



# STRATEGIC FRAMEWORK FOR SPECIAL ECONOMIC ZONES AND INDUSTRIAL ZONES IN KAZAKHSTAN

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MAY 2018

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## Abbreviations

<b>CAREC</b>	–	Central Asia Regional Economic Cooperation
<b>CSF</b>	–	critical success factor
<b>EAEU</b>	–	Eurasian Economic Union
<b>EPZ</b>	–	export-processing zone
<b>FDI</b>	–	foreign direct investment
<b>GDP</b>	–	gross domestic product
<b>GVC</b>	–	global value chain
<b>ICT</b>	–	information and communication technology
<b>km</b>	–	kilometer
<b>M&amp;E</b>	–	monitoring and evaluation
<b>MID</b>	–	Ministry for Investments and Development
<b>PRC</b>	–	People’s Republic of China
<b>RTA</b>	–	regional trade agreement
<b>RVC</b>	–	regional value chain
<b>SEZ</b>	–	special export zone
<b>SMEs</b>	–	small and medium-sized enterprises
<b>WTO</b>	–	World Trade Organization

## Currency Equivalents

Currency Unit	–	tenge (T)
\$1.00	=	T329.46
T1.00	=	\$0.003

# Executive Summary

**A. Background.** In December 2014, the Asian Development Bank (ADB) approved the Regional Policy and Advisory Technical Assistance for Supporting Industrial Park Development in the Central Asian Regional Economic Cooperation (CAREC) Region with a twofold objective: One, evaluating the features, functions, and effectiveness of existing special economic zones (SEZs) and industrial zones (IZs) in the region by undertaking diagnostic studies; Two, developing strategic frameworks for their development in accordance with international rules and best practices. Two pilot countries were identified, namely, Kazakhstan and the Kyrgyz Republic.

The diagnostic study conducted for Kazakhstan's existing SEZs and IZs in Part one arrives at the conclusions that zones in Kazakhstan have met with limited success and that there are several gaps in their planning and development, supporting similar observations made by various assessment studies in the past. In view of this, the present report which forms the second part of the Technical Assistance Program focuses on developing a strategic framework to support industrial park development in the country. While the diagnostic study focuses on the current status of SEZs and IZs expressing concerns over their viability from a static perspective, strategic framework adopts a dynamic perspective and develops a strategic framework with an action plan to turn them into development engines.

**B. Objectives.** A strategic framework (SF) is a systematic approach of envisioning a desired future and translating this vision into broadly defined goals or objectives and a sequence of action plans to achieve them. It outlines what policy makers expect to achieve with SEZs and how they plan to achieve it. The broad objective of the strategic framework presented in this report is to improve the policy framework for planning, developing, and upgrading industrial parks in the Republic of Kazakhstan to increase the overall productivity and international competitiveness, with the ultimate goal of driving industrial development. The specific objectives of the SF are to

- (i) provide an overview of the development patterns of Kazakhstan against the background of geographical, historical, and economic factors;
- (ii) analyze current development opportunities and challenges;
- (iii) investigate the development strategy, and explore the rationale and roles of different types of zones in the strategy to address development challenges;
- (iv) discuss the mechanisms underpinning the impact of zones on economic growth;
- (v) outline the main pillars of the development strategy for SEZs and IZs, and describe key approaches and instruments that can be used and adapted when promoting zones in Kazakhstan;
- (vi) provide best practices that can be adapted to Kazakhstan; and discuss critical factors for effective implementation of zone policy as well as monitoring and evaluation (M&E).

**C. The Conceptual Framework.** The conceptual framework underpinning the strategic framework is provided by an SEZ policy circle which describes how the strategy making process moves from its initial inception through to policy design, implementation, and evaluation. It sets out the fundamental steps that must be taken in the strategic planning process. In general, there are four steps of strategy formulation:

- **Planning.** SEZ and industrial zone policy making is complex because it is explicitly crosscutting; it does not fit within one ministerial portfolio or one level of government, and there is often disagreement among different government organs over the policy provisions. Further, it affects different interest groups including government organizations (government agencies at the federal, state and local levels), private businesses and individuals asymmetrically generating fierce debate over the impact of the policy. Successfully addressing these trade-offs calls for a comprehensive and evidence-based approach in policy making which needs planning.
- **Strategic directions design and development.** There can be multiple approaches to design and plan strategy surrounding SEZs. The strategic direction outlines what policy makers expect to achieve and how (i.e., design, location, incentive structure, management processes, services to be provided, governance, labor action plan,

and any other initiative, and is contingent upon the vision, mission, and objectives

- Implementation. For effective implementation, how a policy is to be implemented should be an integral part of policy design. It is crucial to identify practical constraints in implementation and tools to overcome them, if the policy is to be successful.
- Monitoring and evaluation. For effective monitoring and evaluation of the SEZ and industrial zone policy, a well- designed evaluation strategy comprising of appropriate methods, tools, benchmarking, and outcome indicators is a critical element of the strategic framework.

The SF covers all these steps of policy cycle and is broadly organized in two parts: planning and strategic proposals, in the above sequence. It outlines issues faced by policy makers at each stage of the policy cycle and presents strategic proposals.

**D. Planning for SEZs and IZs.** The policy tool of industrial parks and SEZs is not adopted in the vacuum. There are three principles fundamental to the development of SEZs and IZs. First, the zones cannot be insulated from the broader macroeconomic contexts of the economy. Policy makers must therefore assess these settings and must identify the strengths, weaknesses, opportunities and threats of the economy. Second, the SEZs and IZs have to be situated within the broader national and regional development strategic framework. This means that there needs to be an alignment between the zone program and wider strategies of trade and industrialization. The synergies between the zones and regional/national development create a mutually reinforcing and self-supporting system where the benefits of zones flow forward and backward expanding the regional capacity and improving competitiveness. Third, as a policy tool SEZs/IZs have multiple objectives to serve; but the same objectives may be served by many other tools. Evidence based policy is informed by an assessment of alternative policy tools against the backdrop of the macroeconomic contexts. While assessing the development of SEZ and IZ policy from this perspective, the present study arrives at the following conclusions

- The most challenging task for policy makers is to push the economy from the low productivity trap to a high productivity virtuous circle and improve its competitiveness: Kazakhstan has had a unique pattern of economic development which is an outcome of its history as much as of its geography and physical features. Under the former Soviet regime, Kazakhstan had been placed at the bottom of the internal value chains, supplying grains and natural resources for the industries of the rest of the Soviet Union with little productive capacity of its own. In the late 1990s, it started the catch-up process with an ambitious goal of becoming a member of the club of 50 most advanced economies. It adopted ‘development state’ as a means to fast forward the catch-up process. The state launched several strategic programs to foster the process of industrial diversification. Yet, the country could not escape the resource curse. It is reflected in highly volatile growth rates, which are associated with commodity prices; and symptoms of Dutch disease. The latter is manifested in low competitiveness, low and diminishing productivity rates, and sectorial retrogression with low and declining shares of manufacturing. There are clear symptoms of deindustrialization. This has affected its export competitiveness and attractiveness to foreign investors. Thus, the most challenging task for policy makers is to push the economy from the low productivity trap to a high productivity virtuous circle and realize the full potential of the emerging opportunities to drive the economy to the path of “Industrial diversification”.
- Institutional bottlenecks need to be unplugged to promote productivity and competitiveness: Notwithstanding the fact that Kazakhstan has improved its overall competitiveness rankings, which is reflected in indices of various agencies, there are areas of concern, which have led to low competitiveness and productivity, and impede investment and diversification. Following the existing literature, a distinction has been made between cost competitiveness, productivity linked cost competitiveness, and productivity-based competitiveness. While the former two determine the ability to sell in international markets and require a particular focus on cost factors, the productivity-based approach is concerned with value creation. It is found that cost competitiveness of the economy is affected largely by high unit cost of labor (which means that wages are growing faster than productivity) and volatile exchange rates. Further, structural bottlenecks mainly, weak governance with corruption and bribery prevailing at different levels; high cost of energy, tedious custom rules, and unfriendly business rules and regulations have constrained productivity and raised costs of doing business; finally, productivity growth is constrained by low quality of education system, underdeveloped financial systems, lack of technological capabilities and low efficiency of R&D infrastructure.

- SEZs and IZs can serve as a highly potent policy tool to address institutional bottlenecks and promote competitiveness: Low cost competitiveness and low productivity discourage investment in productive activity. This impedes expansion in the scale of production, which in turn prevents the use of new technologies, investment in learning, and upgrading of businesses. This keeps costs high and productivity low. There is thus a vicious circle of low competitiveness and productivity in the economy. The challenge is how to break the vicious circle and enter the virtuous circles of competitiveness and productivity. The remedy lies in giving a big push to the economy to raise the levels of investment. In the contemporary world, where global value chains are becoming increasingly influential in determining trade and FDI patterns, as well as growth opportunities, two major tools that can be the key channels for GVC integration and serve as a ‘big push’ to initial levels of investment are: special economic zones and industrial zones. There are three ways in which SEZs can break the vicious circle of low competitiveness and productivity: by overcoming structural constraints and lowering the cost of doing business they can be instrumental in attracting GVC-linked investment from both domestic and foreign investors; by attracting in particular FDI, they can serve as a tool to bring new technologies in the country; by generating agglomeration economies they can. Finally, they can be a tool to promote vertically specialized industrialization which is also termed as smart industrialization.
- Development Strategy and SEZs. The country has had four phases in the evolution of the SEZ policy since 1991. An overview of the performance of SEZs and IZs reveals that they have failed to generate substantial gains for the country supporting the observations of the diagnostic study conducted by the ADB and various other studies in the past. It is found that instead of overcoming the structural and production failures, SEZs and IZs themselves are affected by these failures. There is a disconnect between the policy approach adopted towards SEZs and the objectives assigned to them; and between the key element of the development strategy and SEZs/IZs. One of the major cornerstones of the industrial diversification strategy is ‘cluster development. Despite the fact that SEZs and IZs have the potential of promoting clusters, the cluster development program is not linked with them. SEZs and IZs are essentially viewed as industrial infrastructure to attract investment; their role in augmenting cluster development is not recognized. In the contemporary world, where the rise of GVCs has reshaped global production and trade systems and participating in and moving up GVCs is critical for industrial development for late-comer countries, the industrial strategy of Kazakhstan has little narrative of global value chains or smart industrialization; it is still molded in the traditional case where the objective of is to nurture a set of fully blown national industries in key sectors. The role of SEZs and IZs, which can be instrumental in attracting GVC linked investment and augmenting technology driven clusters is not fully recognized in the development strategy, and the potential of SEZs and IZs has been severely underutilized. There is thus a need to develop a strategic framework to address this situation and integrate SEZs and IZs into the broader strategy of industrialization.

**E. Strategic Proposals.** In order to exploit the full potential of SEZs, the SF presented here is founded on five pillars including the ones on implementation, and monitoring and evaluation.

