returns are relatively high. According to the OECD, for example, the rates of return for upper secondary and post-secondary non-tertiary education range from 6.1% to 18% for men and 5.4% to 18.5% for women; and in the case of tertiary education, the average rate of return across 19 OECD countries is 12% for men and 11% for women. See: OECD. 2008. *Education at a Glance 2008: OECD Indicators*. Paris. Chart A10.4. p. 191. http://www.oecd.org/education/skills-beyond-school/41284038.pdf. The rates of return on investment in higher education in Brazil, the People's Republic of China, India, and the Russian Federation are also high. See: M. Carnoy et al. 2013.

Republic to fiscal consolidation has implications for the design of FEZs, HTP, and IPZs, and for how the zones and park might contribute to structural reforms aimed at improving TFP, which, in turn, would make it possible to achieve sustained inclusive growth. If properly designed, the FEZs, HTP, and IPZs could constitute an integral part of the Kyrgyz Republic's economic development strategy.

15. The problem of finding sources for long-term financing is still on the government's industrial development agenda. Several international financial institutions provide support to small and medium-sized enterprises (SMEs) by offering credit lines through local commercial banks. Support for SMEs is also envisaged by the new Kyrgyz-Russian Development Fund, which was established to facilitate accession to the EAEU. For agricultural producers, a special low-interest credit line is managed by Ministry of Finance via local commercial banks. In general, however, the country has a serious lack of financial resources, which is reflected in the high cost of capital.

16. Needless to say, the Kyrgyz Republic's economic development strategy can succeed in achieving sustained inclusive growth only insofar as it improves TFP. While no recent data concerning TFP are available from the Kyrgyz authorities, according to estimates by the Conference Board, the Kyrgyz Republic experienced low TFP growth compared with Kazakhstan, the Russian Federation, Tajikistan, Turkmenistan, and Uzbekistan during 1999–2014 (Table 1).[12] The Kyrgyz Republic's TFP growth was zero in 2014. As is the case with other newly independent countries that had formerly been part of the Soviet Union (such as Armenia, Azerbaijan, Kazakhstan, Tajikistan, Turkmenistan, and Uzbekistan), the Kyrgyz Republic's poor TFP performance is due to a lack of technical progress.[13] The Kyrgyz Republic ranks 111th among 138 countries in the World Economic Forum's 2016-2017 Global Competitiveness Index, although it does better(75th out of 190 countries) in the World Bank's "ease of doing business" ranking for 2017 (down from 73rd in 2016).[14] In the World Bank's Logistics Performance Index, however, the Kyrgyz Republic dropped from 130 in 2012 to 149 in 2014.[15]

The Economic Returns to Higher Education in the BRIC Countries and Their Implications for Higher Education Expansion. Working Paper No. 253. Rural Education Action Program. Palo Alto, CA: Stanford University. http://reap.fsi.stanford.edu/sites/default/files/Economic_returns_to_higher_education_in_the_BRIC_countries2.pdf. A Brookings study estimated that the average internal rate of return across industries in India on investment in early childhood, primary, secondary, and tertiary education is 42%. See: R. Winthrop et al. 2013. *Investment in Global Education: A Strategic Imperative for Business*. Washington, DC: Brookings Institution. p. 28. http://www.brookings.edu/~/media/research/files/reports/2013/09/investment-in-global-education/investment-in-global-education-final--web.pdf. Moreover, estimates from the United States show that inflation-adjusted annual rates of return on investment in early childhood educational programs are 10% or higher. See: J. Heckman, R. Grunewald, and A. Reynolds. 2006. The Dollars and Cents of Investing Early: Cost-Benefit Analysis in Early Care and Education. *Zero to Three*. 26 (6). pp. 10–17; and J. Heckman et al. 2010. The Rate of Return to the High/Scope Perry Preschool Program. *Journal of Public Economics.* 94 (1–2). pp. 114–128. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3145373/. The rate of return on investment in a bachelor's degree averaged 15%; the rates of return on degrees in engineering, math, and computing were as much as 18%–21%. See: J. R. Abeland R. Deitz. 2014. Do the Benefits of College Still Outweigh the Costs? *Current Issues in Economics and Finance*. 20 (3). https://www.newyorkfed.org/medialibrary/media/research /current_issues/ci20-3.pdf. Very few alternative investments can yield such high rates of return. For example, the long-term annual rate of return on investments in stocks is 7%, and on investments in bonds it is 3%.

[12] The Conference Board. Total Economy Database—Key Findings. Table 12. http://www.conference-board.org/data/economydatabase/ (accessed 10 January 2017). ADB attributes this poor TFP to: slow reallocation of resources from relatively low- to high-productivity sectors; lack of qualifications and skills of the labor force; inadequate maintenance and consequent deterioration, of its infrastructure; and low returns on investment due to risks at the macro and micro level, usually arising from government policies or market failure. Unless FEZs and IPs can somehow be insulated from these systemic impediments to productivity improvement, their economic performance—and thus their ability to increase and diversify their exports, attract FDIs, and create relatively high-paid employment—will also be adversely affected. See: ADB. 2014. *The Kyrgyz Republic: Strategic Assessment of the Economy; Promoting Inclusive Growth*. Manila.

[13] F. Saliola and M. Seker. 2011. Total Factor Productivity Across the Developing World. *Enterprise Surveys: Enterprise Note Series.* No. 23. Washington, DC: The World Bank Group; and V. Shahabinejad, M.R.Z. Mehrjerdi, and M. Yaghoubi. 2013. Total Factor Productivity Growth, Technical Change and Technical Efficiency Change in Asian Economies: Decomposition Analysis. *Iranian Journal of Economic Studies*. 2 (2). 47–69.

[14] International Institute for Business Development (IMD). *IMD World Competitiveness Yearbook 2015*. 2015. Lausanne; The World Bank. 2014a. *Doing Business 2015: Going Beyond Efficiency.* Washington, DC. http://www.doingbusiness.org/~/media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB15-Full-Report.pdf; The World Bank, International Bank for Reconstruction and Development (IBRD). 2016. *Doing Business 2016: Measuring Regulatory Quality and Efficiency*. Washington, DC. http://www.doingbusiness.org/~ /media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB16-Full-Report.pdf

[15] The World Bank. Country Score Card: Kyrgyz Republic 2014. http://lpi.worldbank.org/international /scorecard/radar/128/C/KGZ/2014/C/KGZ/2012/C/KGZ/2010/C/KGZ/2007/R/ECA/2014

E. Contribution and Organization of This Diagnostic Study

17. This diagnostic study adds value to the existing technical assistance (TA) project, provided by other donors in the following ways:

(i) stressing the importance of transparency concerning the objectives, features, functioning, and effectiveness of the Kyrgyz Republic's FEZs, HTPs, and proposed IPZs, including the crucial role of transparency in improving evidence-based policy making and public accountability as far as these zones and the HTP are concerned;

(ii) throwing light on the legislative and institutional framework, and on the administrative procedures concerning FEZs, the HTP, and the proposed IPZs;

(iii) providing a valid methodology for evaluating the benefits and cost-effectiveness of the FEZs, HTP, and proposed IPZs;

(iv) providing empirical evidence concerning the performance of the FEZs and HTP;[16]

Table 1: Total Factor Productivity Growth in Member Countries of the CAREC Program and Eurasian Economic Union, 1999–2014

Country	1999–2006	2007–2013	2012	2013	2014	2015
Armenia	10.6	0.9	2.8	4.0	1.8	...
Azerbaijan[a]	6.4	0.1	(0.2)	(2.2)	(4.7)	...
Belarus	4.7	(0.2)	(2.3)	(0.2)	(5.0)	...
PRC[a]	2.3	1.3	...	0.2	0.1	(1.3)
Georgia[a]	4.4	3.0	2.0	1.2	(0.4)	...
Kazakhstan[a]	7.4	2.5	3.2	2.4	(1.4)	...
Kyrgyz Republic[a]	**1.6**	**2.2**	**7.9**	**0.2**	**(0.1)**	...
Pakistan[a]	2.0	0.5	2.8	3.1	2.4	...
Russian Federation	5.6	2.1	1.3	0.5	(4.0)	...
Tajikistan[a]	7.4	5.3	7.2	6.2	4.3	...
Turkmenistan[a]	4.7	4.0	2.7	3.1	0.1	...
Uzbekistan[a]	3.0	2.6	2.3	4.4	4.3	...
Others						
United States	0.5	(0.2)	...	(0.5)	0.1	0.1
Europe	0.4	(0.6)	...	(0.2)	(0.1)	0.3
Japan	0.1	0.1	...	0.7	(0.8)	(0.1)
India	0.1	0.6	...	0.9	1.6	1.9
World	0.9	0.1	...	0.0	0.0	(0.3)

... = data not available, CAREC = Central Asia Regional Economic Cooperation, ( ) = negative, PRC = People's Republic of China.

[a] Member countries of the Central Asia Regional Economic Cooperation (CAREC) Program.

Notes: The growth of total factor productivity (TFP) refers to the growth of GDP over the combined contributions of total hours, workforce skills, machinery and structures, and information technology capital. Growth rates are calculated as log differences; those in this table for 1999–2006 and 2007–2013 are the averages of growth rates.

Source: The Conference Board Total Economy Database™ (adjusted version), November 2016. https://www.conference-board.org/retrievefile.cfm.

[16] A recent study by UNDP, for example, concluded that "there is no readily available information about how many subjects are registered and how many of them are active and operational, what is the turnover of FEZ subjects and how many people are employed in them." See: United Nations Development Programme (UNDP). 2015. *Analyzing Approaches, Policies, Instruments and Means for Free Economic Zones (FEZs) to Attract Investments to the Republics of Tajikistan and Kyrgyzstan*. London, Bishkek, and Dushanbe. p. 14.

(v) in light of this evaluation, making recommendations as to how the FEZs, HTP, and proposed IPZs might be modified to improve their cost-effectiveness or replaced by more effective alternatives; and

(vi) recommending guidelines regarding the use of FEZs, HTP and proposed IPZs, as well as their specific features, taking into account international best practices, including those embodied in WTO and EAEU rules.

18. The rest of this diagnostic study is organized as follows: The methodology used to evaluate the FEZs, the HTP (to a lesser extent), and related policies is discussed in Chapter II. Chapter III describes the regional and global economic landscapes, most notably the impacts of the Kyrgyz Republic's membership in the WTO, EAEU, and the CAREC Program, as well as the implications for the country's FEZs, HTP, and proposed IPZs. In the context of the Kyrgyz Republic's membership in the WTO and recent accession to the EAEU, Chapter III also provides an overview of the resulting constraints on these zones and on the HTP. Given the importance of good governance and of a strong institutional framework (though possibly free from the institutional constraints prevalent in the rest of the economy) for the success of the FEZs and of the HTP, and for their contribution to economic development, Chapter IV briefly describes the legislative, regulatory, and institutional framework, as well as the relevant administrative procedures. Chapter IV also explains the rationale for the existing FEZs, HTP, and the proposed IPZs, and describes their main features. Chapter V examines the evidence concerning the effectiveness of the FEZs and HTP in achieving their explicit and implicit objectives. Some lessons from the failures and successes of similar zones in other countries (notably the PRC and India) are found in Chapter VI. Finally, given the evidence regarding the FEZs' and HTP's effectiveness and lessons from abroad, Chapter VII suggests some general principles and specific guidelines concerning the design and use of the FEZs, HTP, and IPZs.

Chapter II: Methodology and Key Concepts

A. The Crucial Role and Essence of Transparency concerning the Free Economic Zones, High Technology Park, and Proposed Industrial Processing Zones

19. The continual process of structural reform, including unilateral trade liberalization, can be greatly facilitated by a high degree of domestic transparency regarding the formulation, implementation, and evaluation of economic policies, including policies relating to the existing FEZs and HTP as well as the proposed IPZs. Ideally, such transparency should concern the nature of and rationale for these policies, and should involve an independent evaluation of their cost-effectiveness (i.e., their costs in relation to their benefits for consumers and producers). Such cost-benefit analyses, *ex ante* as well as *ex post*, should serve as the foundation for the evaluation of all government policies—not just those concerning FEZs and IPZs, but also those concerning regulations and public expenditure on infrastructure.[17] The institutionalization of transparency, particularly in the form of a rigorous, evidence-based approach to public policy, would enhance government accountability, public understanding, and thus the debate on the merits of policies.[18] It would also reduce the scope for rent-seeking and discretion in the implementation of policy measures, thereby helping to prevent corruption.[19] Unfortunately, the institutionalization of transparency is not a common practice in the Kyrgyz Republic, or elsewhere in Central Asia and much of the Asia Pacific region.

20. No doubt, this lack of transparency in government institutions is partly due to the fact that high-quality transparency involving cost-benefit analyses of government policies takes time to establish, and is not cheap. Indeed, transparency measures may be considered prohibitively costly by less-developed countries such as the Kyrgyz Republic, which also lack the institutional capacity to implement them. However, the costs of achieving transparency pale in comparison with other costs, including: forgone tax revenues due to tax incentives; expenditure on infrastructure; and possible "deadweight losses" (in terms of economic efficiency),[20] which are associated with such measures (or, indeed, with the taxes themselves).[21] In a worst-case scenario, transparency measures may even be counterproductive. While a cost-benefit analysis of transparency measures implemented in other countries can be enlightening in the absence of any analysis of similar measures implemented domestically, they are not a substitute. After all, economic, political, and social circumstances, as well as levels of development and institutional capacity, differ widely from one country to another. One size does not necessarily fit all, although positive experiences in other countries can provide some guidance. Among the countries of the former Soviet Union, for instance, Georgia is especially noteworthy for the remarkable progress it has made in the areas of public sector reforms and transparency.[22] Clearly, the Kyrgyz Republic would need technical and financial support to enable it to institutionalize transparency, and this would have to include the gathering of reliable statistics, the lack of which inhibits evidence-based analysis of trade and trade-related

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17. Few public investment projects, with the exception of donor-financed projects, are subject to rigorous appraisal; and there is no systematic procedure in place for monitoring implementation. Consequently, projects are often delayed and cost overruns are frequent. While donor-based projects, which constitute the bulk of public investment, are subject to relatively more rigorous project cycle management, they, too, encounter some of the same problems. See: The World Bank. 2014. *Kyrgyz Republic: Public Expenditure Review Policy Notes; Public Investment Management*. Report No. 89008. Washington, DC.

18 Sunshine is said to be "the best disinfectant" against ill-conceived economic policies.

19 Opacity may be considered necessary for concealing the features of the FEZs and IPs that may infringe WTO regulations. Furthermore, a lack of transparency and oversight, as well as softened customs controls and enforcement of other laws and regulations, may render FEZs and IPs more vulnerable to criminal activities, including money laundering and the production and distribution of counterfeit currencies. See: International Chamber of Commerce. 2013. *Controlling the Zones: Balancing Facilitation and Control to Combat Illicit Trade in the World's Free Trade Zones*. Paris.

20 A "deadweight loss" is the waste that results from the loss of economic efficiency for reasons such as taxes, tariffs, poorly designed regulations, and monopoly power.

21 In Thailand, for example, a 1999 study by the Foreign Investment Advisory Service found that, for each industry-sector job created, investment incentives cost the government per year about 16 times the average annual wage of an industrial worker. Investments by General Motors in Hungary cost $300,000 per job created. A package of tax incentives offered by India to Ford in 1997 cost an estimated $200,000–$420,000 per job. See: I. Gill and H. Kharas. 2007. *An East Asian Renaissance: Ideas for Economic Growth.* Washington, DC: The International Bank for Reconstruction and Development/The World Bank. p. 181.

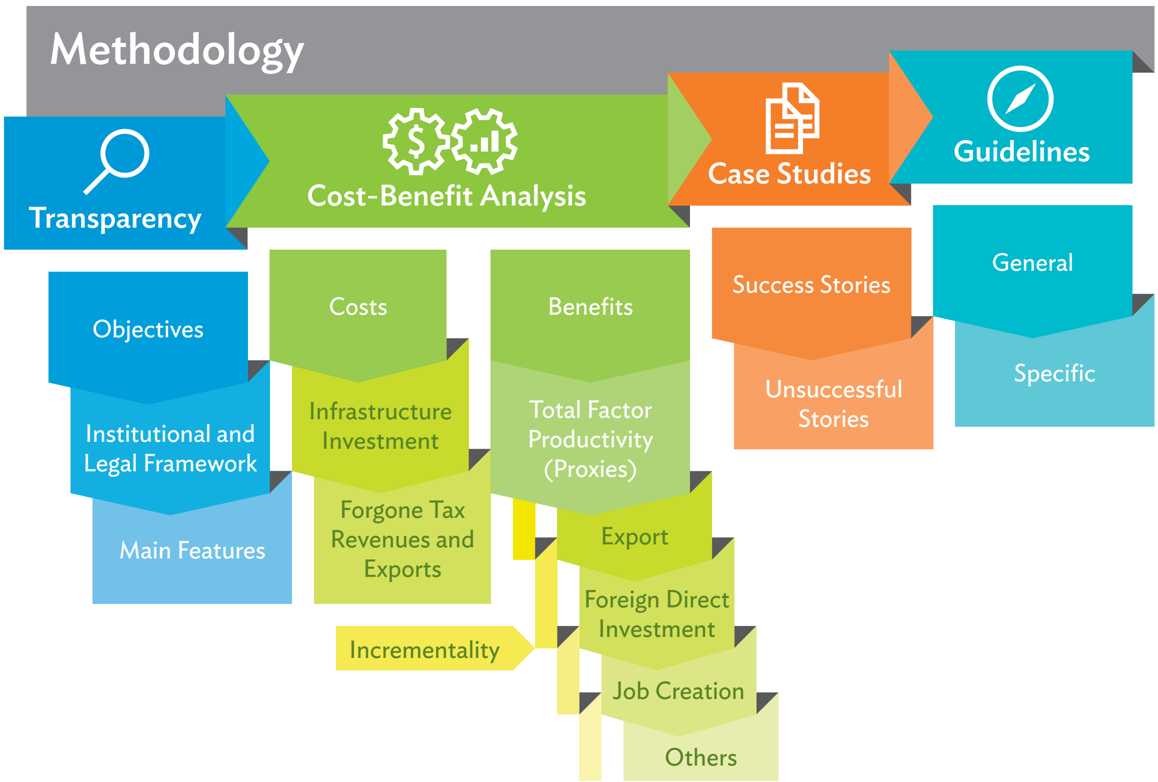
22 For example, see Georgia's trade policy reviews by the World Trade Organization, including the latest one: WTO. 2016. *Trade Policy Review: Georgia*. Geneva.

policy measures, and thus the formulation of optimal policies, among them those involving FEZs and IPZs (which is one of the purposes of this diagnostic study).[23]

21. This diagnostic study is essentially an exercise in transparency aimed at evaluating, by means of a cost-benefit analysis, the cost-effectiveness of Kyrgyz Republic's FEZs and HTP as instruments of economic policy. For the purposes of this study, transparency is deemed to consist of the following key elements (Figure 1):

(i) a clarification of the stated objectives of its existing FEZs and HTP and the proposed IPZs;
(ii) description of the legal and institutional framework concerning FEZs and IPZs, and the FEZs' and IPZs' main features;
(iii) a computation of the costs of the existing FEZs and proposed IPZs, including associated spending on infrastructure, tax revenues forgone due to tax preferences, the administrative costs of operating the zones, compliance costs borne by enterprises operating in the FEZs (and projected costs for the IPZs), and undesirable and possibly unintended side effects (including deadweight losses);
(iv) the benefits of existing FEZs and proposed IPZs, including the extent to which the FEZs have

Figure 1: Methodology of the Diagnostic Study on the Kyrgyz Republic



Source: Asian Development Bank.

[23] No studies have been done to estimate the tax revenues forgone due to tax benefits granted to firms operating in the FEZs. See: IMF. 2013. *Kyrgyz Republic—Selected Issues*. Country Report No. 13/176. Washington, DC. p. 11.

increased and diversified exports, attracted FDI, and created more highly paid employment; and, in the case of the proposed IPZs, the extent to which they are expected to accomplish the same;

(v) an assessment of the cost-effectiveness of FEZs and IPZs in achieving those benefits; and

(vi) the provision of advice on how FEZs and IPZs might be modified to improve their effectiveness or, indeed, whether they should be replaced by alternative policy instruments that would likely be more cost-effective.

22. Such an evaluation (or cost-benefit analysis) attempts to throw light on the effectiveness of FEZs and IPZs (and of their particular features) in achieving their explicit and implicit objectives, notably: increasing and diversifying exports; attracting FDI (and associated technologies); integrating local enterprises into global value chains (GVCs); and creating more highly paid employment.

23. Transparency is necessary not only for ensuring the cost-effectiveness of FEZs and IPZs, it is also an essential part of the institutional and legal framework of these zones. Moreover, transparency is important for ensuring that the various features of the FEZs and IPZs (e.g., tax preferences, criteria for eligibility to operate in FEZs and IPZs, and the role and financing of their management companies), as well as the government's spending on infrastructure, are all cost-effective. For example, the tax revenues forgone as a consequence of tax incentives might have been better spent on basic infrastructure, whether in or around FEZs and IPZs or elsewhere in the economy. Given the inevitability of trial and error, the various features of FEZs and IPZs, as well as the FEZs and IPZs overall, should be closely monitored and evaluated in a timely manner.

B. The Vital Concept of "Incrementality"

24. The most challenging part of this diagnostic study involves the evaluation of the benefits and costs of the various features of FEZs, the HTP, and IPZs and of viable alternatives. In particular, a formidable methodological hurdle encountered by policy makers conducting economic evaluations of the cost-effectiveness of FEZs and IPZs in the Kyrgyz Republic (and elsewhere) is the difficulty of determining the extent to which such instruments are *incremental*. For example, it is important to determine whether exports from the FEZs (and HTP) are incremental or not. Some exporting firms may have relocated their operations to the zones, thereby creating the false impression that the zones have been successful in stimulating exports, whereas, in reality, the additional exports from the FEZs have merely displaced exports from the rest of the country.[24] In the case of investment incentives, which are among the main features of FEZs and the proposed IPZs, it is important to identify the *incremental* investments, and the additional employment, that would *not* have occurred without such incentives. (Thus, in the case of tax incentives, "incrementality" and forgone tax revenues are closely related.) The lack of incrementality reduces the benefits of FEZs (and would do so for the proposed IPZs) relative to their costs, thereby reducing their cost-effectiveness.

25. In the absence of econometric analysis, this diagnostic study relied largely on the ADB team's interviews with enterprises in the Kyrgyz Republic's FEZs. While these interviews may throw some light on this matter, econometric analysis would have been far more reliable and credible. The interviews were based on a short oral questionnaire (as well as anecdotal evidence), which allowed for follow-up questioning. They focused on the extent to which the enterprises' investments in the FEZs had turned out to be incremental (Chapter V) and on studies done in other countries (Chapter VI).[25] In connection with the FEZs, such analysis also requires data concerning government expenditures, including the costs of administration and forgone tax revenues, as well as the cost of capital in the case of infrastructure. However, the absence of any underlying FEZ and IPZ model and of the data necessary for econometric analysis

[24] To the extent that foreign importers prefer to import more from firms located in FEZs (or the HTP), whose costs are lower due to tariff and other preferences, these imports would be at the expense of the rest of the country, thus constituting trade "diversion."

[25] The experiences of countries that have evaluated the impact of tax incentives for investment indicate that these incentives are seldom cost-effective. Most econometric studies show that forgone tax revenues tend to exceed the incremental investment they were meant to induce. Even in the case of research and development (R&D), which is widely considered to be especially susceptible to market failure, a study by Australia's Productivity Commission, for example, found that the general tax concession for R&D acted mainly as a "reward" for research the firms would have done anyway, rather than stimulating much additional R&D. See: Government of Australia, Productivity Commission. 2007. *Public Support for Science and Innovation*. Research Report. Canberra. However, recent empirical evidence from the

precluded any rigorous cost-benefit analysis of the FEZs.[26] Therefore, any data that might be available concerning, for example, exports, investments, technology transfers, and employment generated by the FEZs (or HTP) must be interpreted very carefully.

C. The Importance of Total Factor Productivity and Its Proxies

26. If not the stated goal, the ultimate test of the success of the Kyrgyz Republic's FEZs, HTP, and proposed IPZs (and, indeed, of its overall economic development strategy) is the extent to which they:

(i) improve TFP, and thus the international competitiveness of Kyrgyz enterprises, thereby enabling domestically produced goods and services to compete against imports and paving the way for economic diversification and export-led growth;
(ii) facilitate the efficient reallocation of resources in accordance with comparative advantage (as reflected in TFP, for example), thereby strengthening exports;
(iii) attract FDI, which not only contributes to the domestic stock of capital, but also serves as a conduit for the diffusion of new technologies and expertise, and can induce local supplier linkages by providing improved access to GVCs, which account for 80% of world trade,[27] and, through them, to international markets;[28] and
(iv) create more productive (and thus more highly paid) employment.

27. The TFP of both sectors and enterprises reflects the efficiency with which all the factors of production are used, including capital and labor. It is therefore a key determinant of economic performance. TFP should be distinguished from labor productivity, which is the amount of output per employee or per hour worked, and thus affects wages, salaries, and living standards. Among the main sources of improvement in labor productivity are changes in the volume of investment and growth in TFP. Increased investment contributes to improvements in labor productivity by increasing the amount of capital that employees have to work with. In the absence of TFP growth, however, higher labor productivity based on increased investment can only be achieved at the expense of lower capital productivity.

28. In the early stages of development, the efficient reallocation of resources from low-productivity sectors, such as subsistence agriculture, toward more productive manufacturing and service sectors, in accordance with the Kyrgyz Republic's comparative advantage, would obviously improve overall TFP. However, TFP growth can also be the result of improved TFP *within* sectors or firms, as the most efficient enterprises gain market shares at the expense of those lagging behind (allocative efficiency) and as competition induces the remaining enterprises in a sector to improve their productivity (enterprise efficiency). Other important sources of TFP growth are economies of scale and, in the long run, technological progress, managerial know-how; education, vocational training, and learning by doing; and improvements in basic infrastructure (including electric power; telecommunications, especially

United Kingdom shows that tax incentives for R&D not only spurred innovation by the firms that were its direct beneficiaries, but also had a positive spillover into technologically related firms. As a consequence, each £1 of tax relief generated £1.7 in R&D spending. See: A. Dechezleprêtre et al. 2016. Do Tax Incentives for Research Increase Firm Innovation? An RD Design for R&D. *NBER Working Papers*. No. 22405. Cambridge, MA: National Bureau of Economic Research (NBER).

[26] Needless to say, rigorous cost-benefit analysis of infrastructure investment requires not only data concerning the appropriate capital costs, but also estimates of the likely lifetime of such infrastructure. However, very little public investment in infrastructure has been undertaken in the Kyrgyz Republic.

[27] See: UNCTAD. 2013. *World Investment Report 2013, Global Value Chains: Investment and Trade for Development*. Geneva (http://unctad.org/en/PublicationsLibrary/wir2013_en.pdf).

[28] In order to be part of a GVC, firms must be as efficient as possible; otherwise, competitors will overtake them. Thus, the expansion of world trade in the late 1990s and early 2000s, as GVCs were formed, went hand-in-hand with improved TFP. So it is perhaps no coincidence that the recent slowdown in global trade has been accompanied by and world-wide slowdown in productivity growth. According to the United Nations Conference on Trade and Development (UNCTAD), as much as 80% of international trade takes place via GVCs linked to transnational companies. See: UNCTAD. 2013. *Global Value Chains and Development: Investment and Value Added Trade in the Global Economy*. Geneva. http://unctad.org/en/PublicationsLibrary /diae2013d1_en.pdf

internet access; and transportation, which is essential for improving the connectivity of the otherwise remote Kyrgyz economy, especially for trade in goods).

29. Trade liberalization, including a greater commercial presence in the form of FDI, contributes to improved TFP by expanding the markets in which firms can operate and by increasing the degree of competition among firms.[29] As a result, TFP growth is generated in four major ways. First, there is a more efficient allocation of domestic resources in accordance with comparative advantage, thereby inducing a specialization of production, which paves the way to participation in GVCs. Second, the expanded markets enable firms to take advantage of economies of scale, which are difficult to achieve within the confines of a small domestic market, so unit production costs are reduced. Third, market conditions are created in which more productive firms can expand, while less productive firms contract or even go out of business. Finally, in expanded markets there is more access to new ideas and greater rewards for innovation and for the adoption of new technologies.[30]

30. Unfortunately, no recent data on TFP are available from the Kyrgyz authorities, whether in the aggregate, by sector, or by individual FEZ (or on the HTP). Therefore, certain proxies for TFP are used as indicators of economic performance in this study, specifically, the extent to which FEZs have: increased and/or diversified exports; attracted investment, especially FDI; and created more highly paid employment. These proxies are among the initial economic objectives of SEZs (summarized in Chapter IV), which is not surprising, given that export- and FDI-oriented firms tend to be more productive, and therefore pay relatively high wages according to international empirical evidence (referred to in Chapter V).[31] Other possible criteria for judging the success of FEZs include technology transfers, linkages with the domestic economy, and profitability (insofar as it is not due to tax avoidance or evasion).

D. The Role of Industrial Policy in Economic Development

31. The overriding objective of industrial policy and, indeed, of any economic development strategy, is arguably to prioritize the removal of the principal obstacles to TFP growth. In fact, the rapid economic growth of East Asian countries was largely due to the success of their economic development strategies in paving the way to improved TFP, which, in turn has enabled their enterprises to compete not only against imports in their domestic markets, but also in export markets. When implementing their development strategies in the early stages of their development, these countries deployed fairly active industrial policies that entailed various degrees and forms of

[29] A recent study of advanced countries, most of whose average MFN tariff rates are less than that of the Kyrgyz Republic, found that a 1 percentage point reduction in import tariffs levied on inputs raises TFP by 2% (see Dabla-Norris, Era, and Romain Duval. 2016. "How Lowering Trade Barriers Can Revive Global Productivity and Growth" https://blog-imfdirect.imf.org/2016/06/20/how-lowering-trade-barriers-can-revive-global-productivity-and-growth/).

[30] International trade and FDI are the two main channels through which technology transfers take place. In the case of trade, firms can acquire technological knowledge by importing intermediate goods and capital equipment that include foreign technology. Firms can also "learn by exporting," through direct interactions with their foreign customers, although the results are weaker than those associated with imports. Regarding FDI, the extent and speed of technology diffusion can depend on firm ownership and the linkages among firms. Multinational firms usually transfer technologies to their affiliates abroad through FDI in order to realize the full gains from their inventions. In the receiving country, inbound FDI may generate positive productivity spillovers into other firms through interactions between the multinational affiliate and local firms, worker turnover, or improved organization and management practices. FDI is therefore widely considered to be important for economic growth in emerging markets and developing economies.

Technology diffusion through trade and investment is not automatic, however. Productivity spillovers from FDI are more prevalent in countries with more highly qualified human capital. In addition, trade and investment often require an adequate level of infrastructure, such as well-developed ground transportation and ports. Public investment in human and physical capital is therefore essential for the achievement of the productivity gains associated with innovation. Some emerging markets and middle-income economies have successfully created well-trained pools of scientists and engineers who are now facilitating technology adoption and innovation. See: IMF. 2016. *Fiscal Monitor: Acting Now, Acting Together*. Washington, DC. https://www.imf.org/external /pubs/ft/fm/2016/01/pdf/fm1601.pdf

[31] See, for example: B. Baltabaev. 2014. Foreign Direct Investment and Total Factor Productivity Growth: New Macro-Evidence. *World Economy*. 37. pp. 311–334; and D. Riker. 2015. Export-Intensive Industries Pay More on Average: An Update. Office of Economics Research Note No. 2015-04A. Washington, DC: US International Trade Commission.

direct or indirect government intervention.[32] These policies ranged from relatively little intervention involving few policy instruments, as in Hong Kong, China (in accordance with its principles of "market leads, government facilitates" and "big market, small government"), to a high degree of intervention or "guidance" involving a wide range of instruments, as in the PRC, whose economy had previously been centrally planned. Most of these economies were originally developing countries whose factor markets, especially capital markets,[33] were much less advanced. They were therefore arguably more susceptible to market failure than the industrialized economies. This higher degree of susceptibility to market failure provided some rationale for government intervention (e.g., based on "infant" or "strategic" industry grounds),[34] although the correction of market failure was not the only driving force behind industrial policy. In any event, there is some doubt as to whether governments can allocate resources better than even imperfect markets. When influencing the allocation of domestic resources, however, the governments of East Asian countries did not generally ignore their economies' comparative advantages.[35] As circumstances changed over time, including those regarding comparative advantage, these countries increasingly liberalized their economies by lowering their barriers to trade and FDI and by changing their regulatory frameworks, so as to promote competition and thus a more efficient allocation of resources.

32. Industrial policy in East Asia and elsewhere has consisted of a wide variety of policy measures, depending on the extent to which they have involved targets (and to which they intended to "pick winners"), especially for "infant" or "strategic" industries. A broad distinction can be made between "selective" and "functional" measures. Whereas the latter are available to all firms, or to all firms in a particular line of activity (such as innovation), the former target specific industries or even firms within industries. They include: selective tariffs and nontariff barriers to imports (often aimed at import substitution), special economic zones (SEZs) or export processing zones (EPZs) to mitigate the anti-export bias arising from such import protection,[36] export restraints on raw materials or partially processed goods (to encourage downstream

[32] There is no consensus regarding what exactly constitutes "industrial policy." The World Bank has defined it broadly as "government efforts to alter industrial structure to promote productivity based growth." See: The World Bank. 1993. *The East Asian Miracle: Economic Growth and Public Policy*. New York: Oxford University Press.

[33] In the Republic of Korea, for example, *chaebols* (corporate conglomerates) have been a driving force behind that country's rapid industrialization, which was based on strong export-led growth. Given the scarcity of entrepreneurial talent during the early stages of the Republic of Korea's economic development, resources became concentrated in the hands of the founders of these enterprises. The *chaebols'* success reflected not only their ability to overcome imperfections in factor markets, such as those involving labor, capital, and technology, but also the benefits they derived from the synergies and economies of scope that are possible within large enterprises. The *chaebols* had the added advantage of close links with the Government of the Republic of Korea during a period when a large part of the Korean economy was regulated, a situation that led many to oppose the *chaebols'* dominant position. In particular, given that part of its industrial policy was aimed at promoting heavy industry and chemicals during the 1970s, the government encouraged the growth of the *chaebols*. The close ties between the *chaebols* and the government, as well as the banks (which were government-owned until the mid-1970s) have allegedly impeded access to the Korean market and distorted competition in other markets.

[34] Temporary government assistance may enable firms to achieve economies of scale and associated lower costs.

[35] Since 1990, one of the main sources of productivity growth, and thus development, in Asia has been the structural change involving the movement of labor from low- to high-productivity sectors. The poorer productivity of Africa and Latin America is apparently due largely to the movement of labor in the opposite direction: from high- to low-productivity sectors. See: M.S. McMillan and D. Rodrik. 2011. Globalization, Structural Change and Productivity Growth. *NBER Working Papers*. No. 17143. Cambridge, MA: NBER. http://www.nber.org/papers/w17143

[36] Tariffs are not only a barrier to imports. Insofar as they are levied on imported inputs and are reflected in the prices of final goods (and services) produced in the importing country, they also constitute export taxes to the extent that those final goods (and services) are tradable. Based on 2001 data, for example, import tariffs in the Asia-Pacific region were equivalent to an export taxes of 5% in Malaysia, 10.4% in Sri Lanka, 12.1% in PRC, 18.2% in Bangladesh, and much as 31% in India. See: S. Tokarick. 2007. How Large is the Bias against Exports from Import Tariffs? *World Trade Review*. 6 (2). pp. 193–212. http://www.dartmouth.edu /~rstaiger/lerner.symmetry.theorem.evidence.pdf. The best way to ensure that tariffs (and other indirect taxes) do not effectively end up as taxes on exports would probably be to use FEZs, rather than tariff exemptions or more complicated drawbacks, as the latter can be costly to administer (although FEZs can and do add to the complexity of border taxation). Interestingly, even though Moldova has had low formal barriers to trade (e.g., an average import tariff of 5.2%, a rate similar to the Kyrgyz Republic's existing average applied most-favored-nation [MFN] rate), another study has shown that Moldova's informal barriers in 2002 were equivalent to a tax on exports of around 25%. The study also showed that reducing these costs would result in a substantial reduction in poverty in Moldova. See: G.G. Porto. 2005. Informal Export Barriers and Poverty. *Journal of International Economics*. 66 (2). pp. 447–470.

processing, for example), export incentives (including credits), tax and nontax incentives for investment(including subsidized interest rates), government procurement policies favoring domestic suppliers, and exemptions from competition laws (if such laws exist). Other forms of intervention have included: government-owned or government-linked companies;[37] a broad, sound base of physical infrastructure (e.g., power supplies, ports, roads) and social infrastructure (e.g., an educated labor force); subsidized infrastructure supplies and factory space (as part of EPZs, for example); provision of research and development (R&D) facilities at government institutions, as well as tax incentives for private R&D; and, in some instances, the repression of interest rates (and thus of the cost of capital) and real wages (through restrictions on collective bargaining and trade union activity).

E. Facilitation Measures versus Incentives

33. In evaluating the Kyrgyz Republic's FEZs and HTP, a clear distinction is made in this study between measures that facilitate trade and FDI by removing domestic market distortions that affect competition, and more proactive measures, such as incentives that promote certain activities, possibly on the grounds that such activities are "strategic" or more vulnerable to "market failure." Facilitation involves the removal of impediments to the reallocation of domestic resources and to competition in reasonably well-functioning markets, in accordance with the Kyrgyz Republic's comparative advantage and improved productivity. At the same time, given the remoteness of the country, facilitation could also be aimed at reducing logistics costs, both in the domestic and international markets.[38] Incentives involve the more challenging task of having the government successfully pick potential "winners" consistently. However, the danger is that political pressure or favoritism, rather than the firms' competitive potential will drive the selection process causing the government to pick "losers."

34. For example, with various types of indirect tax measures, which are among the most prominent features of FEZs and the HTP, the elimination of tariffs and/or the value-added tax (VAT) on imports used in the manufacture of products and services for export obviates the need for deferred and more complex border-tax adjustments involving tariff drawbacks and VAT refunds upon exportation. Such relief from tariffs, the VAT, and other indirect taxes in accordance with the destination principle of international taxation can therefore be considered a means of facilitating international trade, and thus an export-oriented investment. In contrast, relief from corporate or personal income taxes otherwise levied on enterprises operating in FEZs and the HTP (as in the case of tax holidays) constitutes a tax incentive, which is usually more difficult to justify.[39] Indeed, while the trade-facilitating tax measures mentioned above are consistent with WTO and EAEU rules, tax incentives run the risk of contravening these rules.

F. "Second-Best" Considerations

35. Policies that might appear to distort markets may nonetheless be beneficial if the markets are already distorted by other factors. Under such circumstances, the nationwide economic benefits from the FEZs and the HTP may be large enough to outweigh the fiscal and other costs, including the deadweight losses associated with the distortions in competition caused by the FEZs and HTP. For example, if a developing country's poorly functioning capital market is failing to channel savings into investment in manufacturing, even though this activity is highly profitable, the FEZs and HTP could

[37] Even in Singapore, where government-linked companies ostensibly compete on a commercial basis with private companies, their links to the government can result in capital markets valuing these companies more highly than private firms, thus giving them an advantage over the latter in the form of a lower cost of capital.

[38] Depending on the industry sector, supply-chain logistics costs account for between 5% and 50% of a product's total landed cost. See: Material Handling & Logistics. 10 Tips for Reducing Supply Chain Logistics Costs. http://mhlnews.com/transportation-amp-distribution/10-tips-reducing-supply-chain-logistics-costs. Logistics costs are among the main determinants of competitiveness. See: K. Rantasila and L. Ojala. 2012. Measurement of National-Level Logistics Costs and Performance. Discussion Paper No. 2012-04. Turku, Finland: Turku School of Economics, University of Turku. Background paper for the 2012 Summit of the International Transport Forum on Seamless Transport: Making Connections. Leipzig, Germany. 2–4 May. https://www.oecd.org/tad/events/global-forum-trade-2012-reliability-measuring-logistics-costs.pdf

[39] Tax incentives may, in any event, be relatively cost-ineffective for the reasons mentioned in Chapter V.

conceivably stimulate investment, and thereby improve economic welfare.

36. However, it is preferable to address existing distortions directly wherever feasible, and as soon as possible, especially as second-best policies generally have undesirable side effects. For example, preferential tax treatment of firms operating in FEZs might not only place other firms in the domestic market at a competitive disadvantage, but also encourage firms located in the FEZs to import their inputs rather than purchase them from domestic suppliers located outside the FEZs, thereby preventing the integration of the non-FEZ firms into GVCs. Besides, in a complicated world, a second-best rationale can be found for practically any policy. It follows that second-best policies should be only temporary, used as a stepping stone to full trade liberalization.

G. "Market Failure" and "Public Goods"

37. Market failure arises when markets do not fully reflect the social costs and benefits of private economic activities.[40] For example, in the case of R&D, which is a major determinant of technological progress, and thus of long-term TFP growth, the social benefits tend to exceed the private benefits (Annex). Consequently, too little R&D would be undertaken if markets were left to their own devices. In these cases, it may be legitimate for the government to intervene, provided that the magnitude of the gap between the private and social benefits of R&D can be measured accurately and that a cost-effective incentive can be designed to stimulate sufficient R&D to bridge that gap without any substantial adverse consequences. Market failure may partly explain why subsidies for R&D used to be permitted under WTO rules. This is no longer the case. Unfortunately, governments are seldom capable of correcting market failure in a cost-effective way, so they would be well advised to be careful about providing incentives, even in the case of R&D.

38. Nonetheless, in many countries, including the PRC, Finland, Israel, the Republic of Korea, and the United States, the state has played an active role in increasing innovation.[41] Indeed, almost every technology that makes the iPhone smart was reportedly funded by government.[42] Besides, several indicators point to the need to enhance the contribution of science and technology to the Kyrgyz Republic's economic development. According to the World Bank's Knowledge Economy Index (KEI), for example, the Kyrgyz Republic ranked 95th out of 146 countries in 2012 (down from 82nd in 2000).[43] However, government expenditure on education, which to some extent includes science and research, more than doubled from 1.7% of GDP in 2010 to 4.5% in 2014; so the Kyrgyz Republic actually stands out as the highest-ranking low-income country, and draws its greatest competitive advantage from its strong education pillar. With regard to education, it ranked 69th, exceptional for a low-income country, due to a relatively high tertiary enrollment rate.

39. A related source of market failure concerns basic infrastructure, (especially transport, energy, water, sewage and waste disposal, telecommunications and internet facilities, health, and education), which can often be characterized as "public goods." By definition, public goods (and services) generate positive "externalities" in the sense that they provide social benefits over and above what individuals or businesses would be willing to pay for. They tend to

[40] Some possible examples of market failure in the Kyrgyz Republic include lack of information, skills, and coordination among companies. See: ADB. *The Kyrgyz Republic: Strategic Assessment of the Economy*. A frequently mentioned example of market failure pertaining to trade involves export financing, which has prompted many countries to establish export–import banks. These banks are essentially government credit agencies. Their role is to provide export financing (i) when the private sector is unwilling or unable to do so alone on commercially viable terms, and/or (ii) to counteract foreign competition arising from government-backed financing by other countries for their companies. Proponents assert that these banks can facilitate exports by addressing financial market failure that impedes exports, and thereby help exporters to compete internationally. However, critics contend that the private sector is nonetheless more efficient than the use of taxpayer funds for financing exports, irrespective of whether the beneficiaries are large or small businesses. The OECD has established international rules for such government-backed export credit agencies.