- **Integrating IZs and SEZs with Cluster Development Program and Transitioning from EPZ type SEZs to eco zone type hybrid SEZs.** The existing approaches of cluster development in Kazakhstan place large firms, mainly state-owned ones at the center of cluster development. In these approaches, cluster development becomes dependent on the growth of large and mainly state sponsored firms. Many of these firms are not on technological frontiers or internationally competitive. Over the past two and a half decades, the diffusion of new technologies particularly ICTs, has placed technology at the core of economic activity. With production and technological activity becoming internationalized through GVCs, technology flows through these chains creating possibilities for local firms to source these technologies and strike R&D and technology partnerships with other companies and institutions. It means that SEZs and IZs that are set up to attract GVC-linked activity can serve as an important tool to generate a trade-investment-services-technology nexus. However, a traditional, fenced, small sized SEZ will not allow spillover and economies of scale advantages to be generated.
  - » Promote hybrid variety of SEZs. It is proposed to shift to the concept of ‘economic zones’ which comprise of both, bonded (single unit SEZs) and nonbonded companies, both foreign and domestic (in line with the Polish model); and smaller processing zones and industrial parks operating within them (along the lines of the Chinese model). Most South East countries have also successfully

transitioned to these types of zones. The existing SEZs may be designated as the industrial nodes to develop clusters around them in a geographically delineated area by encouraging the growth of both export oriented and domestic market-oriented projects. A mix of bottom up and top down approach may be adopted to promote clusters in the selected regions by creating synergies between the SEZ/IZ and regional development programs and synergizing the efforts of the government at the center and regional levels between.

For creating a critical mass of activity in SEZs, a nondiscrimination approach may be adopted for SEZ tenants. The nature of the activity attracted by them will be determined by market forces. If it is not possible to discard the priority-industry approach, it should at least be made broad-based. On the other hand, industrial zones may focus on priority industries. To attract investment, Kazakhstan may target selected value chains depending on its competitive advantages. These GVCs must be mapped to identify the range of the activities where the country has competitive advantages. Special benefits may be offered to target investors in these value chains.

- **Promoting Investment climate in SEZs.** The key factor underpinning SEZ-led growth is their ability of attracting investment, in particular, GVC-linked investment, and facilitating the insertion of domestic firms into international production networks by overcoming the institutional and production bottlenecks that characterize the business climate outside them. Zones need to offer the investors high quality infrastructure, good location, incentive packages, simple administrative procedures, and relaxed regulatory machinery to reduce the cost of doing business and make them attractive for investors. This in turn requires a well-developed and comprehensive institutional framework in place, which ensures stability and certainty in these provisions, and signals political commitment. Strong government's support for the SEZ (and IZs) program in the strategic intent for zones, and in the broad approach are critical to attracting high-quality long-term investors. Policies and operational practices in the zones need to be in line with the needs of the private investors. Business environment within SEZs must be insulated from that outside of them to make them attractive and these policies should be transparent and stable. Many zone programs undermine investor confidence by failing to deliver a conducive and predictable policy environment.
- **Promoting linkages with the domestic economy.** Three overlapping strategies are identified to promote linkages with the domestic economy.
  - » The minimalist approach: It requires the government to lower transaction barriers between the SEZ and domestic firms. Thus, sales of goods and services by a domestic enterprise from the national customs territory to SEZ enterprises need to be considered exports to entitle local suppliers the benefits as indirect exporters. Further, on administration side, simplify paperwork requirements and reduce delays for local firms to take advantage of the benefits. Finally, domestic market sales may be allowed on the condition of the payment of the duties foregone in SEZs. If the SEZ product is manufactured using new and sophisticated technology, its domestic sale may be allowed duty free or at concessional rates.
  - » The proactive approach: The approach requires minimalist approach to be complemented with appropriate and wide-ranging policy frameworks that strengthen the domestic productive capacities and spillover benefits from foreign investment, knowledge, and innovations. A well-crafted package of macroeconomic and industrial policies needs to be in place with an appropriate mix of macro management tools, labor market policies, competition policies as well as policies for investment in education, skills, technology and strategic infrastructure.
  - » The targeted approach: This approach places SEZs and IZs at the center of the process of industrialization. From this perspective, nations can industrialize by joining a supply chain using SEZs as a tool and then moving up along them and jumping to more sophisticated chains. This is referred to as Vertically Specialized Industrialization. Increasing participation in most global value chains require a range of goods and services that must be available at competitive prices and quality. The role of the government is to focus on understanding the requirements of the SEZ industries, creating dynamic domestic firms by offering them incentives, building production capabilities, building networking capabilities, managing technology development, and skill formation. For this, the government is to

develop policies, agencies, and institutions that ensure advancements in all the segments of the production processes in SEZ industries. Raising competitiveness of domestic firms and industries thus becomes crucial in shaping the outcomes.

The report proposes that an overarching focus on the development of these clusters using the “proactive policy” with a mix of “focused approach” should be the way forward for Kazakhstan.

- **Promotion of Regional and Cross-Border Value Chains.** RVCs can be a path for Kazakhstan to integrate into GVCs. Factors that can facilitate the promotion of RVCs include membership in the EAEU; emergence of transport corridors; and economic diversity among member countries, with the Russian Federation as a leading global economy. By coordinating efforts to strategically foster SEZ-based clusters that take advantage of complementary endowments of different member countries, Kazakhstan can leverage zone infrastructure and regional integration to overcome its limitations of scale and specialization. Sectors in which RVCs can flourish, based on regional comparative advantages, are automotive, machinery and equipment, chemical and petrochemicals, agriculture-related, and light industries through retail chains. An appropriate strategy— involving harmonization of standards and regulations in selected sectors, SEZ definition and regulations, and fiscal incentives, as well as programs and projects integrated with entrepreneurship development programs for enhancing capabilities of firms in participating and managing the chains—will be the way forward in promoting these chains. It is also recommended to set the target of transforming the Khorgos-East Gate SEZ into a cross-border zone over a long period of time with a focus on machinery and equipment, electronics, and agriculture-related industries to complement the growth of Horgos Economic Development Zone on the PRC side of the border. The promotion of a cross-border zone will involve economic integration in the cross-border region and include intersector cooperation among a wide set of actors, including the entire socioeconomic system and administrative institutions.
- **Implementation Strategy.** The SF draws on four main models of implementation to identify the factors critical for successful implementation of the SEZ strategy: conflict-ambiguity model, human resources capability model, institutional complementarity model, and risk management model. The key lessons are as under.
  - (i) Stakeholder management: Identify the stakeholders; assess their roles and responsibilities, commitment, and resistance; engage them in decision making and prosperity sharing; keep the policy goals clear and consistent and communicate the policy clearly to stake holders and the implementing agencies.
  - (ii) Human resource management: Train the implementing personnel, ensure accountability, and offer incentives.
  - (iii) Complementary institutional initiatives. Conduct macro management of the economy to create an environment in which trade and investment can grow exponentially.
  - (iv) Risk management: Anticipate, assess, and manage risks in implementing the policy effectively, diversify economic activities, export destinations, and FDI source countries within SEZs; promote rigorous marketing of SEZs to help manage market risks: adopt best practices regarding SEZ-related risks, such as fraud and money laundering, noncompliance, and change in the government attitude toward SEZs
- **Monitoring and Evaluation.** M&E provides government officials and stakeholders with means to learn from past experiences; improve the design, implementation, planning, and allocation of resources; and demonstrate results as part of accountability to key stakeholders. There is no best practice model for M&E; it is contextual. Different methods may be adopted depending on the objective of M&E, indicators identified for evaluation, data availability, and human resources. However, key lessons are:
  - » Develop a Monitoring and Evaluation Framework, including a schedule for evaluations;
  - » Develop performance indicators covering the measures of inputs, processes, outputs, outcomes, and impacts of the policy.
  - » For each evaluation, prepare an initial evaluation plan; identify the indicators; recruit and train a team to conduct the evaluation.
  - » Disseminate findings to make them publicly known.

- » Do not over engineer an M&E system, particularly through multiple monitoring systems or with an excessive number of performance indicators.
- » Present the evaluation results externally
- » Develop an action plan for follow-up; M&E is worthwhile only to the extent that it is actually used to improve government performance.

# Chapter I: Introduction

## 1.1 Background

Kazakhstan is the most prosperous country in Central Asia, accounting for over 60% of the region's total gross domestic product (GDP). It is an upper-middle-income country, with a GDP per capita of \$11,000, the highest in the region. With a total area of 1,052,089 square miles and a population of over 18 million persons—25% of the population of the region—Kazakhstan is also the largest Central Asian country.

Kazakhstan gained its independence in 1991 with the collapse of the Soviet Union. It was immediately challenged with stabilizing its economy following the sudden dissolution of the Soviet Union; its key objectives were to overcome the economic crisis, establish an independent financial system, and create appropriate institutions for the transition from a centrally planned to a market economy. By 1997, Kazakhstan essentially completed the process of transition and shifted its focus from economic stabilization to economic growth (Pomfret 2006). Since then, it has made significant progress in implementing broad-scale social, political, and economic transformations, and has emerged as the most dynamic economy of the Central Asia.

In 1997, the government released its first strategy document, *Kazakhstan 2030: Prosperity, Security and Ever Growing Welfare of All Kazakhstanis*, which outlined the basic principles of the development strategy of Kazakhstan, and continues to inform policy making to date. Inspired by the East Asian development experience—particularly the Republic of Korea; Singapore; and Taipei, China—the Government of Kazakhstan assumed the role of the development state, committed to “[using] the instruments of state policy in such a way so as to enhance the development of industries most appropriate for Kazakhstan” (Government of Kazakhstan 1997: 28). One of the highlights of this document was setting promotion of industrialization and diversification of the economy as a major development plank with a commitment to “[launching] an active industrial strategy of diversification” (Government of Kazakhstan 1997: 29).

In the early 2000s, the government launched an ambitious industrial development strategy, ‘*Innovative Industrial Development Strategy for the years 2003-2015*’ signaling a proactive approach to promoting industrial development. This was followed by a number of strategic planning, and program documents at the national, sector, and local levels (Pomfret 2014). The key feature of the industrial strategy is the use of both vertical and horizontal industrial policy tools to promote competitiveness and competition to create a positive environment for industrial development. Industrial policy instruments cover a wide range of policy tools, including monetary and fiscal management, product market policies, factor market policies, and research and development policies to activate drivers of growth. One major policy tool is the development of special economic zones (SEZs) and industrial zones. The purposes of SEZs under the SEZ law, 2011, are to develop the most advanced production environment with high productivity and competitiveness, attract investment and new technologies in relevant industries and regions, and improve employment (Article 3). SEZs are thus viewed as an important tool to achieve the major objectives of economic policy, that is, economic diversification, competitiveness enhancement, and technological upgrading. Industrial zones also expected to serve similar objectives of promoting competitiveness and industrial diversification.