[41] M. Mazzucato.2016. *Financial Times*. A Strong Industrial Strategy Has Many Benefits. *Financial Times*. 3 August.

[42] The world's first touch screen, for example, the forerunner to the screens on the latest handsets, was invented in 1976 at CERN in order to master the controls of its new big accelerator. See: B. Stumpe and C. Sutton. 2010. The First Capacitative Touch Screens at CERN. *Cern Courier*. 31 March. http://cerncourier.com/cws/article/cern/42092

[43] Knoema. Knowledge Economy Index (World Bank), 2012. https://knoema.com/WBKEI2013/knowledge-economy-index-world-bank-2012

be undersupplied in a competitive market because they are "non-excludable" and "non-rival," that is, consumption by one individual or business does not preclude consumption by others.[44]

40. Public investment in basic infrastructure is an indispensable source of TFP, and thus of economic growth in the long run. Furthermore, it creates employment in the short run. Indeed, it was these potential benefits that largely motivated the establishment of the new Asian Infrastructure Investment Bank (AIIB), which aims to fill the region's infrastructure gap. The Kyrgyz Republic is undertaking an ambitious Public Investment Program aimed at addressing critical infrastructure needs in the areas of transport and energy. As long as the return on investment in infrastructure exceeds the cost of finance, public investment strengthens the government's fiscal balance sheet. This appears to be the case for investments in electricity generation and paved roads, for example. Feasibility studies carried out on behalf of the Kyrgyz authorities suggest internal rates of return on investment in certain types of infrastructure in the range of 14%–39%,[45] which, judging from the National Bank's current policy interest rate of 5% (on 30 May 2017), is much more than the cost of debt finance. This suggests that public investment in basic infrastructure (in zones, the HTP, or elsewhere in the economy) would be arguably more cost-effective than tax incentives, especially corporate income tax (CIT) holidays, for investments whose incremental effects are uncertain.[46] Rather than relying exclusively on tax breaks to fund investment in infrastructure, a "user-pays" model would create an incentive for the efficient use of infrastructure, and would generate revenue for its maintenance and eventual renewal. All of this further helps to maximize the benefits derived from public infrastructure, including that in or near the FEZs, HTP, and proposed IPZs.

H. Trade Liberalization, Structural Reform, and Trade Adjustment Assistance

41. The potential economic gains from trade liberalization—whether multilateral, regional, bilateral, or unilateral—are well-known.[47] Trade liberalization benefits those who produce exports and those who consume imports (including producers who use imported goods as inputs). At the same time, however, trade liberalization hurts the domestic producers (and their employees) of goods and services that are made better and/or more cheaply abroad. Nonetheless, the overall gains from trade liberalization and consequent structural adjustments are such that the winners could, in principle, compensate the losers, so that everyone is better off. In so far as the winners are not willing or able to compensate the losers, the conventional case for trade liberalization and associated structural reform of the economy relies, in practice, on the role of government in facilitating the necessary reallocation of domestic resources in accordance with comparative advantage by means of structural assistance (to increase the efficiency of the adjustment process) and of redistributive measures (to ensure that the gains from trade liberalization are spread more equally).

[44] The combination of high fixed costs and zero marginal costs of distribution makes certain types of basic infrastructure, such as electric power, water, and telecommunication grids, as well as transportation networks, natural monopolies, to the detriment of competition.

[45] See: IMF. 2015. Kyrgyz Republic: Request for a Three-Year Arrangement under the Extended Credit Facility. Country Report No. 15/113. Washington, D.C. p. 33. The McKinsey Global Institute has estimated a 20% rate of return on investment in infrastructure. See: J. Woetzel et al. 2016. *Bridging Global Infrastructure Gaps*. Shanghai, Abu Dhabi, Zurich, Stockholm, and Toronto: McKinsey Global Institute. p. 12. http://www.iberglobal.com/files/2016-2/Bridging-Global-Infrastructure-Gaps_mckinsey.pdf

[46] Judging from the experiences of countries that do evaluate the cost-effectiveness of their tax incentives, forgone tax revenues generally exceed the increases in investment induced by these incentives, with the possible exception of suitably designed incentives for R&D.

[47] Trade liberalization has been an integral part of broad ongoing market-based domestic economic reforms aimed at improving productivity and thus competitiveness, raising living standards, and reducing poverty, especially in the Asia-Pacific region. These reforms, including trade and FDI liberalization, have been primarily unilateral, both in large countries, such as the PRC and India, and in small countries. See: The World Bank. 2005. *Global Economic Prospects: Trade, Regionalism, and Development*. Washington, DC. http://siteresources.worldbank.org/INTGEP2005/Resources/gep2005.pdf. For example, of the 21% fall in the average weighted tariffs of all developing countries between 1983 and 2003, unilateral reductions accounted for two-thirds of the fall. Unilateral reform of trade and trade-related policies reflects the recognition that impediments to improved productivity, growth, and development are mainly homegrown. In particular, the PRC's unilateral "open door" policy, introduced in 1978, was an integral part of its strategy to achieve a gradual transition from a virtually closed centrally planned economy into a more market-based one. This "open door" policy culminated in the PRC's accession to the WTO in 2001.

42. In the United States, for example, trade adjustment assistance (TAA) has helped support workers who have been adversely affected by globalization by providing job-training support, career counselling, wage supplements for older workers, job search and reallocation allowances, and income support for workers undergoing training.[48] The TAA program was established in connection with the launching in 1962 of the Kennedy Round of multilateral trade negotiations under the auspices of the General Agreement on Tariffs and Trade (GATT), the WTO's predecessor. The program has since been extended and revised in connection with subsequent trade agreements.[49] In 2006, the European Union introduced a similar program, the European Globalisation Adjustment Fund.[50]

43. However, the slow growth of the Kyrgyz Republic's economy, as well as the fiscal constraints (notably the lack of tax revenues), may preclude TAA or more far-reaching redistributive measures sufficient for ensuring that everyone gains from trade liberalization and the associated structural reforms. These measures might involve, among other things, more progressive taxation, employment tax credits for low-income workers, higher minimum wages, more government assistance to poor families, better training for unskilled workers, and a greater provision of free education and health care.

[48] J. Zients. 2015. Trade Adjustment Assistance: What You Need to Know. The White House: President Barack Obama. 11 June. https://www.whitehouse.gov/blog/2015/06/11/trade-adjustment-assistance-what-you-need-know

[49] For example, President Clinton expanded TAA in 1993 when the United States acceded to the North American Free Trade Agreement, as did President Bush when he received fast-track authority in 2002. The 2009 stimulus bill expanded TAA, which was extended in 2011 when President Obama signed legislation to approve three bilateral trade deals. Some of the enhancements to TAA expired at the end of 2013; the program was set to lapse in full at the end of 2015, when Congress extended it through September 2016. This last bill approved an expansion of TAA through mid-2021.

[50] See: http://ec.europa.eu/social/main.jsp?catId=326&langId=en

Chapter III: Global and Regional Developments, and Their Implications for the Free Economic Zones, High Technology Park, and Proposed Industrial Production Zones

44. The evolution of the global trade environment, including developments in the multilateral rules-based system under the auspices of the WTO (including the 2013 Trade Facilitation Agreement), together with regional arrangements, has implications for the Kyrgyz Republic's economic development strategy and the role of its FEZs, High Technology Park (HTP), and proposed industrial production zones (IPZs) in that strategy. While WTO agreements do not have any specific provisions concerning FEZs and IPZs *per se*, FEZs, the HTP, and proposed IPZs are or will be nonetheless subject to its rules. In contrast, the Treaty on the Eurasian Economic Union has specific provisions regarding the establishment and functioning of such zones. Therefore, the Kyrgyz Republic needs to adapt its FEZs, HTP, and proposed IPZs to changes in the global trade landscape, including international regulations, as well as to opportunities presented by the Generalized System of Preferences (GSP).[51] It is also important to adapt the FEZs, the HTP, and proposed IPZs to take advantage of changes in the regional landscape, such as the PRC's new "One Belt, One Road" strategy, which was initiated in 2013.

45. The dismantling of barriers to trade as a consequence of multilateral liberalization under the auspices of GATT and the WTO (and, to a lesser extent, of regional trade arrangements), and the resulting integration of the world economy, including the emergence of GVCs, will have far-reaching implications for the Central Asian countries' economic development strategies and for the use of the FEZs, HTP, and proposed IPZs as instruments of economic policy. The emergence of GVCs, for example, has effectively precluded import substitution (and associated protectionist tariff and nontariff measures) as a means of economic diversification and as a basis for sustained economic growth. Instead, countries must now clear the way for their enterprises' participation in GVCs by further exposing them to competition, thereby inducing them to improve their TFP, and thus their export competitiveness.[52]

A. The Kyrgyz Republic's Membership in the World Trade Organization

46. In view of the key role of trade in contributing to economic growth and productivity, the Kyrgyz Republic acceded to the WTO in 1998, the first former Soviet country to do so. Accession involved reducing barriers to trade and investment, as well as other distortions to competition (such as subsidies), as specified in the various agreements, notably GATT, the General Agreement on Trade in Services (GATS), and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), as well as the Trade Facilitation Agreement which the Kyrgyz Republic ratified on 6 December 2016.

47. Membership in the WTO entails a package of obligations with respect to the basic principles of nondiscrimination (involving most-favored-nation [MFN] and national treatment), certainty (i.e., "bindings") concerning various obligations, and transparency in trade and trade-related policies and

[51] Under the GSP, developed countries offer non-reciprocal preferential treatment (such as zero or low duties on imports) to products originating in developing countries. Preference-giving countries unilaterally determine which countries and which products are included in their schemes. The European Union's unilateral decision to grant GSP+ status to the Kyrgyz Republic as of 27 January 2016 offers opportunities for the Kyrgyz Republic to increase and diversify its exports. The GSP+ grants additional trade incentives to countries, who already benefit from GSP and who ratify and implement core international conventions on human and labor rights, sustainable development and good governance. In the case of the Kyrgyz Republic, GSP+ enhanced preferences mean full removal of tariffs on more than 6000 product categories, a step forward from the GSP scheme. Kyrgyz exporters will be able to supply a wide range of products to the European Union free of tariffs. These include agricultural products such as fruits, processed and dried fruits, food products, tobacco, textiles and clothing, including leather, and carpets.

[52] The Kyrgyz clothing industry, which relies on access to the best-quality and lowest-priced zips, buttons, thread, and other materials bought in markets open to the world, is perhaps a rare GVC success story.

measures. WTO membership also involves obligations regarding preferential trade agreements, including those in connection with the Kyrgyz Republic's membership in the EAEU. As highlighted in Box 1, these WTO obligations do curtail the scope of the Kyrgyz Republic's trade and trade-related policy measures, including those concerned with the use of FEZs, HTP, and proposed IPZs as instruments of policies supporting the government's economic development strategy. At the same time, however, by imposing similar obligations on the Kyrgyz Republic's trading partners, the WTO provides Kyrgyz enterprises with easier access to export markets, thereby access to GVCs, and enabling export-led growth.

Box 1: The World Trade Organization's Rules Pertaining to Free Economic Zones and Industrial Parks

There are no World Trade Organization (WTO) rules that deal with free economic zones (FEZs) or industrial parks (IPs) per se. In fact, the FEZs and IPs have not been challenged by the WTO until very recently. Nonetheless, some aspects of these zones, especially the relief they offer from various internal and border taxes, may infringe WTO rules, including the conditions attached to the authorization to operate in a FEZ or IP, and thereby qualify for tax relief (one of the main features of FEZs and IPs), as well as other financial benefits. Such conditions might include, for example, an obligation to export a certain proportion of the goods produced, a restriction on the proportion of goods that can be sold in the domestic market, or a requirement to use a minimum percentage of local inputs.

In the case of trade in goods, the General Agreement on Tariffs and Trade (GATT) and related agreements, especially the Agreement on Subsidies and Countervailing Measures (ASCM) and the Agreement on Trade-Related Investment Measures (TRIMs), do apply to tax and nontax measures. Such measures are prohibited if they are contingent on export performance or local content, and they are considered "actionable" if they are "specific" and have "adverse effects" on the interests of another WTO member. Prohibited and actionable subsidies may be challenged, either through the WTO's dispute-settlement mechanism or through the imposition of countervailing duties.

The concepts of "subsidy" (Article 1 of the ASCM), "specificity" (Article 2), and "prohibited subsidies" (Article 3) are the key to the ASCM. Article 1 ("Definition of a Subsidy") holds that a subsidy is deemed to exist when there is a "financial contribution by a government or any public body within the territory of a Member" and "a benefit is thereby conferred." Such financial contributions include (i) direct transfers of funds, whether actual (e.g., grants, loans, and equity infusion) or potential (e.g., loan guarantees); (ii) forgone tax revenues (e.g., via tax incentives); and (iii) the provision of goods and services other than general infrastructure or goods obtained through purchases. They also include the cases in which a government makes payments via a funding mechanism or entrusts or directs a private body (such as a FEZ or IP managing company) to carry out one or more of the functions specified in (i), (ii), and (iii) above.

However, the ASCM provides that the exemption from or remission of import tariffs or indirect taxes for an exported product, typically a main feature of FEZs and IPs, does not constitute a subsidy. More specifically, tariff exemptions (as well as drawbacks and other similar schemes) for imported raw materials and intermediate inputs used in the production of goods for export are exempted from the ASCM definition of a subsidy. The same applies to exemptions from or remissions of internal *indirect* taxes (especially the value-added tax) on "inputs that are consumed in the production of the exported product" under certain conditions, including the requirement that these exemptions or remissions of indirect taxes not be "in excess of those levied in respect of the production and distribution of like products when sold for domestic consumption." In contrast, any relief from *direct* taxes on exports constitutes an export subsidy, and is therefore prohibited.

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Box 1: continued

The ASCM divides subsidies (as defined in Article 1) into those that are prohibited and those that are permissible. Subsidies that are "contingent, in law or in fact, whether solely or as one of several other conditions, upon export performance" or on the "use of domestic over imported goods" are prohibited by Article 3 on the grounds that they are presumed to distort trade. Tax relief would probably be considered a prohibited subsidy if, for example, the firms based in zones or parks had to export a minimum percentage of the goods they produce or, as was the case until recently in the Kyrgyz Republic's FEZs, if the tax relief were contingent on a quota of the amount of goods produced in the FEZs that could be sold in the domestic market(in which case it would be deemed an export subsidy). Tax relief would also be considered a prohibited subsidy if it required firms in zones and parks to use a certain percentage of local rather than imported inputs.

The ASCM originally distinguished between two categories of permissible subsidies: those that were "actionable" (permitted, but potentially subject to action) and those that were non-actionable (permitted and shielded from action). However, the latter category no longer exists, so now all subsidies are actionable. Although other subsidies—particularly some for environmental measures, research and development, and regional development—were for a time non-actionable under Article 8 of the ASCM, that provision expired at the end of 1999.

According to Article 2 of the ASCM, a subsidy is "specific" if it is accorded to "certain enterprises," that is, to an enterprise or industry, or to a group of enterprises or industries. A subsidy is also specific if it is "limited to certain enterprises located within a designated geographical region within the jurisdiction of the granting authority." In this regard, a "positive" list of activities permitted in special economic zones is arguably more likely to be deemed specific than a "negative" list. Specificity may also be the outcome of the authorization process if, for example, the government decides which industries or enterprises are allowed to operate in the zone.

Article 3.1(a) of the ASCM prohibits "subsidies contingent, in law or in fact, whether solely or as one of several other conditions, upon export performance, including those illustrated in Annex I." Of the 12 examples of export subsidies illustrated in Annex I of the ASCM, 5 involve tax measures, that is, tariffs, indirect taxes, or direct taxes. In addition, Article 3.1(b) of the ASCM prohibits subsidies for import substitution, defined as "subsidies contingent, whether solely or as one of several other conditions, upon the use of domestic over imported products."

Tax and nontax measures for FEZs or IPs that are neither contingent on export performance nor on the use of domestic (instead of imported) inputs could still be considered actionable subsidies if they are "specific" and if the complaining WTO member can demonstrate that they have "adverse effects." Adverse effects may take the form of (i) injury to the complaining member's domestic industry, (ii) nullification or impairment of benefits from WTO tariff concessions, or (iii) "serious prejudice."

As in the case of the ASCM, there are no explicit references to FEZs or IPs in the TRIMs Agreement, even though zones and parks are both trade-related and can involve investment measures intended to attract foreign direct investment (FDI) and promote exports. Like the ASCM, the TRIMs Agreement provides an illustrative list of measures that are inconsistent with GATT Articles III ("National Treatment") and XI ("General Elimination of Quantitative Restrictions"). The list includes local-content and trade-balancing requirements, as well as foreign exchange restrictions. Therefore, any FEZ- or IP-related measure that imposes such requirements or restrictions would infringe the TRIMs Agreement (unless the WTO had been notified, in accordance with Article 5.1). Interestingly, no such notifications related to FEZs or IPs have ever been made to the WTO.

Insofar as FEZs and IPs are involved in trade in services, they are covered by neither GATT nor by the related ASCM and TRIMs Agreement. Services are instead subject to the General Agreement on Trade in Services

continued on next page

Box 1: continued

(GATS), particularly with regard to most-favored-nation treatment and, to the extent that WTO members have made commitments regarding specific service sectors, national treatment as well. Consequently, in contrast to the ASCM, tax and nontax measures contingent on export performance or import substitution are permitted as long as they are nondiscriminatory within FEZs and IPs. However, FEZs and IPs cannot accord preferential treatment to any subset of services or service suppliers from foreign countries. Nor can they treat foreign services and service suppliers less favorably than domestic services and service suppliers, insofar as they have made national-treatment commitments regarding specific service sectors.

Source: M. Daly. 2016. *Is the WTO a World Tax Organization? A Primer on WTO Rules for Tax Policymakers*. Technical Notes and Manuals. Washington, DC: International Monetary Fund. http://www.imf.org/external/pubs/ft/tnm/2016/tnm1602.pdf.

48. It would appear that the Kyrgyz Republic's existing legal provisions do generally comply with WTO obligations and are aimed at facilitating trade, although they are seemingly often undermined by inadequate resources or gaps in the implementation of regulations. Nonetheless, no complaint against the Kyrgyz Republic has yet been brought before the WTO's Dispute Settlement Body by any of its trading partners. (Nor has the Kyrgyz Republic used the WTO's dispute-settlement procedures, either as a complainant or a third party.) This may be because the Kyrgyz Republic's trade is largely with countries belonging to the Commonwealth of Independent States (CIS), and trade disputes with these countries are generally settled within the CIS framework.

49. In accordance with its transparency obligations under WTO's Trade Policy Review Mechanism, the Kyrgyz Republic was reviewed for the second time in 2013 (the first time having been in 2006). The Mechanism, which goes beyond the mere notifications required by various WTO agreements, "is not ... intended to serve as a basis for the enforcement of specific obligations under the Agreements or for dispute settlement procedures." Instead, its purpose is to "contribute to improved adherence by all Members to rules, disciplines and commitments" made under the WTO agreements, "and hence to the smoother functioning of the multilateral trading system, by achieving greater transparency in, and understanding of, the trade policies and practices of Members." Accordingly, the review mechanism "enables the regular collective appreciation and evaluation of the full range of individual Members' trade policies and practices and their impact on the functioning of the multilateral trading system."[53] It also permits the evaluation of various trade and trade-related policies and measures, including special economic zones, even though they may not necessarily contravene (or, indeed, be subject to) WTO obligations.

50. During the Kyrgyz Republic's trade policy review, WTO members commended the country's commitment to an open trade regime and its initiation of reforms in a number of key areas, including trade-facilitation measures (such as the "single window" and "paperless trade"), improvements in the Tax Code, the pursuit of e-procurement, reforms of its competition policy, the reduction of mandatory standards and technical regulations, greater alignment with international standards, and efforts to streamline certain bureaucratic procedures. At the same time, however, members raised some concerns about a number of areas in which further improvements could be made. Their concerns were as follows:

(i) the urgent need for the Kyrgyz Republic to offer new or revised notifications regarding a number of WTO areas, in order to improve the transparency and monitoring of its adherence to WTO obligations;
(ii) the fact that some 90 *applied* tariff rates breached *bound* rates, and the importance of rectifying this situation in view of its systemic implications for the organization;
(iii) the protection of intellectual property rights, which is essential for attracting FDI; and
(iv) government procurement, specifically the view that the Kyrgyz Republic should join the WTO's plurilateral Agreement on Government Procurement, as this would help improve the value for money of government expenditures, especially where infrastructure is concerned.

[53] WTO. 1989. Trade Policy Review Mechanism. https://www.wto.org/english/docs_e/legal_e/29-tprm_e.htm

51. A number of members also commented on the relatively low FDI inflows, and inquired about the measures envisaged to address this situation. It was noted that attracting FDI was key to further developing the economy, in particular with respect to diversifying its production and export bases. Referring to Kyrgyz Republic's Country Development Strategy (2009–2011), members identified a number of further improvements that should be made, such as eliminating administrative barriers, creating more favorable customs and tax regimes, and improving transparency and predictability.

52. While the Kyrgyz Republic's FEZs and HTP were mentioned briefly during the trade policy review, the members did not evaluate the functioning of the zones and park in much detail, except to remark that only the Bishkek FEZ had any substantial activities (without attempting to understand why) and to note the tax incentives granted to enterprises in the FEZs and the HTP. Interestingly, in the report it had prepared for the review, the government stated that the FEZs were initially established "to encourage production, employment and increase local companies' share of manufactured products, as well as for export growth."[54]

53. While recognizing that the trade policy of the Kyrgyz Republic may be transformed as a result of its accession to the EAEU, members recalled that a WTO-consistent trade and investment regime was important for securing sustainable growth and for diversifying the Kyrgyz economy. Members stressed the importance of their being kept fully informed of developments in this area and of the Kyrgyz Republic's compliance with WTO rules and procedures, including those regarding notifications and compensation negotiations stemming from possible alterations of its tariffs.

B. The Kyrgyz Republic's Membership in the Eurasian Economic Union

54. The Kyrgyz Republic's accession to the EAEU (joining Armenia, Belarus, Kazakhstan, and the Russian Federation), on 12 August 2015, marked a major change in the regional economic environment. Membership in the EAEU opens up new economic opportunities for the Kyrgyz Republic by removing barriers to the free movement of goods, services, labor, and capital (as well as technology). These new opportunities involve increased integration of these countries' economies by means of trade and investment, including the development of major infrastructure projects, primarily in the energy, transportation, and agricultural sectors. Kyrgyz citizens now enjoy the right to national treatment with regard to employment in any state of the EAEU, which is especially important given the country's heavy reliance on remittances from its migrant workers.

55. Needless to say, membership in the EAEU has potentially far-reaching implications for the Kyrgyz Republic's trade and trade-related policies, especially its use of the FEZs, HTP, and proposed IPZs (Box 2). Although Kyrgyz enterprises now have improved access to the markets of other EAEU countries, membership in the EAEU will undoubtedly intensify competition from enterprises based in those countries, including in the domestic market. Accordingly, in order to take advantage of this greater access, the government will need to adapt its economic development strategy by removing obstacles to improved TFP, thereby enabling Kyrgyz enterprises to compete, not only in the domestic market, but also in the markets of its EAEU partners and markets outside the EAEU.

[54] WTO. 2013. *Trade Policy Review: Kyrgyz Republic*. Geneva.

Box 2: Eurasian Economic Union Rules Pertaining to Free (Special) Economic Zones

Unlike the rules of the World Trade Organization (WTO), those of the Eurasian Economic Union (EAEU) specifically mention free (special) economic areas. In many important respects, the EAEU rules concerning tax incentives and other forms of subsidies resemble those of the WTO summarized above, particularly the rules concerning prohibited and actionable subsidies, so there is no need to summarize them here. Suffice it to say, however, that as a consequence of the Kyrgyz Republic's accession to the EAEU, its free economic zones (FEZs) are now regulated by the Treaty on the Eurasian Economic Union, Article 27 ("Establishing and Functioning of Free [Special] Economic Areas and Free Warehouses"), and by the Agreement on the Free (Special) Economic Zones on the Customs Territory of the Customs Union and the Customs Procedures of the Free Customs Zone of 18 June 2010 (hereafter "Customs Union Agreement"), as well as by the Treaty on the Customs Code of the Customs Union of 27 November 2009. Since 6 August 2015, the provisions of the EAEU Treaty and the Customs Union Agreement regarding free (special) economic areas or zones have provided the general framework under the EAEU for rules concerning the establishment and operation of new FEZs and for the application of the relevant provisions to the FEZs, including those on the customs regime of the free customs zones within the FEZs. The main objective of this general framework is to unify the laws of the member states of the Customs Union regulating the activities of free (special) economic zones, including the laws on taxation.

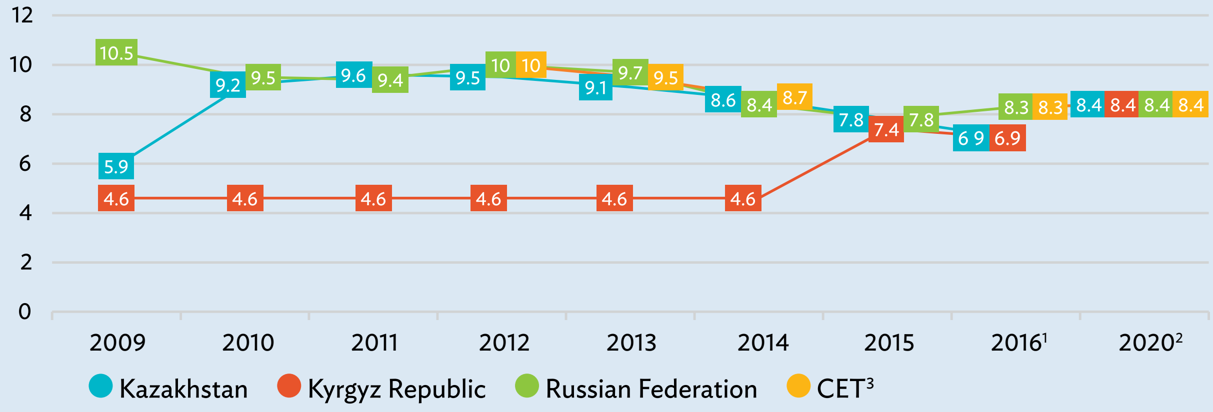
Accordingly, the rules concerning the payment of tariffs and indirect taxes are of special interest. In particular, Article 9 of the Customs Union Agreement considers such zones to be located outside the customs territory of the Customs Union for the purposes of tariffs and indirect taxes (and nontariff measures). Hence, goods imported into such zones may be exempt from tariffs and indirect taxes. Moreover, Article 13 allows tariff- and tax-free transit from a zone in one EAEU member to a zone in another member, thereby providing an opportunity for cooperation between EAEU countries' free (special) economic zones, with a view to coordinating their trade and economic development strategies. However, Article 17 of the Customs Union Agreement requires that goods that are exempted from tariffs and indirect taxes when imported into such zones be subject to those tariffs and taxes when entering the rest of the territory of the Kyrgyz Republic and the territory of any other member of the EAEU. If those imported goods are substantially transformed in the zone in accordance with any of the conditions listed in Article 19, the tariffs and taxes that would have otherwise been levied on those goods must be paid when the final products enter the rest of the territory of the Kyrgyz Republic or the territory of any other EAEU member. Since the transition period ended, on 1 January 2017, Article 17 has placed firms supplying the domestic market from inside and outside the zones on the same tax footing. (However, firms registered in the FEZs prior to 2000 remain exempted from VAT until the end of 2018 provided they did not change their core activity.) In the case of an inverted tariff, producers from the zones supplying goods to the domestic market or to the markets of other EAEU states are allowed to choose either the tariff rate that applies to the imported inputs or the rate that applies to the finished goods. According to the director of Vindors Ltd., which is based in a Kyrgyz FEZ, Kazakhstan and the Russian Federation are already collecting value-added taxes on goods imported from the Kyrgyz Republic's FEZs.

As in the case of WTO rules, there is nothing to prevent the Kyrgyz Republic from granting full tariff drawbacks and rebates of indirect internal taxes, such as the value-added tax (VAT), to domestic firms supplying goods and services to zone-based enterprises, thereby facilitating the development of value chains linking firms located inside and outside the zones. Tariff drawbacks would be especially beneficial in view of the fact that the Kyrgyz Republic's simple average applied most-favored-nation (MFN) tariff rate increased from 4.6% in 2014 to 7.4% in 2015 and then declined to 6.9% in 2016 as a consequence of its adoption of the EAEU's common external tariff (CET), which was essentially the Russian Federation's tariff (see Figure). In 2016, the simple average CET was 8.3%, in accordance with the Russian Federation's scheduled tariff-reduction commitments at the WTO.

continued on next page

Box 2: continued

Average Applied Most-Favored-Nation Tariff Rates and Common External Tariff Rates (%)



Note: Data are not available for the years where figures are absent.
Source: www.wto.org/statistics

1 Simple average applied tariff rates for 2016 are based on the assumption that the rates for the Russian Federation and CET are the same and taken from WTO, 2016, Trade Policy Review -- Russian Federation, Geneva (Table 3.3).

2 WTO bound MFN rates to be implemented by 2020 are also taken from WTO, 2016, Trade Policy Review -- Russian Federation, Geneva (Table 3.3).

3 CET rates from 2012 to 2014 are taken from https://www.wto.org/english/thewto_e/acc_e/Session1AndreyTochinEurasianEconomicIntegration.pdf

The Agreement on the Free (Special) Economic Zones introduced the concept or port or logistics zones. Clause 11 of the Agreement states that in the port or logistics zones, not only residents of the FEZ but also other legal entities may place their goods under the free customs regime, provided they have a service agreement with FEZ residents. Service agreement may include, for example: storage of goods, loading (unloading) of goods and other cargo operations related to storage, to ensure the safety of goods, as well as for the preparation of goods for transportation; sorting, packaging, repackaging, marking, provided that such services do not change the characteristics of goods (and associated classification code).

A further amendment of Eurasian Economic Union Rules involved the signing in Moscow on 11 April 2017 of the corresponding agreement on the Customs Code of the EAEU (hereinafter - the EAEU CC), which unified customs regulation in the territory of the EAEU and terminated the Customs Code of the Customs Union. The EAEU CC is expected to enter into force from January 2018. Customs procedures for free customs zones are specified in Chapter 27 of the EAEU CC. In addition, special conditions for selected free (special) economic zones of Member States are described in the Code's Article 455 "Peculiarities of the application of the customs procedure of a free customs zone in individual FEZs of member states". The Article 455 also stipulates that, in some cases, the peculiarities of customs procedures for port or logistics zones may be used in the territory of those zones that fall within the scope of the Article 455. In other words, not only residents of these FEZs but also other legal entities may place their goods under the free customs regime if they have a service agreement with FEZ residents. Article 455 thus provides opportunities for duty and tax free trade as well as logistics operations on the territory of such FEZs. The zones that fall under the scope of Article 455 are determined by the national legislation of the Member States, provided they satisfy the above mentioned conditions. Article 455 will apply to only one zone in the Kyrgyz Republic.

continued on next page

Box 2: continued

The Kyrgyz government has not made its final decision on the selection of the zone to which Article 455 will be applied. However, it is expected that FEZ Naryn will be selected as it satisfies the selection criteria and, according to the authorities, appears to show potential for successful development, although that remains to be seen.

Source: Asian Development Bank.

56. WTO rules do permit departures from the MFN principle in regional and bilateral free trade agreements, provided that these preferential (and, therefore, discriminatory) agreements cover "substantially all" trade between the parties.[55] The rationale would appear to be that preferential agreements should *create* more trade than they *divert*. Whereas trade *creation* occurs when domestic production is replaced by imports from lower-cost and more efficient producers within the EAEU, trade *diversion* arises when higher-cost suppliers from within the EAEU replace imports from lower-cost, more efficient producers outside the trading bloc, contrary to the MFN principle. Unlike in the case of MFN tariffs, imports into the Kyrgyz Republic will not necessarily be produced by the lowest-cost (and most efficient) foreign producers.[56] The higher the EAEU's common external tariff (CET) and nontariff barriers to imports, the greater the likelihood of trade diversion, which undermines the economic welfare gains from trade creation for new members of the EAEU, including the Kyrgyz Republic. Insofar as essential inputs required by Kyrgyz enterprises are imported from outside the EAEU, and the tariffs levied on these imported inputs are reflected in the prices of the final goods (and services) produced by these enterprises, such tariffs also constitute export taxes to the extent that tariffs on such imports are not refunded promptly and in full once the final goods (and services) are exported.[57] Under such circumstances, tariffs on imported inputs will be detrimental to the export competitiveness of Kyrgyz enterprises.

57. The question arises as to the appropriate role, if any, of the Kyrgyz Republic's FEZs, HTP, and proposed IPZs in this new economic environment, and whether they divert more trade and investment from the domestic market than they create. It may be that, in the case of the Kyrgyz Republic, whose average level of MFN tariff protection increased from 4.6% to 7.4% in 2015 when it adopted the EAEU's CET, these zones (and particularly their tariff preferences) might conceivably assume a more important role, especially in facilitating local suppliers' linkages to global value chains (GVCs) and, through them, to international markets. The value of deferred payments of tariffs and other taxes by zone enterprises, notably the value-added tax (VAT), is directly related to the tariff and tax rates, the interest rate, and to the length of the deferral period.[58]

C. The Central Asia Regional Economic Cooperation Program Corridor, People's Republic of China's New Silk Road Initiative, and National Infrastructure Plans

58. While the EAEU and the WTO agreements together constitute the essential software for trade facilitation (and thus for export-led growth), basic infrastructure, including transport corridors and logistics, is the necessary hardware. Considerable investment in basic infrastructure is clearly necessary to pave the way to deeper economic integration in

[55] More specifically, see GATT Article XXIV ("Territorial Application—Frontier Traffic—Customs Unions and Free-trade Areas") and GATS Article V ("Economic Integration").

[56] Further costs arise because the origin of imports must be established and necessary rules of origin must be enforced.

[57] It would appear that such refunds (as well as drawbacks) are made neither promptly nor in full owing to fiscal constraints.

[58] In effect, the deferral of taxation constitutes an interest-free loan. The main monetary policy interest rate of the National Bank of the Kyrgyz Republic is currently 5%. See: National Bank of the Kyrgyz Republic. http://www.nbkr.kg/index.jsp?lang=ENG

the region, including the free movement of goods, services, labor, and capital (as well as technology). In order to enable deeper regional integration, CAREC 2020 introduces three new priorities into the agenda of the Central Asia Regional Economic Cooperation (CAREC) Program.[59] One of these priorities is economic corridor development, which focuses on how physical infrastructure can be used to catalyze the spatial organization of activities in the region so as to generate growth and improved productivity. A segment of the CAREC corridors network is involved in the pilot Almaty–Bishkek Corridor Initiative (ABCI).

59. Another important recent development in the economic landscape, with potentially far-reaching implications for the Kyrgyz Republic and other countries in the region, is the "One Belt, One Road" initiative of the People's Republic of China (PRC),[60] which aims to make Central Asia more connected to the world.[61] It comprises plans to build roads, railways, ports, natural gas pipelines, and other infrastructure stretching through Central Asia (including along the Almaty–Bishkek Corridor), into South Asia, Southeast Asia, the Middle East, and Europe. This initiative will not only enable the PRC to export infrastructure, but will also create demand for Chinese manufactured exports.[62] The Silk Road countries apparently account for roughly one-quarter of the PRC's foreign trade. Moreover, as rising wages erode the PRC's comparative advantage in labor-intensive manufacturing industries, lower-income countries, including those linked by the Silk Road, most of which have a per capita gross domestic product (GDP) less than half of the PRC's, are becoming more attractive locations for these industries. With improved infrastructure and, as a result, better connectivity to global markets, the Central Asian countries will be well-placed to absorb the migration of the PRC's labor-intensive industries. The PRC's manufacturing industry employs 125 million workers, with 85 million of them in low-skilled jobs. That is enough to enable virtually all of the developing economies along the new Silk Road to achieve industrialization and modernization simultaneously.[63]

60. In addition, the newly established $100 billion Asia Infrastructure Investment Bank (AIIB), which has attracted much attention, can be expected to supplement the financing of infrastructure in the region by existing multilateral development institutions. The AIIB will operate within the global economic and financial framework, and will follow established international practices.

61. Public and private investment in infrastructure—especially transportation, telecommunications and fiber optics, energy, and water (as well as in education and health)—can further facilitate trade and economic growth in the Kyrgyz Republic and elsewhere in Central Asia. Such investment in the region appears likely to grow considerably. In addition to the traditional donors, such as the Asian Development Bank (ADB) and The World Bank, the Eurasian Development Bank is now providing a grant for a pre-feasibility study of the construction of the Russian Federation–Kazakhstan–Kyrgyz Republic–Tajikistan railway line. This transport artery is expected to link up with the Afghanistan–Turkmenistan–Tajikistan railway, whose construction will be funded entirely by the CAREC Program.

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[59] ADB. 2012. *CAREC 2020: A Strategic Framework for the Central Asian Regional Economic Cooperation Program 2011–2020*. Manila. http://www.carecprogram.org/uploads/docs/CAREC-Publications/2012/CAREC-2020-Strategic-Framework.pdf

[60] This initiative, which was proposed by the President of the PRC during a visit to Kazakhstan in 2013, has become the centerpiece of the PRC's foreign policy and international economic strategy. It involves economic development along two land and maritime routes (from western PRC to Eastern Europe) and a maritime route (from Southeast Asia to East Africa), thereby linking Asia and Europe. The initiative is part of the PRC's strategy for rebalancing its economy. Such rebalancing involves reducing reliance on debt-financed investment in construction and heavy industry, and boosting consumption, high technology industries, and the service sector. Furthermore, reallocation of the PRC's large foreign-exchange assets away from low-yield US Treasury bonds to higher-yield infrastructure investment makes economic sense, and creates alternative markets for Chinese goods. With Chinese steel and cement firms suffering from overcapacity, Chinese construction firms will profit from the new investment. And as Chinese manufacturing moves to less accessible provinces, improved infrastructure connections to international markets fits PRC's development needs.

[61] J. Farchy and J. Kynge. 2016. Map: Connecting Central Asia. *Financial Times*. 9 May. https://www.ft.com /content/ee5cf40a-15e5-11e6-9d98-00386a18e39d

[62] It is expected that only 10% of the disbursed financing from the PRC will be spent in the Kyrgyz Republic; the rest will be used to purchase imported equipment and labor. See: IMF. 2015. Kyrgyz Republic: Request for a Three-Year Arrangement under the Extended Credit Facility. Country Report No. 15/113. Washington, D.C. p. 33.

[63] J.Y. Lin. 2016. China's Silk Road Vision. *Project Syndicate*.21 January. https://www.project-syndicate.org/commentary/china-maritime-silk-road-economic-belt-by-justin-yifu-lin-2016-01

62. The Kyrgyz Republic can also be expected to benefit from the $40 billion Silk Road Fund, established on 29 December 2014 by the PRC. This Fund is aimed at providing investment and financial support for trade and economic cooperation and connectivity within the framework of the Belt and Road Initiative.[64] Among the projects supported by the Fund is the start of the construction of a gas pipeline linking Central Asia and the PRC. Line D of this pipeline, which connects western PRC to Turkmenistan's large gas fields via Uzbekistan, Tajikistan, and the Kyrgyz Republic, is the main Chinese-funded project currently under development. Furthermore, the PRC has already built a new highway connecting Kashgar (PRC) with Osh (Kyrgyz Republic); and construction of the delayed Kyrgyz leg of the PRC–Kyrgyz Republic–Uzbekistan railway is under discussion.

63. In addition, the Government of the PRC and private investors have pledged to invest in the construction of a road that will start from Xi'an, in central PRC, and pass through Xinjiang, Kazakhstan, Uzbekistan, Tajikistan, Iran, Turkey, and the Russian Federation, and then farther into Europe. The PRC is also building a Chongqing–Xinjiang–Europe railway that will reduce the time it takes for Chinese goods to reach Europe by 20 days. At present, the PRC trades with Europe mainly via the Indian Ocean–Gulf of Aden–Suez Canal route, which takes 36 days or even more, given the time needed to reach Chinese ports from Central and Western PRC. However, the Kyrgyz Republic and its Central Asian neighbors may wish to encourage the participation of other Asian countries, thereby providing such countries as India, Japan, the Republic of Korea, and Turkey with an opportunity to increase their economic presence in Central Asia as far as trade and foreign direct investment (FDI) are concerned.

64. The Kyrgyz government realizes the importance of transportation and logistics infrastructure for trade facilitation. Its priority is the construction of the PRC–Kyrgyz Republic–Uzbekistan railway, part of the southern corridor of the Eurasian transcontinental railway, which will pass through the Kyrgyz Republic along a route that will connect Pacific ports with the Persian Gulf and the Mediterranean.

65. The new railway will connect to the currently separate railways in the north and south of the Kyrgyz Republic, via the Balykchy–Kochkor–Kara-Keche–Arpa–Kara-Suu route. A national railway network will thus be created, providing reliable transport links to all the regions of the country.

66. The Kyrgyz government recently signed an agreement with the China Road Association for the construction of a nationwide South–North road. Moreover, a feasibility study for a parallel road via Uzbekistan has also been developed. The Kyrgyz Republic will negotiate funding with the PRC. The government is also planning to introduce tolls, the first of which will be established on the bypass road from Bishkek to Issyk-Kul, which satisfies the criterion of the availability of an alternative parallel route. A feasibility study for a bypass road from Bishkek to Kara-Balta is under development. If that road is built, it will involve tolls as well.

67. In the south of the Kyrgyz Republic, a new road via Batken to Tajikistan is under construction. In the north of the country, reconstruction has started on the Balykchy–Karakol road (along the northern shore of Lake Issyk-Kul), which is to be ready in 2 years. The road on the southern side of the lake will be reconstructed in 4 years. For the future, the Kyrgyz Republic is planning several land transportation projects intended to establish connections with Afghanistan, the PRC, Iran, Pakistan, and Tajikistan. The government had ambitious plans for the further development of air transportation. Currently, air transportation covers only 5% of the country's transportation. There are a limited number of direct air routes in the country despite the government's efforts to introduce a free entry regime for almost 60 countries and to develop a hub on the territory of the airport "Manas" – the largest airport in the country. The freight transport market is poorly developed and only 18%-20% of the capacity of the existing cargo terminals is used. Plans for the development of an international hub in the "Manas" airport were stipulated in the country's national development strategy. However, these plans have not been implemented owing to political constraints. The country has 77 national projects aimed at the development of local airports. Some progress has

[64] See http://www.silkroadfund.com.cn/enweb/23773/index.html

been achieved on the development of Manas, Osh and Issyk-Kul airports.

68. The Kyrgyz Republic is also developing a logistics center in Alamedin-1, a district in the eastern part of Bishkek that has railway, road, and airport connections. Alamedin-1 currently handles 99% of the country's railway container cargo traffic. Three other logistics centers are planned, in At-Bashi (Naryn region), Balykchy (Issyk-Kul region), and Irkeshtam (Osh region, on the border with the PRC). The government chose these locations after taking into account the existing transboundary trade and infrastructure, as well as its own plans for the North–South road, which will go through At-Bashi and Balykchy.

69. On the private initiative of farmers, three agricultural warehouses equipped with processing, washing, and sorting workshops, along with a laboratory, are being developed in: the Sokuluk district, Chui region (25 kilometers [km] from Bishkek); the Alamedin district, Chui region; and the city of Osh. Future warehouses are planned for every region in the country.

70. With Kyrgyz Republic's accession to the EAEU, the sale of agricultural produce to the EAEU market will mostly depend on the country's fulfillment of the sanitary and phytosanitary requirements. Accordingly, major progress has been made toward the establishment of sanitary and phytosanitary laboratories. Two central laboratories issuing international certificates under the Ministry of Agriculture were opened in the cities of Bishkek and Osh. A third will be opened in Batken. Two veterinary laboratories were opened, one in Osh and the other in Bishkek, and both are certified to issue international certificates. However, the export of meat is temporarily prohibited because in 2007 the country's veterinary and food safety and security situation was deemed unfavorable, but a lot of smuggling has been reported along the border. Serious work is being done with regard to epidemiological monitoring (i.e., zoning, vaccination, and identification of cattle), as required by the EAEU. Although the export of meat is prohibited, according to the National Statistics Committees some quantities have been exported to the PRC and to Arab countries.

71. The following agricultural products appear to have export potential in the foreign markets: potatoes, apples, fruit and berry products, beans, meat and dairy products, bio-cotton and man-made fiber. Accordingly, the development of agro-industrial clusters is an integral part of the national development strategy. Such clusters have been introduced so far into just two sectors: sugar-beet and cotton production.

72. However, while the new Silk Road initiative can help to diversify the Kyrgyz Republic's trade by reviving the east-west trading route between Europe and Asia, and thereby supplement the country's Soviet-era web of transport links which were mainly built north to south with Moscow at its center, the initiative's success is threatened by largely one-way traffic owing to the PRC's big balance of trade surplus. For example, five trains full of cargo leave Chongqing for Germany every week, but only one full train returns.[65] Trade must flow both ways between east and west to make the route and related infrastructure economically viable and politically acceptable to the countries through which it passes. Moreover, sending goods overland from the PRC to Europe remains twice as expensive as shipping them by sea.[66]

[65] J. Wuttke. 2017. Xi Jinping's Silk Road is under threat from one-way traffic. *Financial Times*. 9 May.

[66] J. S. Nye. 2017. Xi Jinping's Marco Polo Strategy. *Project Syndicate*. June 12.

Chapter IV: A Legislative and Institutional Framework for—and the Main Features of—the Zones and the High Technology Park

73. This chapter provides a summary of the legislative, regulatory, and institutional framework, and of the administrative procedures, concerning the Kyrgyz Republic's existing FEZs and HTP, and its proposed IPZs. It also provides a summary of the main features of these zones and the park.

74. A well-developed and comprehensive framework (with stable, transparent and unambiguous rules) that empowers the governing body to effectively support the functioning of the zones and park and to meet the needs of investors is crucial for the zones' and park's success. Functioning FEZs and IPZs, as well as a functioning HTP, could potentially help overcome the institutional inertia elsewhere in the economy that impairs the Kyrgyz Republic's development. The institutionalization of transparency is a prerequisite for improved government accountability, which will reduce the scope for administrative discretion, and thus corruption. It is also a deterrent to misguided policies, as it paves the way to more evidence-based and cost-effective policy making, including that concerning the design and use of FEZs, the HTP, and proposed IPZs.

A. Free Economic Zones

2. The Definition of a Free Economic Zone

75. FEZs are part of the territory of the Kyrgyz Republic, and are designated by government legislation, which also provides a special legal regime for the economic activities in each FEZ. This involves a regulatory regime more favorable than usual. FEZs are created in the designated areas, which are covered by customs control and regulations in accordance with the Kyrgyz Republic's customs-related legislation. The residents work under the free customs zone regime.

3. The Rationale for Free Economic Zones

76. The process of creating FEZs in the Kyrgyz Republic started just after independence, in 1991, with the creation of the first such zone, in Naryn Oblast. Four more FEZs were established in 1993: in Alai, Chong-Alai, Kara-Kuldja, and Karakol. However, the first three of these were closed in 1998. The Bishkek FEZ was established in 1996, and the Maimak FEZ (in the Talas region) in 1997.

77. Initially, the government announced a large set of economic and social goals for these FEZs, including:

(i) export promotion and import substitution;
(ii) supplying the domestic market with high-quality goods produced domestically;
(iii) attraction of FDI and increased domestic investment through the creation of a favorable investment climate;
(iv) attraction of modern technology and management know-how;
(v) preservation and development of high-skilled labor through the introduction of modern technologies;
(vi) creation of new jobs;
(vii) economic recovery through increased demand for local raw materials, energy resources, and services;
(viii) increased state and local tax revenues; and
(ix) acceleration of the socioeconomic development of the country through the establishment of a modern industrial and social infrastructure.

78. However, as a result of the apparent absence of a coherent policy strategy concerning FEZs, which should not be developed in isolation from the economic development of the country as a whole, frequent changes in the FEZ legislation, and inadequate finance for FEZ infrastructure together with other country-specific constraints, the above-mentioned goals have, for the most part, not been achieved.

79. The latest FEZ was opened in Leilek in 2011. According to the government, the reason for its establishment was that it would slow the massive outflow of population from the border areas of the Batken region; reduce the threat of the loss of border areas; and counter the Batken region's remoteness, degradation, and underdevelopment. At the same time, the intent was to take advantage of the availability of raw materials (oil and gas reserves, quartz, and sand); the favorable geographical location for the development of border trade; and the close proximity to convenient transportation infrastructure,

which could facilitate exports (10 km from Khujand International Airport, 6 km from the Central Asian railway network, and 200 km from Tashkent). However, despite these advantages, Leilek FEZ never became operational.

80. Of the country's five FEZs (Bishkek, Naryn, Karakol, Maimak, and Leilek), only two of them—Bishkek and Naryn—maintain some level of operations, and only Bishkek is considered relatively successful. Until recently, Karakol was also functional. Due to a lack of financing, however, it could not pay for the installation of a fence around its perimeter, required under a new law, so its operations were suspended.

4. The State of Affairs in the Free Economic Zones

a. Bishkek Free Economic Zone

81. The Bishkek FEZ, which was founded in July 1995, is located in the Chui Valley, covering over 340 hectares (ha) of land. It consists of three sections: the National Exhibition Center (20 ha, in Bishkek), Ak-Chii (200 ha, 10 km from Bishkek, near Manas International Airport), and Kara-Balta (100 ha, 60 km from Bishkek).

82. The Bishkek FEZ General Directorate employs around 320 people out of which 30 are employed in administration; the rest are technical and maintenance staff. Recently, the Bishkek FEZ was reorganized. As of June 2017, the internal structure of the Bishkek FEZ consists of a number of units in charge of registration, finance, accounting, freight transport, and investment. The General Directorate relies on two sources of income: (i) payments for right-to-carry-out activities (with a 1% charge levied on resident companies' exports outside of the Kyrgyz Republic and a 2% charge on their sales to the domestic market); and (ii) rents paid by companies occupying premises and land in the zone.

83. Taxes are administered by the State Tax Service and customs duties by the State Customs Service, both of which have branch offices within the FEZ. Tax and customs preferences are provided in accordance with legislation under a special "free customs zone regime." These preferences include exemptions from the corporate income tax (CIT), VAT, and customs duties.

84. The Bishkek FEZ has experienced several waves of foreign investment, most notably the first one, in 1995–1996, and one in 2006–2007. At present, the FEZ has 1,300 registered residents. However, only 329 companies have gone through the re-registration process required by a new law. According to this new law, entrepreneurs must register first with the Ministry of Justice (which takes several days) and then with the FEZ General Directorate as FEZ residents. Previously, the registration of new residents was done independently by the FEZ General Directorate, and could be completed within four hours. The reason for the low interest of residents in re-registration, and the consequent decline in firms carrying out activities in the FEZ, is not so much the complexity of re-registration procedures, as the number of institutional and legislative changes discussed below.

85. Around 90 of the 329 FEZ residents are manufacturing companies, mostly specializing in construction materials, food products, or household goods. The rest are mainly trading firms. Of the manufacturing companies, 70%–80% have foreign shareholders, based in the PRC, India, Turkey, and other countries.

86. Currently, 68 out of the 340 registered companies are active in the Bishkek FEZ, and 68,9% of the goods produced in the zone are sold in the domestic market; only two or three of the companies in the zone export all of their output. Exports mainly go to other EAEU countries, with very little going to the rest of the world. In fact, the Bishkek FEZ sends 50% of its exports to Kazakhstan and the Russian Federation.

87. During the interviews with the Bishkek FEZ General Directorate done for this diagnostic study, three problems were identified as the most important: (i) uncertainty for investors caused by the frequent changes in the laws, including those concerning, excisable goods; (ii) unreliable supply of electricity (in 2012 - 2014 the FEZ had been experiencing power shortages but now the situation has improved); and (iii) the fact that accession to the EAEU has meant that FEZ residents exporting to Armenia, Belarus, Kazakhstan, and the Russian Federation will no longer benefit from customs and VAT tax preferences. However, residence in FEZ still results in some tax preferences, namely, the deferral of payment of customs duties and VAT tax (from when the raw materials or intermediate goods are imported into the zone to when the finished goods

leave the zone, and, in addition, if those imported raw materials and intermediate goods are substantially transformed in the zone, the customs duties and VAT that would have otherwise been levied on the finished goods), and exemptions from corporate income tax and property tax.

88. Since 2014, many companies that have been targeting the domestic market have ceased operations in the FEZs because they could not adhere to the restrictions on sales in the domestic market wherein the restriction on sales has changed repeatedly. Initially, there were no restrictions. Later a restriction was introduced requiring that only 30% of total FEZ production may be sold in the domestic market and this 30% was exempted from tariffs and taxes. As some of the residents found this restriction unfair, it was changed to impose a 30% domestic market sales requirement instead on each individual FEZ member. In 2014, however, the restriction for sales in the domestic market was lifted and replaced by a requirement that only 30% of sales in the domestic market are exempted from tariffs and taxes. Finally, as a result of a decision in June 2016 by the Eurasian Economic Commission's advisory committee on tax policy and administration, that 30% allowance was removed,[67] so FEZ residents are no longer exempted from tariffs or the VAT on sales to the Kyrgyz market. An exemption continues to apply temporarily to residents who came into the FEZ before 2000 and did not change their core activity. These residents are exempted from VAT on sales to the domestic market until the end of 2018. Nevertheless, the Bishkek FEZ has succeeded in generating 3,700 jobs; and despite the difficult circumstances, the zone managed to attract several new residents in 2015 and 2016. Three large new investors came in 2016. The biggest is New Tech LL – a manufacturer of solar batteries which was opened by the German concern "Schmidt." The factory started its operations in 2016 under a test regime. It is planned that 100% of the company's goods will be exported to Germany. Another large investor, Stalker Ltd, has started manufacturing LED lamps. The enterprise is oriented toward the EAEU market. The third large investor introduced American technology for diaper production. A company producing heating radiators and three other new projects are slated to start operations in the FEZ in the near future, which would create 600 additional jobs.

89. As far as future regulations in the EAEU are concerned, the laws on private business in the Kyrgyz Republic are much more liberal than in other EAEU-member countries, and this results in a potential advantage for local businesses.

b. Naryn Free Economic Zone

90. The legal territory of the Naryn FEZ actually extends to anywhere within the Naryn region, as this is the only FEZ in the Kyrgyz Republic where land plots anywhere in the region can obtain FEZ status. The main territory is only some 180 km away from the border city of Torugart, so the Naryn FEZ offers easier access to the western and central regions of the PRC. The Kyrgyz government is investing in the Naryn region's infrastructure by renovating the road to the Chinese border and by constructing a railway line from Kara-Keche (Djumgal district, Naryn region) to Balykchy (Issyk-Kul region)

91. Despite the difficulties, the General Directorate of the Naryn FEZ has been actively seeking cooperation with the PRC and its EAEU partners. A tripartite agreement was signed in 2015 to promote cooperation among the Vitebsk (Belarus), Kashgar (PRC), and Naryn economic zones. Cooperation with Belarus is especially important for several reasons: (i) it is a gateway to Europe, (ii) its more highly developed industrial sector enables possible technology transfers, and (iii) Belarus is interested in Silk Road transportation and logistics-center development. The Naryn FEZ is also seeking new avenues for industrial development, these efforts include cooperation with the Kashgar SEZ, which is in the Xinjiang Uyghur Autonomous Region of the PRC. In view of the Kyrgyz Republic's recent accession to the EAEU, the Naryn FEZ could act as a land bridge between Kashgar, on one side, and the Kyrgyz Republic's EAEU partners, on the other. Since the Kyrgyz Republic acceded to the EAEU, the Naryn FEZ has received several Chinese delegations interested in discussing possible investment opportunities. Moreover, representatives of the Naryn FEZ General Directorate were invited to

[67] The Eurasian Economic Commission is the permanent regulatory body of the EAEU, responsible for ensuring the EAEU's functioning and development.

Gomel (Belarus) for the Northern-Eastern Europe Free & Special Economic Zones Congress, organized by the World Federation of Free Zones (FEMOZA).[68] General Directorate representatives also visited two zones in Kazakhstan, where they noted that, while economic zones in the PRC and Kazakhstan have well-defined functions and specializations, in the Kyrgyz Republic the central authorities do not seem to have a vision regarding FEZ development.

92. The road to PRC was opened in 1993. However, real cooperation with Kashgar started only in 2009, after it had received the status of a special economic zone (SEZ). Since then, the Naryn FEZ General Directorate has made a number of visits to Kashgar to learn from its practical experience. In 2014, the Naryn FEZ General Directorate opened an office and a trading house in Kashgar. Many investors from Shanghai and other Chinese cities actively work in Kashgar, thereby providing opportunities for the Kyrgyz Republic that the Naryn FEZ hopes to exploit.

93. The Kyrgyz government decided to build a new transportation and logistics center on a 24 ha site in At-Bashi, near the Torugart checkpoint. The government also intends to create an industrial zone with FEZ status close to this center, and local authorities in Naryn have donated 200 ha of land for this purpose. Some Chinese and local investors expressed an interest in developing this transportation and logistics center via a public–private partnership (PPP), and the Ministry of Transport began implementing the project in 2016. As mentioned above (Chapter III, section B, Box 2) Naryn FEZ is expected to fall within the scope of Article 455 of the new Customs Code of EAEU which will allow it to open a free trade zone within the FEZ.

94. According to the Naryn FEZ's General Directorate, the following clusters are thought to have potential in Naryn: tourism; "green economy"; and key agricultural products, such as garlic, honey, meat, and dairy items. However, the issuance of certificates of conformity is a problem for potential investors in the region because, in order to obtain certificates for agricultural exports, they have to send product samples to Bishkek for laboratory tests.

95. This section on the Naryn FEZ has thus far described the zone's potential. Unfortunately, the current state of affairs in the zone is not very positive. In its prime, the zone had 24 residents from the PRC, the Netherlands, and the Russian Federation; and the number of jobs totaled 1,000. However, Kyrgyz legislation concerning FEZs has changed frequently, and the outcome has been a drastic decline in the number of the Naryn FEZ residents within just a few years: from nine residents in 2013 (with 65 jobs created), to seven in 2014 (29 jobs created), to three in 2015 (15 jobs created).

96. This shrinkage in the number of residents can be explained by several factors. The first involves the failure to develop export-oriented products. Although the above-mentioned 24 enterprises still exist, they are no longer reported as FEZ residents because they supply the domestic market only, and pay taxes on a regular basis. At the same time, these companies seriously reduced their operations in 2015, employing only 180 people altogether. A second factor involves a recent change in the law on FEZs; the law now requires prior registration with the Ministry of Justice. Having registered with the Ministry, not all companies have returned to re-register as FEZ residents, although several may still be in the process of doing so. The revised law also requires that the territory of FEZ members be equipped with fencing around their perimeters (no less than 2.3 meters high), barbed wire, a checkpoint, and video registration.[69] Although, the responsibility for providing basic infrastructure (including the fencing) is the responsibility of the government, in practice, the requirements were instead imposed on FEZ residents. These requirements involve additional expenditure that not all resident companies are willing to undertake, as they do not feel that the additional costs are worthwhile.

97. In 2016, however, the situation in the Naryn FEZ improved somewhat, compared with that in 2015. One of the largest residents, the "Renaissance" shoe factory, resumed its operations, created 160 jobs, and began cooperating with a local vocational school. Moreover, some of the other companies have renewed their registration with the FEZ.

[68] The actual name of this Geneva-based organization is the Fédération Mondiale des Zones Franches. The organization represents the interests of free zones, export-processing zones, and special economic zones around the world. http://www.femoza.org

[69] Until 2017 the legislation required equipping the whole territory of FEZs with fences. An exception was made in the case of FEZ Naryn, where only the sites of FEZ members had to be fenced as the territory of Naryn FEZ may be situated anywhere within the Naryn region. In February 2017, however, a new provision gave all FEZs the option of fencing off the whole FEZ territory or only the sites of FEZ members.

98. The Naryn FEZ is working with the German development organization Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)—which has been providing development aid to the Kyrgyz Republic in the areas of sustainable economic development, education, health, and support for civil society since the early 1990s—to develop a strategy for the FEZ. More specifically, GIZ is helping with the creation of a “single window” for land sales and leases, and with the creation of an information center in Naryn city that would serve as a public awareness platform and help local entrepreneurs develop their business plans. Since 2012, GIZ has been supporting the Naryn FEZ’s participation in international investment forums. A business forum for local entrepreneurs was held in a remote village in Naryn region. GIZ is also helping with student exchange programs, which were organized with Yekaterinburg (the Russian Federation) and Mogilev (Belarus). GIZ will further explore opportunities for industrial development in the region in light of its proximity to the PRC.

c. Karakol Free Economic Zone

99. Until 2011, the Karakol FEZ had two subzones, one on the southern edge of the town of Balykchy and the other to the west of the village of Ormok (on the northern shore of Lake Issyk-Kul), in Issyk-Kul Oblast. Then another subzone was added, this one in the village of Tamchy. The Karakol FEZ now occupies 500 ha of land in Balykchy, 780 ha of land near Ormok village, and 400 ha of land in Tamchy village. Of the three subzones, only the one in Balykchy has been developed, and that only partially. The other two have not been developed at all; this was for several reasons, among them the relative proximity to the coast, making it difficult to build there, and territorial disputes with some local residents who insisted that they held title to these lands. Balykchy has a spiked wire fence around the perimeter. The physical plant consists of a two-story office building and two factories. One of the factories was abandoned by investors due to the termination of production. The other factory was also vacated by the investors; prior to that, it had manufactured work gloves for export. According to the Karakol FEZ General Directorate, these investors relocated production to Kazakhstan. There is no infrastructure besides the above-mentioned facilities, whether in the form of roads, sewage, or landscaping. The single transformer that served the subzone’s needs had been bought by investors who had previously worked there, and was restored at their expense.

100. The Karakol FEZ basically stopped operations in 2014 because of its inability to pay for the sturdier fencing required by the most recent law on FEZs. Whether the February 2017 legislation, which relaxed this fencing requirement, induces operations in this particular FEZ remains to be seen.

d. Leilek Free Economic Zone

101. There had been little development in the Leilek FEZ since its establishment in 2011. The zone was created on a vacant lot, initially with some support from the government in the form of an investment and a loan. However, basic infrastructure is still lacking, and there is no water or electricity. Like all the other zones, the Leilek FEZ works on self-financing principle, so it is not dependent on government funding. Unsolved border issues with Tajikistan have deterred potential foreign investors. Local investors have shown little interest, as they are presumably waiting to see how the site is developed. Despite the current difficulties, however, the zone may have some potential once the basic infrastructure has been built.

e. Maimak Free Economic Zone

102. The Maimak FEZ occupies a fenced area of 150 ha. Basic electricity and water infrastructure is in place. Otherwise, like the Leilek FEZ, this zone has its problems. There has been zero funding from the state until 2016. The zone has several residents, but they have not been registered as residents of the FEZ. These residents appear to be mostly active in international trade; however, they work through businesses in third countries, and do not themselves physically import or export goods. In 2016, a manufacturing company was set up and registered in the zone. However, it is too early to see whether it will benefit from its FEZ resident status.

4. Laws, Decrees, and Other Legislation regarding Free Economic Zones

103. The following laws regulate the activities of FEZs in the Kyrgyz Republic:

(i) Government Decree of the Kyrgyz Republic “On the Order of Creation, Reorganization and Liquidation of Free Economic Zones in the Kyrgyz Republic,” dated 12 March 2002, No. 133;
(ii) The (new) Law of the Kyrgyz Republic “On Free Economic Zones in the Kyrgyz Republic,” dated 11 January 2014, No. 6; with the latest addition on 30 December 2014 No. 177;

(iii) Government Decree of the Kyrgyz Republic, "On Approval of Provisions on Free Economic Zones Bishkek, Karakol, Leilek, Maimak and Naryn of August 1, 2014 No. 431," dated 1 August 2014, No. 431 (a provision is developed for each FEZ);
(iv) The Law of the Kyrgyz Republic "On Customs Regulation in the Kyrgyz Republic," dated 31 December 2014, No. 184 (effective from the date of accession to the EAEU);
(v) "The Order of Registration of Legal Entities as Free Economic Zone Residents," adopted by Government Decree of the Kyrgyz Republic dated 1 August 2014, No. 431;
(vi) Decree of the Government of the Kyrgyz Republic "On the Instructions for Customs Control of Goods in Free Economic Zones," dated 4 September 2014, No. 524;
(vii) Tax Code of the Kyrgyz Republic, dated 17 October 2008, No. 230;
(viii) Government Decree of the Kyrgyz Republic on the Requirements regarding the Arrangement of the Territory of the Free Economic Zones of the Kyrgyz Republic, dated 16 June 2014, No. 332; with the latest addition on 6 February 2017, No 73;
(ix) Government Decree of the Kyrgyz Republic on Amendments and Additions to the Resolution of the Government of the Kyrgyz Republic "On Approval of Provisions on Free Economic Zones Bishkek, Karakol, Leilek, Maimak, and Naryn of August 1, 2014 No. 431," dated July 8, 2016 No 376;
(x) Agreement of Customs Code of EAEU, signed by the presidents of EAEU member-states on April 11, 2017 (expected entry into force on January 1, 2018) and
(xi) various international treaties signed by the Kyrgyz Republic.

5. Corporate Governance

104. Corporate governance in the FEZs of the Kyrgyz Republic is complex. The FEZs are controlled by government regulations, including orders of creation, reorganization, and liquidation.[70]

105. In accordance with government regulations, the local state administration or the local self-governing body that is planning to create a FEZ within its territory is required to undertake a feasibility study, which must include:

(i) the goals of the FEZ,
(ii) rationale for its establishment,
(iii) justification for the land allocation and its features,
(iv) prospects and program of FEZ development,
(v) resources needed to create the FEZ,
(vi) institutional arrangements for the establishment and functioning of the FEZ, and
(vii) an ex ante evaluation of the likely effectiveness of the FEZ.

106. After the receipt of approval from the local council, the body looking to establish a FEZ— whether the local state administration or the local self-governing body— is obliged to send a proposal for the creation of the FEZ, along with the feasibility study, topographic maps, and the conclusions of an environmental impact assessment, to the central government.

107. The central government then asks an authorized state body (e.g., the Ministry of Economy) to examine the proposal for the FEZ's creation.

108. After examining the proposal, the authorized state body develops and submits to the government a draft law on the establishment of the FEZ in accordance with Article 58 of the Constitution of the Kyrgyz Republic. The government then submits the proposed law to Parliament.

109. After Parliament's approval, the central government establishes the General Directorate of the FEZ and gives an order to the authorized state body to develop a provision on the FEZ. The central government then approves the provision on the FEZ within a month.

110. When making a decision on the creation of FEZ, the following conditions are taken into consideration:

(i) the forecast impact of FEZ activities on the economy of the FEZ's region,

[70] Decree of the Government of the Kyrgyz Republic "On the Order of Creation, Reorganization and Liquidation of Free Economic Zones in the Kyrgyz Republic," dated 12 March 2002, No. 133.

(ii) economic and geographic conditions,
(iii) availability of infrastructure,
(iv) sources of FEZ funding,
(v) system of benefits provided to the FEZ residents,
(vi) availability of raw materials and skilled labor,
(vii) economic and political stability in the country and in the FEZ's region;
(viii) currency and customs controls and the level of state control over the activities of foreign companies;
(ix) stability of the financial system; and the
(x) the guarantees for the protection of investments.

111. After the creation of the FEZ, the authorized government body has the sole responsibility for state policy regarding the FEZ, as well as control over the coordination of the FEZ's development and over the performance of the FEZ's executive body (i.e., the General Directorate). However, all important decisions concerning the FEZs are made by the Prime Minister, including those regarding the recruitment of a general director and his or her deputies. Ministries, state committees, administrative departments, and other state bodies act in coordination with the General Directorate of a FEZ if their decisions involve questions of FEZ competence. Cases of conflict are resolved by the central government. Figure 2 demonstrates the steps involved in the establishment of a FEZ.

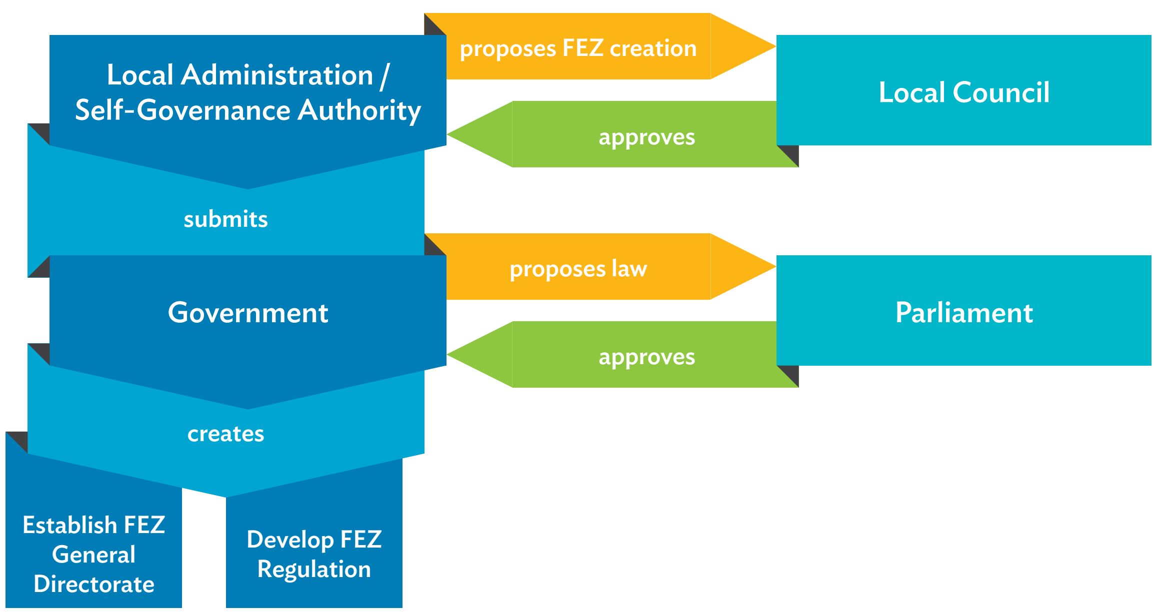
6. Administrative Procedures

a. The Special Legal Regime of Free Economic Zones

112. FEZs are created in designated areas. These areas are not separate customs territories, but integral parts of the customs territory of the Kyrgyz Republic. Consequently, FEZs are subject to customs control and customs regulations in accordance with the relevant legislation of the Kyrgyz Republic. The customs authorities thus have the right of unimpeded access to FEZs for the purpose of customs control. However, FEZ residents are placed under a special "free customs zone regime."

113. Under this regime, the residents of FEZs may place and/or use goods within FEZ territory without paying customs duties or taxes, and without being subject to tariff and nontariff regulations on foreign goods or to prohibitions and restrictions on domestic

Figure 2: Establishment and Corporate Governance of Free Economic Zones in the Kyrgyz Republic



FEZ = free economic zone.
Source: Asian Development Bank.

goods (Table 2). Goods and services delivered to a FEZ from the domestic market are not considered exports, and so do not qualify for duty drawbacks or tax rebates. FEZ residents can carry out production and other economic activities on the territory of their FEZs in accordance with the rules concerning the use of goods in the EAEU and foreign goods. The free customs zone regime ends when the resident chooses to release goods from the territory of its FEZ. Depending on the degree of processing, the goods released from the territory of the FEZ receive the status of EAEU or foreign goods. The goods are considered to be produced within the territory of the FEZ if they have been fully manufactured or subjected to sufficient processing in accordance with the criteria established by the customs legislation of the Kyrgyz Republic and by the Agreement on the Free (Special) Economic Zones on the Customs Territory of the Customs Union. The specifics concerning the payment of customs duties and taxes at the completion of the free-customs-zone procedures are determined by the EAEU Agreement on the Free (Special) Economic Zones, the EAEU Customs Code, and local customs legislation; they also depend on the status of the imported foreign goods (EAEU or non-EAEU) and the destination (Kyrgyz Republic, EAEU countries, or non-EAEU countries). The rules regarding the application of customs duties and the value-added tax (VAT) levied on imports are provided below: :

114. When the finished goods are sold in the Kyrgyz market:

(i) Residents who registered in a FEZ before 2000 and have never changed their core activity pay VAT or import duties on intermediate goods that have undergone sufficient processing according EAEU criteria, and have acquired the status of EAEU goods (the preference is valid until the end of 2018).
(ii) Residents who registered in a FEZ after 2000 do not pay the VAT and import duties on goods that have undergone sufficient processing according EAEU criteria, and have acquired the status of goods under the Unified Energy System of Central Asia.
(iii) All residents pay the VAT and import duties for intermediate goods that have not undergone sufficient processing.

When the finished goods are sold in other EAEU countries:

(i) Whether the residents registered before or after 2000, there are no exemptions from the VAT and import duties on goods imported into the FEZs and used in the manufacture of exports.
(ii) If a resident can identify the imported components of its goods, the VAT and import duties will be paid only for the imported components.

When the finished goods are sold in non-EAEU countries:

(i) The residents will enjoy full exemptions from the VAT and import duties.

For the purposes of customs control and regulation, the territory of the FEZs should be equipped and protected in such a manner as to ensure customs control. As mentioned above (Chapter IV, Section 4, subsection b), until recently, the legislation required fencing off of FEZ territory. An exception was accorded to FEZ Naryn where only the sites of FEZ members had to be fenced as the territory of Naryn FEZ may be situated anywhere within Naryn region. However, in February 2017 an addition to the corresponding governmental provision extended to all FEZs the right to equip only the territory of the sites of FEZ members. This requires, among other things, checkpoints and adequate fencing around the perimeter of the location; and that the fence must be a continuous structure of reinforced concrete, brick, metal, or a combination of these materials, with a minimum height of 2.2 meters. Provision of the required technical equipment and fencing is the responsibility of the FEZ's General Directorate. However, in some cases, FEZ members are required to equip and protect their own premises for the purpose of ensuring customs control.

As described above (Chapter III, Section B, Box 2), from the date of entry into force of the Customs Code of the EAEU (which is expected to be January 2018) special conditions for selected free (special) economic zones of Member States which are described in Article 455 of the Code "Peculiarities of the application of the customs procedure of a free customs zone in individual FEZs of member states" will be enforced. In the zones, which fall under the scope of this Article, in relation to goods placed under the customs procedure of the free customs zone and (or) goods manufactured (received) using goods placed under the customs procedure of the free customs zone, along with other operations, the consumption of goods other than their expenditure in the performance of operations for processing of goods is permitted. Article 455 also stipulates that, in some cases, the peculiarities of customs procedures for port or logistics zones maybe used within the territory of the zones that fall under the scope of Article 455. In other words, not only residents of FEZ but also other legal entities may place their goods under the free customs regime provided they have a service agreement with a FEZ resident. These peculiarities open an opportunity for duty and tax free trade on the territory of these FEZs and to initiate logistics operations. The Kyrgyz government has not made its final decision on the selection of the zone where Article 455 will be applied. However, the expectation is that FEZ Naryn will be selected.

b. The Roles of Key Stakeholders in Free Economic Zones

115. The responsibilities of the General Directorate of a FEZ include: the management of the FEZ (in accordance with government policies); facilitation of the activities of FEZ members; registration (or deprivation of status) of FEZ legal entities; decisions on eligibility and conclusion of contracts, on the terms and conditions of activities in the FEZ; representation of the interests of FEZ residents when interacting with government agencies, local authorities, organizations, and institutions regarding the activities of the FEZ; and the promotion of the FEZ in the Kyrgyz Republic and abroad.

116. Prior to registration with the FEZ, applicants must register as legal entities (in any form of incorporation, such as a joint stock company, limited company, or individual entrepreneur) with the Ministry of Justice and with other state authorities (tax, statistical, and state social insurance). They must then provide the following documents to the General Directorate of the FEZ: a copy of the state registration or re-registration certificate; copy of the taxpayer's registration form; copy of the constituent documents; and a business plan. Although there is no "one-stop shop," in the case of re-registration of existing residents, the General Directorate writes a "petition" on their behalf to the relevant authorities. Without this petition, residents cannot be re-registered. The General Directorate then provides information about the registration of the resident to the Ministry of Justice, and to the tax, customs, and statistical agencies; the state social insurance authority; and the banking supervisory authorities.

117. If the resident is interested in loans from local banks, they also need to register with the Department of Cadastre and Registration of Real Estate Rights, under the State Registration Service, rental contracts for more than 5 years and the property built on the rented land. Consequently, investors now have to deal with one more government agency instead of a single authority (the FEZ General Directorate). Registration procedures have thus become more cumbersome. (the General Directorate petitions the authority in order for the applicants to obtain approval.)[71]

118. The creation and development of FEZs (including their basic internal infrastructure) and the costs associated with their operation (notably the management costs incurred by the General Directorate) are financed from the FEZ's own budget, the budgets of the central or local governments, or from other sources not prohibited by Kyrgyz law.

119. Mandatory payment by residents for the right-to-carry-out activities in the FEZ is determined by governmental regulations for each FEZ individually. It is set at 1% of the proceeds from the sales of goods, works, and services exported or sold in the Kyrgyz market. An exception is Bishkek FEZ where the mandatory payment from the sales of goods and services in the Kyrgyz market is set at 2% and the mandatory payment from goods and services sold outside of the Kyrgyz market (EAEU or export outside of EAEU) is set at 1%. These mandatory payments are differentiated depending on the destination of goods and not depending on the services provided by the FEZ Directorate (such as infrastructure provision and management). Nonetheless, FEZs do work on the principle of self-financing and develop internal procedures concerning(i) the accumulation and disposal of these compulsory payments, (ii) the allocation of these financial resources, (iii) the costs incurred by the General Directorate, and (iv) the General Directorate's cost-effectiveness. FEZ

[71] Other assistance provided by General Directorate to applicants in connection with the documents needed to obtain such approval includes the provision of maps, schemes, and designs, insofar as these are available, as in instances when the premises were previously rented to someone else and, in the case of a sublet, the previous tenant's scheme remains in force.

Directorates adopt annual plans for the development of FEZs, which have to be shared with the authorized state body exercising the functions of developing the state policy for the operation of the FEZ.

120. The General Directorate of a FEZ makes an annual contribution to the local government budget in the amount of 0.01% of revenue. An annual contribution to the central government budget was introduced in 2016 by the Government Decree No 376. Taking into account the level of development of each FEZ, the annual contributions to the central government budget were set at 0,01% of revenue for FEZ Maimak, FEZ Leilek and FEZ Karakol. For FEZ Naryn, the amount was increased to 0,1% of revenue; for FEZ Bishkek is was set at 2% of revenue.

B. The High Technology Park

1. The Definition of a "High Technology Park"

121. The High Technology Park (HTP), which is the country's first (and only) such facility, was created in January 2013. It has its own regime for legal and physical entities that are registered as residents and carry out their activities in accordance with Article 4 of the Law of the Kyrgyz Republic "On the High Technology Park of the Kyrgyz Republic."[72] The HTP is extraterritorial in nature, so its regime may apply to any Kyrgyz entity that is eligible under Article 4 and is registered.

122. The HTP regime is a special legal and tax regime applied to HTP residents, and it is valid for 15 years from the HTP's establishment—that is, until 2028.

2. Rationale for the High Technology Park

123. Article 4 of the Law "On the High Technology Park" prescribes the following activities for the park:

(i) the development of software,[73]
(ii) export of information technology and software, and
(iii) creation of interactive service centers and the provision of their services.

124. The government's rationale for the creation of the HTP was stated as follows: to create new jobs and thereby stop the outflow of highly qualified specialists, to export services and to quickly and efficiently serve customers from abroad, to ensure the inflow of investment from abroad, to increase the number of highly qualified specialists in the field of information and communication technology, to improve public education in the field of information technology (IT), and to facilitate the introduction of "electronic government."[74] Accordingly, the Law grants incentives to software developers.

3. The State of Affairs in the High Technology Park

125. The HTP hosted its first residents in November 2013, and by the end of that year, it had three residents employing 55 people. In 2014, there were eight residents and 106 employees; in 2015, this rose to 13 residents and 111 employees. By the end of 2016, the HTP had 27 residents employing 250 people.

126. The HTP currently has 31 registered companies, most of which are active in the field of software development. Two of them have foreign shareholders (from Hong Kong, China and Kazakhstan). Four companies offer services as call centers. The registered companies' products and services are exported to Kazakhstan (39.91%), the United States (31.92%), Japan (8.02%), the Russian Federation (2.61%), Hong Kong, China (1.65%) and others. Most of these companies' income is derived from their sales of IT services.

127. In 2015, when total employment amounted to 100 people, the park generated $1 million in revenues (mostly from exports). By the end of 2016, the HTP had exceeded its target of $2 million in annual revenues and reached $3 million. Its competitive advantage is the readiness of its residents to take small orders that are of little, if any, interest to large international IT companies. The park has also initiated

[72] Law of the Kyrgyz Republic "On the High Technology Park of the Kyrgyz Republic," dated 11 July 2011, No. 84.

[73] This includes the analysis, design, and programming of information systems, including ready-for-implementation analysis of information needs and problems; and the design, development, delivery, and documentation of software, including meeting the orders and adjusting programs as directed by specific customers.

[74] Interestingly, during the team's discussions at the HTP, it was mentioned that the 80% export requirement prevents IT companies in the HTP from taking part in the development of e-government in the Kyrgyz Republic. This was the main argument in favor of relaxing, if not eliminating, the export requirement.

cooperation with some educational institutions. Over the years, with a view to preparing future specialists and enhancing its own labor resources, the HTP has initiated and developed cooperation with a number of educational institutions, where the HTP residents can seek qualified specialists and the educational institutions benefit from on-the-job training opportunities for their students. Such cooperation contributes to the achievement of the HTP mission by improving public education in the field of information technology (IT), thereby increasing the number of highly qualified specialists in the field of information and communication technology in the country.

128. Attracting new residents is apparently not an easy task, given the fact that tax compliance among IT companies and specialists is low. However, with the Kyrgyz Republic's accession to the Customs Union, the sector will experience more control from the authorities over its taxation.

129. The HTP legislation was the first such example in the Kyrgyz Republic where the legislation was initiated and drafted by the private sector.

130. The managers of HTP-resident companies are mainly people under 30 years of age. This creates two risks: (i) although they may be good IT specialists, they generally lack strategic planning experience and have little knowledge of organizational development; and (ii) being very young, both managers and their staffs are very mobile, and might consider emigration at any time.

131. With regard to cooperation within the EAEU, there are still some problems that need to be solved. For example, in violation of EAEU principles, the Russian civil service has ruled that public procurement of IT services may only be from domestic companies (within the Russian Federation), to the detriment of the Kyrgyz IT industry.

4. Laws, Decrees, and Other Legislation regarding the High Technology Park

132. In addition to the Law "On the High Technology Park," the operations of the HTP are regulated by a government resolution on the creation of the High Technology Park,[75] the Tax Code, and other relevant legislation of the Kyrgyz Republic.

5. Corporate Governance

133. The operations of the HTP is overseen by the Supervisory Board, which consists of three members appointed by Parliament, three members appointed by the Prime Minister, and three members appointed by an association of software designers. The chairman of the steering committee is appointed by the Prime Minister from among its members. The committee appoints and dismisses the director of the HTP, approves the HTP's budget, and manages the final registration of residents and residence cancellations. Day-to-day management is done by the HTP Directorate, which is headed by the director of the HTP.

6. Administrative Procedures

134. The HTP's "expert board" makes the decisions regarding the eligibility of candidates for HTP membership, and the main criterion for membership is that at least 90% of a candidate's revenues must come from prescribed activities. Prior to registering as HTP residents, candidates have to register as legal entities (again, in any form of incorporation) with the Ministry of Justice and with other authorities (the tax inspectorate, statistics committee, social insurance). Registration with the HTP is confirmed by a certificate that provides the basis for the park resident's exemptions from taxes and social charges.

135. Registration is granted initially for a 6-month period, during which the activities of the resident company are checked against the conditions and requirements attached to residence in the HTP. After this period, the company receives a permanent registration, provided its activities were in line with the conditions prescribed by the Law "On the High Technology Park." After 18 months have passed since the initial registration, an audit is performed to ensure that the results of the activities are in accordance with the provisions of the Law "On the High Technology Park." In particular, 1 year after the date of final registration, at least 80% of the goods and services produced should be exported and/or at least 80% of the income of an HTP resident should be earned as a result the export of goods and services. It remains to be seen whether sales to the EAEU market will be enough to satisfy the requirement that the residents export 80% of their goods and services.

[75] Resolution of the Kyrgyz Republic "On the Creation of the High Technology Park in the Kyrgyz Republic," dated 2 May 2012, No. 267.

C. Industrial Production Zones

1. The Definition of an "Industrial Production Zone"

136. An industrial production zone (IPZ) is a set of properties managed by a single operator (the management company) and consisting of a plot of land with industrial, administrative, warehousing, and other facilities and structures, as well as energy sources and engineering and transport infrastructure. And there should be a legal and regulatory framework for fostering production and organizing effective industrial activities.

137. Following international practice, the draft law divides IPZs into three categories: greenfield, brownfield, and integrated. Areas of specialization within each new IPZ will be defined by the agreement on the establishment of the zone.