Various assessment studies (e.g., ADB 2017; Algiev 2015; JICA, MRI, JATRN 2015; Nevmatulina, 2013), however, indicated that zones in Kazakhstan have met with limited success. Several gaps were observed in their planning and development, which are considered responsible for their underperformance.

In view of the above, the Asian Development Bank approved technical assistance to support industrial park development in the Central Asian Regional Economic Cooperation (CAREC) region.<sup>1</sup> The objective is to improve the policy framework for planning, developing, and upgrading industrial parks in CAREC member countries to increase the region's productivity and international competitiveness.

<sup>1</sup> Asian Development Bank. 2014. Technical Assistance to Improve Industrial Park Development in the Central Asian Regional Economic Cooperation Region. Manila.



Currently, the focus is on two pilot countries: Kazakhstan and the Kyrgyz Republic.

This report thus outlines a strategic framework for the development of SEZs and industrial zones in Kazakhstan, with the ultimate goal of driving industrial development. The specific objectives of the report are to

- (i) provide an overview of the development patterns of Kazakhstan against the background of geographical, historical, and economic factors;
- (ii) analyze current development challenges;
- (iii) investigate the development strategy, and explore the rationale and roles of different types of zones in the strategy to address development challenges;
- (iv) discuss the mechanisms underpinning the impact of zones on economic growth;
- (v) outline the main pillars of the strategic framework, and describe key approaches and instruments that can be used and adapted when promoting zones in Kazakhstan;
- (vi) provide best practices that can be adapted to Kazakhstan; and
- (vii) discuss critical factors for effective implementation of zone policy as well as monitoring and evaluation (M&E).

## 1.2 Definition of a Strategic Framework

Public policies often have multiple objectives to serve, some of which may even be conflicting. SEZs are no exception. They first emerged in 12th century Europe in the form of free ports, free cities, and free zones, and flourished during the Middle Ages when mercantilism ruled Europe. The objective was to foster reexport or *entrepôt* trade by overcoming high tariff barriers without opening the domestic market to foreign goods. Since then, the concept of SEZs has evolved and acquired different designs and objectives in various contexts. They have evolved from being trade- to investment- to development-oriented, from being purely an economic tool to a social and political tool, and from carrying out structural reform to promoting international and regional cooperation (Meng 2005).

Success stories indicate that SEZs have the potential to promote trade, foreign direct investment (FDI), industrial growth and diversification, spatial rejuvenation and urbanization, border development,

and regional integration in different macro-economic, socio-historic and political contexts. The challenge for government is to ensure that they are used most effectively and efficiently within given contexts. A strategic framework is a roadmap in that direction. It outlines what policy makers expect to achieve with SEZs and how they plan to achieve it. It is a systematic approach of envisioning a desired future, and translating this vision into broadly defined goals or objectives and a sequence of action plans to achieve them.

Figure 1 shows that the strategic vision and mission are at the center of a strategic framework, indicating the purpose of setting up SEZs and industrial zones. An action plan provides strategic directions, representing tangible steps to achieve the mission. Objectives serve as the bridge between the vision and action plan

The choice of strategic approach is guided by a given institutional context, development strategy, and potential of the zones. Different strategic approaches are associated with different visions, missions, objectives, execution plans, and hence different critical success factors. Critical success factors are core factors that pertain to SEZ design, location, incentive structure, management processes, services to be provided, governance, action plans, and any other initiative in the execution plan. The strategy and its implementation also affect the outcome of SEZs. A country, which clearly identifies institutional impediments in its development process and assigns a well-defined strategic role for SEZs in its broader development strategy, tends to perform better than others.

Kazakhstan has embarked on a strategic industrial innovative development path with the vision and objectives of SEZs already specified in national development frameworks in accordance with national priorities. This report focuses on the action plan, outlining strategic directions and providing strategic tools to achieve the objectives and ultimate goals.

## 1.3 Why a Strategic Framework?

Zone development has emerged as an important direction in economic policy for industrialization. There is a growing realization that pursuing the goal of industrial diversification is becoming more complex, as the economic and institutional landscape of the global economy has significantly changed. Many

Figure 1: The Strategic Framework



Source: Author.

emerging factors—such as the dismantling of barriers to trade and investment; rapid changes in production, transport, and communications technologies; financial market integration; increasing nontariff barriers; growing legal obligations emerging from multilateral, bilateral, and regional agreements; and global warming—have posed significant challenges for developing countries, exposing them to fiercely competitive international markets while constraining their policy space, curtailing their ability to mobilize domestic revenue and increasing their vulnerability to shocks and financial instability. Policy makers are challenged as to how best they can use the tools available to achieve sustainable and inclusive economic outcomes. Indeed, old policy instruments, such as tariffs, exchange rate policy, quotas, and production subsidies, are becoming less important and are being replaced by new paradigms that focus on innovation, logistics, and human skills. Competing in the global economy today requires high productivity, speed, flexibility, adaptability, quality, innovation, networks, and critical mass—yet many developing countries are facing various production and marketing bottlenecks that impede competitiveness of these economies. In this scenario, SEZ and industrial zone policies are seen as the way forward.

Over the past 25 years, there has been a surge in the number of SEZs from 500 across 73 countries and

areas in 1995 to 3,500 across 130 countries and areas in 2006. They are estimated to account for 130 million jobs (direct and indirect) worldwide, about 1% of total global employment, and are an important destination of FDI (Boyenge 2007). For instance, the share of FDI flows going to SEZs in the Philippines is as high as 81% (Farole 2011). They also accounted for slightly less than 20% of exports from emerging and developing economies in 2005 (Baissac 2011). They can thus be critical drivers of employment, investment, and exports in the global economy.

In some countries and areas—such as the People’s Republic of China (PRC); Dominican Republic; Hong Kong, China; the Republic of Korea; Malaysia; Mauritius; Mexico; Singapore; and Taipei, China—SEZs have played a critical role in catalyzing diversification and economic growth. Aside from a few successful examples, their development benefits by and large remain highly ambiguous (Aggarwal 2012, Farole 2011, Akinci and Crittle 2008, Madani 1999).

Several explanations have been offered for the underperformance of SEZs. An analysis of the performance of SEZ regimes in 32 countries and areas in Asia and Eurasia showed that a lack of strategic planning surrounding SEZs was core of their failure (ADB 2015). The performance of SEZs depends on their strategic approach, which requires a clear

understanding of macroeconomic development challenges, broader development strategy, the role that zones can play within the strategy, mechanisms underpinning SEZ-induced development, and critical success factors driving SEZs and their possible outcomes. In the absence of this understanding, SEZ vision is often inflated, objectives are overstated or understated, strategic planning remains faulty, and performance assessments are misleading.

Despite growing interest in SEZs as a tool for sustained growth, little is known about the strategic choices, directions, and tools to exploit SEZs. The situation in Kazakhstan is no exception; while SEZs (and industrial zones) are assigned ambitious objectives to achieve, there is no strategic framework in the policy documents to achieve them.

#### 1.4 Is a Strategic Framework Required for Kazakhstan?

Kazakhstan has been experimenting with SEZs since the early 1990s. The first free economic zone law was introduced in 1990, which was replaced by another law in 1996. However, the country had little success in generating substantial gains through SEZs; eventually, it scrapped them all. In 2001, it introduced a 'SEZ law Astana' with a focus on constructing a capital city. In 2007, the government approved a law on SEZs again, which also met with little success.

However, economic realities have changed over the last decade, thanks to creation of the Eurasian Economic Union (EAEU), various World Trade Organization (WTO) agreements, a high rate of economic growth, macroeconomic stability, an upcoming multimodal corridor network across the region, and the proposed Silk Road Strategy. To leverage these trade drivers, Kazakhstan reintroduced new SEZ regimes in 2011. To date, 10 SEZs in Kazakhstan are under construction; of these, 6 have 100% of their infrastructure already developed. In addition, the country has 42 industrial zones, of which 15 were operational as of May 2016. These have attracted 332 investment projects worth about \$2 billion, with huge regional variations in their success (Government of Kazakhstan 2010).

As stated previously, however, success with SEZ and industrial zones in Kazakhstan has been not been impressive. Policy makers are questioning whether zones are valuable, as well as what type can succeed in the future. This report argues that there are several reasons why SEZs and industrial zones in Kazakhstan can play valuable roles, if managed strategically.

First, Kazakhstan is in the early stages of industrialization and needs industrial diversification, a complex process that involves significant institutional and social transformation. It requires identification of drivers of industrial development and formulation of well-designed policies to push these drivers (Chang 2002).<sup>2</sup> Kazakhstan, being a late entrant, faces even more complex circumstances than those faced by relatively more advanced developing countries, due to a large technology gap, symptoms of Dutch disease, and weak implementation of institutions. It needs to adopt a proactive approach to attract greater private investment, particularly FDI, to better exploit economic of scale and to enhance competitiveness and productivity growth.

Second, the current wave of globalization and explosion of information and communications technologies (ICTs) has driven the fragmentation of production processes into geographically dispersed networks across several sectors in manufacturing and services. This has opened new opportunities for developing countries by expanding trade and investment possibilities through international production and distribution networks or global value chains (GVCs). But global competition is so intense that unless deliberate policies are introduced to foster a favorable investment climate in terms of improved infrastructure, simplified rules, and harmonized processes, a country cannot avail of the opportunity to participate in these value chains. SEZs and industrial zones, which offer conducive business environments can serve as platforms for attracting GVC-linked investment and trade.

Finally, the Government of Kazakhstan has adopted cluster development as the key element in the process of industrial diversification, which began in 2004. Subsequent policy documents on industrial and innovative development programs specified action plans and targets for developing clusters. Intriguingly, however, there is a disconnect between the cluster development

<sup>2</sup> Chang (2002) argued that all major developed countries used interventionist economic policies to become industrialized.

and SEZs. SEZs are concentrations of highly competitive, traded firms and can be used as the centerpiece of a cluster development strategy. This requires strategies and policies to leverage them to promote clusters and to enhance productivity and competitiveness.

There is thus a compelling need for strategy building so that the potential of zones can be exploited. This strategic framework will encompass strategies that are required to achieve program objectives, informing policy makers, developers, and regulators on the strategic framework of an effective zone program.

The proposed new framework has six pillars:

- (i) integrate SEZs and industrial zones with the cluster development program by using a mix of bottom-up and top-down approaches;
- (ii) improve the attractiveness of SEZs and industrial zones to attract GVC-linked investment;
- (iii) promote spillovers from GVC-linked investment;
- (iv) form regional value chains (RVCs) and cross-border value chains;
- (v) develop a sound implementation strategy; and
- (vi) establish a sound M&E framework.

The proposed strategy is profoundly different from mainstream thinking that treats these zones as enclaves of trade and investment. It, instead, places them at the center of the process of industrialization, assigning them a critical role in leveraging their potential to drive industrialization while viewing the role of private entrepreneurship as fundamental to zone-induced growth process. This strategy provides a new and valuable perspective on SEZs.