2. The Rationale for Industrial Production Zones

138. The idea of dedicated industrial zones is new for the Kyrgyz Republic. The government's rationale for IPZ development is as follows:

(i) It will ensure long-term, stable, and favorable conditions for investments in specific activities within each IPZ.
(ii) The IPZs will meet the investors' demand for modern sites ready to host production facilities and business development.
(iii) Modern high-tech, knowledge-based industries will emerge, producing internationally competitive products that meet international standards.
(iv) IPZ development will result in the creation of new import-substituting and export-oriented industrial products, as raw materials are processed to a greater degree.
(v) IPZs will create high-paying jobs through improved industrial productivity.
(vi) They will reduce the costs of the general infrastructure needed for industrial production.
(vii) IPZs will help their resident companies by promoting the restructuring and greater efficiency of large industrial enterprises, and by boosting the development of small and medium-sized manufacturing and innovative businesses.
(viii) They will increase the Kyrgyz Republic's tax base.
(ix) There will be more business growth and mergers in the industrial sector.

139. Given the low level of industrial development in the Kyrgyz Republic (at independence the country had 1970s technologies and 1980s levels of education), gaining know-how and new technologies is of great importance to the country.

140. The goal of revitalizing Kyrgyz industry using IPZs will be achieved through two strategies: (i) diagnostics of the old enterprises, which are to be rehabilitated; and (ii) financial calculations and the preparation of development plans, including those for new greenfield industrial zones.

141. The government is trying to coordinate its work on IPZ development with its measures for achieving the country's energy independence. New energy-generation capacities will be put into operation (e.g., the rehabilitation of Bishkek power station). The National Energy Holding is implementing several projects to increase energy-generation capacity, including the development of renewable energy. The government has acknowledged that the lack of reliable power is partly due to the low prices charged for electricity in the Kyrgyz Republic, which constitute a deterrent to investment in such basic infrastructure, even though the internal rate of return on investment in electricity generation (and paved roads) is 14%–39%.

142. The country also needs to restore ties with other EAEU states. Fortunately, some EAEU investors have shown an interest in the Kyrgyz Republic; however, the Ministry of Energy and Industry which has recently been transformed into the National Energy Holding, had to decline some promising offers because the power requirements of the proposed investment projects exceeded the country's available energy capacity.

143. The competitive advantages of the Kyrgyz Republic upon entry into the EAEU included: low average wages ($235.00 per month, which is one-fourth of the rate in Kazakhstan and one-third that in the Russian Federation), low prices for electricity ($0.02 per kilowatt hour, one-third the rate in Kazakhstan), and lower taxes than in Kazakhstan and the Russian Federation. Moreover, according to the Investment and Trade Promotion Agency, under the Ministry of Economy, the level of general education

in the country is quite high. Primary and secondary schools are of good quality, and there are institutions for vocational training.

144. So far, no assessment has been made regarding the possible number of IPZs to be built. The government is considering two greenfield zones for future development: an 80-hectare (ha) site near the city of Tokmok (60 kilometers [km] from Bishkek) and a 40.75 ha site in the village of Voenno-Antonovka (13 km from Bishkek), for the construction of a textile "technopolis." Regarding possible brownfield IPZs, the government is considering the Bishkek Machinery Plant (formerly known as the "Lenin Plant") and an old silica plant (called "Crystal"), both located in the town of Tash-Kumyr, Djalalabat Oblast.

145. Some government authorities, including the Ministry of Economy and the Bishkek municipal government, are considering the abandoned industrial areas in the eastern part of Bishkek (known as the "Eastern Industrial Zone" in the Soviet times) as a venue for a future IPZ. The factories and plots there were privatized as part of the country's 1990s reforms. From the Bishkek authorities' point of view, this area has the appropriate infrastructure, including connections to the railway network and a relatively dependable power supply. Nearby residential areas would add to the attractiveness of the zone. The nationalization of land and buildings in this area for IPZ development could be problematic, however; and neither the ministry nor the city government has experience in nationalization. But other forms of cooperation with the current land users might be envisaged. Nevertheless, it should be noted that the municipal electricity, water, and sewerage capacities are inadequate for meeting the growing demand, though serious work is being done to attract investment in the development of this infrastructure, including public–private partnership (PPP) schemes and other means of involving the private sector.

146. Among the main obstacles to attracting foreign direct investment (FDI), the Investment and Trade Promotion Agency mentioned the difficulty of obtaining land for investment projects. Still, there are some local private investors who, on their own initiative, have started drawing up master plans for industrial and logistics areas. An Asian Development Bank (ADB) mission met one of these investors, who is planning to allocate 230 ha for a logistics park, with 170 ha allocated for industrial development.

147. Other obstacles are related to the acquisition of licenses and permits, including permits to use utilities such as water and electricity. Much work still needs to be done to introduce a single-window system, as the system now in place is only partly computerized: the customers' input is done by computer, but all the bureaucratic work by the public authorities is done the traditional way.

148. As far as the private sector is concerned, the main questions regarding IPZ development are related to zone management and operational procedures, including those for land acquisition. IPZs will include a "one-stop shop" for all matters, including laboratory work and product certification; they will be connected to educational institutions; and they will develop their own marketing strategies. IPZ operators will be able to offer investors full and reliable land titles, along with all the required preliminary construction permits.

149. Whereas at present, the FEZ regime is mainly based on incentives, it is expected that the IPZs will provide streamlined procedures, preferential treatment with regard to utility services, and the facilitation of foreign labor recruitment, among other benefits.

150. Private sector representatives have expressed their skepticism regarding the government's plans for revitalizing old industrial enterprises. In the opinion of the Chamber of Commerce and Industry of the Kyrgyz Republic, local enterprises could certainly serve as second-level companies in value chains, but to catalyze industrial development, the country would need large foreign investors to serve as primary value-chain companies. This opinion, however, is not shared by all representatives of the private sector. In any case, higher productivity could only be achieved step by step.

151. To summarize, the private sector will need clear rules, stable and infrequently changed legislation, a clear development strategy, and public–private dialogue. From this perspective, an accelerated implementation of the law on IPZs might be premature. In addition, it was recommended that the PPP mechanism be used for the development of IPZs, and that a higher degree of private sector participation be made possible in the management of the existing FEZs.

Box 3: Background of the Proposed Industrial Production Zones

In the Kyrgyz Republic, manufacturing accounts for 35% of the gross domestic product (GDP). The government is currently implementing a program (from 2017-2021) to develop the garment industry (during 2016–2018), and a program to develop food and processing industries

The garment-and-textile-industry and agricultural value chains are two important clusters for the country. The agri-processing sector constitutes 13% of the country's total industrial production, and is currently exempted from the value-added tax (VAT). The textile industry, which constitutes 3.0% of total industrial production, generally works on a "patent" basis(a form of fixed tax confirmed by the purchase of a certificate), though many producers are still in a grey zone. As for the VAT system within the Eurasian Economic Union (EAEU), importers will need the VAT to be paid by the exporting company. To date, only a limited number of companies in the Kyrgyz Republic are obliged to pay the VAT.

Raw materials and equipment are mainly imported (60% from the People's Republic of China [PRC]). For this reason, during its accession to the EAEU, the Kyrgyz Republic insisted that a number of preferences be given to imported raw materials for the textile sector. But it was later realized that, although the preferences would reduce input costs, exports to Kazakhstan and the Russian Federation would become more expensive due to customs duties, so the textile industry refused to accept the preferences. More than 50% of the textiles and garments produced in the Kyrgyz Republic are exported to Kazakhstan or the Russian Federation. Good opportunities are provided by public procurement orders from various ministries of these countries.

According to the government, the main problem faced by the garment and textile-industry is shortage of good seamstresses and qualified technologists. Training of seamstresses is provided by various vocational schools in the country backed by the Agency for Primary and Secondary Professional Education under the Ministry of Education and Sciences. Two universities teach technologists for the sector but it is still suffering from shortage of staff. It is estimated that the sector currently employs 150,000 people. However, according to the State Committee of Industry, Energy and Subsoil this figure is an underestimate.

The textile industry in the Kyrgyz Republic receives support from various donors, including the United States Agency for International Development (USAID) and the Gesellschaft für Internationale Zusammenarbeit (GIZ). USAID is helping local textile and garment producers find new markets in Kazakhstan and the Russian Federation. Having concentrated most of their sales in bazaars, and accustomed to dealing directly with their buyers, who came to the bazaars, local producers did not notice that trade in Kazakhstan and the Russian Federation had shifted from bazaars to retail chains. USAID addresses this issue by helping Kyrgyz producers build relations with Russian retail chains. Similarly, to reduce the costs of raw materials, new channels for raw material purchases need to be developed (switching from bazaars to direct purchases from suppliers).

The economic crisis in the Russian Federation, along with devaluation of Russian ruble and Kazakh tenge, has had a negative effect on the economy of the Kyrgyz Republic. By and large, the Kyrgyz government does not provide subsidies to its industries, and thus runs a great risk, given that Kazakhstan and the Russian Federation heavily protect their industries. While agriculture and agro-processing have enjoyed some support (i.e., low-interest loans for amounts exceeding Som1 billion), other industries have not had such privileges. Great hopes were attached to the Kyrgyz–Russian Development Fund. However, the Fund provides financing for equipment only, not for working capital.

Source: Asian Development Bank.

4. Laws, Decrees, and Other Legislation regarding Industrial Production Zones

152. The draft law on IPZs was expected to be adopted in 2016, after the completion of a regulatory impact assessment. In the meantime, however, the responsibility for its development was transferred to the Investment and Trade Promotion Agency, which has welcomed the active participation of the private sector and introduced some significant changes in the draft law, including its renaming as the Law "On Industrial Production Zones." As of June 2017, the draft law was distributed among the governmental stakeholder institutions for feedback and comments. Questions concerning IPZ activities and resident registration will be regulated by this law, as well as by tax legislation, customs legislation, a government decree regarding the creation of IPZs, other normative legal acts of the Kyrgyz Republic, and international treaties to which the Kyrgyz Republic has acceded.

5. Corporate Governance

153. An IPZ can be created within an agreed territory on the initiative of the executive authorities of the Kyrgyz Republic; local governments; and interested individuals who are property owners, landowners, land users, or tenants of land proposed for the creation of the IPZ, as well as owners of other real estate.

154. The government will designate an authorized public executive body to be in charge of the coordination, establishment, and operation of the IPZs. This authorized body will maintain a state register of all the planned IPZs in the country. The decision to establish a particular IPZ is made by the government on the basis of an application submitted by the "initiator"(which could be a central government authority, a local government, or a legal or actual person who is exercising the right of land ownership or lease), along with a business plan for IPZ development, a confirmation of the availability of financial resources for its implementation, and an application for land provision if the land belongs to the state or to a municipal authority. If the application is approved, the authorized body concludes an agreement with the initiator on the establishment of the IPZ.

155. The IPZ management company is registered in the form of open joint stock company whose shares are available to all interested investors. This company is responsible for the development of the IPZ—that is, the planning, design, and construction of the zone's facilities—and for the organization of utility services, implementation of the IPZ business plan, the IPZ's operations, and the recruitment of new residents.

156. The legal status of IPZ residents is acquired through registration with the management company, based on the resident's application and accompanying business plan, legal registration documents, and a certificate of absence of tax arrears.

157. IPZ operations are directly overseen by a steering committee, which is a consultative body consisting of actual residents of the zone. The steering committee approves IPZ strategies, the rental rates for IPZ properties, and the annual reports of the management company.

a. Requirements regarding Land and the Conditions for Its Use

158. Any land to be given to a new IPZ must have already been allocated for industrial, transport, defense, or other suitable uses (i.e., it cannot be categorized as agricultural land). It must be suitable for industrial use; have boundaries; not be subject to a court dispute; have the legal rights properly registered; and, if it is state or municipal land, must be made available for not less than 49 years. The use of land within the IPZ must comply with sanitary-epidemiological and ecological requirements.

159. IPZs may be created on state, municipal, or private land; and they may be created on land belonging to one or several municipalities. If production facilities and infrastructure already exist in the territory, this will not preclude the creation of an IPZ. If two or more residents want the same plot of land, the management company will be obliged to conduct competitive bidding.

160. The proceeds from the sale of municipal or state land within the territory of an IPZ are transferred to those authorities in accordance with the law. If an IPZ is to be established on vacant land, the authorized government representative will be obliged to comply with all the procedures for excluding this land from other land categories, including procedures for obtaining an exemption from transformation fees. During the process of allocating and transferring land to IPZ construction, the applicant is actually exempted from all state fees. Finally, the process of allocating and transferring land to IPZ construction is to be streamlined.

b. Government Support and Streamlined Regulations and Procedures

161. The government may provide support to IPZ residents, and to the management company, as well. Such support could include information and consultations, transfer of state property on a lease basis, and public procurement from IPZ- resident businesses.

162. To stimulate the activities of IPZ residents, the draft law envisages the following benefits:

(i) information and consultation support to management companies and residents, including assistance with the development of foreign contacts;
(ii) a reduced rate of income taxes (i.e., to 5%) for 5 years for management companies and IPZ residents;
(iii) the leasing of state and municipal property to management companies and residents of IPZs on preferential terms;
(iv) full or partial exemption from taxes on property and land for 5 years from the date of registration as a resident of an IPZ;
(v) a reduced rate of social insurance taxation (i.e., 10%) for resident companies;
(vi) preferential tariffs for water, energy, gas, and heating;
(vii) an annual quota for the hiring of foreign laborers; and
(viii) in the case of tax arrears, possible permission for the gradual repayment of the debt.

163. The following streamlined regulations and procedures are envisaged in the draft IPZ law:

(i) a simplified system of tax and social charge administration, and unified quarterly reporting to the tax authorities;
(ii) regular checks, at most every 5 years, by the tax, social fund, customs, antimonopoly, communications, energy, and financial-market regulatory authorities;
(iii) the designation of a "low-risk group" with regard to the regular checks by these government authorities;
(iv) regular inspections conducted in the presence of the IPZ management company, with prior written notification to the residents and the management company;
(v) the prohibition of raids;
(vi) simplified processes for the allocation of land and its adaptation to industrial use;
(vii) simplified procedures through which the IPZ management company and residents can obtain visas for foreign employees, including highly skilled specialists;
(viii) simplified procedures through which IPZ management companies and residents may obtain construction permits;
(ix) support for scientific research; and
(x) a free-entry regime for service providers that are located in IPZs, but do not have resident status.

c. Institutional and Legal Implications for the Industrial Production Zones of Accession to the Eurasian Economic Union

164. The development of industrial parks (IPs) in the member countries of the EAEU is envisaged by the "Main Directions of Industrial Cooperation within the Eurasian Economic Union" (2015) and the "Development Plan of Acts and Measures for the Implementation of the Main Directions" (2016).[76]

165. The industrial unit of the Eurasian Economic Commission (EEC) took the initiative of setting up a separate platform for the technological parks of the EAEU during the World Conference of the International Association of Science Parks and Areas of Innovation (IASP), which was held in Moscow in September 2016 at the Skolkovo Innovation Center, World Trade Center Moscow, and Moscow State University, with the support of the Moscow city government.

166. The EEC has also nominated representatives to review its proposal for the establishment of a new unit within the IASP structure: a Eurasian division. If the decision is positive, in addition to the two existing IASP offices—in Málaga (Spain) and Beijing—there will be an office in Moscow.

[76] The Main Directions of Industrial Cooperation within the Eurasian Economic Union, approved by Decision No. 9 of the Eurasian Intergovernmental Council, dated 8 September 2015; Development Plan of Acts and Measures for the Implementation of the Main Directions, approved by Decision No. 17 of the Eurasian Economic Commission, dated 17 March 2016.

167. The development of industrial parks in the EAEU involves cooperation with Chinese industrial parks and with similar facilities throughout the "Silk Road" framework. The EEC applies the best international standards for the establishment and operation of industrial parks; it also promotes start-up development and maintains a database of industrial parks.

d. The Textile Technopolis: A Recent Example of an Attempt to Create an Industrial Production Zone

168. The Textile Technopolis (Box 4) provides an example of an attempt to create an IPZ owing to the formidable challenges encountered and to the lack of an ex ante evaluation of its likely effectiveness.

Box 4: The Textile Technopolis—First Attempt to Create an IPZ in the Kyrgyz Republic

Discussions about establishing an industrial production zone (IPZ) called the "Textile Technopolis" have been ongoing since 2012, initiated by the Legprom Association (the association of textile and garment producers in the Kyrgyz Republic). Backed by the Ministry of Energy and Industry (which had recently been restructured, with some of its responsibilities transferred to the State Committee of Industry, Energy and Subsoil Use of the Kyrgyz Republic), the Textile Technopolis received official status and was included as a priority project in the National Sustainable Development Strategy for 2013–2017. In 2013, the Government of the Kyrgyz Republic approved the Program for Textile and Garment Industry Development, under which the Textile Technopolis would be built on a 50-hectare plot of government-owned land in the Voenno-Antonovka district, with the support of the local municipality.

One more location for Textile Technopolis was chosen on the territory of JSC Bishkek Machinery Building Plant (formerly known as the "Lenin Plant"). In Soviet times, this was the largest industrial enterprise in the country, manufacturing small ammunition cartridges, machine tools and presses, lifting equipment and consumer goods all the way to meat grinders. Over 25,000 people worked at the plant. A few years after the collapse of the Soviet Union, the enterprise was transformed into a joint stock company fully owned by the government. Part of the production area served as a base for the establishment of the State Enterprise "Bishkek Stamping Plant". The rest of the premises were closed. Today, a huge plant, occupying 100 hectares of land in the center of the city is operating at only a quarter of its capacity.

In May 2017, it was finally decided that 40.75 ha of the government-owned land in the Voenno-Antonovka district will be transformed into industrial use land and allocated to Legprom Association. A relevant governmental decree had been drafted and is awaiting signature. It is envisaged that this technopolis will host around 40 enterprises and will create around 7,000 jobs. A governmental order on allocation of 3.7 ha of land on the territory of JSC Bishkek Machinery Building Plant has also been drafted and awaiting signature. The government is hoping that the second technopolis will host around 20 enterprises and create between 3,500 and 4,000 jobs. It has been decided that the technopolis at Bishkek Machinery Building Plant will be built first because some basic infrastructure (roads, access to utilities) is already in place; the rest of the infrastructure will be removed and the construction will be made on the Greenfield basis. The territory will also be equipped with exhibition and educational centers. In order to learn best international practices in this regard, the Legprom Association visited similar sites in Turkey, Malaysia and Iran.

The focus of the Technopolis on the textile and garment industries raises some serious questions including, possibly, the matter of compliance with WTO rules insofar as financial assistance is concerned). While it may be a good idea to provide a greenfield site to host specific industries, the park should have permitted other industries to operate there as well, so that it could adapt to unforeseen changes in the demand for textile products and, perhaps more importantly, so that businesses would be better able to integrate themselves into global value chains. Therefore, a "negative list" approach to determining which industries could operate in the park would probably have been more appropriate, given the size and potential of the Kyrgyz economy.

Source: State Committee of Industry, Energy and Subsoil use of the Kyrgyz Republic.

D. The Main Features of the Kyrgyz Republic's Zones and Park

169. The main features of FEZs, the High Technology Park (HTP), and proposed IPZs are summarized in Table 2. Among the most prominent of these are the various tax preferences; the lack of "backward" linkages to the domestic economy; the use of a "negative" (instead of a "positive") list of eligible activities; the ownership, role, and financing of management companies; and the provision of infrastructure.

Table 2: The Main Features of the Free Economic Zones, High Technology Park, and Proposed Industrial Production Zones

Provisions	Free Economic Zones	High Technology Park	Proposed Industrial Production Zones (draft law as of June 2016)
1. Main concept	• Territory with a special legal regime	• a special legal regime	• Territory equipped with infrastructure appropriate for industrial development
2. Main objectives	• Country's social and economic development • Development of remote regions • Attraction of FDI • Industrial development	• Conditions created for high-technology and software development • Legalized IT industry • IT export promotion • Attraction of investment	• Greater competitiveness of Kyrgyz industry and attractiveness to investors • job creation • harmonic development of the country's regions • Satisfaction of investors' demands for modernized sites • Development of high technology and innovation • Deeper degree of processing • Higher labor productivity • Lower infrastructure maintenance costs • Revitalization of old industries • Increased tax base • Mergers between, and enlargement of, industrial companies
3. Types of development	• Functional zones • Integrated zones • Logistics zones (EAEU CC agreement) • Zone with peculiarities of customs procedures application (EAEU CC agreement)		• Greenfield zones • Brownfield zones • Integrated zones
4. Authorities that may initiate a zone	A local branch of a national government agency or the local government		A local branch of a national government agency or the local government, or other stakeholders such as landowners, land users, lessees, and property owners
5. Executive bodies	General Directorate of the FEZ: general director and his/her deputies are appointed by the Prime Minister	• Supervisory Board (with three members appointed by Parliament, three appointed by the Prime Minister, and three from the private sector) • Chair appointed by the Prime Minister	• Central government authority in charge of all the IPZs in the country, appointed by the central government • IPZ steering committee, with membership drawn from among IPZ residents (approves land rental rates, IPZ strategies, and management company's annual reports)

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Table 2: continued

Provisions	Free Economic Zones	High Technology Park	Proposed Industrial Production Zones (draft law as of June 2016)
		• HTP director appointed by the Supervisory Board	• Management company, created with recruits from IPZ resident companies, or the initiator may fulfill the role (by becoming an owner of the IPZ and its infrastructure, must be registered as an open joint-stock company)
6. Creation and operations	• Created through legislation • Fencing surrounding the FEZ territory or FEZ resident's site required	Extraterritorial	• By application of the initiator (along with a business plan, agreement with the executive authority, confirmation of availability of financial resources, and an application for the plot of land) • Final decision made to be made by the executive authority of the central government
7. State registration and legal status of residents	• Registry of FEZ residents maintained by General Directorate • FEZ residents required to be incorporated as legal entities in the Kyrgyz Republic prior to their registration with the FEZ • Potential residents required to submit a business plan and a request for a plot of land (with certain characteristics), among other documents	• Legal or physical entity (local or foreign), 90% of whose revenues must be derived from software development, software exports, or call-center operations • Primary registration for 6 months, with certificate provision • Final registration after 6 months if declared activities are engaged in and the above criteria are met • A registry of residents maintained by Directorate • At least 80% of turnover to come from exports after the final registration	• Registry of all IPZs maintained by the executive authority
8. Entry regime	Simplified for foreigners		• Free • Service providers allowed to operate in IPZ without receipt of resident status
9. Possible sources of financing	• Central government budget, local government budget, • resident fees (1% to 2% of turnover) • Fees established for each zone individually • Other unprohibited sources (additional charges from residents are prohibited)	Resident fees of 1% from turnover	• Not specified • Management company responsible for attracting financing and investment

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Table 2: continued

Provisions	Free Economic Zones	High Technology Park	Proposed Industrial Production Zones (draft law as of June 2016)
10. The rights of the zone or park operators	The FEZ General Directorate: • To receive information on the activities of residents • To receive registration applications • To approve registration applications • To reject registration applications (if the proposed activities are not in line with the FEZ regime, or if land with the required characteristics is unavailable) • To dispose of property • o initiate border changes	The HTP Directorate: • Same legal regime as that for their residents	The central government agency overseeing all IPZs: • To register IPZs and maintain the registry • To keep records on IPZ residents • To supervise overall coordination and marketing strategy • To consider applications for IPZ creation • to control design of IPZs designing and require reporting to the government The IPZ management company: • To lease or sublease IPZ land to residents • To approve IPZ development plans • To coordinate the work of IPZ residents • To approve IPZ resident status and issue certificates
11. The obligations of zone and park managers	The FEZ General Directorate: • To register residents • To provide registration certificates • To sign agreements with residents • To protect the interests of the residents • To engage in marketing	...	The IPZ management company: • To ensure the functioning of the IPZ • To oversee the planning, design, and construction of IPZ infrastructure • To organize utility services • To implement the IPZ business plan • To work to attract new IPZ residents • To report on IPZ operations • To monitor IPZ resident activities • To work to attract financing • To assist residents with construction design, documentation, permits, contracting of construction companies, hiring of labor, and with energy and other resources • To create a single window for interactions with government authorities
12. Requirements regarding the land	...		• Registered for industrial, transport, communications, defense, or other use apart from agricultural • Appropriate for industrial use • Has borders • Subject to properly registered ownership or lessee rights • Not a matter of dispute • In the case of central-government or municipal land, must be allocated to an IPZ for at least 49 years • Sanitary and ecological requirements fulfilled

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Table 2: continued

Provisions	Free Economic Zones	High Technology Park	Proposed Industrial Production Zones (draft law as of June 2016)
13. Tax measures:			
Import duties[a]	• Exemption for goods placed and used in FEZs or exported from FEZs to foreign countries	• No preferences	• No provisions in the law
Export duties	• Exemption (in practice)[b]	• No preferences	• No provisions in the law
Other customs fees[c]	• No preferences	• No preferences	• No provisions in the law
VAT (standard rate 12%)	• Exemption	• Exemption for 15 years	• No preferences
Sales tax (1% to 3%)	• Exemption	• Exemption for 15 years	• No preferences
CIT (statutory rate 10%)	• Exemption	• Exemption for 15 years	• 5% for first 5 years
Property tax[d]	• Exemption (for the duration of residence in an FEZ)	• No preferences	• Full or partial exemption for 5 years
Land tax	• - Exemption[e]	• No preferences	• Full or partial exemption for 5 years
PIT (top rate 10%)	• No preferences	• 5%	• No preferences
Social charges	• No preferences	• Reduced rates	Employer social charge reduced to 10% for 5 years
Other			• Tax-free provision of utility services by the management company • When allocating and transferring land to IPZ construction, applicants exempted from all payments to the state
14. Import and export quotas, and other nontariff regulations	• Export quota exemption (for goods placed and used in FEZs or exported from FEZs to foreign countries and EAEU member-states)	• No preferences`	• Tax preferences only for exports • Domestic sales taxed on a regular basis
15. Nontax incentives:			
Financial contributions by government bodies	• No preferences	• No preferences	• Rental of central-government or municipal property on preferential conditions • Preferential tariffs for water, energy, gas, heating, etc.
Government procurement preferences	• No preferences	• No preferences	• No preferences
Foreign labor	• Simplified entrance and exit regimes for foreign labor	• No preference	• Annual quota for foreign labor

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Table 2: continued

Provisions	Free Economic Zones	High Technology Park	Proposed Industrial Production Zones (draft law as of June 2016)
16. Linkages to the domestic economy (businesses, educational and research institutions)	• In terms of input supply, low "backward" linkage	• Linkage to educational institution and businesses	• Too early to say
17. Streamlined regulations and procedures	• Simplified customs clearance procedures, for example: (i) reporting on a periodic (quarterly) basis, rather than upon each delivery; (ii) customs clearance at the site of the FEZ resident, rather than at the border (to avoid 3-day waits, etc.); (iii) storage at the residents' warehouses; and (iv) the ability to file documentation (including declarations) after the physical delivery of the goods. • Required by the simplified customs clearance procedures: the introduction of a modern MIS by FEZ residents, the FEZ General Directorate, and customs authorities, which enables comparisons by the customs authorities	• No	• Simplified system for the administration of taxation and social charges • Quarterly, unified reports • Designation of "low-risk group" for regular checks by government authorities • Regular checks, at most once every 5 years, by the following authorities: taxation, social fund, customs, antimonopoly regulation, financial markets regulation, communications, and energy • Regular checks conducted in the presence of the management company and with prior written notification sent to the management company and to the resident • Raids prohibited • In cases of overdue taxes, possible gradual repayment of debt • Simplified allocation and transferal of land plots • Simplified process for obtaining visas • Simplified process for obtaining construction permits for the management company and residents • Support for scientific research
18. Eligible activities:			
"Positive" vs. "negative" list	• Negative	• Positive	• Not specified, presumably negative
Manufacturing vs. services	• Mainly manufacturing	• Software and IT services only	• Mainly manufacturing
19. Zone or park operator:			
Public vs. private	• Public (General Directorate)	• Public (Supervisory Board and Directorate)	• May be private (public or private management company, PPPs welcomed)

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Table 2: continued

Provisions	Free Economic Zones	High Technology Park	Proposed Industrial Production Zones (draft law as of June 2016)
Choice of operator	• - Appointed by the Prime Minister	• Appointed by a supervisory board, most of whose members are appointed by the central government and Parliament.	• Management company chosen solely by landowner • Landowner may act as the management company
Services provided	• In principle, representing the interests of the FEZ residents when interacting with government bodies, and carrying out promotional activities • In practice, the level of services provided does not correspond to the best international practice	• Promotional activities • Protection of residents' interests when interacting with government or other bodies • development of a favorable investment climate	• Planning, design, and construction of infrastructure • Organization of utility services and maintenance of infrastructure • Assistance to residents regarding construction design, documentation, permits, contracting of construction companies, hiring of labor, and provision of energy and other resources • Creation of a single window for interacting with governmental authorities • Assistance with foreign labor quotas • Provision of logistics, communications, and other services
Fees charged to residents	• Fees of 2% in respect of sales to the Kyrgyz market and 1% regarding sales elsewhere (in return for the above services and tax preferences)	• 1% of turnover	• No management fees specified in the draft law (but according to the draft law, the management company is able to lease or sublease land, and may also receive payments from residents for works or services provided)
Cost recovery and profitability	• Existing FEZs required to operate with full recovery of operational costs, owing to the lack of any additional funding • The Bishkek FEZ now in a position to invest in infrastructure and some promotional activities • For Naryn and Karakol FEZs, investment in infrastructure now beyond their financial means • Operation of the Karakol FEZ suspended because this FEZ could not fulfil the requirement to fence off its territory. The new (2017) regulation allows building fence around the resident's site only.	• Nothing specified	• Nothing specified

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Table 2: continued

Provisions	Free Economic Zones	High Technology Park	Proposed Industrial Production Zones (draft law as of June 2016)
20. Provision of infrastructure	• The responsibility for infrastructure development accorded to the FEZ General Directorate (but in the Naryn FEZ, whose borders correspond to the region's borders, land [including fencing and checkpoints] and access to infrastructure apparently provided by the residents; production and storage facilities also built by the residents)		• Public or private
21. Environmental or labor standards	• In accordance with general country legislation	• In accordance with general country legislation	• In accordance with general country legislation
22. Conditions attached to residence:	• Yes	• Yes	• Some
Tax-exemption rules	• Sales to the domestic market not exempted from import tariffs and VAT	• Residence, and thus eligibility for tax relief, conditional upon 80% of income being earned from exports	• Yes (tax preferences provided only for exports)
Local content rules	• None	• None	• None

... = data not available, CIS = Commonwealth of Independent States, CIT = corporate income tax, EAEU = Eurasian Economic Union, FDI = foreign direct investment, FEZ = free economic zone, HTP = High Technology Park, IP = industrial park, IPZ = industrial production zone, IT = information technology, kg = kilogram, MIS = management information system, PIT = personal income tax, PPP = public–private partnership, SEZ = special economic zone, VAT = value-added tax, WTO = World Trade Organization.

Note: Blank cells mean "not applicable."

[a] No import tariff is levied on intermediate goods imported into the SEZs and FEZs for use in the production of goods sold in the domestic market. However, this exemption does not apply to goods purchased from enterprises located in the domestic market.

[b] Although the Law of the Kyrgyz Republic "On Free Economic Zones in the Kyrgyz Republic" (dated 11 January 2014, No. 6) does not explicitly exempt FEZs from export taxes, this seems to be the case in practice, mainly because FEZ exports are destined mainly for CIS countries. Besides, these taxes are essentially irrelevant for FEZs, as they are levied on only a limited number of products, many of which cannot be processed in the FEZs. Rates range from $0.003/kg to $0.500/kg on 38 items ($2/gram in the case of gold). See: World Trade Organization. 2013. *Trade Policy Review: Kyrgyz Republic*. Geneva. Table 3.18.

[c] Other customs fees include a 0.15% charge for customs clearance, provided the fee does not exceed the approximate cost to the customs authorities of the clearance. This fee has apparently been raised to 0.25% since the Kyrgyz Republic's accession to the EAEU.

[d] The average tax rate on property (apart from vehicles) used for business activities is otherwise 0.80%.

[e] In the Bishkek FEZ, residents are not subject to a land tax because they do not own the land there. However, they do pay rent, which is not cheap. In the Naryn FEZ, where any local businesses may choose to become residents, regardless of whether they own their land or not, a land-tax exemption is applicable. Sources: Law of the Kyrgyz Republic "On Free Economic Zones in the Kyrgyz Republic," dated 11 January 2014, No. 6; Law of the Kyrgyz Republic "On the High Technology Park in the Kyrgyz Republic," dated 11 July 2011, No. 84; Draft Law of the Kyrgyz Republic "On Industrial Parks in the Kyrgyz Republic"; Draft Law of the Kyrgyz Republic "On Industrial Production Zones in the Kyrgyz Republic."

170. Table 3 provides some information concerning various aspects of FEZs and the HTP, including their performance.

1. Tax Preferences

171. As shown in Table 4, the current special tax regime for firms operating in the Kyrgyz Republic's existing FEZs (and registered with the General Directorates of these FEZs) involves essentially three categories of tax preferences (compared with the tax regime outside the FEZs):

(i) full exemptions from tariffs and export taxes,[77] and from other indirect taxes, including the value-added tax (VAT), retail sales taxes, and emergency and road fund charges that are collected on imported raw materials, intermediate inputs, machinery, and equipment when these are re-exported or used in the production in the FEZs of goods for export;[78]

(ii) exemption from the corporate income tax (CIT); and

(iii) exemptions from land and property taxes.

Table 3: Aspects and Performance of the Free Economic Zones and the High Technology Park

	FEZ Bishkek	FEZ Naryn	FEZ Karakol	FEZ Leilek	FEZ Maymak	HTP
Location	Nearby (and within) Bishkek city, Chui Oblast	Whole Naryn Oblast	Balykchy city and Ormok village (Northern side of Issyk-Kul Lake), Issyk-Kul Oblast	Dostuk Village of Leilek raion, Batken Oblast	Djon-Tobo railway station, Satykey Village, Kara-Bura raion, Talas Oblast	Exterritorial
Year founded	1996	1991	1993	2001	1997	2013
Size of territory	340 ha		1680 ha (500 ha + 1180 ha)	100 ha	159 ha	
Priority areas	None	None	None	None	None	IT products and services
Main products and/or services	Plastics and articles made thereof, rubber and rubber products, varnish-and-paint products, soap products, building materials,	Garment and leaser goods; trade	...	...	...	Software development (69.99%), technical support (14.99%), services (15.02%)

continued on next page

[77] Although the Law "On Free Economic Zones in the Kyrgyz Republic" does not explicitly exempt FEZs from export taxes, this seems to be the case in practice, largely because exports are destined mainly for CIS countries. Besides, these taxes are essentially irrelevant for FEZs, as they are levied on only a small number of items, many of which cannot be processed in the FEZs.

[78] Chapter 57 of the Tax Code pertaining to the FEZs provides exemptions from the VAT, retail sales taxes, and the CIT, as well as a reduced personal income tax rate.

Table 3: continued

	FEZ Bishkek	FEZ Naryn	FEZ Karakol	FEZ Leilek	FEZ Maymak	HTP
	LED and underwater lamps, solar modules, pachatno-packing production, garments, dietary supplements, processing of agricultural products and other					
Share of country's total industrial production, %	2.95% (2014) 3.16% (2015) 2.77% (2016)	0.009% (2014) 0.006%(2015) 0.000% (2016)	0.00% (2014) 0.00% (2015) 0.00% (2016)	0.00% (2014) 0.00% (2015) 0.00% (2016)	0.00% (2014) 0.00% (2015) 0.00% (2016)	Not applicable
Share of country's total industrial production without Kumtor related companies, %	5.38% (2014) 5.60% (2015) 5.26% (2016)	0.017% (2014) 0.011% (2015) 0.000% (2016)	0.00% (2014) 0.00% (2015) 0.00% (2016)	0.00% (2014) 0.00% (2015) 0.00% (2016)	0.00% (2014) 0.00% (2015) 0.00% (2016)	Not applicable
Share of country's total exports, excluding re-exports, %	5.00% (2014) 5.98% (2015) 5.26% (2016)	0.016% (2014) 0.012% (2015) 0.000% (2016)	0.00% (2014) 0.00% (2015) 0.00% (2016)	0.00% (2014) 0.00% (2015) 0.00% (2016)	0.00% (2014) 0.00% (2015) 0.00% (2016)	0.064% (2014) 0.096% (2015) 0.174% (2016)
Share of exports in total production of the zone, %	32.85% (2014) 36.78% (2015) 31.07% (2016)	100.00% (2014) 100.00% (2015)	0.00% (2014) 0.00% (2015) 0.00% (2016)	0.00% (2014) 0.00% (2015) 0.00% (2016)	0.00% (2014) 0.00% (2015) 0.00% (2016)	80.11% (2014) 70.81% (2015) 77.99% (2016)
Main destinations for exports	2014 data: Uzbekistan (40.9%) Kazakhstan (23.8%) the Russian Federation (3.3%), Tajikistan (2.6%)	Currently Russia only	-	-	-	2016 data: Kazakhstan (39.91%), United States (31.92%), Japan (8.02%), Russia (2.61%), Hong Kong, China (1.65%), others

... = data not available, ha = hectare, IT = information technology.

Note: Blank cells mean "not applicable."

Source: Governmental resolutions on creation of Bishkek, Naryn, Karakol, Leilek and Maimak FEZs; National Statistics Committee data; HTP website http://it-park.kg/.

Table 4: Tax Preferences in the Kyrgyz Republic's Free Economic Zones (%)

Type of Tax	Inside the Free Economic Zones	Outside the Free Economic Zones
Import tariff[a]	0	6.9 [b]
Export tax	0	various rates[c]
VAT (standard rate)[d]	0[e]	12.0
Corporate income tax	0	10.0
Property tax	0	0.8[f]
Land tax	0	various rates

FEZ = free economic zone, kg = kilogram, MFN = most favored nation, VAT = value added tax.

[a] No tariffs are levied on intermediate goods imported into the FEZs and used in the production of goods sold in the domestic market. However, no such exemption applies to goods purchased from enterprises located in the domestic market.

[b] This is the latest (2016) simple average applied MFN tariff rate. See: World Trade Organization (WTO), International Trade Centre (ITC), and the United Nations Conference on Trade and Development (UNCTAD). 2017. World Tariff Profiles 2017. Geneva. p. 10. https://www.wto.org/english/res_e/booksp_e/tariff_profiles17_e.pdf

[c] Rates range from $0.003/kg to $0.5/kg on 38 items ($2/gram in the case of gold). See: WTO. 2013. Trade Policy Review: Kyrgyz Republic. Geneva. Table 3.18.

[d] Goods sold by enterprises located outside the zones to enterprises located in the zones do not qualify for VAT rebates.

[e] Goods produced in the FEZs and sold in the domestic market are now subject to the full VAT as a general rule. .

[f] This is the tax rate on property (apart from vehicles) used for business activities.

Sources: Government of the Kyrgyz Republic and the WTO.

172. For the period determined by the Law 'On the High Technology Park (15 years from the date of HTP registration) firms operating within the park are eligible for the following preferences:

(i) full exemption from the VAT, retail sales taxes, and the CIT, provided that 80% of the firm's income is earned from exports or that 80% of its products are exported;
(ii) a reduced personal income tax rate (5% instead of 10%); and
(iii) a reduced percentage of the employees' average monthly salaries that employers must pay in social security contributions (12% instead of 17.25%), in addition to the 10% levied on the employees' basic salaries.[79]

173. Residence in the HTP (and thus eligibility for the tax preferences) is conditional on the firm's earning 80% of its income from exports or that 80% of its output is exported (which, as we shall see in Chapter V, may be contrary to WTO rules insofar as the goods are concerned). All preferences are valid for 15 years from the date of HTP registration.

174. A new draft law on industrial production zones (IPZs), which is being prepared by the Ministry of Economy, envisages similar tax preferences, including a reduction (to 5%) of the CIT for 5 years, 5-year exemptions or partial exemptions from land and property taxes, and reduced social security contributions. These preferences are conditional on export performance.

175. In connection with the Kyrgyz Republic's accession to the Eurasian Economic Union (EAEU), the government has adopted new regulations on FEZs to ensure compliance with the Customs Code of the EAEU. One important change concerning taxation involves levying taxes on FEZs in addition to those currently paid to local governments (0.01% of revenue). For the Bishkek FEZ, an additional tax of 2%

[79] In the Kyrgyz Republic, the social security contribution is usually 27.25% of an employee's basic salary, of which 17.25% is paid by the employer, and 10% by the employee (though that 10% is actually withheld by the employer from the employee's basic salary). In the HTP, instead of these two payments, the employer makes only one payment, which is 12% of the firm's employees' nationwide average monthly salary (the self-employed make a 12% one-time payment, as well). An additional tax advantage is the fact that the salaries of IT specialists are much higher than the average IT salary in the rest of the country, so the payment is proportionately low for these employees.

of the zone's revenue is imposed at the national level, and for the Naryn FEZ, an additional national tax of 0.1% is levied; for the other FEZs, a rate of 0.01% is now imposed. The debate on the justification of these new taxes is still taking place between the government and FEZ Directorates and there exists a probability that for FEZ Bishkek this tax will be removed or reduced.

2. Import and Export Quotas (and Other Nontariff Regulations)

176. The legislation on free economic zones provides no exemptions from quotas on *imports*, or from import licensing requirements. However, *exports* from FEZs to foreign countries, including EAEU member-states, are exempt from export quotas, as well as from other nontariff regulations, including those concerning licensing.[80]

3. Nontax Incentives

177. Tax incentives are the only financial subsidies that the FEZs and HTP receive. However, other types of financial subsidies are envisaged in the draft law on IPZs. These financial subsidies are intended to cover interest payments on loans supporting the design, development, and construction of infrastructure, as well as marketing costs. Under the draft law for IPs, enterprises operating in industrial parks (IPs) will be exempted from rental payments for central-government and municipal property for 5 years, and government preferences for procurement are envisaged.

4. Linkages to the Domestic Economy

178. In terms of input supply, "backward" linkage is low. FEZ residents prefer to import raw materials partly because of the tariff exemptions and the more competitive pricing, and partly because the raw materials used by FEZ residents are often not available in the local market. Moreover, as FEZ residents get no VAT exemptions for goods bought in the domestic market, inputs from local suppliers are more expensive than those from foreign suppliers. In the case of multinational enterprises (MNEs), existing international contracts may temporarily prevent FEZ residents from purchasing inputs from local firms, thereby denying local firms an opportunity to participate in global value chains (GVCs).

179. Regarding sales, the linkage has historically been high, with two-thirds of production in the FEZs sold in the domestic market in 2014. Since the Kyrgyz Republic's accession to the EAEU, however, and the resulting introduction of a new customs code as well as the transfer of VAT administration to the tax authorities, the VAT on sales to the local market (for those residents who were registered after 2000) have significantly increased.

180. Some FEZ residents complain that they cannot compete with similar imported products, partly because the customs clearance for some imported items is still done on the basis of *weight*, whereas FEZ residents producing similar items and selling them in the local market are taxed on the basis of *value*, making their products too expensive.

181. Producers outside the FEZs complain that, since the accession to the EAEU, their products have become too expensive compared with imports from other EAEU countries, due to the very high production costs and the devaluation of the Russian ruble and the Kazakh tenge. (Of course, this also applies to FEZ products.)