## 1.5 The Process of Strategy Formulation: The Framework

A broader framework of building successful zones is provided in Figure 2. This is a policy circle which describes how the strategy making process moves from its initial inception through to policy design, implementation, and evaluation, and serves as the framework for organizing the rest of the report.

In general, there are four steps of strategy formulation: planning, strategic directions design and development, implementation, and monitoring and evaluation.

- (i) **Planning.** SEZ and industrial zone policy making is complex because it is explicitly crosscutting. It does not fit within one ministerial portfolio or one level of government, so there is often disagreement among different government organs over policy provisions. In addition, it affects different interest groups, including government organizations at all levels, private businesses, and individuals, generating often fierce debate over the impact of the policy.

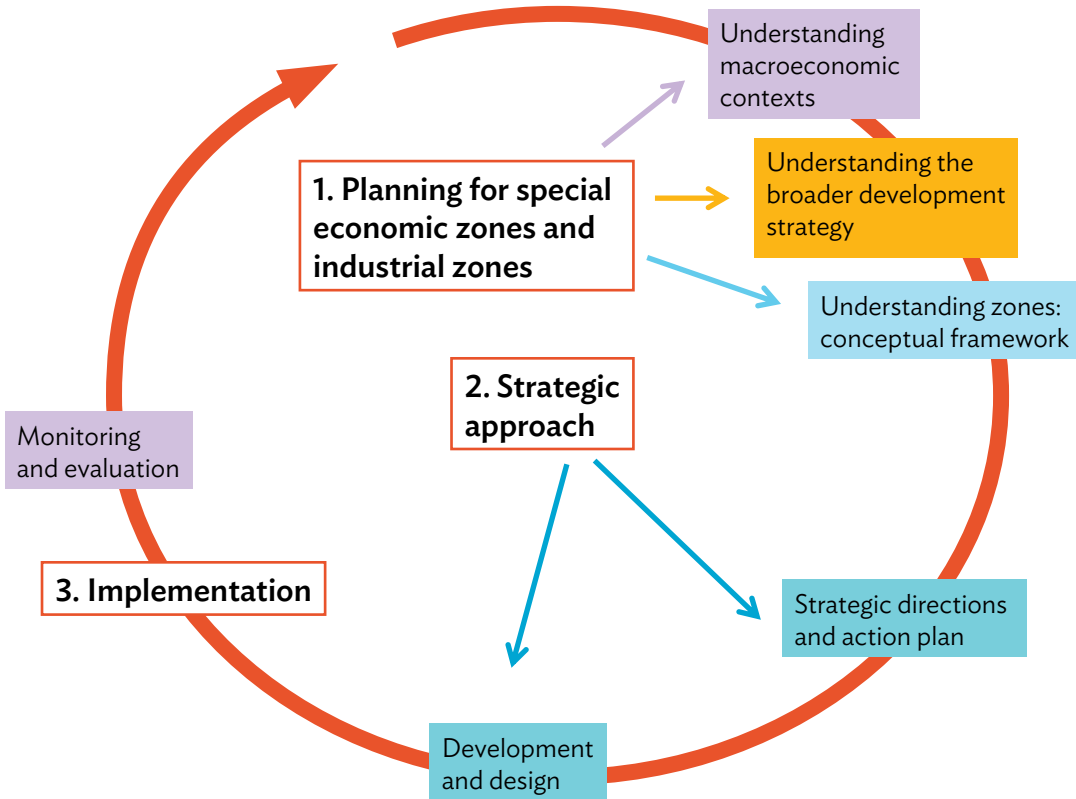
Successfully addressing these trade-offs calls for a comprehensive, evidence-based approach in policy making. The incorporation of evidence into policy development and review requires a clear understanding of the broader institutional contexts in which the policy is to be implemented; alternative policy tools; the broader national development strategy where the policy is to be embedded, and the ways in which the 'policy' works.

Evidence-based SEZ and industrial zone policy is grounded in an understanding of a variety of ways in which growth may come about, and associated costs and benefits. The choice between them is not simple, because achieving rapid growth is not an end; it needs to be sustainable and inclusive to ensure economic development. The challenge before policy makers is to choose a policy approach in the current landscape that pushes growth accompanied by social and institutional restructuring, equity, and greening, requiring an assessment of alternative policy tools against the backdrop of development challenges from a broader perspective of inclusive and sustainable development. Strategic thinking of the rationale and usefulness of zones is critical for legitimizing their establishment.

Further, the zones cannot be insulated from the broader institutional set up of the economy. The policy makers must therefore assess the institutional settings, leading sectors driving growth, level of development, resource endowments, and the constraints that the economy is facing in the development process. They must identify the strengths, weaknesses, opportunities and threats of the economy.

SEZs and industrial zones must also be situated within the national and regional development

Figure 2: Policy Circle of Special Economic Zones and Industrial Zones



Source: Author.

strategic frameworks; there must be an alignment between investment in zones and outside of zones, as well as close links between the zone program and wider strategies of trade and industrialization. This helps ensure long-term political support and resource commitments to zone development; more importantly, the synergies between the zones and national development create a mutually reinforcing and self-supporting system where the benefits of zones flow forward, backward, and horizontally, expanding capacity and improving competitiveness.

Finally, a holistic SEZ/IZ strategy needs to be based on a clear understanding of characteristics of different types of zones, their rationale, success factors, the channels through which SEZs and IZs affect the process

of industrialization, and the development outcomes.

- (ii) **Strategic directions.** The direction outlines what policy makers expect to achieve and how (i.e., design, location, incentive structure, management processes, services to be provided, governance, action plan, and any other initiative, and is contingent upon the vision, mission, and objectives). Different directions are associated with different sets of critical success factors. A critical element in strategy building is a clear vision of the overall economic development path that is being targeted, and the specific role of zones on that path. The strategies regarding targeting industries: locational preferences, targeting tenants, developing an ecosystem, and developing their linkages with the wider economy are guided by these considerations.

- (iii) **Design and development.** The absence of good laws and regulations almost inevitably leads to failure. The law establishes the institutional structures, including the roles of the government operator, government developer, and government regulator, as well as that of private operators and private developers. The administrative framework establishes the structure of governance, while an unambiguous set of rules and procedures guide the entire process of licensing, tenancy, incentives, customs, labor regulations, domestic procurement, domestic sales, subcontracting, security, financial transactions, and trade. These rules should evolve over time to meet the changing needs of investors and governments, and to experiment with different approaches to identify the most effective.

There is more to a successful zone than just facilities and services within them. If they are not able to forge backward and forward linkages with the rest of the economy, they cannot catalyze the process of industrial diversification. A sufficient condition for the success of SEZs is that they are able to generate spillover effects through linkages with the rest of the economy. This process is not automatic. It also requires strategic directions in the strategic framework.

- (iv) **Implementation.** The inability to implement, or to abandon, policies launched amid great expectations, erodes citizen confidence in government. Governments need to find mechanisms to manage a zone policy more effectively both horizontally and vertically; thus, how a policy is to be implemented should be an integral part of policy design. It is often assumed that policy making is a political process, while implementation is largely an administrative function. Yet, according to Clay and Schaffer (1984) the dichotomy between policy and implementation is an “escape hatch” that allows policy makers to avoid responsibility for the policies that they make. For effective implementation, “How a policy is to be implemented should be an integral part of policy design”. (Government of the United Kingdom, 2001); and implementers need to be recognized as an integral part of the policy process rather than as officials simply implementing a program. It is crucial to identify practical constraints that need

to be overcome if the policy is to be successful. This entails three tasks: improving the coordination of government policies across government departments, improving the coordination of different levels of government, and bringing government and stakeholders together in policy development through deliberation and policy implementation (Peach 2004). Apart from technical knowledge, implementation requires profound political will, information, coordination, and adequate resources to succeed.

- (v) **Evaluation and Monitoring.** The role of evaluation is to provide feedback to inform evidence-based policy making. Evaluation provides the basis for policy relevance, performance and implementation. This means that the whole policy cycle needs to be accompanied by appropriate Monitoring and Evaluation tools so that decisions at each step of the policy circle can be based on evidence. For effective monitoring and evaluation of the SEZ and industrial zone policy, a well- designed evaluation strategy comprising of appropriate methods, tools, benchmarking, and outcome indicators is a critical element of the strategic framework.

Following the above framework, the rest of the report is organized into 10 chapters. Chapters 2 to 4 focus on the planning of SEZs. Chapter 2 focuses on understanding the macroeconomic landscape of Kazakhstan, while Chapter 3 defines the concepts of competitiveness and offers different definitions. Chapter 4 provides insights into understanding SEZs and industrial zones.

Chapter 5 assesses the performance of SEZs and industrial zones and identifies factors that constrain their performance. This analysis is followed by a new strategic framework of SEZs and industrial zones with six pillars, which can address the challenges surrounding them. The rest of the chapters focus on the strategic directions and instruments for each pillar of the strategic framework. Chapter 6 focuses on leveraging SEZs and industrial zones for cluster development. Chapter 7 deals with enhancing the investment climate in and surrounding SEZs and industrial zones, while Chapters 8 and 9 focus on strengthening the development role of SEZs and industrial zones. Chapter 10 provides an exposition of the implementation strategy, Chapter 11 looks at M&E tools, and Chapter 12 concludes.

## Chapter II: Understanding the Development Patterns, Opportunities, and Challenges in Kazakhstan

Kazakhstan has had a unique pattern of economic development, which is an outcome of its history as much as of its geography. The objective of this chapter is to understand these distinctive features of its development, as well as its strengths, weaknesses, opportunities, and threats as a first step toward developing a strategic framework for SEZs and industrial zones.

### 2.1 History

Kazakhstan was a nomad state that was gradually absorbed into the Russian Empire by 1895. Created in 1920, it was initially called the Kirghiz Autonomous Soviet Socialist Republic and was a part of the Russian Soviet Federative Socialist Republic, the largest republic of the Soviet Union. In 1936, the Kazakh Soviet Socialist Republic was created as a full autonomous union republic of the Soviet Union.

The economy underwent profound structural transformations under the Soviet regime. The introduction of collective farming in 1920, for instance, altered the way of life (Lee 2003). Before 1920, agriculture consisted of nomadic herding, but collective farming forced the population to abandon this and enter into collective farms with their land, livestock, and other assets. Crop cultivation thus greatly expanded, turning the republic into a major exporter, earning it infamy as the “granary of Russia” (Wyzan 1995). Its meat, milk, and eggs were also sold to other Soviet republics (Pomfret 2006).

Another notable structural change in the economy was a rapid rise in industrial production. According to Haynes (2001), in 1920, the republic’s total industrial production was only 5.3% of GDP. By 1945, this reached 66.0%. Over this period, industry in Kazakhstan grew much quicker than that in the Russian Federation (McCombie and Spreafico 2014). Large reserves of petroleum and natural gas, uranium, chromium, tungsten, copper, lead, coal, and zinc ores were discovered, and industrialization was driven by

large enterprise-based company towns that were highly dependent on these natural resources. In addition, during World War II, several Soviet citizens and much of Russian Federation’s industry were relocated to the future Kazakhstan, when Nazi armies threatened to capture all industrial centers of the Soviet Union (Haynes 2001, McCombie and Spreafico 2014).

After World War II, the republic’s investments continued to concentrate on developing its natural resources, and the economy remained dependent on their extraction and preliminary processing of its many resources. Indeed, “the economy of no other Soviet Republic was so concentrated in these sectors, and it is hard to name an economy anywhere in the world with such a substantial proportion of its industrial structure in resource-based enterprises” (McCombie and Spreafico 2014). In the early 1970s, Kazakhstan’s investment was 20%–30% above the average of the Soviet Union, but the rate of return on capital was lower than in the rest of the Soviet Union (McCombie and Spreafico 2014). The company towns,<sup>3</sup> which were the drivers of industrialization, had stronger links with the rest of the Soviet Union than with the internal economy, inhibiting the growth of ancillary units.

Exports of natural resources to the Soviet Union became the key growth stimulus in the economy. Thus, in addition to food, the republic also served as a source of industrial raw material; about 100% of its oil and 40% of its coal was exported within the Soviet Union (Wyzan 1995). The republic was thus placed at the bottom of internal value chains, supplying grains and natural resources for industries in the rest of the Soviet Union, with little productive capacity of its own (less than 20% of GDP involved the production of goods for final use). The economy was thus economically fully integrated with the Soviet Union, so it faced serious disruptions following the dissolution of the Soviet Union.

Inspired by the shock therapy philosophy that dominated the early 1990s, the Government of Kazakhstan adopted a rapid and fairly comprehensive

<sup>3</sup> A company town is a place which is centered on a large production factory. Practically all stores and housing are owned by this company, which is also the main employer. In Kazakhstan, settings for company towns were where state-owned extractive companies had established a monopoly franchise.

reform program to dismantle the command economy and to integrate with the global economy. However, dismantling the centrally planned economy created severe disorganization in the absence of appropriate market institutions (Pomfret 2006, Olcott 2010). These problems were further compounded by the lack of indigenous capability of economic management, large-scale migration of Russians, and hyperinflation (Pomfret 2006). In view of this, the government slowed the tempo of the reform process considerably and assumed the role of a developmental state in 1997 when it released the first development strategy. It set the goal of diversifying the economy away from its heavy dependence on oil production and strengthening its production base, similar to that seen in East Asia.

## 2 Physical Features

### 2.2.1 Landlocked country

Kazakhstan's geographic location at the center of the Eurasia is a distinctive feature, extending from the PRC in the east to borderlands of Europe in the west. In ancient times, it connected what was then China with Europe through the Silk Road; merchants from what was then China carried silk, weapons, medicines, rice, and exotic goods (e.g., tusks) across the Kazakh steppes to Europe.<sup>4</sup> Trade caravans from what was then China moved through the cities of Sayram, Yassy, Otrar, Taraz, and further to Central Asia, Persia, the Caucasus, and then to Europe.

However, at the time of independence in 1991, the country inherited a low-quality, highly fragmented transport network facing a serious threat of becoming marginalized in trade because of Kazakhstan's position as a landlocked country (Abayev 2014). Collier (2007) identified the lack of access to the sea as a main "poverty trap" that hinders the development of countries, condemning them to stagnation. According to his study, there are 48 landlocked countries in the world that are deprived of access to the sea and thus cut off from maritime trade, which accounts for about 90% of world trade. These 48 countries are home to 40% of the "bottom billion," the poorest group of humankind.

To avoid that trap, Kazakhstan envisioned to become a transport channel of global significance and focused on transport infrastructure as a priority area in the early stages of development. This vision was based on the recognition that Kazakhstan has a unique geographical location, with potential of making Kazakhstan one of the most important transport and transit hubs for global trade. Over time, major initiatives have been taken to implement a transport strategy at the national level. First, Aktau Port has been modernized and turned into a major transport hub, through which nearly one-third of the turnover to the Caspian Sea is implemented (Abayev 2014). Second, access to seaports in the east and west has been obtained through the Baku Grain Terminal in Azerbaijan; the Black Sea port of Batumi, Georgia; a grain terminal in the Baltic Sea port of Ventspils, Latvia; and a terminal in the Pacific Ocean port of Lianyungang, the PRC.

Third, several initiatives have been undertaken to improve connectivity through all means, including pipelines, railways, and roads. In the pipeline sector, new Kazakhstan–PRC pipeline transport corridors have been created for the export of oil and gas to the PRC, and the Caspian Pipeline Consortium oil pipeline has been laid, which has become the main route of oil supplies from the Caspian region. In the roads sector, the focus is on the Western Europe–Western China International Corridor Project. Its total length will be 8,445 kilometers (km), of which 2,787 km will pass through Kazakhstan (Ordabayev, 2015). New roads are also being built, including Zheskazgan–Beineu, Arkalyk–Shubarkol, Aksu–Degelen, Khromtau–Altynsarin, and Shar–Ust–Kamenogorsk; the northern, central, western, and eastern regions of Kazakhstan are today connected to each other, reducing the distance by hundreds of km. Further, the construction of railways has seen a major boom, as sections of the Kazakhstan–Turkmenistan–Iran railway link and Zhetygen–Korgas line have been built, accelerating the delivery of goods between the PRC and Europe.

External actors have had a major influence on Kazakhstan's transport infrastructure, including the PRC, European Union, Iran, Russian Federation, and the United States (Ordabayev 2015). These

<sup>4</sup> The country shares its borders in the north with the Russian Federation (6,846 kilometers [km]); in the west with the Caspian Sea (1,894 km); in the south with Uzbekistan (2,203 km), the Kyrgyz Republic (1,051 km), and Turkmenistan (379 km); and in the east with the PRC (1,533 km).



powers are participating in different joint projects with a view to strengthen their economic or political positions in the region. The PRC One Belt One Road initiative is the most ambitious, aiming to link the PRC with Europe through Kazakhstan, passing through Uzbekistan, Turkmenistan, Iran, Iraq, and Turkey. Within Kazakhstan, it will connect the four major international corridors that cross Kazakhstan.

These four corridors' routes and the external players involved are outlined below.

- (i) **Northern Corridor of the Trans-Asian Railway.** It's a part of the Trans Asian Railway (TAR) project is a project of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). Northern corridor sub section of TAR connects Western Europe–PRC, Republic of Korea, and Japan via the Russian Federation and Kazakhstan (Kazakhstan's section: Dostyk–Aktogai–Sayak–Mointy–Astana–Petropavlovsk). The land route is approximately 12,000 km between the Baltic and Northeast Asia vs about 20,000 km by sea, with Kazakhstan virtually at the center (Dayal 2016).
- (ii) **Southern Corridor of the Trans-Asian Railway.** Southern Corridor aims at connecting Southeastern Europe–PRC and Southeast Asia via Turkey, Iran, Central Asian countries, and Kazakhstan (Kazakhstan's section: Dostyk–Aktogai–Almaty–Shu–Arys–Saryagash).
- (iii) **Transport Corridor Europe–Caucasus–Asia (TRACECA).** Established in 1993, TRACECA is based on a multilateral agreement on International Transport for the development of transport initiatives between the EU member states, the Caucasus and Central Asia countries. It covers Eastern Europe–Central Asia via the Black Sea, Caucasus, and Caspian Sea (Kazakhstan's section: Dostyk–Almaty–Aktau).
- (iv) **North–South Transport Corridor.** The **International North–South Transport Corridor (INSTC)** is a 7,200-km-long multi-mode network of ship, rail, and road route for moving freight between India, the Russian Federation, Iran, Europe and Central Asia connecting Northern Europe–Persian Gulf via the Russian Federation, Iran, Turkmenistan, Kazakhstan. Kazakhstan is an important member of INSTC founded by the Russian Federation, Iran and

India in 2002 (Kazakhstan's section: Aktau Port–the Russian Federation's Ural regions–Aktau–Atyrau).

The country seems to be overcoming the challenges associated with the landlock by transforming itself from a landlocked to land-linked country and serve as a land bridge between Asia and Europe. These corridors are expected to transform the territory of Kazakhstan into a transit hub and create conditions for economic development and export based industrial diversification in the country.

### 2.2.2 Natural Resources

Kazakhstan is also a resource-rich country with major reserves of petroleum, natural gas, coal, iron ore, manganese, chrome ore, nickel, cobalt, copper, molybdenum, lead, zinc, bauxite, gold, and uranium. Figure 3 shows that 30%–50% of the GDP comes from rent on natural resources alone. The rent from natural resources is significantly larger than that in the upper-middle-income country group, to which Kazakhstan belongs as well as the Middle East.

The profusion of natural resources is a strength of Kazakhstan's economy, as they are a source of financial resources to fund the development process as well as of higher standards of living. Their abundance can help stimulate growth by increasing exports and, in turn, incomes and consumption of both non-tradables and tradables, providing resources for investment in public goods and other development expenditures that would otherwise be unaffordable.

Natural resources abundance can also, however, pose a threat to the long-term development process and industrial diversification. There are several mechanisms through which natural resources abundance becomes a “resources curse” (Frankel 2011). Starting with Sachs and Warner (1995), Auty (1991, 1993) and Karl (1997), many observed a negative correlation between natural resources abundance and economic growth. Two major explanations for this phenomenon are macroeconomic volatility and Dutch disease, the symptoms of which are reflected in low competitiveness of an economy. Figure 4 depicts the likely effects of a resources curse on a resources-abundant country.<sup>5</sup>

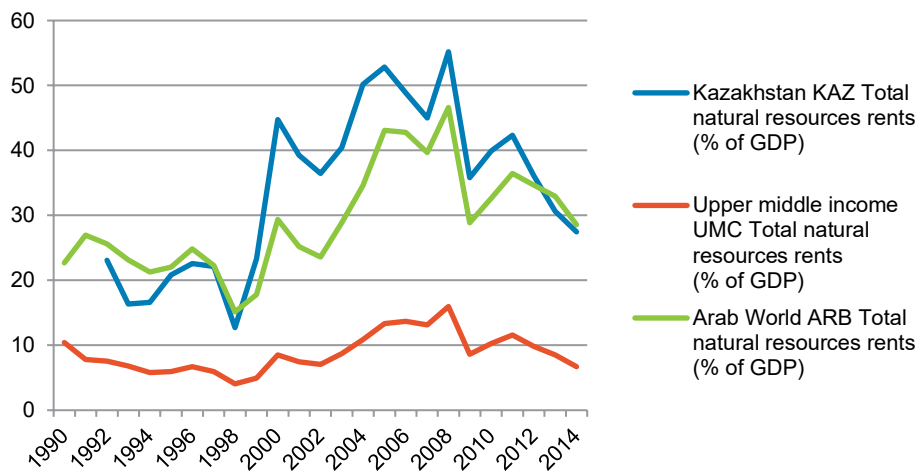
<sup>5</sup> In addition, command of mineral deposits by political elites may affect institution building, such as rule of law and decentralization of decision making, which are conducive to economic development. Natural resources may be depleted too rapidly, and some countries and areas with natural resources have a proclivity for armed conflict, which is inimical to economic growth.