5. Streamlined Procedures and Regulations

182. While some procedures and regulations pertaining to FEZs—such as those regarding customs (owing to the free-customs regime), entry visas, and exit visas—appear to have been simplified, others have not. Indeed, as mentioned above (section A, subsection 5.c), in some respects the procedures pertaining to areas such as business registration, investment approval, taxes and customs,[81] land

[80] There is a list of goods that are subject to export taxes (including: military equipment; drugs; medicine; rare metals; and other items, including excisable products). However, these taxes are not relevant for the FEZs because they are applied to goods that (together with mining products) cannot be produced there. The new FEZ law's prohibition of any importation of excisable products (such as alcohol and oil) has prompted complaints by residents of the Bishkek FEZ, with one resident considering closing its operations because the resident needs these products as inputs for production.

[81] Tax and customs procedures appear to be more onerous with regard to the movement of goods from FEZs into the domestic market, possibly to combat tax evasion.

use, utility services, and foreign worker permits are arguably more cumbersome for FEZ residents. This is because the residents are now required to register, not just with the FEZ's General Directorate, but also with the relevant authorities outside the FEZ. Moreover, whereas investors in the domestic market do not need to obtain any approvals for their investments, those seeking to invest in FEZs need to obtain General Directorate approval for their business plans.

6. Eligible Activities

183. Residence in the FEZs is based on a "negative" list of eligible activities. The new law on FEZs (dated 11 January 2014) and other relevant legislation allow the FEZ residents to undertake any sort of production or other economic activity that is legitimate in the Kyrgyz Republic, apart from (i) the development and exploitation of mineral resources; and (ii) the importation, manufacture, or sale of excisable goods. Although services are not prohibited, in practice, service providers have shown little interest in FEZ residence.[82]

184. The exclusion in the new Law of excisable goods has been criticized by the Association of Bishkek FEZ Investors and by FEZ residents on the grounds that some FEZ manufacturers need excisable goods (e.g., oil products) for production purposes. With the adoption of the new FEZ law, certain FEZ manufacturers have been forced to close their operations. To tackle this issue, the government issued an amendment to the law on 30 December 2014. The amendment prohibits the importation, manufacture, or sale of excisable goods, except for excisable goods intended directly for production purposes and for the production of goods not related to excisable goods. Still, the Association of Bishkek FEZ investors sees the new law as a violation of "grandfather" rights.

185. The decision to grant or withdraw the right of FEZ residence, and thus to grant or withdraw investment eligibility, is made by the FEZ's General Directorate. Officially, a refusal to conclude a contract for FEZ residence is possible when (i) there is no plot of land that meets the conditions specified in the application, (ii) the company has been involved in ineligible activities on FEZ territory, or (iii) the company's business plan does not comply with the conditions specified in the application. In practice, some applicants complain that they have been refused residence without any serious reason. A refusal by the General Directorate of a FEZ to conclude a residence contract may be appealed in court.

186. "Negative" lists are less likely than "positive" lists to be deemed "specific," and therefore "actionable," under WTO rules.

187. In contrast to FEZs, the choices of activities and investors in the HTP are confined to the "positive" list of eligibility criteria described in section B.3. According to the Law "On the High Technology Park," the member companies may be deprived of their HTP resident status if found to be engaging in ineligible activities.

188. With regard to the proposed IPZs, the draft law does not specify any list of eligible or ineligible activities. Presumably, the list will be "negative." However, Article 5 of the draft law says that the areas of specialization of each new IPZ are to be defined by the agreement on its establishment.

189. Aside from the types of lists used, another difference among the FEZs, HTP, and the proposed IPZs is that, whereas the FEZs and the proposed IPZs are largely confined to manufacturing activities, the HTP appears to focus largely on services.

[82] According to the deputy director of the Bishkek FEZ, residence in the FEZ provides little benefit to service companies because (i) they would not be able to provide services to local consumers, who cannot freely enter the territory of FEZ; (ii) sales within the territory of Kyrgyz Republic are anyway subject to taxation; and (iii) exports of services are, in any event, zero-rated for VAT purposes, so there is no need to register in the FEZ to obtain VAT refunds. One notable exception is the Bank of Asia, which does reside in the FEZ and provides residents with financial services, which are tax-exempt.

7. Management Companies

190. In view of the constraints on fiscal policy and the need for the government to ensure "value-for money" as far as its tax and nontax expenditures are concerned, an independent, self-financing governing authority, motivated by the potential synergies between the government provision of basic off-site infrastructure (and, if need be, land) and a less politicized management structure (and business model) attuned to the needs of investors, should be an integral feature of the legal and institutional framework of the FEZs, HTP, and proposed IPZs. While the existing FEZs do appear to be self-financing (from mandatory payments by residents amounting to between 1% and 2% of their turnover), this payment is not commensurate with the services rendered by the management company (such as on-site infrastructure and management), nor is it not conducive to the provision of such services on a cost-effective and competitive basis.[83] It follows that greater private investors involvement, including public–private partnerships (PPPs), in the governance of these zones would be highly desirable. Insofar as on-site as well as off-site infrastructure could be characterized as a "public good," there is a rationale for government involvement in its provision, and therefore a role for the government in the management company—through a PPP, for example. (No information was available regarding the number of persons employed by the various FEZ General Directorates, their salaries, and the associated costs of their offices and other facilities.)

8. Provision of Infrastructure

191. Basic infrastructure (such as electric power, water supplies, sewage, transportation, and telecommunications, including internet facilities) is an essential prerequisite for the successful operation of the existing FEZs, and the proposed IPZs—as well as an important source of improved total factor productivity (TFP). Accordingly, additional preferences include direct access to such basic infrastructure. In practice, this applies solely to the Bishkek FEZ. In other FEZs, established to accelerate regional development, residents have to install infrastructure at their own expense.

192. In the case of electricity, however, it is evident that the lack of reliable supplies in the Kyrgyz Republic during the period 2012-2014 has been a major problem, and that has undoubtedly been due in part to the low prices charged for electricity, which constitute a deterrent to investment in such basic infrastructure.

9. Environmental and Labor Standards

193. In accordance with international agreements, neither the Kyrgyz Republic's environmental standards nor its labor standards (such as minimum wage laws and occupational health and safety regulations) have been relaxed for the FEZs, the HTP, or for the proposed IPZs. Irrespective of any international commitments, every effort should be made to ensure that national environmental and labor standards are in line with international best practices. In any case, rather than focusing on standards or cost advantages, (the FEZs and IPZ planners) should enhance the zones' international competitiveness by championing sustainable businesses. This could be done by meeting the growing expectations of MNEs and their suppliers when it comes to good environmental and labor practices.[84] The FEZs, the HTP, and proposed IPZs will be able to gain a competitive advantage, not only by providing conventional commercial benefits (such as streamlined procedures and regulations and modern basic infrastructure), but also by providing cost-effective support for good environmental, labor, and other standards to firms operating within their borders. As shown in Chapter VI, in a few countries—such as the People's Republic of China (PRC) and India—several special economic zones (SEZs) have been certified as meeting ISO environmental management standards (ISO 14001:2015) and labor standards (ISO/DIS 45001), which are even higher than those required at the national level.[85]

[83] With the total turnover in the Bishkek FEZ amounting to $178.5 million in 2014, mandatory payments to the General Directorate may have been as much as $3.6 million, of which a mere 0.01% was paid in local taxes. Judging from on-site discussions with enterprises and taking into account that the vast majority of FEZ residents operate on the local or EAEU market for which tariff and tax preferences are no longer applicable, it would appear that these mandatory payments considerably exceed the benefits received by FEZ-based enterprises. .

[84] UNCTAD. 2015. *Enhancing the Contribution of Export Processing Zones to the Sustainable Development Goals*, Geneva.

[85] "ISO" refers to the International Organization for Standardization. Based in Geneva, it is the world's largest organization setting voluntary standards for business practices and for the use of technology.

194. With regard to the Kyrgyz Republic, the Naryn FEZ, for example, intends to encourage the manufacture of environmentally clean products.

10. Conditions Attached to Residence

195. As highlighted in Box I (Chapter III), tax relief that is linked to a quota on *goods* sold in the domestic market (as in the case of the FEZs) or contingent on a certain proportion of income being earned from the exported *goods* (as in the case of the HTP) might possibly infringe WTO rules. There are no such rules pertaining to *services*, however. All foreign providers of services are merely required to be treated equally, in accordance with the most-favored-nation (MFN) principle; and, insofar as members of the General Agreement on Trade in Services (GATS) have made national treatment commitments in their GATS schedules, they must grant tax relief to foreign as well as to domestic service providers.

11. Other Features

196. At present, there appears to be little cooperation among the FEZs within the Kyrgyz Republic or between them and similar zones or parks in neighboring countries. However, as mentioned in Chapter I, the 13th Central Asia Regional Economic Cooperation (CAREC) Ministerial Conference, held in November 2014, endorsed a framework for economic corridor development and for the operationalization of this framework through a memorandum of understanding regarding the Almaty–Bishkek Corridor Initiative, the first instance of regional cooperation at the city level between the Kyrgyz Republic and Kazakhstan. Moreover, in the case of the Naryn FEZ, cooperation with SEZs in Belarus and, especially, in the PRC (owing to Naryn's close proximity to Kashgar SEZ, just across the border) is envisaged under a tripartite agreement.

Chapter V: Evidence concerning the Effectiveness of Free Economic Zones and Industrial Parks

A. Theoretical Observations concerning the Effectiveness of Incentives

197. As mentioned earlier, tax and nontax incentives have traditionally been among the main instruments of industrial policy in Asia, including in various types of economic zones. In particular, tax incentives (including reduced CIT rates), if not complete tax holidays, or adjustments to the tax base (including accelerated depreciation allowances and investment tax credits) have been widely used to attract foreign direct investment (FDI), especially from export-oriented multinational enterprises.[86] They have also been used to assist the domestic production of goods and services in certain sectors (such as agriculture, manufacturing, and various services) and activities (such as research and development [R&D]). Not surprisingly, therefore, tax incentives are also among the most prominent features of the Kyrgyz Republic's FEZs, HTP, and proposed IPZs, even though there is little convincing evidence that such incentives are sufficiently cost-effective to justify their use.[87]

198. While taxation may not necessarily be one of the main determinants of investors' decisions (the overall investment climate is much more important) it would be surprising if it did not have some influence on those decisions.[88] Nonetheless, the experience of countries that do evaluate tax incentives indicates that they are rarely cost-effective, irrespective of whether or not they are consistent with WTO and EAEU rules. Indeed, as pointed out in Chapter II, most econometric studies show that forgone tax revenues tend to exceed the increase in investment induced by tax incentives. Moreover, tax incentives run the risk of subsidizing good investments that might have been undertaken anyway. They also run the risk of turning intrinsically bad investments into profitable ones, thereby distorting the allocation of resources and causing deadweight losses, to the detriment of TFP. In addition, administrative discretion in managing incentives can increase the risk of rent-seeking and corruption. And there is strong evidence that casts doubt on the effectiveness of certain tax incentives for investments in free trade zones, due to the lack of transparency; unclear legal provisions, and issues regarding the governance and administration of tax incentives.[89]

199. Although still widely used in Central Asia and elsewhere, tax holidays are regarded as a particularly ineffective type of tax incentive compared with tax

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86 In the PRC, for example, "foreign-invested enterprises" exporting at least 70% of their output have, until recently, qualified for a 50% income tax reduction (or possibly more if they were located in special zones) and a full refund of the income tax paid on the amount of their profits that they reinvested in export-oriented businesses (for at least five consecutive years).

87 Other than the issue of transparency, one of the reasons that assistance delivered via the tax system is often preferred is that it can be made contingent upon the recipient enterprise being profit-making. However, unless they are refundable, tax incentives may be of little use to start-ups or fast-growing companies that are in a nontaxpaying position, due to their high investments in relation to income.

88 A range of econometric studies and survey data since the 1980s shows that incentives are only one among many determinants of investment decisions (see Box 5).

Incentives seem to influence the choice of location more *within* regional groupings, such as the Association of Southeast Asian Nations (ASEAN). (See: World Bank. 2007. An East Asian Renaissance. Washington, DC. Page 181). While empirical evidence suggests that taxes matter for investments, including FDI, this is less likely to be the case in developing countries. One reason could be that many low-income countries do not offer attractive general investment conditions for domestic or most multinational companies; this may be due, for instance, to deficient legislation, weak governance or judicial systems, unclear property rights, onerous regulations, macroeconomic instability, and poor infrastructure. In such circumstances, tax incentives do not effectively counterbalance such poor conditions, and so are largely ineffective. (See: T. Kinda. 2014. The Quest for Non-Resource-Based FDI: Do Taxes Matter? IMF Working Paper No. 14/15. Washington, DC: IMF.) At the same time, however, tax incentives might be one of the few (albeit second-best) instruments available to low-income countries for offsetting their disadvantaged circumstances, mitigating market failure (such as lack of financial access), and addressing regional disparities.

89 OECD. Tax and Development. https://www.oecd.org/tax/tax-global/transparency-and-governance -principles.pdf

credits[90] or compared with accelerated depreciation allowances for investment.[91] In the absence of any credible empirical evidence to the contrary, therefore, the use of tax and non-tax incentives in FEZs, the HTP, or in the proposed IPZs (or, indeed, as an instrument of economic policy under the Kyrgyz Republic's broad economic development strategy) should be avoided.[92] Actually, the Kyrgyz Republic's statutory corporate tax rate of only 10% is already very low by international standards.[93] This rate is even much lower than the "business-friendly" CIT rates of Hong Kong, China (16.5%) and Singapore (17%), each of whose entire territory is arguably an FEZ; as well as in Ireland (12.5%),[94] which is on the periphery of the EU's Customs Union (Figure 3).[95] In the long run, a low corporate tax rate and a broad tax base are thought to be more conducive to investment and an efficient allocation of domestic resources, and, therefore, to TFP.[96]

[90] Such credits could be refundable in the case of start-ups, as these often have negative profits, so they would not immediately benefit from tax credits that could only be used against a positive tax liability. A tax credit that is refunded if there is a negative tax liability would be more effective for them. Thirteen advanced economies use refundable R&D tax incentives—sometimes only for SMEs. Tax incentives for R&D can also be used to provide relief from labor taxes, such as payroll taxes or employer social contributions. Firms benefit from those incentives whether or not they report positive taxable income. Belgium, France, Hungary, the Netherlands, and Spain provide such tax relief. See: IMF. 2016. *Fiscal Monitor: Acting Now, Acting Together*. Washington, DC. p. 36. https://www.imf.org/external /pubs/ft/fm/2016/01/pdf/fm1601.pdf

[91] Tax holidays, such as those granted by the Kyrgyz government, are a particularly pernicious tax incentive because they offer tax breaks often far in excess of what is needed to induce investment; they also encourage transfer pricing, attract only short-term projects, are frequently extended, and their costs and benefits are difficult to measure. Reduced tax rates have many of these drawbacks in a milder form, except for the last. As companies benefiting from reduced rates must file tax returns, the revenue costs of this policy are at least transparent. Accelerated depreciation and investment allowances or credits, in contrast, are better targeted to increasing investment than are tax holidays or reduced rates, which alleviate taxes on economic rents as well. For example, see: H. H. Zee, J.G. Stotsky, and E. Ley. 2002. Tax Incentives for Business Investment: A Primer for Policy Makers in Developing Countries. *World Development*. 30 (9). pp. 1497–1516.

However, more recent research exploring the continued popularity of tax holidays and reduced tax rates has illuminated why they may work better than accelerated depreciation or investment allowances or credits in attracting FDI in certain cases. The possession by MNEs of exclusive technologies enables them to earn substantial rents, so they are less sensitive to investment allowances than to the statutory CIT rate. Reduced CIT rates and/or tax holidays are thus possibly a more effective inducement for FDI than accelerated depreciation, especially for internationally mobile investment. Under such circumstances, a reduced flat CIT rate may be superior to a tax holiday at inducing investment, as the latter imposes a rising effective tax rate on investment when it expires. In order to attract FDI that does not exploit locational rents, host countries may find that the best policy is to offer a permanently reduced CIT rate. With respect to investment expansion, a reduced CIT rate also has the benefit of not requiring separate accounting, as is the case with newly initiated tax holidays. Compared with tax holidays, a reduced flat rate also facilitates the estimation of tax expenditures due to tax incentives, and is therefore more transparent. See: A. D. Klemm. 2009. Effective Average Tax Rates for Permanent Investment. IMF Working Paper 08/56. Washington, DC: IMF.

[92] This applies even in the case of R&D. A study by Australia's Productivity Commission found that the general tax concession for R&D acted mainly as a "reward" for research that firms would have undertaken anyway, rather stimulating much additional research. See: Government of Australia, Productivity Commission. 2007.

Public Support for Science and Innovation. Research Report. Canberra. http://www.pc.gov.au/inquiries /completed/science/report/scienceoverview.pdf

On the other hand, in comparison with tax incentives that apply to all R&D expenses, *incremental* incentives (above some baseline amount) tend to be cheaper because they avoid any windfall gains for existing R&D below the baseline. Such incremental schemes are used by Italy, Japan, the Republic of Korea, Portugal, Spain, and the United States. However, incremental incentives can be more complex, and may influence the timing of R&D investments. They also have higher compliance costs as a percentage of total support, which can reduce take-up. Some countries have therefore moved away from incremental schemes or have simplified them. See: IMF. 2016. *Fiscal Monitor: Acting Now, Acting Together*. Washington, DC. p. 36. https://www.imf.org/external /pubs/ft/fm/2016/01/pdf/fm1601.pdf

[93] The Kyrgyz Republic's top personal income tax rate is also 10%. In contrast, social security taxes levied on employers and employees normally totals 27.25% of basic salary, which is relatively high, although the rate is much lower in the HTP.

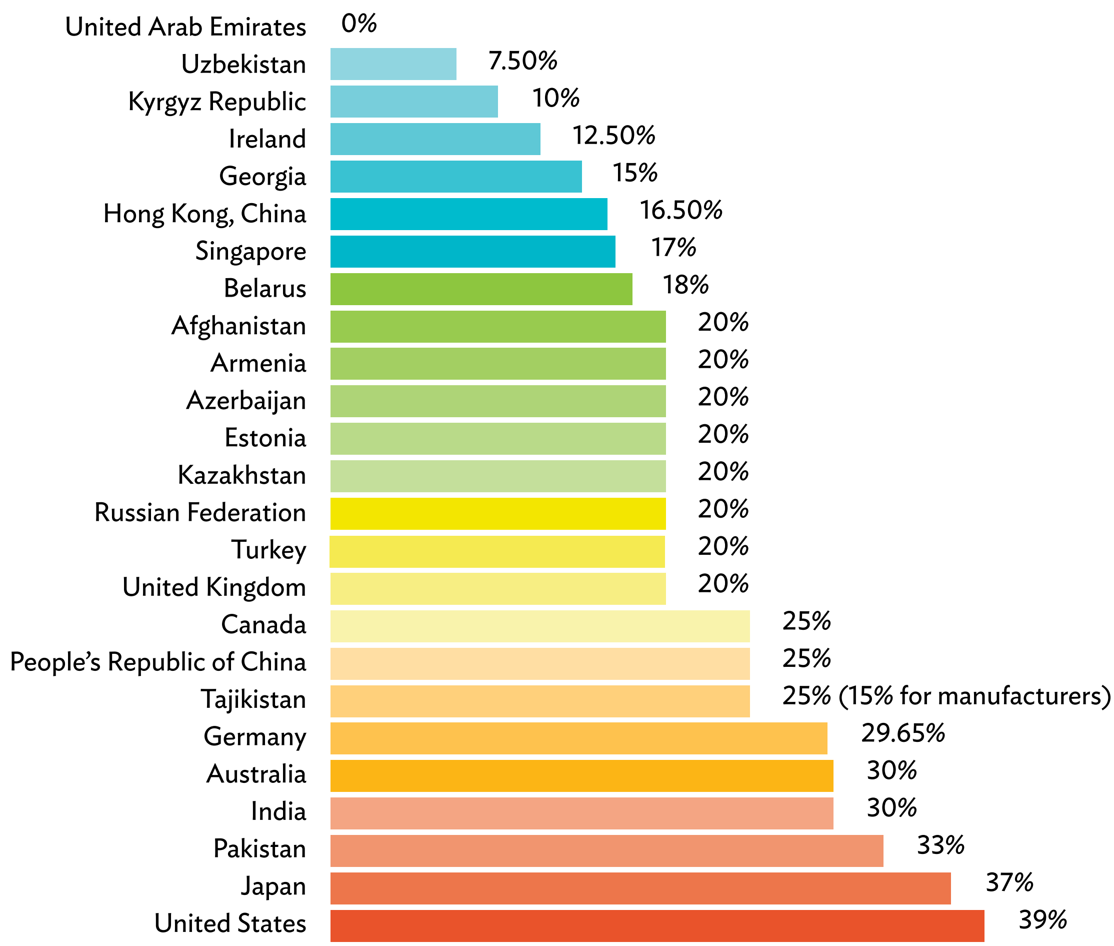
[94] Interestingly, Ireland's reported "effective" tax rate is 12.4%, which suggests that there are few incentives built into its corporate tax base.

[95] EY (this refers to one or more of the member firms of Ernst & Young Global Limited). 2015. *Worldwide Corporate Tax Guide: 2015*. London: EYGM Limited. http://www.ey.com/Publication/vwLUAssets/Worldwide _corporate_tax_guide_2015/$FILE/Worldwide%20Corporate%20Tax%20Guide%202015.pdf.

Regarding other CAREC members, Mongolia's corporate tax system is progressive, with an annual taxable income of up to MNT3 billion, subject to taxation at a rate of 10%, with taxable profits in excess of this amount taxed at a rate of 25%. In Turkmenistan, whereas legal entities are subject to a CIT rate of 8% (or 2% in cases where the company qualifies as a small or medium-sized enterprise), branches of foreign legal entities, as well as companies involved in oil and gas operations, are subject to a rate of 20%, irrespective of the company's legal status or ownership structure. See: PWC. Worldwide Tax Summaries. http://taxsummaries.pwc.com/uk/taxsummaries/wwts.nsf/ID/Turkmenistan-Corporate-Taxes-on-corporate-income

[96] During a 2015 Ernst & Young event attended by European tax directors, 92% said that they would prefer a low tax rate and low use of incentives, as opposed to a high tax rate and high use of incentives.

Figure 3. Headline Corporate Tax Rates, 2015



Source: http://www.ey.com/Publication/vwLUAssets/Worldwide_corporate_tax_guide_2015/$FILE/Worldwide%20Corporate%20Tax%20Guide%202015.pdf

200. International double taxation of income from capital is unlikely to be conducive to foreign investment, or to the transfer of associated technologies and managerial know-how. It occurs most obviously when income from cross-border investments is taxed in both in the country where the investment is made (the "source" country) and the country where the investor resides (the "residence" country). Bilateral tax treaties—based largely on the "model" of the Organisation for Economic Co-operation and Development [OECD])—number some 3,600 worldwide; they are designed to reduce, if not eliminate, such international double taxation. The Kyrgyz Republic has signed tax treaties with 27 countries, including Canada, the PRC, Kazakhstan, and the Russian Federation, which have been its main sources of inbound FDI.[97] However, there is no tax treaty between the Kyrgyz Republic and the United Kingdom, which is also a major source of FDI;[98] nor does the Kyrgyz Republic have tax treaties with some

[97] See http://taxsummaries.pwc.com/uk/taxsummaries/wwts.nsf/ID/Kyrgyzstan-Corporate-Withholding-taxes In 2015, these countries' shares of the Kyrgyz Republic's stock of FDI were as follows: Canada, 24.1%; the Russian Federation, 16.6%, the PRC, 25.9%; and Kazakhstan, 4.4%.

[98] In 2015, the United Kingdom's share of the Kyrgyz Republic's stock of inbound FDI was 8.4%.

other potential sources of FDI, most notably Australia, Japan, and the United States.[99]

201. Tax holidays and tax rate reductions may be used to encourage foreign investment,[100] particularly from countries that tax income from capital on a "source" (or "territorial") basis.[101] But if the capital importing ("source") country has a treaty with the country in which the foreign investor resides, to the extent that the capital-exporting country taxes income from capital on a "residence" (or "worldwide") basis,[102] as in the cases of the PRC, the Republic of Korea, the Russian Federation and the United States, for example, with whom the Kyrgyz Republic does have tax treaties, tax incentives accorded by capital-importing countries, such as the Kyrgyz Republic, may be ineffective. In these cases, the incentives merely result in a transfer from the national treasury of the Kyrgyz Republic to that of the capital-exporting country (Box 5), unless the treaty contains "tax sparing" provisions.[103] This situation does not arise if the capital-exporting country taxes income from capital on a "source" (or "territorial") basis. Nor does it arise in the absence of a tax treaty between the capital-importing and capital-export country. In the case of the latter, tax incentives could reduce, if not remove, the obstacle to FDI posed by international double taxation. Tax incentives would be a second-best option, however, as they would have to respect the MFN principle, and would therefore be granted to treaty and non-treaty countries alike. Consequently, the Kyrgyz Republic would be well advised to negotiate tax treaties with all the countries that are potential sources of FDI, as such treaties mitigate, if not eliminate, international double taxation, and thus greatly facilitate an inward flow of FDI.[104]

202. Other countries in the region are using tax incentives, however, so it is understandable that the Kyrgyz Republic may feel compelled to compete with these countries for FDI by offering such incentives as well. National governments in Central Asia would be better off cooperating on a regional basis, so as to avoid a "race to the bottom" that would leave them collectively worse off which is what would happen if they were to provide competing tax and nontax incentives to attract FDI. Besides, as pointed out above, the Kyrgyz Republic's statutory CIT rate is already very low by international standards. Creating an environment that is more conducive to investment will involve much more than granting incentives whose cost-effectiveness is dubious.[105]

203. As mentioned earlier, however, the attractiveness of a country to FDI depends on much more than tax and nontax incentives. It also depends on the overall investment environment and on the extent to which tax revenues are spent by the government in a cost-effective manner on essential "public goods," including basic hard and soft infrastructure (outside as well as inside economic zones), and especially education, which is arguably the backbone of economic and social development.

99 These countries' shares of the Kyrgyz Republic's stock of FDI are as follows: Australia, 1.1%; the United States, 2.2%; Japan, negligible.

100 In the PRC, for example, foreign-invested enterprises have been subject to a 15% corporate tax rate for 3 years following a 2-year tax holiday, instead of the standard 33% rate applied to purely domestic firms, thus according the foreign-invested enterprises better treatment than Kyrgyz companies.

101 Taxation on a "source" (or "territorial") basis reflects the principle of capital import neutrality; that is, direct taxation should not influence *who* invests in a particular country. Capital import neutrality is therefore concerned with "competitive" neutrality. Few, if any, countries have a tax system based purely on the "source" (or "residence") principle.

102 Such taxation reflects the principle of capital export neutrality; that is, direct taxation ought not to influence the decisions of businesses or individuals residing in a country as to *where* to invest. It thus reduces the threat of tax competition for FDI among different locations. Capital export neutrality is thus concerned with "locational" neutrality, thus reducing the threat of tax competition among different jurisdictions for FDI. This is accomplished by ensuring that the same total amount of domestic and foreign taxes is paid on an identical investment, irrespective of the country in which that investment is undertaken or the amount of taxes levied by the foreign country.

103 "Tax sparing" is a means of ensuring that the relief associated with tax incentives offered by developing countries to foreign investors is not offset by taxation in those investors' country of residence owing to the latter's use of the credit method for relieving international double taxation. The PRC, for example, generally insists on the inclusion of tax-sparing provisions in its tax treaties with developed countries. The only notable exception is the one with the United States, which consistently refuses to grant such provisions to any country.

104 These treaties should include not just "tax sparing" provisions, but also MFN provisions, whereby more generous relief from international double taxation negotiated by either party with a third country in a subsequent tax treaty are automatically extended to existing treaties

105 The lack of carry-over of losses (with interest) for tax purposes constitutes a potential deterrent to investment, especially as far as start-up companies are concerned, and to the extent that interest rates are high. Such companies tend to have insufficient income to enable them to take advantage of tax provisions, including interest deductions and capital cost allowances (as well as incentives) associated with investment. Allowing a full carry-over of losses (including interest) is arguably not a tax incentive.

Box 5: The Effectiveness of Tax Incentives in Attracting Foreign Direct Investment

Incentives for investment, most notably tax holidays, have long been widely used as instruments of industrial policy in Central and East Asia, as well as elsewhere. One of the main objectives of these incentives is to attract foreign direct investment (FDI), with a view to developing local industries that will be export-oriented. Although, without cost-benefit analysis, it is difficult to judge the extent to which incentives have actually attracted FDI, empirical evidence from economies elsewhere have provided grounds for doubting the effectiveness of such measures. In some instances the use of incentives may even be counterproductive.

In the first place, incentives are seldom among the main determinants of business decisions. This has been confirmed repeatedly by business surveys. Other determinants, which are usually more important, include: size of the domestic market and proximity to other markets; the availability of sufficiently skilled labor (or at least the available capacity to train workers) at competitive wage rates; labor market flexibility, including the ability to reduce the labor force or exit an industry without undue complications, the quality and reliability of essential infrastructure; protection of intellectual property rights; and a stable macro-economic, political and legal environment. The experiences of other countries with tax and nontax incentives suggest that the cost of such measures to the government (in terms of expenditure or tax revenue forgone) may exceed the investment generated. Moreover, it is difficult to determine the amount of incremental investment generated—that is, the amount of investment that would not have been made without the incentives.

Tax incentives for foreign multinational enterprises that are taxed in their home countries purely on a "residence" basis (that is, they receive a full credit for taxes paid abroad) may have little, if any, effect on the incentive for those firms to invest in the country offering such relief. These incentives merely result in a transfer from the treasury of the capital-importing country offering the incentives to that of the capital-exporting country where the multinational enterprise is based. Such cuts would provide an effective incentive only insofar as (i) multinational enterprises are in an excess foreign credit position; (ii) taxes on repatriated income can be deferred; (iii) the multinational enterprise's home country exempts foreign-source income from domestic taxes; or (iv) if there is a treaty between the enterprise's home country and the country where it has invested, and this treaty allows "tax sparing."

To the extent that incentives do stimulate particular types of investment, they may result in a less efficient allocation of national resources than would be the case if the government had refrained from influencing private decisions. Any adverse effect of incentives on resource allocation would manifest itself as lower total factor productivity. The point that FDI should be assisted because it yields social benefits (externalities) that are not adequately taken into account by private investors appears to be overstated. Most benefits of FDI accrue privately, and hence do not need tax incentives. Moreover, it does not provide a justification for favoring foreign over domestic investment; and, as it is usually extremely difficult to measure such externalities precisely, there is always the likelihood that incentives will turn out to be excessive.

Tax incentives are usually expensive for the government, as they cause large losses in tax revenues. A tax system that features many special incentives is also much more susceptible to tax avoidance and evasion, which further contribute to losses in tax revenues. In this way, tax incentives tend to worsen the fiscal balance, reducing national savings and causing the deterioration of the current account.

Lastly, the use of investment incentives may provoke countermeasures by trading partners. Even when they do not contravene the WTO Agreement on Subsidies and Countervailing Measures, other countries may use them to justify countermeasures. In particular, countries may react by adopting incentives of their own, creating a beggar-thy-neighbor situation. The resulting "incentives race" and "incentives shopping" tends to be harmful to all countries concerned. It is also likely to disadvantage developing countries that need tax revenues to finance their essential developmental needs.

continued on next page

Box 5: continued

Instead of offering incentives to attract FDI, governments might instead focus on removing existing impediments to investment. Countries often have a mix of policies that simultaneously impede and encourage FDI. Rationalizing these policies to remove impediments is likely to be the best approach.

The most efficient means of removing the obstacle to FDI created by the international double taxation of profits earned by foreign companies would be for each capital-importing country to expand its network of double taxation treaties, focusing on the countries in which many of their foreign investors reside. The development of such a network would eliminate the need for tax incentives (especially tax holidays), and would be a more effective way to attract FDI.

Source: M. Daly. 2011. Evolution of Asia's Outward-Looking Economic Policies: Some Lessons from Trade Policy Reviews. WTO Staff Working Papers. No. ERSD-2011-12. Geneva: WTO. https://www.wto.org/english/res_e/reser_e/ersd201112_e.htm.

B. Empirical Evidence from the Kyrgyz Republic

1. Export Performance and Linkages with the Domestic Economy

204. Of the Kyrgyz Republic's five existing FEZs, only Bishkek and Naryn maintain some level of operations. The FEZs' total production amounted to a mere 1.33% of GDP in 2015 and 1.24% of GDP in 2016, compared with 1.29% in 2010. Their share of the total production of the country's manufacturing sector amounted to 4.07% in 2015 and to 3.54% in 2016.[106] The Bishkek FEZ accounts for virtually all of this production. According to Table 5, enterprises manufacturing goods in the Bishkek FEZ exported only 31.6% of their total production in 2016, down from 39% in 2010.[107] This shows that the Bishkek FEZ enterprises are oriented more toward the domestic market than toward export markets. As a consequence, exports from the FEZs in 2016 amounted to only 5.26% of all exported goods. In contrast, as shown in Table 3 (Chapter IV), roughly 78% of the HTP's production was exported in 2016 (slightly down from 80% in 2014), possibly because tax preferences are contingent upon 80% of production being exported; in any case, this amounted to a mere 0.17% of total exports. During its visits to both of these FEZs, however, the ADB mission team did see some enterprises that were more export-oriented [selling their products mainly to the Russian Federation and other countries of the Commonwealth of Independent States (CIS), and importing inputs mainly from the PRC]. To the extent that the domestic market is insufficiently large to enable competing producers to exploit economies of scale (with the associated reductions in costs per unit of output), an orientation toward the domestic market constitutes an impediment to the improvement of TFP and of international competitiveness. Membership in the EAEU will increase the size of the "internal" market, and thus the attractiveness of the Kyrgyz Republic to foreign investors, although the main markets in the Russian Federation are located in the European part of the country.

205. Although there is no empirical evidence concerning the interaction between trade and economic performance in the Kyrgyz Republic, empirical evidence from other countries suggests that the lack of an export orientation on the part of Kyrgyz enterprises is likely to be detrimental to productivity, and therefore to wages. Data from the United States, for example, show that export-intensive manufacturing industries report 51% higher TFP growth, as well as 17% higher average wages and value-added per worker compared with non-export-

[106] If the production of companies related to the Kumtor Gold Company, the country's largest industrial cluster, is excluded, FEZs' total production amounted to 5.6% of total industrial production in 2015 and 5.3% in 2016.

[107] According to a recent survey of FEZ users undertaken by UNDP, most companies operating in the FEZs exported less than 25% of their production (see: UNDP. 2015. *Analyzing Approaches, Policies, Instruments and Means for Free Economic Zones (FEZs) to Attract Investments to the Republics of Tajikistan and Kyrgyzstan*. London, Bishkek, and Dushanbe. p. 52). Export values may be artificially inflated, however, if FEZs are used to launder money.

intensive industries, which is consistent with the findings of academic research.[108] Similarly, workers employed in export-intensive services earn 15.5% more than those in non-export-intensive services.[109]

206. As mentioned earlier, one of the main reasons for this orientation towards the domestic market is undoubtedly the Kyrgyz Republic's very low and often declining rate of growth in TFP, which constitutes a major systemic impediment to the international competitiveness of its exports. Hence, firms may have little choice but to sell their products in the domestic market.

207. Another reason for the strong orientation of the FEZs toward the domestic market may also be partly due to the various tax preferences that enterprises have enjoyed in these zones (Table 2). While these tax preferences can facilitate production efficiency, and thus improve these enterprises'

Table 5: Trade in Goods in the Kyrgyz Republic's Free Economic Zones, 2010–2016 ($'000)

	2010	2011	2012	2013	2014	2015	2016
FEZ "Bishkek"							
Imports	79,840.89	152,030.90	191,133.25	174,311.63	143,735.92	111,205.88	Not available
Export of goods from FEZ, including:	38,087.26	79,991.19	147,579.29	103,265.46	80,413.30	85655.95	104,681.04
Exports of goods produced in FEZ	24,012.55	29,991.11	28,594.19	35,219.00	30,939.70	32628.80	25241.30
Re-export of goods	14,074.71	50,000.08	118,985.10	68,046.46	49,473.60	53027.14	79,439.74
Sales of imported goods to the domestic market	22,785.42	35,109.40	35,385.14	43,334.96	34,845.00	21,560.21	16,308.76
Sales of goods produced in FEZ to the domestic market	37,895.25	54,356.12	51,627.33	56,450.13	63,245.53	56,085.32	56,000.15
FEZ "Naryn"							
Imports	295.80	0.00	61.33		297.18	1012.80	
Exports of goods produced in FEZ					300.37	175.77	
Re-export of goods							
Sales of imported goods to the domestic market		3.87					
Sales of goods produced in FEZ to the domestic market							

continued on next page

[108] Government of the United States, Executive Office of the President of the United States, Council of Economic Advisers. 2015. *Economic Report of the President: Together with the Annual Report of the Council of Economic Advisers.* Washington, DC. p. 307. http://www.nber.org/links/cea_2015_erp.pdf. This evidence is based on the United States Census Bureau's foreign trade statistics, as well as the Manufacturing Industry Database of the National Bureau of Economic Research(NBER) and the United States Census Bureau's Center for Economic Studies. http://www.nber.org/nberces/; 2015. *The Economic Benefits of US Trade*. Washington, DC. pp. 14–15. https://obamawhitehouse.archives.gov/sites/default /files/docs/cea_trade_report_final_non-embargoed_v2.pdf

[109] D. Riker. 2015. Export-Intensive Industries Pay More on Average: An Update. Office of Economics Research Note No. 2015-04A. Washington, DC: US International Trade Commission. https://www.usitc.gov /publications/332/ec201504a.pdf

Table 5: continued

	2010	2011	2012	2013	2014	2015	2016
FEZ "Karakol"							
Imports		219.45	975.56	479.17	61.74		
Exports of goods produced in FEZ							
Re-export of goods	89.00	358.24	313.44	156.90	0.00	0.00	
Sales of imported goods to the domestic market	10.75						
Sales of goods produced in FEZ to the domestic market							

Source: Government of the Kyrgyz Republic, Ministry of Economy.

international competitiveness, they can also place domestic producers operating outside the FEZs at a significant competitive disadvantage compared to those operating inside the FEZs, unless the goods produced in the zones and sold in the domestic market are subject to the same tariffs and internal taxes). This competitive disadvantage arises insofar as firms operating in the zones maintain part of their preferential tax treatment when producing for the domestic market, both implicitly (because payment of some taxes may be deferred until the goods are "imported into the Kyrgyz Republic's customs territory," thus, improving cash flow[110] and explicitly (because some taxes are not paid at all).

208. More specifically, goods produced by companies in the FEZs and sold in the domestic market were until very recently subject to the value-added tax (VAT) only to the extent that such sales exceeded 30% of their total production. (As mentioned in Box 2, this is no longer the case, except for a few "grandfathered" firms, as a consequence of the Kyrgyz Republic's accession to the EAEU.) Furthermore, no import duties were levied on goods imported by FEZ firms,[111] which also enjoyed a partial corporate income tax (CIT) holiday. With regard to tariffs and the VAT, such tax preferences not only placed non-FEZ firms in the domestic market at a competitive disadvantage, but insofar as these taxes were shifted forward onto consumers, the preferences also encouraged firms located in the FEZs to import their inputs rather than purchase them from domestic suppliers located outside the FEZs. Indeed, imports into the Bishkek FEZ have almost doubled since 2010, thereby growing much faster than production in the zone and the exports of goods produced in the zone. Such preferences also encourage domestic firms to move their production into the FEZs and then supply the domestic market from these zones (making the FEZs resemble "bonded warehouses," rather than manufacturing zones). The fact that almost a quarter of total imports are resold in the domestic market also suggests that FEZs have served as a tax avoidance (rather than merely a tax deferral) device as far as tariffs and VAT are concerned.

209. It follows that firms supplying the domestic market from inside and outside the zones should, as much as possible, be placed on a similar tax footing. This would involve ensuring that, upon entry into the domestic market, goods produced in the FEZs are subject to the same tariffs and VAT as goods produced and sold in the domestic market. This is now the case in the Kyrgyz Republic, although FEZ firms still enjoy the cash-flow advantage arising from the deferral of tariff and VAT payments. In the case of the CIT, the rates inside and outside the FEZs would have to be unified, in order to place all producers on an equal tax footing. This measure would also reduce the potential loss of corporate tax revenues owing to "creative" accounting practices by companies seeking to shift their profits from operations outside the zones (where the tax rate is 10%) to those inside the zones (where the tax rate is 0%). This would help to ensure that SEZs are not used as a means of tax avoidance,

110 The value of deferral is directly related to the tariff rate, and also to the interest rate. Thus, the value will be much higher within the EAEU, where the average rate of the common external tariff is 8.3%.

111 Duty-free access to the domestic market constitutes an additional incentive for attracting investment into the FEZs and the HTP.

if not evasion, as occurs in India, for example (see the case study in Chapter VI). While there have been earlier instances of such profit shifting, new legislation is intended to prevent this by prohibiting companies from structuring themselves so as to be capable of operating both inside and outside the zones.[112]

210. Firms operating outside the FEZs, but wishing to integrate their operations into the global value chains (GVCs), and thereby benefit (like the FEZ-based companies) from technology transfers and other positive spillovers, should be eligible for the same full and prompt tariff drawbacks and rebates of indirect internal taxes on their sales of goods to FEZ firms, as if they were also exporting their goods(provided that leakages from the zones back into the domestic market can be contained).[113] Otherwise, intermediate goods produced by domestic firms located outside the FEZs will be more expensive than those imported into the zones from abroad (insofar as tariffs and VAT are shifted forward), thereby deterring purchases by FEZ enterprises from firms located in the domestic market. Such eligibility, which is consistent with WTO rules, would be particularly beneficial to small and medium-sized enterprises (SMEs), and would facilitate the formation of clusters around the zones. The importance of tariff drawbacks is bound to increase owing to the rise in the average applied MFN tariff rate from 4.6% to 7.4% in 2015 (and then fell to 6.9% in 2016) as a result of Kyrgyz Republic's adoption of the EAEU's common external tariff, which is expected to approach 8.4% by 2020.

211. Needless to say, any curtailment of the existing tariff and tax preferences offered to firms producing in the FEZs, whether as a consequence of the Kyrgyz Republic's accession to the EAEU or of the government's own fiscal policies, for example, will tend to reduce the zones' attractiveness. Indeed, a significant number of current FEZ residents have indicated that they see few tax and nontax benefits from operating in the zones. As a result, it would appear that some residents are already leaving the FEZs. The departure of enterprises from the zones should not necessarily be a cause for concern, however, as these enterprises may be mainly concerned with tax avoidance devices, which are either not justified on the grounds of "market failure," or are ineffective in rectifying that problem.

- **Investment and Foreign Direct Investment**

212. One of the main goals of the FEZs and the HTP is to attract new investment, especially FDI, together with the associated transfer of technologies and managerial know-how, which are major sources of improvement in TFP. Indeed, FDI is the key to enabling a transition to a knowledge-based economy. Apart from several major investments in the mining sector, however, the Kyrgyz Republic has not attracted much FDI,[114] and so has benefited from only limited associated spillovers.[115] During 1994–2015, cumulative inflows of FDI into the Kyrgyz Republic were considerably less than those into Georgia, Kazakhstan,

112 According to the new FEZ law, residents of FEZs lose their status if they also have operations outside the zone. Consequently, the Ministry of Justice has apparently advised the Aga-Khan Foundation, an international organization that already has offices registered in the Kyrgyz Republic (not inside a FEZ), but now wants to register another office in the Bishkek FEZ, that it must close its offices elsewhere in the territory of the Kyrgyz Republic. Moreover, a garment factory visited by the ADB technical assistance (TA) team has reportedly been advised to buy additional equipment and move its existing Bishkek operations inside the Bishkek FEZ.