**Volatile Growth.** Prebisch (1950) associated the “poverty trap” of developing countries with their dependence on exports of natural resources. According to their hypotheses, prices of mineral and agricultural products follow a downward trajectory in the long run, relative to the prices of manufacturing and other products. Countries should thus allow their domestic manufacturing sector to develop to get out of the poverty trap. Hotelling (1931), on the other hand, claimed that prices of oil and other minerals experience upward trends in the long run because they are nonrenewable and perishable. Frankel (2010) demonstrated that the prices of natural resources are far more volatile than the prices of most manufactured products. The high volatility of global prices of energy and other minerals could become problematic by producing excessive macroeconomic instability in resource rich countries via the real exchange rate and government spending.

**Dutch disease.** To understand the effects of Dutch disease on competitiveness, the economy can be divided into three sectors: resources-abundant tradable sectors (e.g., mining), non-resources

tradable sectors (e.g., agriculture and manufacturing), and non-tradable services sectors (e.g., retail and wholesale trade, transport, ICT, health, and education) (Brahmbhatt, Canuto, Vostroknutova 2010). Dutch disease affects these sectors asymmetrically. The mining sector, which generates most of the income, creates few jobs. It is, however, a highly productive sector characterized by high wages, which triggers the migration of labor from other sectors, pushing up wages in other sectors. Increased wages and rent income from the booming natural resources sector leads to higher aggregate demand and spending by the public and private sectors, putting pressure on prices. The non-tradable sectors also expand due to higher prices and increased demand, but the non-resources tradable sectors (agriculture and manufacturing), where prices are internationally determined, are hit hard. Rising wages and costs squeeze the profits of these sectors, affecting their competitiveness and hence growth (van der Ploeg 2011). The demand for agricultural and manufacturing products is diverted to international markets and is met by imports, leading to current account imbalances reflecting the low competitiveness of the economy.

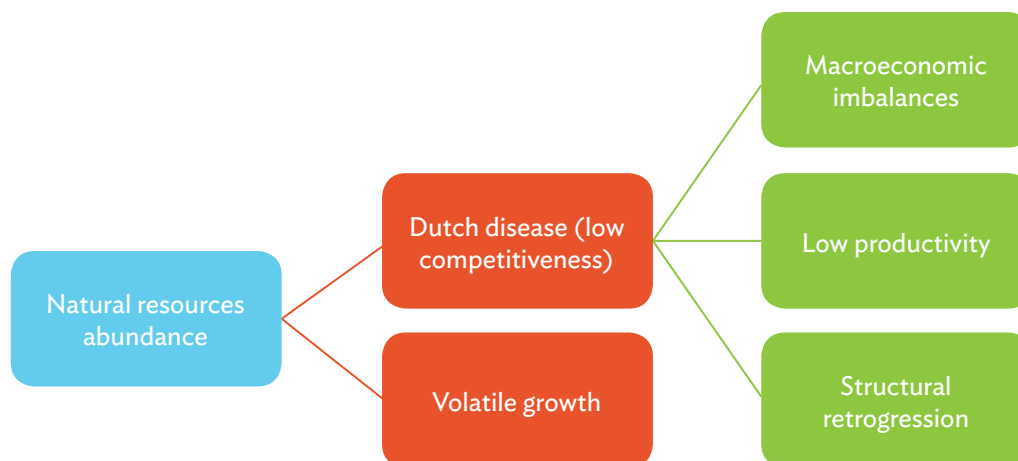
Figure 3: Total Natural Resources (% of GDP)



GDP = gross domestic product.

Source: World Development Indicators, World Bank.

**Figure 4: Effects of the Resources Curse on Industrial Diversification**



Source: Author based on the existing literature.

At the same time, increased spending has adverse effects on capital accumulation. Thus, the wealth generated by natural resources ultimately results in a fall in the output share of non-resources tradable sectors relative to non-tradable sectors in the rest of the economy, and a real exchange rate appreciation—that is, a rise in the price of non-tradables relative to that of tradables (Caputo and Valdés 2016). Since the productivity of the tradable commodity sectors is higher than that of non-tradable services, overall productivity in the economy is severely hurt, as resources shift to low-productivity sectors. Dutch disease symptoms therefore become synonymous of low competitiveness through three channels: low-cost competitiveness leading to macroeconomic imbalances (i.e., export–import gap), low efficiency and productivity, and structural retrogression of the economy due to diversion of resources to low-productivity sectors.

Sachs and Warner (1995) showed that a 10-percentage-point increase in the ratio of natural resources exports to GDP in a cross-section of countries and areas during 1970–1990 was associated with reduced manufacturing export growth and with as much as 0.4–0.7-percentage-point lower annual per capita growth in GDP. The effects of Dutch

disease was also examined in 135 countries, observing that resources-rich countries, without strong institutions, experienced a decrease of 35%–70% in non-resources exports as well as an increase of non-resources imports up to 35% (van der Ploeg 2011).

### 2.2.3 Dealing with Dutch disease: Government Policies

The possibility of Dutch disease and high volatility was recognized by policy makers in Kazakhstan at its early stages of development, so an elaborate strategy was created to broaden the base of economic development by bringing about industrial diversification and agricultural growth. Plans were drafted with relevant policy tools, which have been revised accordingly over time.

In the early years of independence, the main priority of the Government of Kazakhstan was nation building, transitioning from a centrally planned economy, and economic recovery. The government adopted a liberal path aimed at creating an open market economy with a high level of FDI and domestic savings. *The Strategy for Formation and Development of Kazakhstan as a Sovereign State, 1992* declared a policy of openness to foreign trade and a favorable environment for foreign

direct investment (Khakimzhanov and Seitenova 2013). By the mid-1990s, however, the process of market transition slowed.

In 1997, Kazakhstan embarked on strategic planning as a tool for its development process, when a long-term development strategy, *Kazakhstan 2030: Prosperity, Security and Ever Growing Welfare of All the Kazakhstanis*, was adopted. The key objectives were to overcome the economic crisis, stabilize the economy, and create basic conditions for the growth process. It outlined seven long-term priorities for creating conditions for growth: national security; domestic stability and consolidation of society; economic growth based on an open market economy; health, education, and welfare; effectively utilizing energy resources; transport and communications infrastructure; and professionalization of public administration.

Highlighting the importance of enhancing productive capacity and effective utilization of energy resources, the strategy also sought to diversify the industrial base. Inspired by the experience of the “Asian tigers,” the strategy set a vision of turning Kazakhstan into a “snow leopard,” ranked among the top 50 economies of the world by 2030. This strategy was followed by a number of short- and long-term plans for the modernization of the economy.

Within the context of ‘Kazakhstan 2030’, three long-term strategic plans were drawn up: 1998–2000 (i.e., preparatory stage), 2001–2010 (i.e., first stage), and 2010–2019 (i.e., second stage). While ‘Kazakhstan 2030’ provided the general vision of future goals and objectives, the strategic plans provided specific modalities with detailed coverage of the practical measures necessary to achieve the priority tasks set by Kazakhstan 2030. These plans set the goals of building a competitive economy; achieving industrial and agricultural growth; increasing the availability of social welfare, particularly education and health care; and promoting the effective functioning of the

system of public administration by defining powers and functions at all levels. Within their framework, sector-specific development plans were initiated, with industrial diversification as the major development plank of the broader strategy.<sup>6</sup> For effective implementation, new institutions were created, including the Development Bank of Kazakhstan (now owned by Samruk-Kazyna), Investment Fund of Kazakhstan, KazAgro, Kazakh National Innovation Fund, KAZNEX INVEST,<sup>7</sup> and Regional Financial Centre. In addition, nationwide performance indicators were identified, with each being the responsibility of a specific government agency.

The country almost achieved the target of becoming one of the 50 most competitive economies in 2013 when it was ranked 52 in the Global Competitiveness Report (WEF 2013). Encouraged by this development, the government replaced Kazakhstan 2030 with Strategy 2050: “Kazakhstan’s way – 2050: One goal, One Interest and One Future”, which builds on the tasks set by Kazakhstan 2030 with ambitious targets, including those related to industrial diversification, social security and well-being, knowledge and professional skills, foreign policy, and democracy, with a vision to join the club of top 30 most advanced countries. This broad strategy is also accompanied by new sector strategic plans (Nazarbayev 2015). Against the backdrop of intense and comprehensive strategic plans, a pertinent question is whether the country could escape the possibility of resource curse. Exploring this question is the main purpose of the following analysis.

## 2.3 Economic Performance and the Resources Curse

### 2.3.1 High Growth with Volatility

Kazakhstan, an upper-middle-income country, registered average annual growth of 6.2% between 2000 and 2015, which widened its lead over other

<sup>6</sup> For instance, the 2003–2005 Agriculture and Food Program and Innovative Industrial Development Strategy for 2003–2015, Scheme of Spatial Development of the Country until 2020, 5–10-year state programs, 5-year social and economic development forecasts, 5-year programs for territorial development, 5-year strategic plans of governmental agencies, 10-year development strategies, sector programs, and national (local) 3-year budgets.

<sup>7</sup> More recently, KAZNEX INVEST has been broken down into two separate entities: Kazakh Invest and Kazakh Exports.

upper-middle-income countries and areas. At the time of its independence, Kazakhstan's per capita income was \$5,890, which was 1.9 times that of other upper-middle-income countries and areas. It fell in the initial years.

In 1998, Kazakhstan's per capita income stood at \$3,933, close to other upper-middle-income countries and areas at \$3,568. Since 1999, however, Kazakhstan's gap with the upper-middle-income group has been widening. By 2015, the per capita income of Kazakhstan grew to over \$10,000, while the upper-middle-income group only reached \$7,500 (Figure 5).

In the post-independence period, three distinct and almost equally spaced phases of growth are discernible: the economic stagnation phase of 1991–1999, accelerated growth phase of 1999–2007, and stagnation phase of 2007 to date (Figure 6).

For nearly 1 decade after its independence, Kazakhstan's economic performance was dismal, mostly due to the destabilizing force of the disintegration of the Soviet Union and rapid transition to an open market economy. The period was characterized by the two contrasting forces of hyperinflation and deep recession.

The GDP (at 2010 prices) dropped from \$9.6 billion in 1992 to \$5.9 billion by 1998. But, growth did not remain elusive to Kazakhstan. In 1999, the country jumped onto a high growth trajectory, buoyed by increased oil exports and a boom in construction activity. The average annual growth rate in GDP (at 2010 prices) rose from –5.75% with a coefficient of variation of 93% during the first phase to 9.3% (coefficient of variation = 30%) over the second period. The per capita income also witnessed a fairly impressive growth of 9% during this period.

The boom in the construction sector also caused a real estate bubble to grow during this period. It burst in 2007, causing a local banking crisis that slowed economic growth dramatically. An anti-crisis plan was launched in late 2008, limiting the decline without stimulating inflation or accumulating public debt. The cost of the plan was \$10 billion, or 9.5% of GDP, but was successful in containing the loss (Syzydkov, Aitmambet, Dautov 2015). Then, the 2008 global financial crisis hit Kazakhstan hard, putting a brake on

the growth process. The average GDP growth slowed down considerably to 4.3% per year.

As indicated in Figure 6, between 1991 and 2015, the coefficient of variation in Kazakhstan was 267%, while it was only 67% in the upper-middle-income group, indicating that the growth process in Kazakhstan is highly volatile and fragile—a symptom of a resources curse.

Figure 7 shows how GDP growth per capita in Kazakhstan is concomitant with export commodity prices. The process of economic growth has been distorted by the resources, meaning that the economy could not escape the resource curse.

### 2.3.2 Dutch Disease

**Macroeconomic imbalances.** GDP is a sum of final consumption by households, investment, and net exports to the rest of the world:

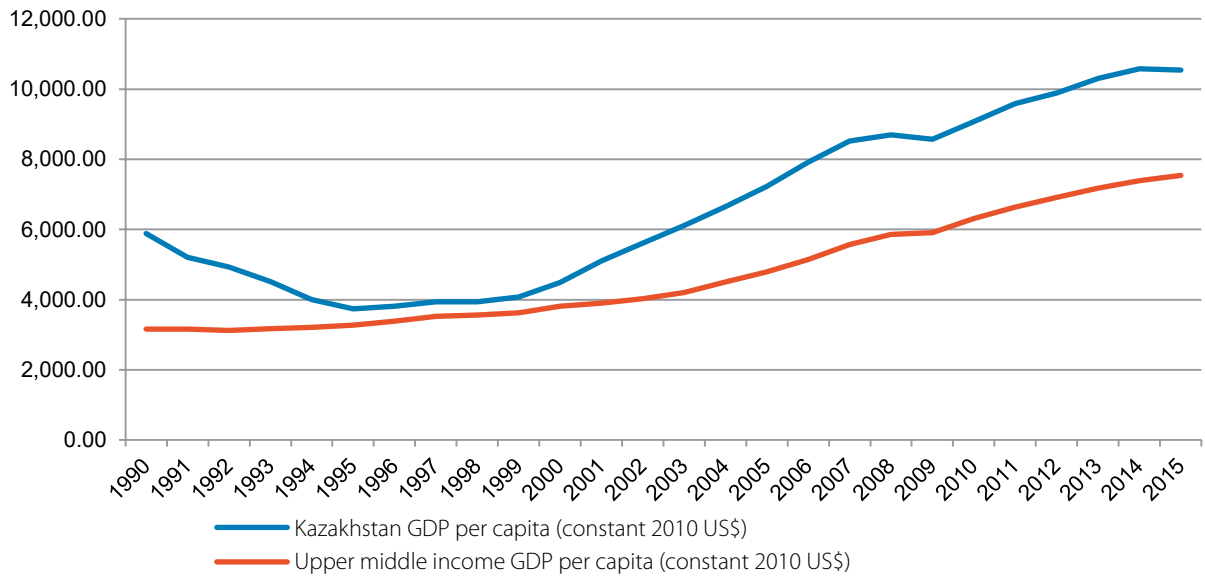
$$\text{GDP}(Y) = \text{Private Final Consumption} + \text{Public Final Consumption} + \text{Investment} + \text{Exports} - \text{Imports} \quad (1)$$

$$\text{Total Absorption (TA)} = \text{Private Final Consumption} + \text{Public Final Consumption} + \text{Investment} \quad (2)$$

The contribution of each of the three components in the total GDP (1) has an important implication for the growth process. The composition of GDP in Kazakhstan from 1990 to 2015 shows that public and private final consumption has been the most important driver of growth in the country. Until the mid-1990s, the ratio of consumption to GDP hovered around 80% of GDP. Between 1996 and 2007, it dropped to around 60% to rise again thereafter to around 67%. Over 83% of final consumption is accounted for by private final consumption, which became the major GDP growth driver in the country. Windfall gains from natural resources have had large direct consumption effects by raising the disposable income of Kazakhstan.

Gross fixed capital formation declined in the early stages of Kazakhstan's independence. It rose in the early 2000s, with increased government investment in human capital as well as new agricultural, industrial, and social programs and other initiatives (Syzydkov, Aitmambet, Dautov 2015). However, as the economy

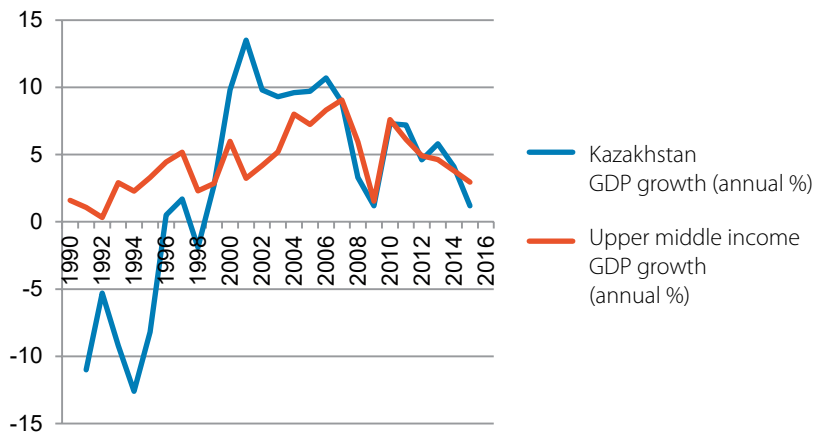
**Figure 5: Gross Domestic Product per Capita of Kazakhstan and Upper-Middle-Income Countries and Areas, 1990–2014 (\$)**



GDP = gross domestic product.

Source: World Development Indicators, World Bank.

**Figure 6: Gross Domestic Product Growth Rates of Kazakhstan, 1990–2016**



GDP = gross domestic product.

Source: World Development Indicators, World Bank.

entered the third phase of decline, it tended to stagnate at around 35%.

If total absorption (2) within an economy exceeds the GDP, then it poses issues. In Kazakhstan, the total absorption–GDP ratio fluctuated at around 1 and exceeded 1 in low-growth years. This gap, which arose due to high consumption particularly in the private sector, was funded by the current account balance, exports–imports (3), which is negative in most years.

$$Y - TA = \text{Exports} - \text{Imports (current account balance)} \quad (3)$$

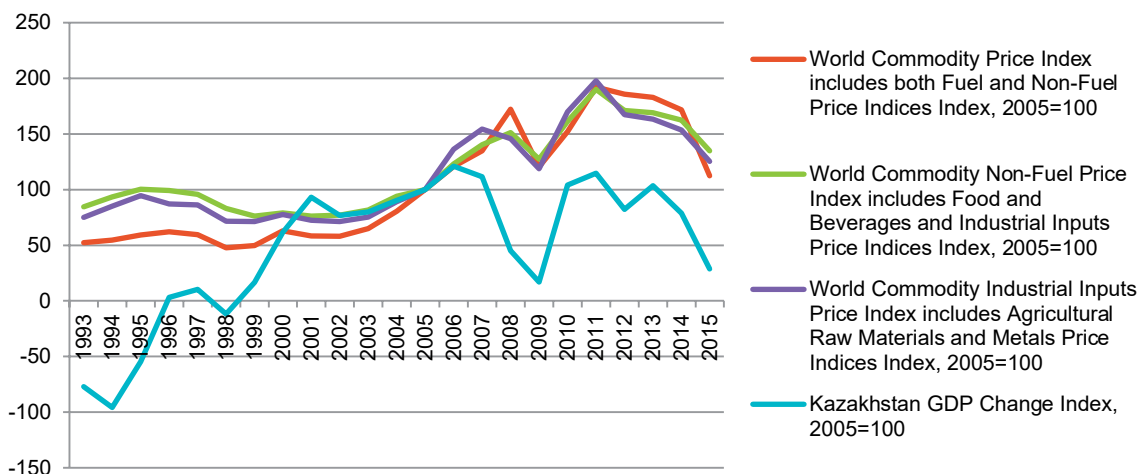
This situation is a clear manifestation of Dutch disease and low competitiveness, which diverted demand to international markets. According to Krugman (1994), competitiveness is reflected in the ability of firms to sell their products and services in international markets and/or defend their international market shares by not allowing demand to divert to international markets and to generate imports.

From this perspective, Kazakhstan's economy has symptoms of Dutch disease (or low competitiveness) as economic growth is accompanied by a buildup of foreign debt through current account imbalances, which is not sustainable in the long run.

The lack of competitiveness can create a vicious circle of low competitiveness. A high imbalance between production and consumption drives imbalance in the growth of the employable population and the economy's capability to absorb labor resources, harming skills accumulation, industrial diversification, and production capacities leading to further decline in competitiveness.

**Low productivity of labor.** Another way of analyzing Dutch disease symptoms is productivity-based. There are many different productivity measures. The choice between them depends on the purpose of analysis and in most cases on data availability (OECD 2001). Of the two most commonly used measures: labor productivity (value added per unit of labor) and

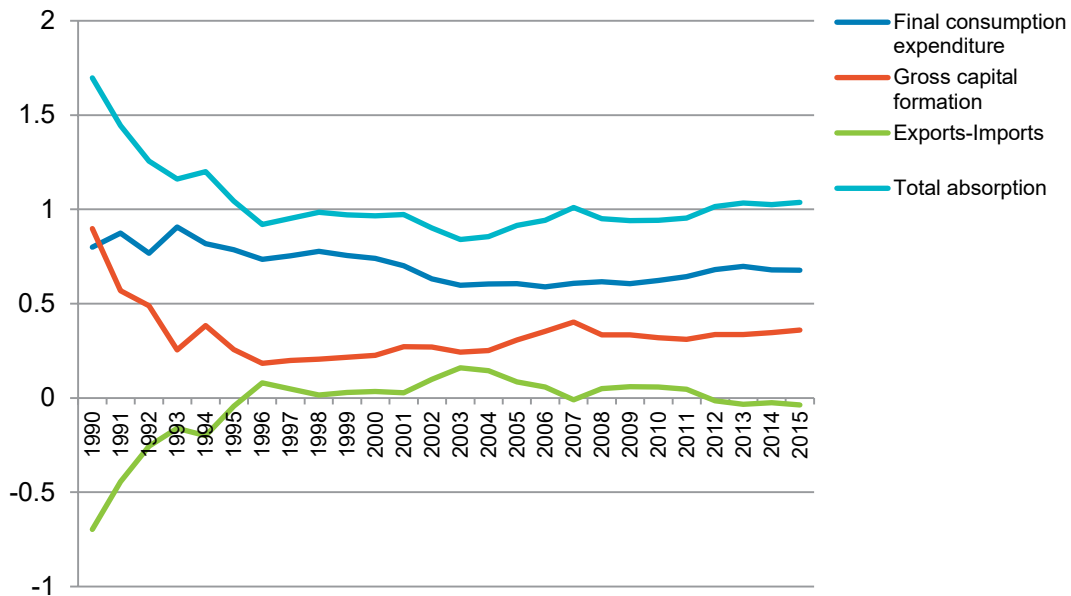
**Figure 7: World Commodity Prices and Gross Domestic Product Change Index of Kazakhstan, 1990–2016**



GDP = gross domestic product.