113 It would appear that such drawbacks and refunds are made neither promptly nor in full owing to fiscal constraints.

114 UNDP. 2015. *Analyzing Approaches, Policies, Instruments and Means for Free Economic Zones (FEZs) to Attract Investments to the Republics of Tajikistan and Kyrgyzstan*. London, Bishkek, and Dushanbe. p. 13.

115 Y. Gorodnichenko, J. Svejnar, and K. Terrell. 2007. When Does FDI Have Positive Spillovers: Evidence from 17 Emerging Market Economies. IZA Discussion Paper No. 3079. Bonn, Germany: Forschungsinstitut zur Zukunft der Arbeit/Institute for the Study of Labor (IZA). http://ftp.iza.org/dp3079.pdf. This study used firm-level data and national input–output tables from 17 Central Asian and Eastern European countries, including Kazakhstan but not the Kyrgyz Republic, during 2002–2005, to look at the impact of FDI on the efficiency of domestic firms in the host country (i.e., spillovers), and it showed that: (i) backward spillovers (from supplying a foreign firm in the host country or exporting to a foreign firm) are consistently positive; (ii) horizontal spillovers are mostly insignificant, but positive for older firms and firms in the service sector; (iii) forward spillovers (from purchasing from foreign firms in the host country or importing) are also positive only for older firms and firms in the service sector. There was no support for the hypothesis that spillovers are greater for FDI involving more advanced technology. As to whether spillovers vary with the firm's "absorptive capacity," the study found that: (i) a greater distance from the efficiency frontier tends to dampen horizontal spillovers in manufacturing and backward spillovers among old firms; and (ii) whereas firms with a larger share of university-educated workforce are more productive, they do not enjoy greater FDI spillovers than firms with less-educated workers. Hence, FDI spillovers vary by sector and type of firm.

There is also some evidence of backward and forward vertical FDI spillovers in the PRC's strategic industries, which have enhanced productivity growth in these industries; and there is evidence that these spillovers have been induced especially through tariff reductions (particularly those associated with the PRC's accession to the WTO) and corporate tax holidays. See: L. Du, A. Harrison, and G. Jefferson. 2014. FDI Spillovers and Industrial Policy: The Role of Tariffs and Tax Holidays, World Development. 64 (C). pp. 366–383.

and Turkmenistan; Armenia, Azerbaijan, Belarus, the Russian Federation, Tajikistan, and Uzbekistan received much less, however (Table 5). There are no data on how much FDI the Kyrgyz Republic's FEZs have attracted.

213. Total investment in the Bishkek FEZ was $1.6 million in 2015, down from roughly $5 million in 2013 and 2014. In 2016, however, investment increased to more than $6 million as a result of three new large investors in the Bishkek FEZ. Indeed, as discussed in Chapter II, it may be the various tax preferences and other features of the FEZs and HTP (such as non-tax incentives and the provision of infrastructure) have merely induced domestic and multinational enterprises to establish operations in the zones or park instead of in the domestic market, thus generating little, if any, "incremental" investment (and associated technologies) or employment in the Kyrgyz Republic as a whole. The question arises, therefore, as to whether the tax revenues forgone as a consequence of tax incentives and the costs of non-tax incentives and provision of infrastructure for the FEZs would have been better spent on more cost-effective economic development programs, such as essential infrastructure (for education, health, electric power, water, transportation, and telecommunications).

- **Growth, Productivity, and (Incremental) High-Wage Employment**

214. To the extent that the various features of the Kyrgyz Republic's FEZs, HTP, and proposed industrial production zones (IPZs) do induce incremental investment, and thus provide employees with more capital to work with, it will raise labor productivity in the enterprises involved, and thus wages. However, incremental investment will not improve TFP unless it (i) results in increased technological progress and managerial know-how (as well as learning by doing), (ii) enables the achievement of economies of scale, or (iii) prompts a reallocation of domestic resources in accordance with the Kyrgyz Republic's comparative advantage (as reflected in TFP). Negligible TFP growth means that, although increased investment raises labor productivity, the latter is achieved at the expense of capital productivity, and this would not be conducive to investment.[116]

215. While the relatively low wage rates in the Kyrgyz Republic would appear to constitute a comparative advantage, at least in the short term, and may therefore attract investment to the country, these low wage rates necessarily actually reflect low rates of labor productivity. The latter can be raised, not just by increasing investment, but also by ensuring that the labor force is sufficiently educated and trained. Such an investment in human capital is especially important in the long run. After all, education stimulates innovation and improves receptivity to the adoption of new ideas and technologies.

216. The Bishkek FEZ employed only 2,450 people (roughly 1% of the country's total labor force) in 2015, compared with 3,100 in 2014 (and 1,200 in 1996). In 2016, however, total employment reached 3,700. Judging from monthly salaries, even if the Bishkek FEZ has created incremental jobs, these are not highly paid relative to the rest of the country. In 2016, for example, the average monthly salary in the Bishkek FEZ was Som13,701, compared with Som14,479 in the rest of the country according to the National Statistics Committee's data. This reflects the fact that the highest salaries in the country are not in the manufacturing sector, which is the main focus of FEZ Bishkek, but in other sectors, particularly mining as well as financial, transportation, information and communications services, where labor productivity is greater than in manufacturing. On the other hand, the average monthly salary in the Kyrgyz Republic's FEZs was Som12,373 in 2016 compared with Som6,836 in those SMEs manufacturing outside the zones. As manufacturers in the FEZs are mainly SMEs, this suggests that the zones do, to some extent, succeed in creating relatively high paid jobs.[117]

[116] Indeed, growth in capital productivity slowed from 1.3% in 2011 to 0.9% in 2012 and 2013, and to 0.6% in 2014. (National Statistics Committee. Bulletin on Industrial Production, 2014).

[117] According to a 2015 survey of FEZ residents undertaken by UNDP, the companies operating within the FEZs are mainly SMEs with 10–50 employees. See: UNDP. 2015. *Analyzing Approaches, Policies, Instruments and Means for Free Economic Zones (FEZs) to Attract Investments to the Republics of Tajikistan and Kyrgyzstan*. London, Bishkek, and Dushanbe. p. 51.

C. Empirical Evidence from Other Countries

217. Few econometric studies were found regarding the possible impact of SEZs on other countries' economic performance, especially on their TFP. However, as discussed in the Chapter VI, there is some evidence from Chinese municipalities suggesting that their SEZs increased their per capita FDI by 58%, in the form of foreign-invested and export-oriented industrial enterprises, thereby increasing the local workers' earnings, as well.[118] Most of this inflow of FDI into Chinese SEZs was apparently new, rather than merely investment diverted from Chinese companies outside the SEZs. These SEZs also increased the municipalities' TFP growth by 0.6 of a percentage point.

218. Another source of possibly relevant empirical evidence is an ADB study in 2015 that used a dynamic gravity model of trade flows based on bilateral trade data concerning manufactured goods.[119] It involved random effects generalized least squares regression analysis with various dummy variables, including those pertaining to SEZs in several countries—Bangladesh, Cambodia, the PRC, India, Kazakhstan, the Philippines, and Sri Lanka—for which data were available on a number of SEZs for 1990–2014. The Kyrgyz Republic was not included in this study, most likely because of lack of data.

219. The ADB study showed that the presence of SEZs has had a slightly negative effect on exports globally, which suggests that many zones had not been performing well. However, the analysis appears to be somewhat contradictory (and provides no insights on causation or any theoretical explanations).[120] For example, while the regression results indicate that the level of exports from Asian economies with SEZs was not significantly different from the levels of exports from economies without SEZs, they suggest that a 10% increase in the number of SEZs will raise an economy's manufacturing exports by 1.1%.

220. The regressions also suggest that the presence of an independent SEZ authority and a national law on SEZs both have a positive effect on exports. As far as Asian economies are concerned, those with an independent SEZ authority export 27% more than those that do not, and those with a SEZ law export 40% more than those without such a law. While the Kyrgyz Republic does have a FEZ law, it is far from clear whether this has had much impact on the country's exports. Data presented in the previous section of this diagnostic study show clearly that only around one-third of FEZ production is exported. The regressions do lend support to the view that an independent FEZ, HTP, or IPZ authority might be expected to have a positive impact on exports, although this remains to be seen.

221. In addition, the regressions also show that Asian developing countries with SEZs have 82.4% more FDI than in Asian developing countries without SEZs. As no data were available concerning FDI inflows into the Kyrgyz Republic's FEZs, it is unclear what the outcome has been there.

222. Given the limitations of the gravity model and the somewhat contradictory results of the regressions (regarding the impact of these zones on exports) in the ADB study, together with the lack of any data for the Kyrgyz Republic (especially on FDIs in the zones), it is not clear how relevant the empirical evidence summarized in this section really is for this diagnostic study. Besides, one size does not necessarily fit all countries as far as such evidence and policy implications are concerned.

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118 J. Wang. 2013. The Economic Impact of Special Economic Zones: Evidence from Chinese Municipalities. *Journal of Development Economics*. 101 (C). pp. 133–147.

119 ADB. 2015. Special Chapter: How Can Special Economic Zones Catalyze Economic Development? In ADB. *Asian Economic Integration Report 2015: How Can Special Economic Zones Catalyze Economic Development.* Manila. https://www.adb.org/sites/default/files/publication/177205/asian-economic-integration-report-2015.pdf

120 The gravity model attempts to explain trade patterns in terms of geography and the size of markets. It reflects the reality that large countries trade more, but that small ones appear more open, and that distance and borders impede trade, given relative country sizes. The model can also explain multi-country interactions; that is, the more country A trades with country B, the less is left over for trade with country C. Frictions between B and C thus affect A's trade with either B or C. However, the gravity model does not have any economic theory underlying it, and therefore can provide no explanation. See: J. E. Anderson. 2010. The Gravity Model. *NBER Working Paper Series.* No. 16576. Cambridge, MA. http://www.nber.org/papers/w16576.pdf: NBER; 2016. Trade, Slides, and Friction: The Gravity Model. Boston, MA: Boston College and NBER. https://www2.bc.edu /~anderson /GravitySlides.pdf

223. Another empirical study used a gravity model of trade to evaluate the impact of free trade zones (FTZs), with trade data from 122 countries, including the Kyrgyz Republic. This study suggests that the impact of FTZs on imports is greater and more robust than their impact on exports.[121] It also suggests that, regarding firms involved in GVCs that entail the importation of raw materials and components for processing before exporting them, FTZs in exporting countries increase trade by offsetting the negative impact of tariffs on imported inputs.[122]

224. In the case of tariffs (and other taxes collected on imports), which raise the cost of imported inputs and thus undermine the competitiveness of exporting firms, FTZs can eliminate this adverse effect on competitiveness. (At the same time, they raise the rest of the world's exports.) In effect, FTZs remove the adverse effects that tariffs and other taxes on imports can have on the exports of a country, and on the exports of other countries that provide the intermediate goods and components. However, there is also the danger that FTZs may sometimes provide countries with an excuse to maintain protectionist barriers around the rest of their economies.

225. Given that the simple average nominal applied most-favored-nation (MFN) tariff rate of the Kyrgyz Republic increased from 4.6% to 7.4% in 2015 and then dropped to 6.9% in 2016 owing to its adoption of the EAEU's common external tariff (CET) whose average rate is expected to reach 8.4% by 2020, the role of the Kyrgyz Republic's FEZs in offsetting the higher tariff's adverse effects could assume greater importance.[123]

226. Interestingly, *The Economist* reported in April 2015 that SEZs often fail because they create distortions, require large investments in infrastructure, and entail forgone tax revenues.[124] Similarly, a 2011 World Bank study found that, while SEZs may attract foreign investment and create employment in the short term, they cease doing so when the initial favorable conditions no longer exist.[125] The study also found that (i) even when SEZs generate exports and employment, they fail to extend these benefits outside their enclaves, and (ii) multinational companies take advantage of tax breaks and other benefits without generating much employment or export revenues.

227. Some additional empirical evidence concerning the economic performance of SEZs in Cambodia, the PRC, and India is presented in Chapter VI. The PRC, for instance, is often credited with having implemented tax incentives effectively. During its transition period, from the mid-1980s to the mid-2000s, it experimented with

121 J. Siroën and A. Yücer. 2014. Trade Performance of Free Trade Zones. *Dévelozppement, Institutions et Mondialisation (DIAL) Working Paper Series.* No. DT/2014/09. Paris: Université Paris-Dauphine.

122 Tariffs on imported intermediate goods not only reduce GVC participation, but also hamper an economy's ability to capture a higher share of value added along a GVC once the economy is a member of a GVC. This is because when intermediate inputs cross borders multiple times, they compound the detrimental effect of a given trade barrier. In fact, within a GVC, imports are essentially inputs into exports, and thus any trade barrier imposed by an economy on its imports of intermediate goods is effectively a tax on that economy's own exports. Therefore, removing tariffs and other forms of trade barriers would benefit all GVC participants. Reduced participation in GVCs would also inhibit technology and knowledge transfers, which have been shown to be higher across countries linked through GVCs. See: R. PiermartinI and S. Rubínová. 2014. Knowledge Spillovers through International Supply Chains. *WTO Working Paper Series*. No. ERSD-2014-11. https://www.wto.org /english/res_e/reser_e/ersd201411_e.pdf

123 To the extent that the tariff is characterized by escalation, especially as far as semi-processed and fully processed goods are concerned, "effective" tariff rates can considerably exceed nominal tariff rates. The "effective rate of protection" (ERP) measures the protection provided by the entire structure of tariffs, taking into account those levied on inputs as well as those on final products. It is defined as ERP = (VD – VW)/VW, where VD is the value-added in the given sector at domestic prices, which includes tariffs, and VW is value added at world prices. If the nominal tariff on the final product is t, the share of each imported input i in the total value of the final product is a_i, and the nominal tariff on each imported input is ti, then the effective rate of protection can be written as: ERP = $(t - \Sigma a_i t_i)/(1 - \Sigma a_i)$. Thus, if t = 5%, t_i = 1% for all inputs, and Σa_i = 0.6, the ERP is 11%. According to the OECD, taking into account tariffs at all stages of the supply chain magnifies the effective tariff rate, especially in sectors such as communications and electronics, motor vehicles, basic metals, and textiles, which are characterized by long value chains and several production stages. See: Åsa Johansson and Eduardo Olaberria. 2014. Long-Term Patterns of Trade and Specialization. Economics Department Working Paper No. 1136, OECD. Paris.

124 *The Economist*. 2015. Special Economic Zones: Not So Special. 4 April. http://www.economist.com /news/leaders/21647615-world-awash-free-trade-zones-and-their-offshoots-many-are-not-worth-effort-not

125 T. Farole and G. Akinci, eds. 2011. *Special Economic Zones: Progress, Emerging Challenges, and Future Directions. Washington, DC:* World Bank. http://documents.worldbank.org/curated/en/752011468203980987/pdf/638440PUB0Exto00Box0361527B0PUBLIC0.pdf

a wide range of industrial policy instruments, including tax incentives for SEZs, reduced tax rates for FDIs, and tax holidays for strategic industries. FDI inflows accelerated during this period, and the country became a top destination for many multinationals. Evidence suggests, for instance, that Chinese SEZs (which also enjoy some nontax benefits) located in various regions of the country have systematically increased their FDI inflows.[126]

Table 6: Flows of Foreign Direct Investments into the Countries of the Commonwealth of Independent States, 1994–2015 (% of GDP)

Country	1994	1999	2004	2009	2015
Armenia	6.3	22.8	29.1	43.2	40.4
Azerbaijan	13.7[a]	78.7	132.3	16.0	41.0
Belarus	0.7	9.5	8.9	17.3	32.9
Georgia	3.2	22.5	37.2	69.3	89.4
Kazakhstan	16.3	47.3	51.9	62.3	69.2
Kyrgyz Republic	**4.3**	**33.8**	**26.3**	**30.5**	**58.5**
Moldova, Republic of	2.5	27.3	32.5	51.0	55.2
Russian Federation	1.2	9.3	20.7	31.0	19.5
Tajikistan	3.6	10.4	12.1	19.9	27.0
Turkmenistan	4.0	21.2	30.9	48.5	90.0
Uzbekistan	2.0	3.7	9.2	11.1	15.1
CIS countries	1.8	12.8	22.5	33.2	29.3
Landlocked countries[b]	13.1	25.0	34.0	33.7	44.2

CIS = Commonwealth of Independent States. GDP = gross domestic product.

[a] This percentage is for 1995.

[b] These refer to landlocked developing countries.

Source: United Nations Conference on Trade and Development (UNCTAD). World Investment Report 2016: Annex Tables. http://unctad.org/en/Pages/DIAE/World%20Investment%20Report/Annex-Tables.aspx.

[126] L.K. Cheng and Y.K. Kwan. 2000. What are the Determinants of the Location of Foreign Direct Investment? The Chinese Experience. *Journal of International Economics*. 5 (2000). pp. 379–400. http://citeseerx.ist.psu .edu/viewdoc/download?doi=10.1.1.630.4872&rep=rep1 &type=pdf

Chapter VI: Lessons from Other Countries' Successes and Failures

A. Introduction

228. There has been a worldwide proliferation of SEZs, and while a few have undoubtedly been successful, many have not, including most of those in the Kyrgyz Republic and elsewhere in Central Asia. The jury is still out regarding the rest, as few have been rigorously evaluated to ascertain whether they are actually successful or not.

229. One obvious success story has been the SEZs of the PRC, although not all of them, as some have been much more successful than others. By contrast, those in India are generally considered failures. This chapter will try to throw light on the possible reasons for the successes and failures of such zones in other countries, and to draw some useful lessons in this regard, bearing in mind that it is not a question of "one size fits all" when considering different countries. It may be that the factors contributing to the successes in some countries cannot be replicated in others. Likewise, factors that resulted in failure of SEZs in some countries may not do so in others.

230. The PRC's experience with SEZs is perhaps of particular relevance to the Kyrgyz Republic because they were successfully used as instruments for enabling the transition from a centrally planned to a market economy. The Chinese experience is also revealing in that its SEZs were inspired partly by Ireland's success with its Shannon Free Zone (SFZ), which was established in 1959 as an "experiment" at Shannon Airport, and is widely regarded as the first modern zone (Box 6). Ireland's experience with its SFZ may also be relevant for the Kyrgyz Republic because both countries are on the periphery of customs unions—one of the countries surrounded by sea, the other landlocked—and they have traditionally been characterized by large-scale emigration owing to the lack of employment opportunities at home. Like the PRC, both countries have needed to attract FDI (together with the associated transfer of technologies and managerial know-how) in order to create opportunities for more highly skilled, and thus better-paid jobs.

231. India's experience is also of particular interest because its so-called Chinese-style SEZs are widely considered to have been failures. Indeed, they have been characterized as primarily tax avoidance devices with the added sweetener of access to land. The other country selected for discussion in this chapter is Cambodia, whose zones were the subject of a 2015 study by ADB. Cambodia's SEZs appear to have met with some success. While lessons often travel poorly, even over short distances, from one country to another, they can still help identify the pitfalls to be avoided.

B. The Experience of the People's Republic of China with Its Special Economic Zones

1. The Genesis and Evolution of PRC's Special Economic Zones

232. In the case of the PRC, the development of SEZs was, from the outset, an integral part of the government's unilateral "Open Door Policy," adopted by the 11th Congress of the Chinese Communist Party in December 1978. This economic development strategy was aimed at enabling the country's gradual transition from a virtually closed, centrally planned economy to an outward-looking market economy, thereby paving the way for growth through export-based industrialization. The Open Door Policy, which culminated in PRC's accession to the World Trade Organization (WTO) in 2001, involved the opening up of the economy to international trade and to inward flows of FDI, two of the main ingredients of the "East Asian miracle." Manufactured exports, together with investment, were initially seen as the main engines of growth. For that reason, the PRC largely eschewed policies aimed at import substitution, which had failed in countries such as India, partly because it was incompatible with the emergence of GVCs. In July 1979, the government decided that Guangdong and Fujian provinces would take the lead in opening up to the outside world and in implementing "special and flexible measures."[127] By August 1980, Shenzhen,

[127] Y. Yeung, J. Lee, and G. Kee. 2009. China's Special Economic Zones at 30. *Eurasian Geography and Economics.* 50 (2). pp. 222–240.

Box 6: The First Modern Special Economic Zone—Shannon Free Zone, Ireland

The Shannon Free Zone (SFZ) is one of the main instruments of Ireland's outward-oriented economic development strategy that have boosted the country's economy. Located at the most westerly point of Europe, Shannon had been the necessary airport refueling stop and transit point for long-haul flights to and from North America since the start of commercial trans-Atlantic aviation. By the end of the 1950s, however, advances in aeronautic technology meant that its days as a refueling stop were numbered, as commercial aircraft would soon have the range to bypass the airport, thus delivering a potentially devastating blow to the local economy. Responding to this crisis was a matter of great urgency. Consequently, Shannon Airport's director at the time submitted a proposal to the Government of Ireland recommending the establishment of a distinct manufacturing zone with special tax incentives. This zone would create much needed jobs and specific air traffic to Shannon Airport.

The outcome was the creation of both the SFZ and a related independent managing company, the Shannon Free Airport Development Company (SFADCO), whose legal framework gave it considerable freedom of action. The SFADCO's mandate was broad enough to enable it to contribute to the development of Shannon Airport and its region. In its early days, the SFADCO was also a developer of tourist sites, with the aim of attracting tourists to replace the decline in transit passengers.

At the outset, the SFZ's development was based on airport-related services, such as repairing and maintaining aircraft, as well as on manufacturing and trading operations, all of which contributed to the use or development of the airport. Although many of the first operations failed, others were great successes. What made the difference this time was the "clustering" effect which consists of the drawing power of a large concentration of successful companies and the presence of a pool of workers with experience in the tech sector and a familiarity with the cultures of large United States multinational corporations. Indeed, within a short period of time, most United States multinationals with an interest in entering the European market had a base in the SFZ.

Over the following decades, the continued success of the SFZ was ensured by: (i) a highly integrated and coordinated approach to development, including cooperation with the Government of Ireland's Industrial Development Agency (IDA);[a] (ii) a focus on learning, whereby vocational training programs were provided by the SFADCO, including skills training at factories at Shannon, that generated a supply of trained labor for other areas of Irish industry, and, most importantly, for projects such as the National Technology Park in Limerick (which has close ties with the University of Limerick); (iii) a pragmatic approach, including trial and error as the norm when setting up new industries and companies, and (iv) rapid, but harmonious social and cultural changes at the local level. Thanks to its partnership with the University of Limerick, the SFZ also supports the National Technology Park.

Interestingly, in 1980, Jiang Zemin, then senior vice minister of the People's Republic of China (PRC) State Imports and Exports Administration, visited Shannon to study the SFZ. By that time, Shannon had long been regarded as a hub for innovation, including the world's first duty-free zone, and was an international example of a successful project developed by testing different models to see what worked. Jiang Zemin was followed by several other Chinese leaders, who also visited Shannon to study its model and adopt ideas suitable for the PRC. They included Premiers Zhu Rongji and Wen Jiabao, Vice Premiers Huang Ju and Zeng Peiyan, and, most recently, President Xi Jinping. However, while Shannon's population has grown to almost 10,000, Shenzhen's is now well over 10 million.

continued on next page

Box 6: continued

After 50 years of the SFZ's existence, during which time Ireland became a member of the European Community (now the European Union), the zone continues to attract investors. Since 2014, the Shannon Group (successor to the SFADCO) has been responsible for managing and developing the SFZ. The Shannon Group is state-owned, but has a commercial mandate. Currently, some 100 companies are operating in the SFZ, including many United States companies (e.g., Intel, GE, Symantec, and Xerox).

[a]The IDA is an autonomous agency responsible for attracting foreign direct investment (FDI) from large global firms in the high-wage, high-tech manufacturing and service sectors, especially from the United States. Due at least partly to the IDA, Ireland has become a magnet for internet and digital investments by industry leaders such as Adobe, Amazon, Apple, Facebook, Google, LinkedIn, Microsoft, Oracle, and Twitter, which have made Ireland a hub for their respective European operations. At the end of 2013, the stock of United States FDI in Ireland amounted to $240 billion, more than the US total FDI in the BRICS countries (Brazil, the Russian Federation, India, the PRC, and South Africa).

Source: T. Farole and G. Akinci, eds. 2011. Special Economic Zones: Progress, Emerging Challenges, and Future Directions. Washington, DC: World Bank. p. 186.

Zhuhai, and Shantou (all in Guangdong Province) were designated as SEZs, followed by Xiamen (in Fujian Province), in October 1980.

233. The objectives of the SEZs were primarily to attract FDI, expand Chinese exports, and accelerate the acquisition of new technologies and managerial know-how. The belief that SEZs could contribute to economic development was based on the assumptions that they would: (i) overcome the common problem of limited resources by attracting large-scale investment; (ii) foster incremental experimentation and trade-based learning, supported by government policies; (iii) attract FDI to promote export-led economic growth and generate employment; and (iv) facilitate economic liberalization (including trade, financial, and institutional liberalization) through policy measures and in situ innovations.

234. The four Chinese SEZs were similar in that they comprised large areas of land and were located far from the center of power, Beijing, so as to minimize political interference,[128] but close to basic infrastructure, such as Hong Kong, China's seaport and airport hubs, and to potential investors in Hong Kong, China and Taipei,China. In line with the central government's Open Door Policy, the objective of these SEZs was to facilitate broadly based, comprehensive economic development. In order to achieve this, all the zones enjoyed special trade, investment, and financial privileges, as well as a high degree of autonomy, even though most were publicly owned; and some of them were involved in public–private partnerships (PPPs).[129] They were encouraged to pursue pragmatic and outward-oriented economic policies that would serve as pilots for more innovative market-oriented policies aimed at overcoming development constraints—such as red tape, labor market rigidities, lack of protection of intellectual property, and restrictions on land use—all of which constituted impediments to investment. If proven successful, these policies could then be implemented more widely across the entire country. Two key features of these policies were (i) the dismantling of barriers to trade and inward flows of FDI (and thus to the associated transfer of technologies and managerial know-how), and (ii) the PRC's accession to the WTO in 2001 (after 15 years of negotiations) as a sign of its openness to the world economy and desire to foster the growth of its private sector. The zones thus served as testing grounds for institutional and policy reforms that enabled the PRC's transition to an open-market economy. The reforms involved, among other things, successful policies to facilitate exports and FDI (including the building of infrastructure) and to develop a market-based transfer of land-use rights, planning, and zoning.

235. The fact that these manufacturing-oriented SEZs were established on land adjacent to transport hubs in regions with abundant cheap, albeit unskilled, labor for processing or assembling goods for export proved vital to the PRC's success with its zones, and paved the way to the country's industrialization. The combination of relevant government policies and the right mixture of factors of production in the SEZs

[128] D.Z. Zeng. 2015. Global Experiences with Special Economic Zones: Focus on China and Africa. *Policy Research Working Paper Series.* No. 7240. Washington, DC: The World Bank Group. p. 4. http://documents.worldbank.org /curated/en/810281468186872492/pdf/WPS7240.pdf

[129] ADB. 2015. Special Chapter: How Can Special Economic Zones Catalyze Economic Development? In ADB. *Asian Economic Integration Report 2015: How Can Special Economic Zones Catalyze Economic Development.* Manila. p. 71. https://www.adb.org/sites/default/files/publication/177205/asian-economic-integration-report-2015.pdf

contributed to unprecedented rates of growth in the PRC. Between 1980 and 1984, while the PRC's overall annual GDP growth averaged 10%, Shenzhen experienced an average annual growth rate of 58%, followed by Zhuhai (32%), Xiamen (13%), and Shantou (9%). By 1986, Shenzhen had developed rudimentary markets in capital, labor, land, technology, communications, and other factors of production. The success of this initial opening up of the PRC's economy to trade and investment prompted the central government to open the economy further and to deepen its reforms. For example, in 1984, under the SEZ program, the central government created economic and technological development zones (ETDZs), which had somewhat clearer geographical boundaries and an emphasis on industrial production.

236. The difference between the SEZs and the ETDZs is mainly one of scale: an SEZ often consists of a much larger area than an ETDZ, sometimes encompassing an entire city or province. From 1984 to 1988, 14 ETDZs were established in additional coastal cities, and in the following years more were established in cities in the Pearl River Delta, the Yangtze River Delta, and the Min River Delta (in Fujian Province). In 1988, the entire province of Hainan was designated as the fifth SEZ, and the Shanghai Pudong New Area was granted the same status in 1989. (Tianjin Binhai New Area became the seventh SEZ in 2006.)

237. Then, in 1992, the State Council created another 35 ETDZs. By the end of 2008, there were 54 national-level ETDZs; and by March 2013, that number had grown to 191 national-level ETDZs. Within each ETDZ, an administrative committee, usually selected by the local government, oversees the economic and social management of the zone on the local government's behalf. In addition to the SEZs, there are many other types of zones in the PRC at various levels, such as high-tech industrial development zones (HIDZs), free trade zones (FTZs), and export-processing zones (EPZs), among others, and each type has a different focus.[130]

238. The SEZs have undoubtedly played a crucial role in the PRC's successful economic development strategy. First and foremost, the zones— especially the earliest ones—successfully tested the market economy and new institutions, and established role models for the rest of the country. By 1992, the concept of openness had been extended to every coastal province region and to all the capital cities of the provinces and autonomous regions in the interior; and various types of SEZs had begun to spring up throughout the country. Thus, by the time Deng Xiaoping made his famous southern tour that year, the program that had started with the creation of the first four SEZs was, in many respects, completed. The "special" economic zones were no longer so special.

239. SEZs have contributed significantly to the growth of GDP, employment, exports, and foreign investment in the PRC; to the adoption of new technologies and modern management practices; and to other improvements in the country's economic performance. Recent estimates indicate that the SEZs at the national level (including all types of zones and industrial parks) accounted for about 22% of the GDP, about 46% of FDI, and about 60% of exports, and that they generated in excess of 30 million jobs.[131] A study based on panel data from 270 cities at the prefecture level covering 23 years (during the reform period) found that the establishment of a major zone in a city led to an average 12% increase in the city's GDP. The long-term cumulative effect of a SEZ could bean increase in GDP of about 20%.[132] In addition, a study of 321 prefecture-level cities between 1978 and 2007 found that: (i) on average, the government's SEZ program (i) increased the country's per capita FDI

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[130] HIDZs, for example, were set up starting in 1998. They are concentrated zones aimed at promoting new local high-tech industries oriented to both the domestic and overseas markets, and based on the PRC's indigenous scientific and technological strengths. Currently, there are 219 national and 30 provincial HIDZs, mainly located near ETDZs. See: ADB. 2015. Special Chapter: How Can Special Economic Zones Catalyze Economic Development? In ADB. *Asian Economic Integration Report 2015: How Can Special Economic Zones Catalyze Economic Development.* Manila. p. 74. https://www.adb.org/sites/default/files/publication/177205/asian-economic-integration-report-2015.pdf

[131] D.Z. Zeng, ed. 2010. *Building Engines for Growth and Competitiveness in China: Experience with Special Economic Zones and Industrial Clusters*. Washington, DC: The World Bank. https://openknowledge.worldbank.org /bitstream/handle/10986/2501/564470PUB0buil10Box349496B01PUBLIC1.pdf;sequence=1

[132] S. Alder, L. Shao, and F. Zilibotti. 2013. The Effect of Economic Reform and Industrial Policy in a Panel of Chinese Cities. *Working Paper Series.* No. 207. Zurich: Center for Institutions, Policy and Culture in the Development Process, University of Zurich. http://www.econ.uzh.ch/ipcdp/Papers/ipcdp_wp207.pdf

by 21.7% and the FDI growth rate by 6.9% per year; (ii) generated significant economies of agglomeration, increasing the technological progress of the cities, with the earlier SEZs by 1.6% more than that of the cities with the later ones; and (iii) resulted in wages for workers in the cities with SEZs that were 8% higher than those in cities without SEZ.[133]

240. These two studies did not evaluate the extent to which the SEZs had generated "incremental" investment, employment, etc. Nor did they assess the impact of the SEZs on total factor productivity (TFP). However, estimates derived from data on Chinese municipalities from 1978 to 2007 show that, by protecting private property rights and offering preferential treatment with respect to taxes and long-term land use fees, the SEZs increased per capita FDI in the form of foreign-invested and export-oriented industrial enterprises by 58% (and increased local workers' earnings).[134] Most of the flow of FDI into the SEZs was new, rather than merely diverted from the domestic market. The SEZs also increased the municipalities' TFP growth by 0.6 of a percentage point.

241. Hence, it is probably no coincidence that the PRC's TFP growth more than quadrupled after the establishment of SEZs in accordance with the "Open Door Policy." Whereas the relatively slow economic growth rate experienced by the PRC during 1970–1980, (averaging 6.1% per year), was largely due to the slow rate of TFP growth (0.45% per year), the subsequent increase in economic growth to 9.4% during 1980–2014 can be attributed mainly to an increase in TFP growth, which reached an annual rate of 4.2% (Figure 4).[135] Consequently, the improvement in TFP growth of 3.7 percentage points was responsible for most of the post-1980 increase in economic growth. The reasons for this marked improvement in TFP growth are unclear, although it may have been partly due to economies of scale and agglomeration (or clustering), and to technological progress. Indeed, with rising labor costs, the PRC is noted for having shifted its SEZs and the larger economy away from labor-intensive toward skill- and technology-intensive production.[136] In any event, improved TFP growth has undoubtedly contributed to the PRC's export competitiveness.

242. The success of the national-level SEZs encouraged the speedy development of new ones by other levels of government. In 2004, there were nearly 7,000 such zones in the PRC. In order to curb the blind (and therefore possibly harmful) expansion of SEZs, the central government stepped up its efforts to clean up substandard zones. By the end of 2006, the number of SEZs had been drastically reduced to 1,568, of which 222 were national-level, and the total planned area had been reduced from 38,600 to 9,900 square kilometers (km^2).

243. The PRC is currently exploring a new variation on SEZs involving cross-border economic zones, which will be especially relevant for the Kyrgyz Republic. These zones will require greater policy coordination between two or more countries. For example, the Chinese provinces of Guangxi and Yunnan, which are connected by common mountain ranges and rivers to member countries of the Association of Southeast Asian Nations (ASEAN), have been constructing cross-border economic zones in order to promote the China-ASEAN Free Trade Agreement (CAFTA).

244. By and large, the Chinese zones were intended to facilitate manufacturing, rather than services, but this appears to be changing. In accordance with the PRC's more recent economic development strategy, which seeks to rebalance the economy by shifting it away from a heavy reliance on manufacturing (together with savings and investment) and toward services (together with consumption), the China (Shanghai) Pilot Free Trade Zone (SHFTZ) was launched in September 2013. Built on four existing tariff-free zones and covering

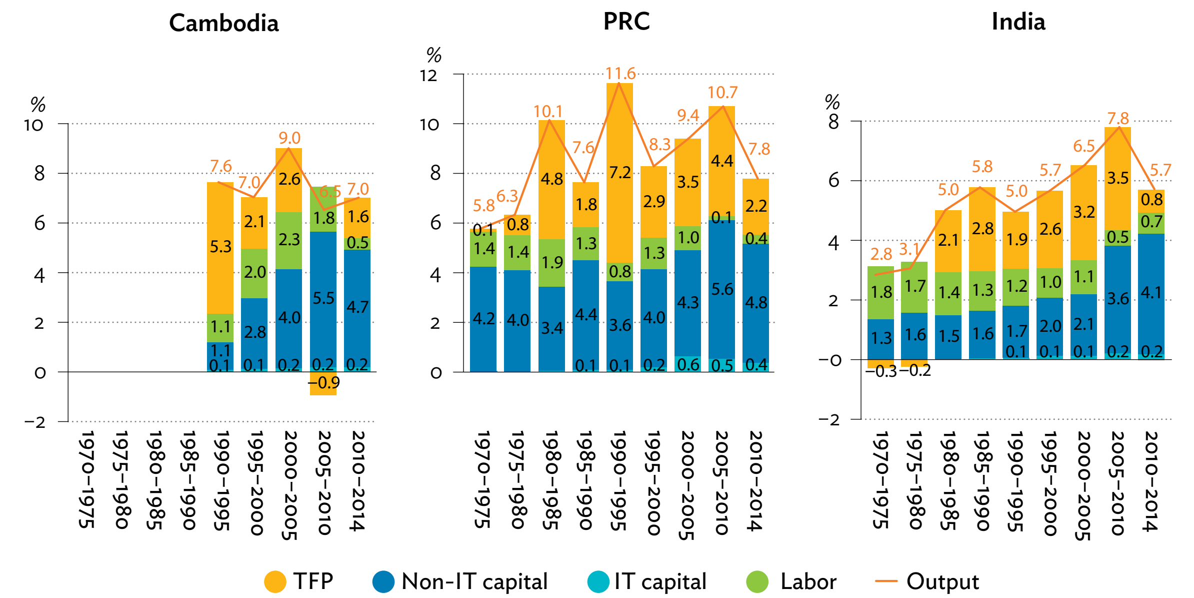
133 D.Z. Zeng. 2015. Global Experiences with Special Economic Zones: Focus on China and Africa. *Policy Research Working Paper* 7240. Washington, DC: The World Bank Group. p. 5. http://documents.worldbank.org/curated/en /810281468186872492/pdf/WPS7240.pdf

134 J. Wang. 2013. The Economic Impact of Special Economic Zones: Evidence from Chinese Municipalities. *Journal of Development Economics*. 101 (C). pp. 133–147.

135 Asian Productivity Organization. 2016, *APO Productivity Databook 2016*. Tokyo. Table 13. http://www.apo-tokyo.org/publications/wp-content/uploads/sites/5/APO-Productivity-Databook-2016.pdf

136 In 2007, the 54 HIDZs hosted about half the nation's high-tech firms and science and technology incubators, registering a total of some 50,000 patents, more than 70% of which were registered by domestic firms. Between 1998 (when HIDZs started appearing) and 2013, these zones accounted for half of the PRC's high-tech gross industrial output and for one-third of its high-tech exports. In addition, the ETDZs were responsible for another one third of the country's high-tech industrial output and exports. See: ADB, Special Chapter; Zeng, Building Engines for Growth and Competitiveness in China.

Figure 4: Output Growth and Contribution of Labor Capital, and TFP for Cambodia, the PRC, and India



Unit: Average annual growth rate
Source: Asian Productivity Organization. 2016. *APO Productivity Databook 2016*. Tokyo: Keio University Press Inc. http://www.apo-tokyo.org/publications/wp-content/uploads/sites/5/APO-Productivity-Databook-2016.pdf.

an area of 29 km^2, SHFTZ is meant to test and refine further economic reforms before their potential rollout nationwide. With services accounting for only 14% of Chinese exports, the SHFTZ's main objective is to relax restrictions on foreign investment in 23 service sectors, including banking, financial services, healthcare, and technology, using a "negative" (albeit long) list approach rather than the "positive" list, although the latter is customary elsewhere in the PRC. It might operate as a platform for easing capital controls and for testing the feasibility of the full convertibility of the yuan. Since the establishment of the SHFTZ, the central government has also approved 12 other free trade zones (FTZs), including those in the southern and eastern provinces of Guangdong and Fujian and in the northern port city of Tianjin. The rules in the latter zones are expected to be similar to those in the SHFTZ, although they may also reflect aspects of their respective regions. The success of this new group of zones remains to be seen.

245. Since 1978, the transformation of the Chinese economy has been such that, in 2010, the PRC replaced the United States as the world's largest manufacturer of goods, and overtook Germany to become the world's largest exporter, with nearly 60% of its exports produced by "foreign-invested enterprises" (whose labor productivity was more than nine times that of the rest of the economy). It has become the world's second largest importer (behind the United States), as well as the third largest recipient of FDI (after the United States and the European Union). It has also displaced Japan as the world's second largest economy. More importantly, the PRC's real GDP growth has averaged almost 10%, GDP per capita has increased almost 20-fold (from $195 in 1978 to $3,863 in 2014), and millions of Chinese have been lifted out of poverty, although there is increased inequality.[137] The PRC's export-oriented development strategy has some key similarities to the successful approaches previously taken by other East Asian

[137] According to the World Bank, the percentage of the PRC's population living below the $1.90 a day poverty line, for example, fell from 88% in 1981 to 6.5% in 2012; and the number of poor fell from 878 million to 87 million during this period. See: The World Bank. Poverty Headcount Ratio at $1.90 a Day (2011 PPP) (% of Population). http://data.worldbank.org/indicator/SI.POV.DDAY?page=6. However, the PRC's Gini coefficient deteriorated from 29.1 in 1981 to 42.1 in 2010, the latest year available. See: The World Bank. GINI Index (World Bank Estimate). http://data.worldbank.org/indicator/SI.POV.GINI?page=1.

economies, notably Hong Kong, China; Japan; the Republic of Korea; and Taipei,China; as well as ASEAN countries.

2. Lessons from the Experience of the People's Republic of China

246. While the PRC's successful use of SEZs as instruments of policy under its economic development strategy may well be difficult to replicate elsewhere, some of the features of the zones provide lessons for the Kyrgyz Republic and other countries in Central Asia.

247. The most noteworthy lesson from the PRC's experience is the Chinese government's single-minded commitment to its "Open Door Policy" (with a view to eventual membership in the WTO). The overriding goal of this economic development strategy was the PRC's gradual transition from a closed, centrally planned economy to an outward-looking market economy, thereby paving the way to growth through export-based industrialization. The role of the Chinese SEZs was to pilot the economic reforms necessary for achieving this goal. They were thus seen as an integral part of the PRC's economic development strategy, which had an effective monitoring-and-evaluation process, as well as a clear goal.

248. The government's strong commitment to this strategy has ensured a stable, supportive, and coordinated environment for the necessary economic reforms, and has resulted in a determination to prevent political opposition and temporary setbacks from undermining the economic experiment with the SEZs. At the same time, institutional reforms, especially the decentralization of power, have helped create a conducive legal and policy environment for the SEZs, enabling them to enjoy a high degree of political and economic autonomy,[138] with support from the central and local governments, and they have contributed to the development of a sound business environment.

249. An effective legal framework with stable, transparent, and unambiguous rules is crucial for the success of SEZs. This framework should be sufficiently well-developed to specify the role of the SEZs in the national economic development strategy, regulate the governing structure and operating procedures of the SEZs, and provide transparent guidance to investors concerning their eligibility for various tax and nontax incentives. While an effective legal framework alone may not be sufficient to ensure the success of a SEZ program, its absence almost inevitably leads to the program's failure, with a negative impact nationwide. In this regard, the Regulations on Special Economic Zones in Guangdong Province (where Shenzhen is located), promulgated in 1980, constituted the centerpiece of the PRC's legal framework for its SEZs. Approved by the National People's Congress, the SEZ Regulations followed the economic development strategy of opening up and attracting FDI into areas of the economy. Whereas other countries' SEZs were focused largely on labor-intensive manufacturing, Article 4 of the 1980 SEZ Regulations invited foreign capital to participate "industry, agriculture, animal husbandry, aquaculture, tourism, housing and construction, and research and manufacture involving high technology, as well as other businesses of common interest to investors and to our side."[139] It also provided a basic legislative framework for the establishment of SEZs in other areas of the country, although, as mentioned above, their number was eventually curbed.

250. Before 2008, SEZs in the PRC were normally set up in batches—initially four at a time, but then the number increased rapidly. There are now hundreds of SEZs, and most of them have clear goals and targets with regard to GDP growth, exports, FDI inflows, revenues, etc. These expectations have put a great deal of pressure and responsibility on the shoulders on the management of each zone. Moreover, the SEZs are highly competitive among themselves, as each one strives to distinguish itself with regard to service,

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[138] It would appear that most of the SEZs in the PRC are publicly owned. However, some are completely privately owned, while others involve PPP components, motivated by the potential synergies between the public provision of infrastructure, land, and possibly financing, and the private sector's strength due to its less-politicized management structures and superior business models. See: ADB. 2015. Special Chapter: How Can Special Economic Zones Drive Economic Development? In ADB. *Asian Economic Integration Report 2015*. Manila. p. 72.

[139] Government of the People's Republic of China. 1980. Regulations on Special Economic Zones in Guangdong Province. Beijing. pp. 1–2. https://www.wto.org/english/thewto_e/acc_e/chn_e /WTACCCHN46_LEG_8.pdf

quality of infrastructure, the ability to attract new enterprises, and the achievement of development goals. This competition arguably has helped to make the SEZs more efficient and competitive.

251. In support of their SEZs, local governments put in place not only an efficient regulatory and administrative system, but also basic infrastructure for their zones, such as roads, water, electricity, gas, sewerage, telephones, and ports, which usually involved considerable public investment, especially in the initial stages. In addition, local governments provided or facilitated the provision of various business services to many SEZs, especially the HIDZs and ETDZs. These services included accounting, legal counseling, business planning, marketing, import-export assistance, skills training, and management consulting.

252. The large size of the Chinese SEZs was an important reason for their initial success. SEZs often encompassed a large area of land, sometimes an entire city or, indeed, a province (as in the case of Hainan). However, the ETDZs—which, after their initial establishment along the coast and in the Pearl, Yangtze, and the Min river deltas, were then extended to inland regions—are much smaller than the SEZs.[140] For example, the Shenzhen SEZ, the biggest and best-known of the original SEZs, covers 320 km^2. The more recently established SHFTZ originally encompassed around 28 km^2, but was expanded to 120 km^2 in 2015 so as to include Lujiazui, an area of Shanghai where major Chinese banks and multinationals are located, thereby allowing them access to the SHFTZ's incentives and benefits. Large scale SEZs may be difficult to replicate in the Kyrgyz Republic, however, so ETDZs, which are aimed mainly at developing export-oriented technology-intensive industries, may be more appropriate.

253. Most of the SEZs in the PRC are located in the coastal regions or near major cities that have a tradition of foreign trade or business, and are thus better linked to international markets. These regions and cities also have good access to major infrastructure, such as seaports, airports, and railways. The locations of the SEZs in the Pearl River Delta were especially advantageous, as they were close to Hong Kong, China; and so were the locations of the SEZs in the Min River Delta, as they were close to Taipei,China. The Shenzhen SEZ's large size, together with its location on the border with Hong Kong, China—where imports enter free of tariffs and other taxes, and labor-intensive manufacturers seek to lower their costs—has enabled manufacturers in the SEZ to exploit the economies of scale and agglomeration, and to link with global value chains (GVCs). While Hong Kong, China provides capital, technology, management know-how, logistical support, and access to world markets, the adjacent Pearl River Delta region has provided labor, land, and natural resources. It is this interaction that allowed the Greater Pearl River Delta to emerge relatively quickly as one of the world's major manufacturing bases.

254. Not surprisingly, the strategic locations of the SEZs and the government's innovative policies, such as land reforms, were both crucial to the zones' success. Prior to 1981, all land in the urban areas belonged to the state, while all land in the rural areas was "collectively" owned. The land reforms included land-use fees in the SEZs and an "open bidding" system for land allocation. The outcome was a modern land market that has transformed the PRC's urban landscape.

255. Inward FDI, particularly from the Chinese diaspora, has played a critical role in the success of the SEZs in the PRC,[141] together with the associated transfer of technology and management skills, learning by doing, and various spillovers; and this FDI was instrumental in building local manufacturing capacity. At the same time that the government started setting up the SEZs in the 1980s, Hong Kong, China and Macau, China, arguably the most open economies in the world, as well as Taipei,China, were also beginning to move up the value chain and reduce their reliance

[140] National Economic and Technological Development Zones. A Brief Introduction of National Economic and Technological Development Zones in China. http://www.china.org.cn/english/SPORT-c/76751.htm

[141] From the outset of the PRC's "Open Door Policy," diaspora Chinese have provided the lion's share of FDI, which have been concentrated in the export-oriented sectors. Not only were investors from the Chinese diaspora (mainly Taipei,China; Hong Kong, China; Macau, China; and Southeast Asia) the main source of FDIs, they also influenced the conception and implementation of SEZs. Moreover, the technology and capital they sunk into these SEZs powered the takeoff of the PRC's export industries, weighing the political scales in favor of continued liberalization and opening. See: J. Lee. 2016. The Chinese Diaspora's Role in the Rise of China. *East Asia Forum*. 14 September. http://www.eastasiaforum.org/2016/09/14/the-chinese-diasporas-role-in-the-rise-of-china/

on labor-intensive manufacturing. The relatively cheap labor and good infrastructure in the SEZs, coupled with the government's "Open Door Policy" (which included various incentives), provided a great opportunity for the diaspora to invest in the PRC and to shift manufacturing operations there. Given the shared culture and language, as well as the advantages of the SEZs' locations, investments from the Chinese diaspora were dominant during the early stages of the SEZs.

256. In order to encourage domestic and, especially, foreign enterprises to invest in the zones, the government made various tax and nontax preferences, including financial and nonfinancial incentives (such as one-stop services), among the zones' main features. The tax preferences included depreciation allowances, exemptions from import and export taxes, and lower corporate income tax (CIT) rates. While some of these tax incentives were granted to all firms, many were accorded only to inward FDIs. The reduction in the CIT rates for FDIs was especially generous: down to 15% from the 30% levied on domestic firms. And FDIs were exempted from local income taxes altogether. But in 2007, the CIT rates for foreign and domestic firms were unified at 25%. Moreover, to support the PRC's underdeveloped capital market, development banks provided subsidized loans, especially to small and medium-sized enterprises (SMEs) based in the SEZs.

257. Tax preferences were gradually withdrawn, especially those pertaining to the CIT. Instead, local zones and parks started to grant their own subsidies, including income tax incentives, to highly skilled labor, reflecting a shift of strategy from attracting investments to attracting talent and knowledge. Corporate tax relief from this point on was applied more carefully, to support business and production activities in specific sectors, such as high technology, and to encourage the development small and medium-sized businesses. Corporate tax relief has become more prudent, and it is applied in very specific ways, depending on the type of business or production activity, with the clear purpose of supporting certain sectors (e.g., high technology) and encouraging SMEs.

258. The Shenzhen SEZ was the first to establish a functioning labor market. Companies operating inside the zone could enter into enforceable labor contracts with specific term limits; could dismiss unqualified or underperforming employees; and could adjust wage and compensation rates to attract skilled labor; for the state-owned enterprises, all this represented a break with the customary practice of offering guaranteed labor contracts. Among the other policies to attract skilled labor, including employees from the overseas Chinese diaspora, was the provision of housing, research funding, and subsidies for children's education. The Shenzhen SEZ also started offering a minimum wage and social insurance package that were superior to anything previously available in the PRC.

259. One of the main strengths of the Chinese SEZs is that they have a high concentration of very skilled workers, including many research and development (R&D) personnel, especially in the HIDZs and ETDZs. As a result, the zones have become centers of knowledge and technology generation, adaptation, diffusion, and innovation. The abundance of FDI provides good opportunities for technological learning. Local governments put a strong emphasis on technological learning and innovation, as well as on technology-intensive industries. For example, the Shenzhen SEZ set up an intellectual property office and issued a number of policies and regulations to protect intellectual property rights. It also implemented various incentives to encourage high-tech industries, R&D spending, and venture capital investment, and to attract technology talent. In addition, the SEZs are closely linked to domestic enterprises and industrial clusters through supply or value chains. This connection not only helps achieve economies of scale and agglomeration, as well as business efficiency, but also stimulates synergistic learning and enhances international competitiveness.

260. In addition, most SEZs and industrial parks have attracted a large number of immigrants from across the country and, later on, from overseas, who hoped to find better jobs and new opportunities. Such a strongly motivated migrant community tends to generate an innovative and entrepreneurial culture. In Shenzhen, for instance, migrants account for 83% of the total population. Moreover, among Shenzhen's permanent residents, 21% are under the age of 16,

and 62% are between the ages of 17 and 44.[142] Such a young and innovative culture makes Shenzhen one of the most dynamic SEZs in the PRC.

261. Regarding other reforms piloted by SEZs, it is also noteworthy that Shenzhen was also the first city in the PRC to set up a center to monitor currency exchange rates; undertake the partial privatization of state-owned enterprises through stock-sharing plans; enable the entry of foreign banks; and, in 1990, to establish a stock exchange.

262. The development of SEZs in the PRC has always been aligned with the government's national economic strategy, institutional reform process, and/or territorial development programs. Due to this alignment, the SEZs have been provided with institutional support and essential infrastructure from the government. In return, the government can utilize the SEZs as instruments for achieving economic and institutional goals.

263. A coherent strategy that includes a well-designed industrial development policy, an appropriate land use plan (which often includes zoning), and business promotion plan has significantly contributed to the success of the SEZs. Such a strategy would normally address the objectives of each zone; identify the zone's strengths and weaknesses; exploit, create, or shape the comparative and competitive advantages of the zone; and consolidate a mechanism that takes industrial growth, land use, and infrastructure construction into account.[143] Recently, the planning of SEZs has become more sophisticated, as they have become a part of urban development, contributing to a better balance between industrial production and livability.[144]

C. India's Experience with Its Special Economic Zones

1. The Genesis and Evolution of India's Special Economic Zones

264. Although it was the first country in Asia to establish export processing zones (EPZs), in 1965, India later attempted to replicate the PRC's success by abandoning its own failed economic development strategy, which had been based on import substitution (with an inherent anti-export bias). To replace the old strategy, the Government of India formulated its "Export-Import(EXIM) Policy" for 2000, which involved the conversion of the eight existing EPZs into special economic zones (SEZs). The goal of this policy was to make the SEZs an engine for economic growth supported by quality infrastructure and complemented by an attractive fiscal package, at both the national and the state levels, with the minimum required regulations. This policy, which laid out a regulatory framework for the development of Chinese-style zones, was eventually formalized in the Special Economic Zones Act, 2005, with the associated rules added in 2006. This Act was intended to stimulate investment (especially inward FDI), with the objectives of transforming India into a powerhouse for export manufacturing, reducing India's heavy reliance on services-led growth, creating employment opportunities and developing infrastructure. These objectives were to be accomplished by "incentivizing" SEZ activities by means of tax preferences and other measures (Table 7). Success thus required cooperation among the Ministry of Commerce and Industry (overseeing the SEZs), the Ministry of Finance (specifically, the Central Board of Excise and Customs and the Income Tax Department, both under the Department of Revenue), state governments and public sector banks, among others. SEZs may be established by the central or state governments or by private developers (including foreigners) through joint ventures with the state or through purely private partnerships.

265. As is often the case elsewhere, tax preferences are among the main features of India's these SEZs. They include exemptions from import tariffs, national and state sales taxes, and taxes on services, plus a 5-year corporate tax holiday on income from exports.[145] To qualify for these tax preferences, instead of having to specialize in exports, a SEZ-based manufacturer only has to be a net earner of foreign exchange for 5 years. So, firms could use a SEZ to supply some of their domestic markets(i.e., the domestic tariff area [DTA] outside the SEZs),

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142 ADB, Pakistan Resident Mission. 2007. *Special Economic Zones and Competitiveness: A Case Study of Shenzhen, China*. Islamabad.

143 Y. Zhenshan and C. Jianming. 2002. Industrial Clusters and Their Application in China: Progress and Implications for Urban Planning. *City Planning*. 36 (12). pp. 60–68.

144 Y. Zhenshan et al. 2013. City Profile: Beijing. *Cities*. 31. pp. 491–506.

145 Special Economic Zones in India. Facilities and Incentives. http://www.sezindia.nic.in/about-fi.asp

Table 7: Incentives Granted to Companies in India's Special Economic Zones Exemption from Import Tariffs (from the DTA and from abroad)

Exemption from the national sales tax
Exemption from the tax on services
Exemption from the state sales tax and other levies (e.g., stamp duty and electricity duties) as extended by the respective state governments
An income tax exemption of 100% for SEZ-based companies for the first 5 years, 50% for the next 5 years, and 50% of the ploughed-back profit from exports for the next 5 years
External commercial borrowing by SEZ-based companies up to $500 million in one year, without any maturity restrictions, through recognized banking channels
Automatic approval of investment involving 100% FDI
Single-window clearance for national and state-level approval procedures

DTA = domestic tariff area, SEZ = special economic zone.

Source: World Trade Organization. 2015. Trade Policy Review: India. Table 3.14, p. 69. Geneva. https://www.wto.org /english/tratop_e/tpr_e/s313_e`df

its export-oriented units (EOUs), and its operations in various technology parks.[146] (While there is no quantitative limit on the amount of SEZ production sold in the DTA, such sales are subject to the same tariffs and indirect taxes as any other imports into the DTA.) Hence, many economists, including some at the Ministry of Finance, feared that rather than stimulating new investment, the SEZs would merely divert investments that would have been made anyway (outside or inside the zone).[147] Instead of generating fresh sources of funding for the country's poor infrastructure, the government would only make things worse by depriving itself of tax revenues.

266. There were also exemptions from some aspects of India's "License Raj," a legacy of the country's earlier regime of central planning. The License Raj, which lasted from 1947 to 1990, involved an elaborate and pervasive system of licenses, regulations, and accompanying red tape that one had to navigate in order to set up and run a business in India. Industrial companies still need to get nearly 70 clearances a year to operate. Complying with the labor laws, for example, requires employers to maintain—and submit to the authorities—16 separate types of worker registries.[148]

267. Not surprisingly, despite high expectations, the performance of India's SEZs has been disappointing. Indeed, two recent reports, one by the Comptroller and Auditor General (CAG) of India in 2014,[149] and another published in 2016 by the Indian Council for Research on International Economic Relations (ICRIER)[150] both commissioned by the Ministry of Commerce and Industry, concluded that the SEZs had failed to meet their objectives. Indeed, the SEZs were characterized as primarily tax-avoidance devices with the added sweetener of access to land.

268. Since the SEZ policy was first announced, in 2000, 421 formal approvals have been granted, out of which 345 SEZs were notified as of 1 May 2016. By 31 March 2017, only 218 were operational.[151] Of these, 21 were multi-product, 2 were multi-services, and the

[146] The EOU scheme, which complements the SEZs, is regulated by India's foreign trade policy. EOUs are similar to SEZs, except that they may be located anywhere in the country. As in the case of the SEZs, the main objectives of the EOUs are to increase exports and foreign exchange earnings, promote the transfer of latest technologies, stimulate FDI, and generate additional employment. In principle, EOUs are established to export their entire production. However, subject to certain conditions, a specific percentage may be sold in the DTA upon payment of duties (including anti-dumping duties) and taxes, with some exceptions. In general, EOUs may sell up to 50% of the "free on board" (FOB) value of exports in the DTA. EOUs producing gems and jewelry, however, may sell only up to 10% of their FOB value of exports in the DTA. The various types of parks include electronic hardware technology parks, software technology parks, and biotechnology parks.

[147] *The Economist*. 2006. India's Special Economic Zones: Cash Cows. 12 October. http://www.economist.com/node/8031219

[148] A. Kazmin. 2014. Modi Tackles India's "Licence Raj" with a Thousand Cuts. *Financial Times.* 21 September. https://www.ft.com/content/5badad82-3ff6-11e4-a381-00144feabdc0

[149] Government of India, Department of Revenue. 2014. *Performance of Special Economic Zones (SEZs): Report of the Comptroller and Auditor General of India*. No. 21. New Delhi. http://www.saiindia.gov.in/sites /default/files/audit_report_files/Union_Performance_Dept_Revenue_Indirect_Taxes_Special_Economic_Zones_SEZs_21_2014.pdf

[150] A. Mukherjee et al. 2016. *Special Economic Zones in India: Status, Issues and Potential*. Indian Council for Research on International Economic Relations (ICRIER). New Delhi

[151] Government of India, Ministry of Commerce and Industry, Department of Commerce. Fact Sheet on Special Economic Zones. http://sezindia.nic.in/writereaddata/pdf/factsheet.pdf

rest sector-specific.[152] Exports from the SEZs totaled Rs2,359 billion (almost $37 billion) during the fiscal year (FY) 2017,[153] down from Rs3,416 billion (almost $53 billion) in FY2016, from Rs4,638 billion ($68 billion) in FY2015, and from Rs4,941 billion (almost $77 billion) in FY2014. Whereas in February 2006 total employment in the SEZs stood at 134,704 and total investment at just over Rs57 billion ($888 million), by 30 September 2016 total employment was almost 1.7 million and total investment was Rs4,067 billion ($63 billion). The SEZs' share of India's total exports (including its exports of services) increased from about 3% in FY2006 to 19.5% in FY2013,[154] but the SEZs' share has declined substantially since then (to 16.1% in FY2015).[155] However, as highlighted by the CAG report, there is no credible evidence that investment and employment in the SEZs and exports from the SEZs have been incremental.

269. In any event, a major finding of the CAG report was that the SEZs had failed to achieve any of the three most important objectives of the SEZ Act: increasing India's share of global exports, stimulating investment (both local and foreign), and creating employment. Actual gains from the SEZs fell short of the government's performance-indicator targets, amounting to 46% instead of 94% in the case of exports, 24% instead of 75% for investment, and 66% instead of 97% for employment. The CAG report concluded that "the achievements of SEZs in the country are contributed by a few SEZs located in some developed states, which were mostly established prior to enactment of the SEZ Act." Furthermore, the CAG report found that manufacturing activity in the SEZs had declined. Other targets missed included land use in the processing area of the SEZs (by a margin of 31% to 93%), overall operational land (38%), and net foreign exchange earnings (39% instead of 109%). Regarding the latter, the CAG report also highlighted the lack of timely foreign currency remittances. In addition, the CAG report found that a number of SEZs were operating without environmental clearance.

270. Notwithstanding the apparent failure of the SEZs to increase India's share of global exports,[156] and stimulate as much investment (both local and foreign) and boost employment as much as expected, the country has undergone a remarkable transformation, albeit not as spectacular as the PRC's.[157] Since 1991, the government has been undertaking unilateral economic reforms, including the progressive abandonment of its inward-looking strategy of import substitution, whose protectionist policies had an anti-export bias. Instead, the Indian economy has been opened up to international trade and FDI, with exports (of goods and services) now considered one of the main engines of growth, alongside domestic consumption and investment. Real growth in the gross domestic product (GDP) accelerated from an average annual rate of 5.4% during 1990–1999 to 7.2% during 2000–2009, and then slowed to 5.7% during 2010–2014. Roughly 2.6 percentage points of this growth (in the latter two periods) was due to improved TFP (Figure 4).[158] Concurrently, millions have been lifted out of poverty, even if there has also been a slight increase in inequality.[159]

[152] Government of India, Ministry of Commerce and Industry, Department of Commerce. List of Operational SEZ of India as on 30.04.2017. http://www.sezindia.nic.in/writereaddata/pdf /ListofoperationalSEZs.pdf

[153] The fiscal year in India is from 1 April to 31 March. As the fiscal year as notated is based on when the year ends, FY2017 refers to 1 April 2016 to 31 March 2017.

[154] A. Aggarwal. 2016. Special Economic Zones in India: Growth Engines or Missed Opportunity? *East Asia Forum*. 19 February. http://www.eastasiaforum.org/2016/02/19/special-economic-zones-in-india-growth-engines-or-missed-opportunity/

[155] WTO. 2016. *World Trade Statistical Review: 2016*. Geneva. https://www.wto.org/english/res_e/statis_e/wts2016_e/wts2016_e.pdf

[156] In 2015, India's share of world exports of *manufactured goods* was a mere 1.6%, compared with the PRC's 13.83%. In contrast, India's share of world exports of *services* was 3.3%, compared with the PRC's 6.0% (https://www.wto.org/english/res_e/statis_e/wts2016_e/wts2016_e.pdf).

[157] Whereas in 1978 India's per capita GDP was $303 and the PRC's was $195, by 1991 India's per capita GDP had grown to $398, but the PRC's had grown to $501; and in 2014 India's per capita GDP was $1,234, compared with the PRC's $3,863. See Knoema. GDP Statistics from the World Bank. http://knoema.com/mhrzolg/gdp-statistics-from-the-world-bank?country=China and http://knoema.com/mhrzolg/gdp-statistics-from-the-world-bank?country =India

[158] Asian Productivity Organization. 2016, *APO Productivity Databook 2016*. Tokyo. Table 13. http://www.apo-tokyo.org/publications/wp-content/uploads/sites/5/APO-Productivity-Databook-2016.pdf

[159] According to the World Bank, the proportion of India's population living below the $1.90 a day poverty line, for example, fell from 52.6% in 1983 to 21.3% in 2011. See: The World Bank. Poverty Headcount Ratio at $1.90 a Day (2011 PPP) (% of Population). http://data.worldbank.org/indicator/SI.POV.DDAY?page=6. China's Gini coefficient deteriorated slightly from 31.1 in 1983 to 33.9 in 2009, the latest year available See: The World Bank. GINI Index (World Bank Estimate). http://data.worldbank.org/indicator/SI.POV.GINI?page=1.

2. The Causes of Failure

a. The Lack of a Coherent and Coordinated Economic Development Strategy

271. The government's desire to make its SEZ policy serve *all* of its social and economic objectives, together with a lack of vision in its policy design and implementation, weak commitment, and lack of experimentation, among other problems, seriously jeopardized India's efforts to industrialize by means of its SEZs.[160] Furthermore, the SEZs have been involved a wide range of activities that fall under various ministerial domains and different levels of government, but a lack of coordination among these ministries and levels of government has constituted a serious impediment to the success of those activities. Indeed, the government looked like a house divided, with a bitter public turf wars between ministries and local governments. The lack of cooperation on the part of state governments, for example, discouraged investment in the SEZs. Furthermore, the CAG report found that gaps in the policies and inefficiencies in their implementation (typical of most social and developmental initiatives by the government) have cost the exchequer valuable revenue and reduced the effectiveness of the government's policies.

272. As a consequence, there remains little, if anything, particularly special about the SEZs in India. And the government has done little to streamline the regulatory regime. On the contrary, firms in the SEZs face a far more restrictive environment than those in the domestic economy. They enjoy no special benefits, not even in terms of the basic facilities such as a single-window mechanism or high-quality infrastructure. As for the SEZ tax regime, it appears to be actually less attractive than the regime outside the SEZs.

273. An important lesson that emerges from the findings of the CAG report is that SEZ-related policies should be initiated with a proper understanding of the conditions necessary for their success. In view of the obvious uncertainty as to their eventual outcomes, major policies involving SEZs should be initiated on a pilot or experimental basis, and then expanded gradually based on the outcomes. Policy making should not be understood as a single once-and-for-all exercise. It should instead be a series of steps, with each step improving the policy and leading to a higher level of achievement. Monitoring and evaluation are two important components of this process that contribute to transparency, and thus should be institutionalized by being incorporated into the policy design itself. Having concluded that SEZ developers and enterprises had been left largely unmonitored, thereby posing a huge risk for revenue administration, the CAG report highlighted the need for such mechanisms, with an emphasis on monitoring and controls, largely as a means of preventing irregularities. More importantly, however, monitoring and evaluation should provide the foundation for evidence-based policy making.

b. Land Issues

274. Land laws among the most formidable challenges for companies, which complain that these laws make the acquisition of land for industry virtually impossible. However, the CAG report found that 52% of the land allotted to SEZs remained idle, even though their approval had dated back to 2006. Given that only 35% of the land area of a SEZ had to be used for production, many of the SEZs may have simply been used for property deals, with developers seeking to acquire cheap land, put in a minimum of infrastructure, and then sell it.[161] Real estate developers apparently had an initial advantage over industrial enterprises when it came to acquiring land and getting their SEZ approved. Indeed, even India's central bank, the Reserve Bank, seemed to have suspicions, classifying loans to SEZs as "real-estate" lending, which made them relatively expensive. Moreover, with farmers allegedly being forced to sell their land and lose their occupations, developers, together with state governments, were accused of profiteering.

275. Another reason for the failure of SEZs, mentioned by the ICRIER study, was the fact that India had opted for a large number of small SEZs without ensuring the provision of proper infrastructure outside the zones (whereas the PRC created a limited number of large SEZs (near port facilities). The total area covered by

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[160] *The Financial Express*. 2014. CAG Report on SEZs: Lessons from the SEZ Fiasco. 15 December. http://www.financialexpress.com/article/fe-columnist/cag-report-on-sezs-lessons-from-the-sez-fiasco/19215/

[161] Government of India, Department of Revenue. 2014. *Performance of Special Economic Zones (SEZs): Report of the Comptroller and Auditor General of India*. No. 21. New Delhi. P. 119. http://www.saiindia.gov.in /sites/default/files/audit_report_files/Union_Performance_Dept_Revenue_Indirect_Taxes_Special_Economic_Zones_SEZs_21_2014.pdfIndeed, the CAG report found that land acquired for public purposes was subsequently diverted (up to 100% in some cases) after de-notification.

India's SEZs is currently only 51,604 hectares (ha), or 516 square kilometers (km^2). By contrast, as mentioned above, the PRC's zone in Shenzhen alone covers 320 km^2. Along with its proximity to Hong Kong, China, the large size of Shenzhen SEZ has been a major factor in its initial success.

c. Infrastructure Problems

276. One of the main objectives of the SEZs was to fix India's "infrastructure deficit" which included problems such as pot-holed roads, clogged ports, and intermittent power. Indeed, the government hoped that, with the incentives available in the SEZs, the private sector would make a large contribution to the $320 billion in infrastructure investments that India was looking to make during 2005–2010. The SEZs have been hampered notably by an absence of external infrastructure. In order to be successful, SEZs have to be connected with world-class roads, railways, seaports, and airports, and customs authorities have to adopt international best practices to promote trade facilitation. This is not the case at present. Deficiencies in the availability and quality of power are an equally important constraint, with state-owned companies such as Coal India unable to keep pace with the rising demand for coal for power generation. At the same time, private companies complain that the existing framework for public–private partnerships (PPPs) in infrastructure projects has them shouldering too much of the risk.

d. Taxation

277. Taxation policies have apparently played a key role in the failure of India's SEZs. As mentioned above, tax preferences—notably exemptions from import tariffs, national and state sales taxes, and service taxes, as well as a 5-year corporate tax holiday on income from exports—are among the main features of the SEZs in India.

278. Regarding import tariffs, the ICRIER study mentioned two additional important reasons for the failure of India's SEZs.[162] The first involved the incentives offered under the government's 2009 foreign trade policy concerning exporters based outside the zones. These measures involved, for example, a tariff drawback scheme, that allowed manufacturers outside the SEZs to obtain a refund of tariffs paid on imported materials used in the manufacture of goods for export. The second was the consequence of India's free trade agreements with several countries, which resulted in the reduction, if not elimination, of the tariffs on many imported products. These two developments negated the considerable advantage provided by the tariff exemptions in the SEZs, given India's relatively high applied most-favored-nation (MFN) tariff rates (averaging 13.5% in 2014, though as high as 32% in 2001).

279. Under the original SEZ scheme, businesses and developers operating in the zones were also exempted from the dividend distribution tax and from the minimum alternate tax (MAT) on book profits and from the dividend distribution tax.[163] One of the most common complaints against the SEZs is that they have failed to achieve their stated objective of encouraging the exportation of manufactured goods. Instead, they have become attractive centers for information technology (IT) companies (whose activities are especially conducive to "creative accounting" for tax purposes) where they again benefited from the tax incentives they had lost when the Software Technology Parks of India (STPI) scheme ended.[164] Indeed, the CAG report found that, whereas 57% of

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[162] iGovernment. Why India's SEZ Policy Didn't Work: ICRIER Study. http://www.igovernment.in/articles/36851/why-indias-sez-policy-didnt-work-icrier-study

[163] The rationale for the MAT was that companies exempted from CIT paid hefty dividends to their shareholders, many of whom paid no tax on those dividends. It was therefore felt that companies ought to pay some minimum income tax, irrespective of whether they were entitled to various tax deductions and exemptions. The MAT was initially levied at a low rate, but subsequently was raised to 20% on book profits. This resulted in a substantial cash outflow that reduced the scope for retained profits to finance investments. Even infrastructure sectors, such as power generation and water resources, as well as export-oriented industries that were previously exempt from the CIT, were required to pay the MAT at 20%. Thus, the CIT exemption was largely vitiated by the MAT.

[164] When the government of India in 2000 removed incentives for exporters, except those located in EPZs or other entities qualifying as export-oriented units, investment behavior hardly changed due to this reform. Indeed, firms that had lost their incentives maintained the same level of investment as before, despite the higher tax rates—roughly the same level as the control group, which had kept their incentives. However, reported profits did respond drastically to the loss of incentives. In particular, reported pre-tax profits dropped on average by half for the firms that had lost their incentives, despite only minimal changes in sales. In contrast, pre-tax profits for firms that had kept their incentives showed an increase. Hence, companies seem to have diverted profits from affiliates facing higher taxes to those that were exempt from taxation due to the incentives. See: S. James, "The Effect of Tax Rates on Declared Income: An Analysis of Indian Taxpayer Response to Changes in Income Tax Rates" (Ph.D. dissertation, Harvard University, 2007).

the country's SEZs were catering to the IT sector, only about 10% were catering to manufacturing.

280. There were also indications that companies were misusing the government's tax policy regarding real estate arbitrage. As a consequence, the MAT exemption was terminated in 2011, and the dividend-distribution-tax exemption was terminated in 2012. More importantly, however, the MAT was levied on book profits of SEZ enterprises at the rate of 20 %, thereby rendering the SEZs much less attractive from a tax standpoint. While the withdrawal of these tax incentives was arguably necessary to combat tax avoidance, if not evasion, it nonetheless undermined the predictability of tax policy, a necessary condition for an environment conducive to investment, whether by multinational or domestic enterprises.

281. Another possible tax-related reason for the failure of the Indian SEZs mentioned in the ICRIER study was the perception that the tax incentives granted to the SEZs might infringe World Trade Organization (WTO) rules that prohibit financial contributions by a government or public body, particularly those contingent on exports. While enterprises operating in SEZs still enjoy income tax relief, there is the perceived threat that other countries may impose countervailing duties to negate the effects of that tax relief, thereby reducing the competitiveness of exports from the SEZs. Indeed, 33 countervailing duty measures have been hitherto taken against India, surpassed in number only by the PRC (42).

e. The License Raj

282. The dense thicket of niggling rules, regulations, and reporting requirements have contributed to India's reputation as an extremely difficult place to do business. Therefore, making life easier for companies would be a logical first step toward the goal of attracting more investment to job-generating manufacturing industries. While the SEZs have streamlined their regulatory regimes in some respects,[165] it appears that firms operating within the SEZs nonetheless face a far more restrictive regulatory environment than enterprises operating in the DTA. Indeed, the CAG report observed that before a SEZ could be established the developers had to obtain multiple approvals, and that only around 39% of the planned SEZs actually became operational after their notification. Moreover, 17 states were not on board when it came to passing state legislation to match the SEZ Act, and this reluctance has rendered India's single-window system ineffective.

f. Labor Laws

283. There are more than 140 overlapping labor laws in India, 44 at the national level and about 100 at the state level. As a consequence, the near impossibility of big companies firing permanent workers, for example, is a big disincentive to large-scale, labor-intensive manufacturing. Any hint of an intention to dilute the labor laws risks an immediate backlash, although the government does seem to want to make such changes as allowing longer overtime hours and letting women work factory night shifts.

g. Recent Developments

284. The government appears to have plans to revive the SEZs, this time on a much larger scale, as "coastal economic zones" (CEZs).[166] Two are reportedly envisaged thus far, each to cover a land area of somewhere between 2,000 km^2 and 3,000 km^2, compared with a total of 516 km^2 for India's 329 SEZs, of which about 8%, (i.e., 25 of them), exceed 2 km^2. It remains to be seen what the features of the CEZs will be, and whether these zones will be any more successful than the SEZs.

D. Cambodia's Experience with Its Special Economic Zones

285. Cambodia's SEZs are relatively new, with the earliest one established in 2006, in accordance with the legal framework for SEZs set out in a government sub-decree issued in late 2005.[167] In 2014 there were

165 Imports to and exports from SEZs are not subject to routine customs examinations; for example, "let export" orders are granted on the basis of self-certification by SEZs. Exports of products manufactured in SEZs are not subject to compulsory pre-shipment inspection.

166 S. Ahluwalia. 2016. The A to Z of Coastal Economic Zones. *Deccan Chronicle*. 17. February. http://www.deccanchronicle.com/opinion/columnists/170216/the-a-to-z-of-coastal-economic-zones.html

167 This case study is based on a recent ADB study. See: ADB. 2015. Special Chapter: How Can Special Economic Zones Drive Economic Development? In ADB. *Asian Economic Integration Report 2015*. Manila. pp. 118–121.

9 such zones operating in the country, with a further 20 authorized to begin operations, all of which were small. The Government of Cambodia's purpose in establishing these SEZs was to promote diversification of the industrial base beyond garment manufacturing, to establish economic linkages between urban and rural areas, and to promote industrial investment outside of Phnom Penh.

286. The SEZs are almost entirely privately owned and managed.[168] This has minimized the large and sometimes wasteful costs incurred by the public sector when setting up zones in other countries. It also contributes greater market discipline to the running and management of the SEZs, adding to their long-term viability. To establish a SEZ, an operator needs at least 50 hectares (half a km^2) of land and must install the necessary roads, electricity, and water supply to service the enterprises that will operate from there.

287. Cambodia's manufacturing sector is heavily dominated by the garment industry. This is less true inside the SEZs, where the industrial base is more diversified, including a higher proportion of firms producing electronics, electrical products, and household furnishings. Industrial diversification was one of the government's objectives in establishing the SEZs, and so this objective has been met to a degree. This diversification offers the advantage that, if the global garment industry suffers a downturn, employment in Cambodia's manufacturing sector will be less vulnerable.

288. Cambodia's experience to date indicates that its SEZ firms are *not* closely linked to the domestic economy. In fact, they are significantly *less* linked than similar firms operating outside the zones. Nonetheless, SEZs may have a significant demonstration effect, as they could show that investment in manufacturing investment beyond the garment sector can be successful, even though the preference-driven, labor-intensive garment industry still dominates manufacturing in Cambodia. And the development of SEZs may also indirectly promote FDI outside the zones, though that would, of course, take time.

289. The Asian Development Bank (ADB) has found that Cambodia's SEZs have attracted significant FDI that would not have otherwise occurred, thereby creating around 68,000 jobs, with equal or better pay, and with better prospects than the alternatives that would have existed without the FDI. The SEZs account for just under 1% of total employment (and 3.7% of total secondary industry employment), and at least 95% of the SEZ workers in the manufacturing sector are women.

290. Low labor costs and, in some cases, favorable tariff treatment of goods produced in Cambodia, by the European Union and the United States are among the main reasons why many firms were initially attracted to Cambodia. Although the employment conditions in the SEZs seem relatively good, however, wages seldom exceed the legal minimum, which is currently $100 per month. By contrast, the average total wage in Cambodia as a whole is between $160 and $180 per month. With the rise in real wages since 2010, the era of cheap labor in Cambodia may be approaching its end, but increased labor productivity could compensate for the rise in wages,

291. An ADB survey of SEZ firms in Cambodia was conducted to gauge firms' perceptions of various aspects of doing business in the zones.[169] Among other factors, as discussed below, this survey touched on the quality and availability of labor at the SEZ firms. Cambodian workers could reach satisfactory levels of productivity, but they would require higher levels of training and longer periods of adjustment than would workers in neighboring Thailand and Viet Nam. The average standard of literacy in Cambodia is not high, and 30% of new employees cannot read at all, apparently never having gone to school. As a consequence, Cambodia has yet to achieve export competitiveness (beyond that due to low labor costs) by raising productivity or investing in innovation.

[168] A partial exception is the small Sihanoukville Port SEZ, which is a PPP financed by a loan from the Japan International Cooperation Agency (JICA).

[169] P. Warr and J. Menon. 2015. *Cambodia's Special Economic Zones*. Manila: ADB. https://www.adb.org /sites/default/files/publication/175236/ewp-459.pdf. This survey was based on field work in Cambodia in October 2014, which entailed visits by the ADB team to three SEZs. The visits included one-on-one interviews with firms operating in the SEZs, and with the managers and operators of the SEZs, followed by a questionnaire-based survey of SEZ-member firms that was conducted in October and November of 2014. The ADB team visited 11 SEZ firms—three in Phnom Penh SEZ, four in Bavet SEZ, and four in Sihanoukville SEZ—in addition to the SEZ administrators.

Moreover, a World Bank Enterprise Survey in 2012 also noted that there were no significant differences in labor productivity or TFP between SEZ and non-SEZ firms in Cambodia, although the value-added per unit of output was slightly higher in the SEZs.[170] But in the economy as a whole, after deteriorating from an annual average rate of 2.6% in 2000–2005 to 0.9% in 2005–2010, TFP growth recovered to 1.6% in 2010–2014 (Figure 4).

292. To maintain the international competitiveness of firms operating in the SEZs, the Cambodian government must not only improve the quality of labor by investing more in human capital, it must also upgrade the country's infrastructure, so as to reduce the costs of electricity and transport and improve their reliability. In the case of electricity, for example, firms choosing to locate in the zones are contractually required to purchase electricity from the zone operator, even when cheaper sources of power are available from sources outside the SEZ. (In the Phnom Penh SEZ, electricity costs $0.20 per kilowatt-hour, compared with $0.07 in Thailand and Viet Nam.) Furthermore, the government needs to facilitate trade by reducing the costs and delays involved in importing and exporting. And it needs to reduce corruption and to clarify the rules of payment to government agencies.

293. The ADB survey of the SEZs found that "one-stop" administrative services had generally reduced regulatory compliance costs, but not enough to satisfy firm managers. The responses of the SEZ-based firms to survey questions on the quality of infrastructure, public services, and government policies ranged from "average" to "good."

294. In light of the PRC's recent interest in developing cross-border zones in cooperation with member countries of the Association of Southeast Asian Nations (ASEAN), perhaps Cambodia will have an opportunity to establish strong links with value chains for rice, corn, and other agricultural products.

[170] World Bank. 2012. Enterprise Surveys: What Businesses Experience; Cambodia 2012 Country Profile. Washington, DC: World Bank Group.

Chapter VII: Principles and Guidelines concerning the Design and Role of the Free Economic Zones, High Technology Park, and Proposed Industrial Production Zones

A. Introduction

295. The foregoing chapters of this diagnostic study highlighted and assessed the main features of the Kyrgyz Republic's free economic zones (FEZs), High Technology Park (HTP), and proposed industrial production zones (IPZs). In the case of the FEZs, and to a lesser extent of the HTP, they evaluated performance with regard to the zones' explicit objectives, especially the attraction of export-oriented activities and investment (including FDI) and the creation of highly paid employment.

296. The purpose of this evaluation is to address the various shortcomings in the features, functioning, and effectiveness of the FEZs and HTP with a view to formulating general guiding principles and specific guidelines in accordance with international rules and best practices. These principles and guidelines are intended to provide a sound fiscal and economic basis for modifying the FEZs and the HTP in order to improve their performance and cost-effectiveness (if they are not replaced by more effective alternatives), thereby enhancing the role of the zones and park in the Kyrgyz Republic's economic development strategy. (The strategy does not even mention the FEZs or HTP at present.) Such principles and guidelines could help to establish what should be "special" about the FEZs and HTP, and what should not. Clearly, the FEZs, HTP, and proposed IPZs need to be adapted to the evolving international trade environment, especially the Kyrgyz Republic's membership in the WTO and related GSP, its recent accession to the Eurasian Economic Union (EAEU) PRC's new "One Belt, One Road" initiative; and the country's adherence to various multilateral and regional trade rules.

B. Empirical Evidence concerning the Performance of the Kyrgyz Republic's Free Economic Zones and High Technology Park

297. Of the Kyrgyz Republic's five existing FEZs, only Bishkek and Naryn maintain some level of operations, partly because the other three lack sufficient basic infrastructure. The FEZs' total production amounted to a mere 1.36% of GDP in 2015, with the Bishkek FEZ accounting for virtually all of it. Enterprises that are producing goods in the Bishkek FEZ exported only 32% of their output in 2016, down from 39% in 2010. As these figures indicate, FEZ enterprises have been oriented more toward the domestic market than toward export markets, and this has been a growing trend. As a result, goods exported from the FEZs in 2016 amounted to only 5.3% of the Kyrgyz Republic's total merchandise exports. Considering that the domestic market is not large enough to enable competing producers to exploit economies of scale (and of agglomeration), and thus reduce their costs per unit of output, an orientation toward the domestic market constitutes an impediment to the improvement of TFP. By contrast, in 2016 almost 80% of the HTP's production was exported,[171] mainly to Kazakhstan, although the park's share of total exports was still minuscule.

298. Among the main reasons for the FEZs' orientation toward the domestic market is undoubtedly the very low and often declining rate of the Kyrgyz Republic's TFP growth, which constitutes a major systemic obstacle to the international competitiveness of the country's exports. For this reason, Kyrgyz firms may have little choice but to sell

[171] This is undoubtedly due to the fact that eligibility for tax relief is contingent on 80% of an HTP resident's income being earned from exports.

their products in the domestic market, where they are to some extent protected from foreign competition. But the orientation of FEZs toward the domestic market may also be partly due to the various tax preferences that FEZ enterprises have enjoyed until recently. These tax preferences placed domestic producers operating outside the FEZs at a significant competitive disadvantage vis-à-vis those operating inside the zones. It appears that producers inside and outside the FEZs are now being placed on a more equal footing due to adjustments being made at the borders between the FEZs and the domestic market with respect to tariffs and the VAT, as some of these tax preferences are now being removed, partly as a consequence of the Kyrgyz Republic's accession to the EAEU.

299. One of the main objectives of the FEZs is to attract new investment, especially FDI, along with the technological progress and managerial know-how that generally comes with FDI, as these could become major sources of improvement in TFP. Unfortunately, there are no data on how much FDI has actually flowed into the Kyrgyz Republic's FEZs. It is known that *total* new investment in the Bishkek FEZ was only $1.6 million in 2015, down from roughly $5 million in 2013 and 2014. By contrast, investment in 2016 jumped to more than $6 million owing to three new large investors the Bishkek FEZ. It may well be, however, that little of this investment and of the employment it generated was *incremental*. Indeed, tax preferences and other features of the FEZs (such as nontax incentives and the provision of infrastructure) may have merely induced domestic and multinational enterprises to establish operations in the zones instead of in the domestic market.

300. As for employment, after reaching a peak of 3,100 employees in 2014, the Bishkek FEZ employed only 2,450 people (or roughly 1% of the country's total labor force) in 2015[172] (compared with 1,200 in 1996). By contrast, 3,700 persons were employed in the zone in 2016. Empirical evidence concerning whether the FEZs have resulted in relatively high wage jobs is mixed, depending on the data used. According to data provided by the Kyrgyz Republic's National Statistical Committee, the average monthly salary in 2016 was Som12,037 in all the FEZs and Som12,373 in FEZ Bishkek, compared with Som6,836 in those SMEs manufacturing outside the zones. As manufacturers in the FEZs are mainly SMEs, this suggests that the zones do, to some extent, succeed in creating relatively high paid jobs as far as manufacturing is concerned. On the other hand, the country's average monthly salary in 2016 was Som14,479, which is considerably more than in the Bishkek FEZ. This reflects the fact that the highest salaries in the country are not in manufacturing, which is the main focus of FEZ Bishkek, but in other sectors, particularly mining as well as financial, transportation, information and communications services, where labor productivity is greater than in manufacturing.

301. While the Kyrgyz Republic's relatively low wage rates would appear to constitute a comparative advantage, at least in the short term, and may therefore play a role in attracting FDI to the country, these low wage rates undoubtedly reflect low labor productivity and TFP. Labor productivity can be improved, however, by increasing investment in human resources to ensure that the labor force is sufficiently educated and trained. Such investment in human capital would be especially important in the long run. After all, education stimulates innovation and improves the labor force's receptivity to new ideas and technologies.

302. The lack of any notable success of the FEZs and HTP in attracting export-oriented activities and investment (including FDI), and perhaps, in creating highly paid employment, suggests that the zones and park are in need of a major overhaul. Moreover, an overhaul is all the more urgent given the country's recent accession to the EAEU, which can be expected to divert as well as generate trade and FDI, and to intensify competition from trading partners within the much larger "internal" EAEU market. The EAEU's rules concerning such zones can also be expected to determine the appropriate role of the FEZs, HTP, and proposed IPZs in the Kyrgyz Republic's economic development strategy, as well as the zones' and park's general and specific features.

[172] An additional 118 persons were employed by firms in the HTP.

C. Lessons from Abroad

303. A well-known success story concerning SEZs has been the PRC, although not in the case of all of its zones (apparently, some 70% have been unsuccessful). The PRC's experience with SEZs is perhaps of particular relevance to the Kyrgyz Republic because the Chinese SEZs were successfully used to assist the PRC's transition from a centrally planned to a market economy, one highly oriented toward exports and toward attracting FDI (along with associated technology transfers) in order to create opportunities for more highly skilled (and thus better-paid) jobs. By contrast, India's SEZs are generally considered to have been far less successful than the PRC's, largely because they have not met their export, investment, or employment targets. In India, SEZs have often been used as devices to avoid, if not evade taxes. Cambodia's SEZs appear to have met with some success, according to the 2015 study by ADB mentioned above. Although relatively new, they have managed to diversify the country's manufacturing sector to some extent.

D. General Principles

304. On the whole, (#1) the FEZs, the HTP, and the proposed IPZs should be integral parts of a coherent economic development strategy that involves the full cooperation of the relevant ministries and other bodies at various levels of government, and includes clear objectives and associated viable numerical targets consistent with the goal of improving TFP, and thus the international competitiveness of Kyrgyz enterprises.

305. As export- and FDI-oriented firms tend to have higher TFP, and therefore pay relatively high wages, the FEZs and HTP (and proposed IPZs) should be oriented mainly toward exports, rather than toward the domestic market. And they should aim to attract FDI (and the new technologies and managerial know-how that usually come with it) in order to pave the way for the integration of domestic enterprises into regional as well as global value chains (GVCs). Accordingly, the Kyrgyz Republic's economic development strategy should eschew industrialization based on import substitution, which has failed elsewhere because it pays little attention to a country's comparative advantages, undermines economies of scale, and impedes the participation of domestic companies in GVCs.

306. In addition to an overall economic development strategy,(#2) there should be an effective institutional and legal framework specifically for the FEZs, HTP, and proposed IPZs. That framework should best able (rather than characterized by the frequent legislative changes experienced by the Kyrgyz Republic), as well as non-discriminatory, unambiguous, and transparent. Such a framework would enhance public accountability and reduce the scope for administrative discretion, and thus corruption. The framework should be sufficiently well-developed to: (i) specify the role of the FEZs, HTP, and proposed IPZs in the national economic development strategy; (ii) define the rights and obligations of public and private parties, particularly concerning on-site and off-site infrastructure and other facilities; (iii) regulate the governing structures and operating procedures of the zones and park; and (iv) provide transparent guidance to investors concerning their eligibility for various tax and nontax incentives, as well as other privileges.

307. Given that the Kyrgyz Republic is a member of the WTO and acceded to the EAEU in 2015, the legal framework concerning the FEZs, HTP, proposed IPZs, and various related measures should not infringe implicit WTO rules or explicit EAEU rules, especially those concerning subsidies. In the case of WTO rules pertaining to *goods*, for example, (#3) no tax incentives or any other type of financial assistance for enterprises in the zones and the park should be contingent on import substitution (due to local content requirements) or on export performance. Otherwise, they will likely be prohibited subsidies under the Agreement on Subsidies and Countervailing Measures (ASCM).

308. Irrespective of whether they infringe WTO and EAEU rules or not, fiscal prudence requires that the special features of the FEZs, HTP, and proposed IPZs (including public expenditures on infrastructure, together with tax and nontax preferences), and the zones and park overall, deliver value for money. As the development of economic zones inevitably involves trial and error, the costs and benefits of all the features, as well as zone and park performance in general (especially with regard to cost-effectiveness), should also be transparent. Accordingly, (#4) the FEZs, HTP, and proposed IPZs should be closely monitored and periodically evaluated to ensure that they achieve their objectives, including numerical targets, in a cost-effective manner.

309. Such monitoring and evaluation are the foundation for evidence-based policy making and public accountability, so they naturally require the collection of data on the costs involved in pursuing the stated objectives of economic zones, and on the extent to which those objectives have actually been achieved, thereby paving the way for the zones' and park's fine-tuning, their possible rollout on a national scale, or their elimination. Unfortunately, whereas the objectives and the legal and institutional framework for the FEZs, HTP, and proposed IPZs, as well as their main features, are reasonably clear, there is little information on the fiscal and other costs of the various features of the FEZs and the HTP—notably, the tax revenues forgone as a consequence of tax preferences, expenditures on infrastructure, and zone administration costs. No data were available on FDIs in the FEZs and HTP. The lack of data has meant that policy with regard to the FEZs and HTP (and proposed IPZs) is to a large extent being made in the dark.

310. An additional formidable impediment to cost-benefit analysis, and thus to transparency, encountered by the ADB team was the difficulty of determining the extent to which the exports, investment, and employment generated by the FEZs and HTP were *incremental*. Hence, the data obtained from the authorities and the information obtained from interviews with FEZ or HTP officials and residents concerning exports, investments, and employment must be interpreted very cautiously. The exports, investments, and jobs generated by the zones and park may simply have displaced exports, investments, and jobs from the rest of the country.[173] A lack of incrementality reduces the benefits of the FEZs and HTP relative to their costs, and thus diminishes their cost-effectiveness.

311. When evaluating zones and parks, a clear distinction should be made between measures that facilitate trade and investment (by removing domestic market distortions that affect competition or by providing services in return for fees on a cost-recovery basis) and more proactive measures (such as incentives) that are intended to favor certain activities and may sometimes be justified on the grounds of domestic market failure.

312. Facilitation involves the removal of impediments to competition and to the reallocation of domestic resources in reasonably well-functioning markets, in accordance with the Kyrgyz Republic's comparative advantage and improved competitiveness. By contrast, incentives involve the more challenging task of successfully identifying, measuring, and correcting market failure, as in cases pertaining to economies of scale or agglomeration, investment in research and development (R&D), learning by doing, and insufficiently developed financial markets. However, (#5) incentives should be used only if the exact nature of the market failure can be identified, a substantial gap exists between the private and social benefits due to the market failure, and if a viable cost-effective incentive is the best means of bridging that gap without any substantial unintended adverse consequences. Insofar as they involve financial contributions by a government or any public body, (#6) incentives (including direct transfers of funds, actual or potential; forgone tax revenues; and the provision of goods and services) should be transparent and subject to "sunset provisions," as well as to periodic monitoring and rigorous analyses to ensure cost-effectiveness.

313. A related source of market failure concerns basic infrastructure (especially transport, energy, water, telecommunications and internet facilities, health, and education), which can often be characterized as a public good. As noted above (Chapter II.G), public goods generate positive "externalities," delivering social benefits over and above what individuals or businesses would find it profitable to provide, and so tend to be undersupplied in a competitive market. Although few goods are purely "public,"(#7) public investment in basic infrastructure (possibly in partnership with the private sector), including in or around FEZs, HTPs, or IPZs, would clearly be an indispensable source of TFP, and thus of long-term economic growth. Indeed, the potential benefits of public investment largely motivated the creation of the new Asian Infrastructure Investment Bank (AIIB),

[173] For example, in connection with the corresponding diagnostic study of Kazakhstan, one enterprise in the Astana–New City Special Economic Zone that had previously employed 450 persons outside the zone informed the ADB team that it had moved 90 of those employees, who were producing a particular line of products, into the zone due to the tax (and other) incentives offered there. So, no incremental employment had apparently been created. As a consequence of the tax relief, however, the enterprise was able to afford new equipment, which enabled it to improve the quality of its product and provide better social benefits for its employees.

which aims to fill the region's infrastructure gap. As long as the return on investment in infrastructure exceeds the cost of financing, public investment will strengthen the government's fiscal balance sheet. An example is the government's investments in electricity generation and paved roads. Indeed, studies carried out on behalf of the government suggested that these investments had generated internal rates of return in the range of 14%–39%. This suggests that public investment in basic infrastructure, whether in or around FEZs, the HTP, the proposed IPZs, or elsewhere in the Kyrgyz Republic, would arguably be more cost-effective than tax incentives(especially corporate income tax [CIT] holidays), whose incremental effects are highly dubious.[174] This is partly because tax incentives are rarely the main determinants of investments. As an alternative to relying exclusively on taxes to finance investments in infrastructure, a user-pays model would create an incentive for the efficient utilization of infrastructure, and would provide funding for its maintenance and eventual renewal. All of this would increase the benefits gained from public infrastructure, including the benefits to enterprises based in the zones and the park.

314. While the FEZs, HTP, and proposed IPZs should be outward-oriented, (#8) it is important that they also create linkages with firms and markets in the rest of the country, to ensure that the zones do not become mere enclaves, with little spillover of benefits—especially skills, know-how, and technology—into the domestic economy. Enterprises outside the FEZs and HTP (proposed IPZs) should therefore be placed, as much as possible, on a more equal footing relative to enterprises inside the zones and park, especially with regard to taxation. This would enable all Kyrgyz enterprises to participate in GVCs. Indeed, equalization should be encouraged by facilitating forward and backward linkages between enterprises in the zones and park and enterprises (as well as research, educational, and training institutions) outside the zones and park, as this would enable the FEZs and HTP to become centers of excellence. As such, the FEZs, HTP, and proposed IPZs could help improve the capacity of local researchers, universities, and firms to integrate with foreign enterprises in local networks, thereby promoting the Kyrgyz Republic's transition to a more knowledge-based economy.[175] Links with educational and training institutions are especially important as a means of ensuring the availability of a sufficiently educated and skilled labor force that will be more receptive to new technologies and management methods.

315. The Bishkek FEZ's labor productivity may be low because the resident enterprises are not sufficiently export-oriented. It may also be due to the fact that the labor employed in the FEZ is relatively less educated (and therefore unskilled), and has relatively less capital and other inputs to work with; or it may be that the TFP of the firms inside the Bishkek FEZ is less than for firms outside. The FEZ's relatively low labor productivity also suggests that it has not attracted much, if any, superior technologies (for example, better machinery, management practices, and employee training); nor have the firms operating in the FEZ achieved a large enough

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174 Judging from the experiences of countries that evaluate the cost-effectiveness of their tax incentives, the forgone tax revenues generally exceed the increases in investment induced by these incentives, with the possible exception of suitably designed incentives for R&D.

175 Singapore provides one of the world's most obvious examples of successful FDI-driven economic development. Since the 1980s, the focus of FDI-promotion policies has been gradually moving away from lower-end manufacturing to knowledge-intensive activities. In addition to targeting innovative multinational enterprises, however, the Government of Singapore has launched new programs to attract foreign universities to the country, making it possible to build a competitive science hub. The "Global Schoolhouse" initiative, launched in 2002, aims to encourage foreign universities to establish branch campuses in Singapore as a means of improving the national education system and attracting international scholars and students. Complementing these efforts, the Campus for Research Excellence and Technological Enterprise (CREATE) program was set up in 2008 to induce foreign universities to fund local R&D centers. As a result, nine universities in six countries, including Cambridge University and the Massachusetts Institute of Technology (MIT), have established new research centers in Singapore, and are now collaborating closely with local universities and firms. In Chile too, a shift in FDI-promotion policies has occurred, starting in the early 2000s, with a stronger focus on using FDI as a lever for building national technological capabilities. In 2000, the Government of Chile established the InvestChile agency, providing grants of up to $2 million, in an attempt to emulate Ireland's success in attracting high-technology FDI. In 2009, the government initiated a new scheme, this one seeking to create international centers of excellence in R&D by offering foreign universities and research institutes grants of up to $19.5 million over a 10-year period to establish new R&D centers in Chile. A total of 13 R&D centers from seven countries have been established so far under this scheme. See: J. Guimon. 2016. From Export Processing to Knowledge Processing: Upgrading the FDI Promotion Toolkit. *Columbia FDI Perspectives*. No. 186. New York: Columbia Center on Sustainable Investment. http://ccsi.columbia.edu/files/2016/10/No-186-Guimon-FINAL.pdf

level of production to benefit from economies of scale. It follows that a greater investment in human capital, especially in education and training, would contribute to higher productivity, not just in the zones and park, but in the country as a whole, especially in the long run. This would render the zones and park, and the rest of the country, more attractive to FDI (and associated technologies, management know-how, and learning-by-doing). After all, education and training stimulates innovation and enables the adoption of new ideas and technologies. Interestingly, international empirical evidence suggests that the rates of return from investments in education are relatively high. Consequently,(#9) investment in human capital should be among the main features of the Kyrgyz Republic's economic development strategy, and should involve close collaboration between enterprises located in the zones (and park) and educational and/or vocational training institutions elsewhere in the country. In the meantime, the government should address the shortage of skilled labor by easing the issuance of residence permits for key personnel and skilled workers from abroad, including those from non-EAEU countries.

316. In addition, the protection of intellectual property rights is essential for the transfer of technology and proprietary knowledge, usually in connection with inward FDI, and thus for the development of business linkages between multinational and local enterprises, including small and medium-sized enterprises (SMEs). Therefore, (#10) the Kyrgyz Republic should ensure that its laws concerning the protection of intellectual property rights are at least in line with, if not better than, international best practices, and that these laws are adequately enforced.

317. The overall economic gains from trade liberalization and consequent structural adjustments in accordance with comparative advantage are such that the winners could, in principle, compensate the losers, so that everyone in the Kyrgyz Republic is better off. Insofar as the winners are not willing or able to compensate the losers, however, the government may need to facilitate the necessary reallocation of domestic resources through redistributive measures, so as to increase the efficiency of the adjustment process and thereby ensure that the gains from trade liberalization are spread more equally. Consequently, some form of trade adjustment assistance (TAA) or more far-reaching income-redistribution measures should be an integral part of any economic development strategy, as they can ensure that the gains in TFP from trade liberalization—including the use of the FEZs, HTP, and the proposed IPZs—and the resulting economic growth are inclusive.[176]

E. Specific Guidelines

1. Tax Preferences and Adjustments at the Borders

318. Tax preferences are among the most prominent features of the Kyrgyz Republic's FEZs, HTP, and proposed IPZs. To preserve the integrity of the tax system, however, such preferences should be specified in the Tax Code (as envisaged in the Kyrgyz Republic), rather than in special legislation.[177] Like the legal framework concerning the zones and park, the tax preferences should be stable, nondiscriminatory, transparent, unambiguous, and consistent with WTO and EAEU rules.

319. In order to place the firms supplying the domestic market from inside and outside the zones and park on the same footing, and thus prevent distortions to competition, (#1) the sales of goods and services to the domestic market by firms located in the zones or park should face full taxation as far as tariffs and indirect taxes are concerned. In the case of an inverted tariff, producers supplying goods to the domestic market from the zones or park should be allowed to choose either the tariff rate that would have applied to their imported inputs or the rate that applies to the finished goods. Such provisions are included in the EAEU rules concerning economic zones, which are scheduled to enter into force in 2017 (similar provisions are already in effect in the Kyrgyz Republic). At the same time, to facilitate exports by domestic firms (especially SMEs) located outside the FEZs and HTP, and thereby develop value chains

[176] A public forum addressing the question of how to make trade more inclusive was held at the WTO on 27–29 September 2016.

[177] In the case of the FEZs and HTP, such provisions are already in the Tax Code. The relevant tax measures were only temporarily added to the draft law on IPZs. Once the draft law is agreed to by all parties, however, these tax measures will be incorporated into the Tax Code.

linking firms located inside and outside the zones and park, (#2) the sales of goods and services by domestic firms to zone- and park-based enterprises should be eligible for full tariff drawbacks and for rebates of indirect internal taxes,[178] as a way to facilitate linkages between the FEZs and HTP, on the one side, and the domestic market, on the other.[179]

320. In the absence of any credible empirical evidence to the contrary, the use of direct tax incentives (especially CIT holidays) in the FEZs, HTP, or proposed IPZs should be avoided, as they are seldom cost-effective. Indeed, the Kyrgyz Republic's statutory CIT rate of only 10% is already very low by international standards, so there is no compelling rationale for additional tax incentives. However, to the extent that they are nevertheless deemed necessary for encouraging investment in the zones, the park, and elsewhere (and do not infringe WTO or EAEU rules), (#3) direct tax incentives should be confined mainly to accelerated depreciation, investment tax credits, or a more generous carry-over of tax losses, instead of tax holidays. Tax holidays tend to be less cost-effective and more susceptible to creative accounting (aimed at profit shifting), and thus to tax avoidance, especially in the case of high-tech firms. Needless to say, the FEZs, HTP (and proposed IPZs) should not be used primarily as devices for tax avoidance, as is frequently done in India. To ensure that this does not happen, (#4) direct taxes and tax incentives should be the same inside and outside the zones and park. A common system of tax preferences and/or incentives would avoid harmful tax competition among the zones (and park). It would also ensure a more level playing field among the zones (and park) and between the zones (and park) and the rest of the country.

321. With regard to the tax treatment of multinational enterprises, (#5) the Kyrgyz Republic would be well advised to expand its network of tax treaties to encompass all the countries that are potential sources of inward FDIs. Such treaties would mitigate, if not eliminate, international double taxation, and therefore greatly facilitate inward FDIs.

2. The Scope of Financial Incentives

322. To the extent that tax and nontax incentives are used to encourage certain activities in the zones and park involving the production of goods, insofar as these incentives are specific (as might be the case with "positive," rather than "negative," lists of eligible activities) and have adverse effects on the Kyrgyz Republic's trading partners, they may be actionable under ASCM rules, and thus subject to countervailing measures. Hence, instead of attempting to pick "winners,"(#6) the government should determine eligibility to invest and operate in the zones and park mainly based on short negative lists, which are less likely to be specific (and therefore actionable), rather than on long positive lists. Irrespective of WTO and EAEU rules, a negative list would obviously be preferable because it would provide more flexibility in adapting to changes in the nature and structure of world trade, including increases in the cross-border flows of digital information and the introduction of new manufacturing technologies.[180]

[178] Drawbacks or rebates should not exceed the taxes originally paid, as the excess could be considered a prohibited export subsidy under ASCM rules.

[179] Such tariff drawbacks and VAT rebates should be prompt and in full, which is not currently the case for products exported directly from the domestic market.

[180] According to the McKinsey Global Institute, cross-border flows of data and other information now generate more economic value than the global trade in goods. See: J. Woetzel et al. 2016. *People on the Move: Global Migration's Impact and Opportunity.* London: McKinsey Global Institute. http://www.mckinsey.com /global-themes/employment-and-growth/global-migrations-impact-and-opportunity. An example of a new manufacturing technology is 3D printing, known in the business as "additive manufacturing," whereby product design files are sent via the internet, and the goods are then "printed" locally, rather than manufactured in one country and then transported to another. Such new manufacturing technology could obviously have important implications for GVCs. Although 3D printing is still in its infancy and therefore has very little effect on cross-border trade, this could change once high-speed 3D printing makes mass production with such printers economically viable. The outcome could be a major disruption in the global flows of goods and thus value chains. According to a recent report, if the current growth of investment in 3D printers were to continue, 50% of manufactured goods would be printed by 2060. In this case, world trade would be expected to fall by one-quarter because 3D printers use much less labor, thereby reducing the need to import intermediate and final goods from relatively low wage countries. As automotive, industrial machinery, and consumer product industries are the top investors in 3D printers as well as large players in world trade, they are likely to take the lead in suppressing cross-border trade. Less trade means that countries with trade deficits in manufacturing will see deficits decline. This will be more pronounced for countries that import relatively many products from leading industries in 3D printing. By contrast, countries with a surplus in manufacturing trade will see their surpluses shrink, especially if they currently export many products that will be 3D printed in the near future. (See: ING. 2017. *3D Printing: a threat to global trade.* Amsterdam. https://www.ingwb.com/media/2088633/3d-printing-report-031017.pdf)

323. Whatever the type of list used to define eligibility, given that services now account for a growing share of world trade,(#7) the government should allow into the FEZs, HTP, and proposed IPZs the widest possible range of companies specializing in services. The WTO rules for services are much less onerous than those for goods. More specifically, the General Agreement on Trade in Services (GATS) does not include any requirements other than nondiscrimination and transparency.

324. When granting financial incentives, (#8), the governments of the Kyrgyz Republic and the other Central Asian countries should cooperate on a regional basis, so as to avoid a “race to the bottom,” which would leave them collectively worse off from a fiscal standpoint as they competed with each other to offer more tax and nontax incentives to attract FDIs.

3. Access to Basic Infrastructure

325. Judging from the experience of the People’s Republic of China (PRC) with its zones, (#9), access to high-quality basic infrastructure is a prerequisite for the successful operation of the FEZs, HTP, and proposed IPZs, as well as an important source of improved TFP. The zones and parks need to have ready access to electricity and water supplies; ports, railways, roads, and other transport facilities (including the envisaged corridor between Almaty and Bishkek); telecommunications services, especially the internet; and waste disposal. In the case of electricity, for example, it is evident that the lack of a reliable power supply in the Kyrgyz Republic has been a major impediment to doing business. This is undoubtedly due in part to the low price charged for electric power, which constitutes a deterrent to investment in energy-sector infrastructure.

326. To the extent that basic infrastructure constitutes a public good, it should be publicly provided, possibly with some private involvement through public–private partnerships (PPPs), including financing based on an appropriate user-pays model.

4. The Management of the Zones and Park

327. Regardless of whether the zones or park are publicly or privately owned, (#10) the body in charge of a zone or parks should be sufficiently autonomous, and operate on a commercial basis. In either case, (#11) it should be self-financing as much as possible, charging fees (if not market prices) that are commensurate with the services it provides (such as on-site infrastructure, facilities, and management), instead of the existing fees, which are charged as a percentage of business turnover. Self-financing would help to ensure that the management companies provide their services on a cost-effective and competitive basis.

328. However, in accordance with fiscal prudence, the experiences of other countries suggest that (#12) private, rather than public, ownership and management can help to contain the large wasteful costs that are sometimes incurred by the public sector when setting up such zones and parks. Private ownership and management also introduce greater market discipline, and thus greater efficiency, into the operation of zones and parks, thereby contributing to their long-term viability. In the case of PPPs, the rights and responsibilities of each of the public and private partners should be clearly defined, especially with regard to the financing and provision of off-site and on-site infrastructure and facilities (notably, electricity, telecommunications, transport links, water, and waste disposal), regardless of whether a “build–operate–transfer” (BOT) or “build–own–operate” (BOO) approach is used for the development of such infrastructure and facilities.

329. Irrespective of whether the ownership and management of the FEZs, HTP, and proposed IPZs are public or private, (#13) an independent board of directors—comprised of representatives of key government bodies, business executives, and other stakeholders—should be established to oversee the zones and park. In addition,(#14) both competition and coordination among the zones (and the park) should be encouraged. Competition should be based mainly on the facilities and services provided on a cost-recovery basis, rather than on the incentives offered. Furthermore, coordination could help reduce the risk of harmful competition between zones.

330. With regard to services, (#15) management companies should be permitted to supply various utility services(including electricity, telecommunications, internet access, waste disposal, and water) to the enterprises located in their zones (or the park) on a commercial basis.

5. Zone Size and Land Use

331. The size of a zone or park (as well as its location) is an important determinant of its success. As in the case of the PRC, (#16) zone and park sites should be large enough to accommodate enterprises, especially those involved in manufacturing, for which economies of scale and/or agglomeration are important sources of TFP growth and cost reduction. This will enable them to compete in export markets and in the domestic market without the tax advantages highlighted above. A sufficiently large site will also have enough room for a "clustering" of companies inside the zone or park and in close proximity to the zone or park.

332. The difficulties encountered with the Kyrgyz Republic's Textile Technopolis highlight the importance of transferring government-owned land from agricultural to industrial use, and the need to develop an efficient market for the allocation and use of land (including prices, rents, etc.). For these reasons, (#17) the government should engage in land-use planning, zoning, and development, along with the building of related basic infrastructure.

6. The Simplification and Streamlining of Regulations and Procedures

333. In addition to a simplification and streamlining of regulations and procedures by the government whenever possible, (#18) a single-window or one-stop-shop system should be set up in each zone and in the park to facilitate compliance with domestic regulations (including those regarding investment approvals, business registration, taxation, customs, land use and ownership, buildings, access to basic infrastructure, licensing, health and safety, residence permits for key personnel and skilled workers from abroad, environmental and labor standards, and access to foreign exchange) and to provide assistance in obtaining the related authorizations, licenses, and permits. Moreover, (#19) the laws and regulations pertaining to labor (e.g., working conditions and health and safety) and environmental standards in the zones and the park should be in line with, if not better than, the national laws and international best practices. Empirical evidence suggests that such standards tend to improve labor productivity.[181]

7. Domestic and Regional Cooperation between Zones

334. As there appears to be little cooperation among the FEZs and HTP in the Kyrgyz Republic, or between them and similar zones in neighboring countries, (#20) the government may consider establishing a single coordination center for the development of the FEZs, HTP, and proposed IPZs (as is now envisaged in Kazakhstan, for example). Accordingly, the purpose of the ADB team's visit to Bishkek in June 2016 in connection with this diagnostic study was to initiate a forum for coordination, including not just the FEZs and HTP, but also other major stakeholders from the public and private sectors.

335. In order to facilitate cooperation among the FEZs and HTP and similar zones in neighboring countries, the 13th Central Asia Regional Economic Cooperation (CAREC) Ministerial Conference, held in November 2014, endorsed a framework for economic corridor development, as well as the operationalization of this framework, in a memorandum of understanding on the Almaty–Bishkek Corridor Initiative, the first instance of regional cooperation at the city level between the Kyrgyz Republic and Kazakhstan. (#21) Such cooperation between the two countries could usefully involve collaboration between their respective economic zones, and with zones in other countries along the New Silk Road.

336. Moreover, in the case of the Naryn FEZ, cooperation with SEZs in Belarus and especially in the PRC (owing to Naryn's close proximity to the Kashgar SEZ, just across the border) is envisaged under a tripartite agreement. Considering the PRC's recent interest in developing cross-border SEZs in cooperation with ASEAN countries, (#22) the Kyrgyz Republic should explore opportunities to develop cross-border zones, not only with the PRC, but also with other neighboring countries located along the "New Silk Road."

F. Concluding Remarks

337. While legislative stability is desirable, the Kyrgyz Republic's FEZs, HTP, and proposed IPZs—and,

[181] For example, see: T. Chang et al. 2016. The Effect of Pollution on Worker Productivity: Evidence from Call-Center Workers in China. *NBER Working Papers.* No. 22328. Cambridge, MA: NBER. http://www.nber.or/papers/w22328

indeed, its economic development strategy—should nonetheless be flexible enough to adapt to domestic, regional, and global developments in the economic environment, and to enable structural adjustments to changes in global and regional trade and a shift to a more knowledge-based economy.[182] These developments include: the increasing share of services in world trade; "digitization," which has opened the door for emerging economies, small businesses, and individuals to participate directly in global and regional trade;[183] a slowdown in the annual growth of international trade since 2010 to just 1.7% in 2016, a sign that businesses are becoming less inclined to build cross-border supply chains (which mainly involve manufacturing);[184] a deepening of regional integration owing to the EAEU and the New Silk Road; and the recent stalling of global trade liberalization, with the associated fall in FDI flows (from a peak of $1.9 trillion in 2007 to $1.2 trillion in 2014).[185] The slowdown in the growth of global trade, together with the fall in FDI flows, has been accompanied by a global slowdown in TFP growth, which fell from an annual rate of 0.9% in 1999–2006 to 0.1% in 2007–2013, and disappeared altogether in 2013 and 2014 before recording a negative rate of 0.3% in 2015. As the economic environment and consequent fundamentals determining the structure of global trade evolve, the FEZs, HTP, and proposed IPZs will need to adapt accordingly (and in the light of periodic evaluations of their performance).

338. The FEZs, HTP, and proposed IPZs could play a useful role in paving the way for the implementation of the WTO's Trade Facilitation Agreement, once it is ratified by the Kyrgyz Republic. This agreement will help further integrate the Kyrgyz Republic into the global trading system by reducing nontariff barriers to trade. The removal of nontariff barriers will be especially important in the case of services. It will require more coherent and less obstructive regulations, as well as a focus on the obstacles to FDI, which has been the main mode of trade in services (although this situation appears to be changing with the increasing cross-border flows of digital information).

339. The Kyrgyz Republic's zones and park will also need to adapt to intensified competition and likely trade diversion resulting from the country's accession to the EAEU. For example, accession raised the Kyrgyz Republic's average applied most-favored-nation (MFN) tariff rate from 4.6% in 2014 to 7.4% in 2015 and then declined to 6.9% in 2016 as a consequence of its adoption of the common external tariff (CET). Given that the average CET is expected to approach 8.4% by 2020, the possible role of the zones and park in offsetting the tariff's adverse effects could assume greater importance. Tariffs (and other taxes collected on imports) raise the cost of imported inputs, thus undermining the competitiveness of exporting firms in the Kyrgyz Republic and impeding their integration into global value chains (GVCs). Tariff exemptions accorded to the FEZs, HTP, and proposed IPZs, therefore, could mitigate the adverse effects that import tariffs have on exports to other countries within the EAEU (by deferring payment); they could also remove the adverse effects on exports to countries outside the EAEU.

340. Finally, the FEZs, HTP, and proposed IPZs could help encourage experimentation in the Kyrgyz Republic's otherwise insufficiently market-oriented economy. The failure of some zones may be a price worth paying if others are successful. But it will require patience, planning, and monitoring and evaluation to ensure their cost-effectiveness. In any event, the zones and the park are always likely to be less preferable than economy-wide reforms that reduce impediments to trade and FDI, thereby improving the productivity and trade competitiveness of Kyrgyz enterprises.

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[182] As mentioned in footnote 180, the McKinsey Global Institute has observed that cross-border flows of data and information now generate more economic value than trade in goods. Moreover, the rapid growth of electronic commerce has been such that the Trans-Pacific Partnership agreement recently broke new ground when negotiators agreed to comprehensive rules (in Chapter 14, concerning electronic commerce) that strongly advance the liberalization of internet trade flows and enhance commerce and investment through the medium of cyberspace. Financial services are especially information-intensive activities.

[183] J. Manyika and S. Lund. 2016. Globalization for the Little Guy. *McKinsey Global Institute.* January. http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/globalization-for-the-little-guy

[184] Chinese manufacturers, for example, are increasingly producing many of the intermediate parts that they once imported for assembly. Such developments, which are being replicated in the United States and elsewhere, are having a global impact, as car manufacturers and other companies have begun to bring production closer to home or to concentrate it in larger markets. These developments are starting to show up in the data, with the global consumption of many finished products, such as cars and pharmaceuticals, outpacing the growth of trade in those goods in recent years, while the trade in many intermediate goods, like fabrics and electrical parts, has actually slowed down.

[185] For example, see: G.C. Hufbauer and E. Jung. 2016. Why Has Trade Stopped Growing? Not Much Liberalization and Lots of Micro-Protection. *Peterson Institute for International Economics.* 23 March. https://piie.com/blogs/trade-investment-policy-watch/why-has-trade-stopped-growing-not-much-liberalization-and-lots

Figure 5: General Guiding Principles and Specific Guidelines

Kyrgyz Republic General Guiding Principles

Integral to economic development strategy	Clear objectives with viable numerical targets towards improving TFP
Effective institutional and legal framework	Stable, non-discriminatory, unambiguous, and transparent rules
Financial assistance guided by fiscal prudence and transparency	Use of tax and other financial incentives not contingent upon export performance or import substitution
Close monitoring and periodic evaluation	Clear distinction between facilitation measures and incentives
Judicious use of incentives	Use of cost-effective incentives to address market failure without causing unintended adverse consequences
Transparent, time-bound incentives	Use of transparent incentives that are subject to "sunset provisions"
Investment in basic infrastructure	Promotion of TFP and economic growth through investment in basic infrastructure (public or PPP)
Establishment of linkages with domestic economy	Promotion of spill-over of benefits, especially skills, know-how, and technology, to the domestic economy
Investment in human capital	Close collaboration between enterprises and educational and/or vocational training institutions and easing of the issuance of residence permits for key personnel and skilled expatriate workers
Protection of IPRs	IPR laws in line with international best practices, and adequately enforced

Kyrgyz Republic Specific Guidelines

Tax Preferences and Adjustments at the Border

1. Sales of goods and services to the domestic market by firms located in zones/parks should be subjected to full taxation in terms of tariffs and indirect taxes.
2. Sales of goods and services by domestic firms to zone-based enterprises should be eligible for full tariff drawbacks and rebates of indirect internal taxes to facilitate linkages with the domestic market.
3. Direct tax incentives should be confined to accelerated depreciation, investment tax credits, or carryover of tax losses, instead of tax holidays.
4. Direct taxes, including incentives, should be the same inside and outside zones/parks.
5. Kyrgyz Republic should expand its network of tax treaties to encompass all countries that are potential sources of inward FDI.

Scope of Financial Incentives

6. Eligibility to invest and operate in zones/parks should be based on "negative" rather than "positive" lists.
7. Zones/parks should allow as wide a range of services as possible.
8. In granting financial incentives, the Governments of the Kyrgyz Republic and other countries in Central Asia should cooperate on a regional basis to avoid a "race to the bottom."

Access to Basic Infrastructure

9. FEZs, HTPs, and IPZs should have access to high quality basic infrastructure.

Management of Zones and Parks

10. Zones/parks oversight body should be autonomous and operate on a commercial basis.
11. Oversight body should be self-financing, charging fees commensurate with services rendered.
12. Private ownership and management is encouraged in the interest of efficiency.
13. An independent board of directors should be established.
14. Competition and coordination between various zones should be encouraged.
15. Managing companies should be permitted to supply various utility services to enterprises on commercial basis.

Size and Land Use

16. Zone/park sites should be of sufficient area to accommodate enterprises for which economies of scale (or agglomeration) are necessary for TFP growth.
17. Importance of transforming government-owned land from agricultural into industrial use and the related problem of developing an efficient market for land allocation and use

Simplification and Streamlining of Regulations

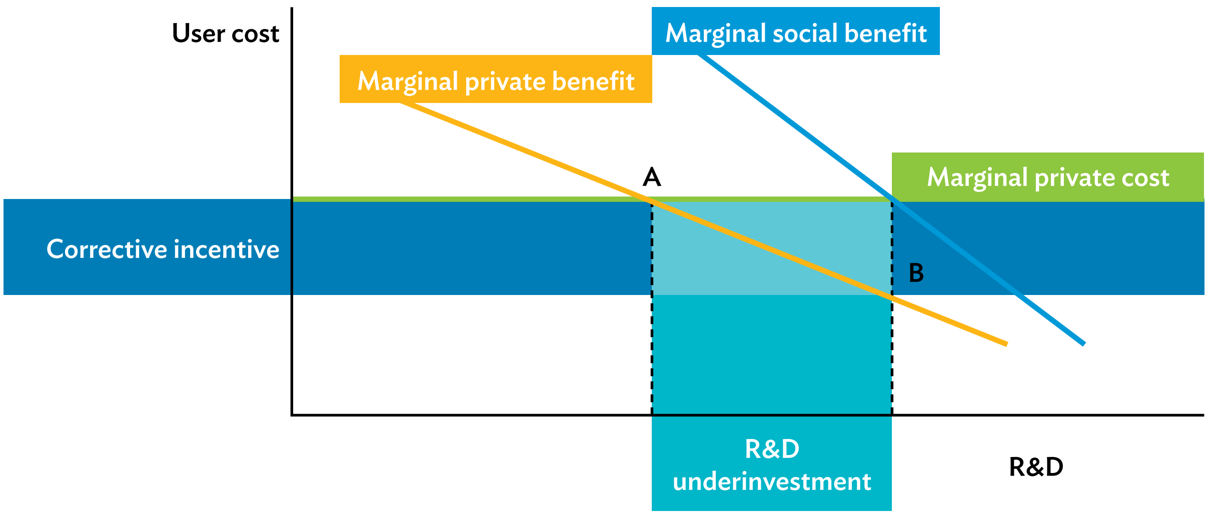
18. Set up a "single-window" or "one-stop-shop" in each zone/park to facilitate compliance with domestic regulations.
19. Labor laws and regulations (including work conditions, health and safety) and environmental standards should be in line with national laws and international best practices.

Regional Cooperation and Cross-Border Economic Zones

20. There should be a single coordination center for zones/parks development.
21. There should be collaboration between the two countries' zones/parks.
22. The same collaboration should be explored with PRC and other neighboring countries along the New Silk Road.

Annex: Corrective Fiscal Incentives for Research and Development

Underinvestment in Research and Development and the Efficient Corrective Incentive



R&D = research and development.
Source: International Monetary Fund (IMF). 2016. *Fiscal Monitor: Acting Now, Acting Together*. Washington, DC. p. 47. https://www.imf.org/external/pubs/ft/fm/2016 /01/pdf/fm1601.pdf

1. This annex provides an indicative estimate of possible underinvestment in private research and development (R&D). It combines a simple analytical framework with consensus estimates from the empirical literature.[1]

2. Consider a neoclassical framework in which the R&D investment of an individual firm is determined based on the usual optimality condition: that the marginal private cost (*mpc*), or user cost (*u*), equals the marginal private benefit (*mpb*). Assuming a constant *u*, decreasing returns to scale with respect to R&D capital determines the optimal private R&D (point A). Assume further that the marginal social benefit (*msb*) is two times the *mpb*—as suggested by the empirical literature—and that the externality exhibits the same decreasing returns to scale as the *mpb*. The socially optimal outcome will then be: $mpc = msb = 2 \times mpb$, or $½u = mpb$. Firms should thus continue to conduct R&D until the *mpb* equals half the user cost (point B). The government can encourage firms to achieve this level of R&D by adopting a corrective fiscal incentive that reduces the user cost by 50%.

3. Effective R&D subsidy rates for 36 countries in 2015 are available in the Organisation for Economic Co-operation and Development (OECD) Science, Technology and Industry Scoreboard 2015.[2] These rates are derived from the "B-index," which expresses the R&D subsidy as a percentage of the user cost. The unweighted average subsidy in the sample is 12%. An efficient corrective fiscal incentive (50% of the user cost) would therefore, on average, require the subsidy rate to be increased by 38% of the user cost. An extensive literature has estimated the sensitivity of private R&D to the user cost and, on average, reports a consensus elasticity in the long term of about −1. These findings imply that, at current effective subsidy rates, the average underinvestment in R&D was 38% in the 36 countries.

4. The B-index is an experimental indicator that requires a number of assumptions. An alternative measure of the effective subsidy is based on government funding of business R&D as a ratio of R&D spending. The unweighted average for 37 countries in 2013 implies an effective subsidy rate of 14%. Average government spending in the 37

countries on support for private R&D was 0.15% of GDP. Proportionately scaling up the effective subsidy to the efficient level of 50% would entail an increase in government support of 0.38% of GDP.

5. Of course, these calculations rely on a number of simplifying assumptions—perfect market conditions, decreasing returns to scale of private R&D, externalities that vary proportionately with the private return, and the absence of distortionary taxation. The user cost of R&D is held constant, while researcher wages might rise in light of their inelastic supply (at least in the short term), thus driving up the user cost. The first-order approximations also take no account of possible nonlinearities, such as those with respect to the effectiveness of subsidies or the impact on gross domestic product (GDP). The results should therefore be interpreted with caution and are for illustrative purposes only.

[1] This Annex was adapted from Chapter 2 of: International Monetary Fund (IMF). 2016. *Fiscal Monitor: Acting Now, Acting Together*. Washington, DC. https://www.imf.org/external/pubs/ft/fm/2016/01/pdf/fm1601.pdf

[2] OECD. OECD Science, Technology and Industry Scoreboard 2015. http://www.oecd.org/sti/oecd-science-technology-and-industry-scoreboard-20725345.htm\

A Diagnostic Study of Kyrgyz Republic's Free Economic Zones and Industrial Parks

This diagnostic study provides an overview of the features, functions, and effectiveness of the Kyrgyz Republic's existing free economic zones (FEZs), its High Technology Park (HTP), and proposed industrial production zones (IPZs) in order to identify and correct their shortcomings and formulate guidelines in accordance with international rules and best practices, so as to enhance their contributions to the success of the country's economic development strategy. In this diagnostic study, attention is focused mainly on FEZs and the HTP, as the IPZs have yet to be established. The main purpose is to highlight the principal features of the FEZs, the HTP, and the proposed IPZs; in the case of the FEZs, it also evaluates the zones' performance, especially with regard to their objectives of attracting export-oriented activities and investment, including foreign direct investment (FDI), and creating highly paid employment. At the same time, this diagnostic study suggests how the FEZs and the HTP could be modified to improve their cost-effectiveness.

About the Central Asia Regional Economic Cooperation Program

The Central Asia Regional Economic Cooperation (CAREC) Program is a partnership of 11 member countries and development partners working together to promote development through cooperation, leading to accelerated economic growth and poverty reduction. It is guided by the overarching vision of "Good Neighbors, Good Partners, and Good Prospects." CAREC countries include: Afghanistan, Azerbaijan, the People's Republic of China, Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan. ADB serves as the CAREC Secretariat.

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ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to a large share of the world's poor. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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