Source: IMF, World Development Indicators, World Bank.

**Figure 8: Demand Components of the Gross Domestic Product of Kazakhstan, 1990–2015 (% of gross domestic product)**



Source: UNSD Statistical Databases. <https://unstats.un.org/unsd/databases.htm>.

total factor productivity (TFP) which one is better has been a subject of debate in academic and policy circles<sup>8</sup>. But these measures are not independent of each other. In the case of Kazakhstan, productivity growth seems to have shown downward trends irrespective of the measure. The Conference Board estimates indicate a sharp slowdown in TFP growth in the country, which fell from an average of 7.4% in 1999–2006 to an average of 2.5% in 2007–2013 (ADB 2017). This is reflected in labor productivity as well. Figure 9 shows that the gap between labor productivity in Kazakhstan and the high-income country group is rather high, and productivity levels of the former are lower than even the global average. Labor productivity in Kazakhstan increased during the high-growth phase to contribute to growth but stagnated again in the third phase.

**Intersector productivity gaps.** Across sectors in Kazakhstan, substantial gaps in productivity<sup>9</sup> levels remain (Figure 10). Mining, as expected, is the most productive sector. Labor productivity in mining in 2013 was more than 6 times greater than the average of the other sectors.

Agriculture lies at the bottom. Kazakhstan is less agrarian than any other country in Central Asia, with a share of around 5% in 2015. Yet over 80% of the land area of Kazakhstan is classified as agricultural land; of this, 80% is pastureland, about 35 million hectares (18%) are arable, and 4.5 million hectares (2%) are meadowlands.

The country can be divided into two distinct agricultural zones: north and south. The north's

<sup>8</sup> Some argue that TFP is the appropriate measure of productivity, labor productivity is crude. Others dismiss TFP as ambiguous based on arbitrary assumptions.

<sup>9</sup> In the absence of detailed TFP estimates, labor productivity will be used as the productivity measure in the rest of the report.



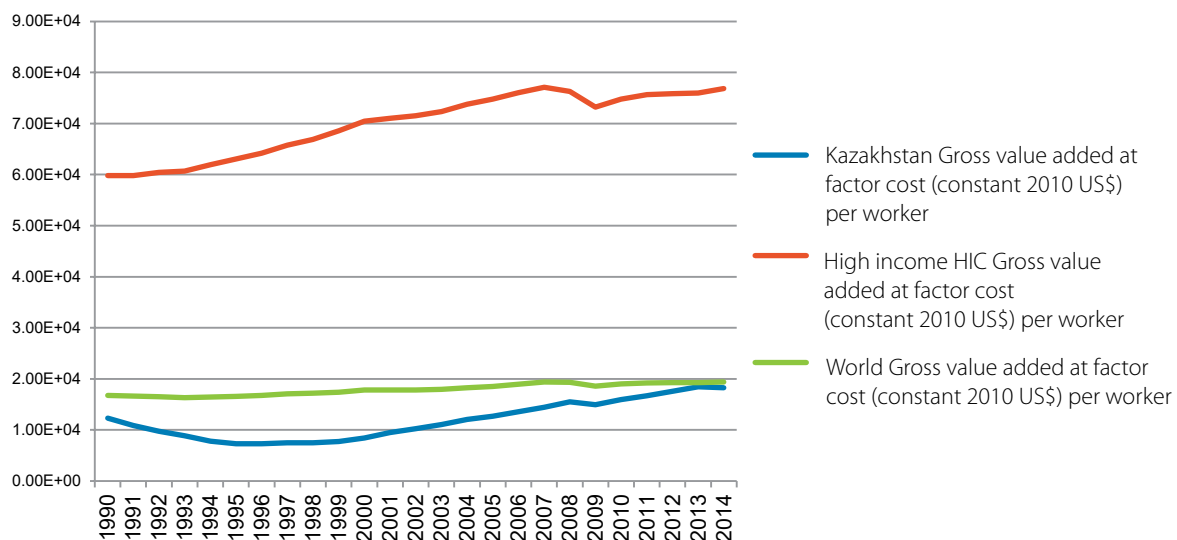
fertile soils have been cultivated with spring grains since the 19th century (Fao 1995). Under the Virgin Lands Campaign during the 1950s, these marginal fragile grasslands were brought under cultivation to expand production, including wheat, oats, and barley. However, grain fields in this region are not irrigated due to water scarcity; the area is instead characterized by rain-fed farmlands, so high yields can be achieved only during years of adequate rainfall. As a result, yield and production are marked by frequent and sharp year-to-year fluctuations. In addition, during the post-Soviet period, with the drastically reduced profitability of farming and unsecure land tenure, millions of hectares of farmland there were abandoned, leading to a considerable decrease in crop production in the 1990s.

In the south, along the Amu Darya and Syr Darya, vast areas are used for irrigated crops, mainly cotton. Under the Soviet regime, irrigation in this area was overextended to augment the crop yield of irrigated cotton, known then as “white gold,” as it fell under the plan of transforming Central Asia into a cotton-producing region. However, the expansion of irrigated area and dam construction caused erosion,

salinization, and decreased fertility in the region, affecting production and productivity severely. Thus, agriculture in the south remains highly volatile with low productivity. It has absorbed 25% of the labor force and contributes only 5% of Kazakhstan’s GDP.

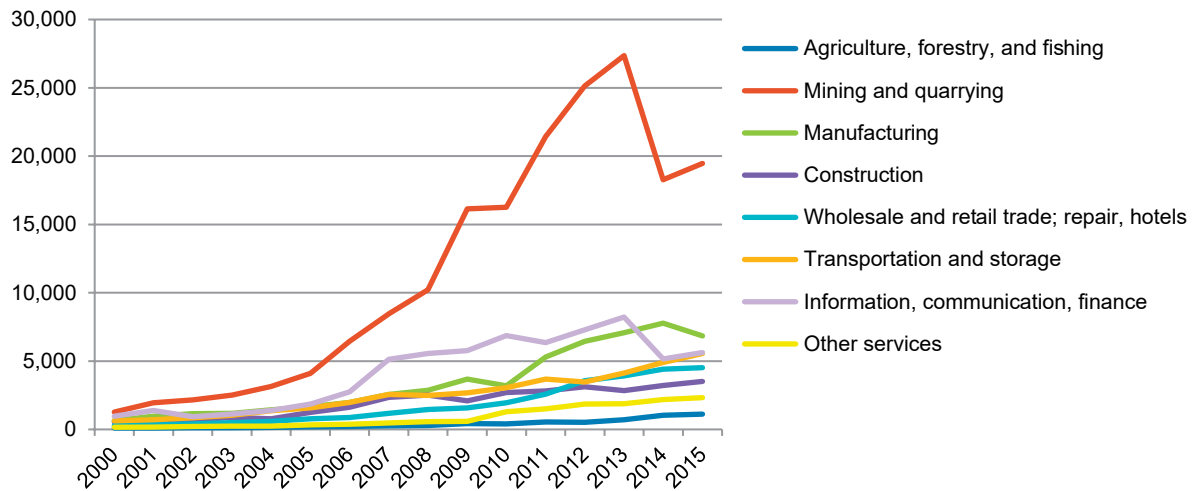
Theoretically, manufacturing is the most productive sector. It offers a large scope of capital accumulation, economies of scale, and embodied and disembodied technological progress, all of which are directly related to productivity. Therefore, any shift of labor and other resources from agriculture to manufacturing results in an immediate increase in overall productivity and income per capita, known as a “structural change bonus,” a major source of economic growth in developing countries (Timmer and Szirmai 2000, van Ark and Timmer 2003, Temple and Woessmann 2006, Timmer and de Vries 2007). Further, linkage and spillover effects are also found to be stronger in manufacturing than in agriculture or even services. Low productivity in manufacturing in Kazakhstan is therefore a manifestation of the Dutch disease that has affected the competitiveness of manufacturing sector adversely.

Figure 9: Value Added per Worker, 1990–2015



Source: World Development Indicators, World Bank.

Figure 10: Labor Productivity by Sector, 2000–2015



Source: ADB.

Within services, there are some very important tradable market services sectors, such as finance, software services, transport and logistics, and retail sales and distribution, often based on ICT, which are highly productive. On the other hand, education, health, and community services are believed to be low-productivity services. In many countries and areas, services have been catalysts in economic growth. Figure 10 shows that in Kazakhstan productivity levels in all services except ‘finance and telecommunication’ are relatively low.

There is thus evidence that the economy in Kazakhstan is suffering from low competitiveness, even when seen from the perspective of productivity. All sectors, except mining, are stuck in a low-productivity paradigm, which is a Dutch disease symptom.

**Diminishing productivity growth.** Figure 11 shows that productivity growth rates declined across all sectors in Kazakhstan except finance and telecommunications. The competitiveness of manufacturing is further eroding.

**Structural retrogression in value added.** On the supply side, the GDP of a country is the sum of the

value added from its various sectors. These sectors are broadly grouped into three sectors: agriculture, industry, and services:

$$\text{Total VA} = \text{AgVA} + \text{IndVA} + \text{SerVA} \quad (4)$$

where VA is value added; AgVA represents value added in agriculture, while IndVA and SerVA are value added in industry and services, respectively.

It is well known that economic growth is intimately related to changes in the composition of economic activity. As levels of income rise, the demand for agricultural products declines and that for industrial goods increases. After reaching a reasonably high level of income, demand for services increases sharply as well (e.g., Chenery and Watanabe 1958, Chenery 1960, Chenery and Taylor 1968). From this perspective, changes in the sector patterns are growth-linked. However, at the center of this pattern is productivity growth.

Agriculture, being dependent on a fixed factor of production (i.e., land) faces a limit on its growth and is subject to the law of diminishing returns and, hence, productivity decline. Industry, on the other hand, offers a large scope for the use of capital and

technology to augment productivity in parallel with broad sector changes at the economy-wide level.

Figure 12 depicts the share of the three sectors in total value added in Kazakhstan. It shows that the share of agriculture has continuously declined, accounting for only 5% in 2015. The share of industry rose in the early years of development but then started declining slowly, with services compensating for the decline in the two sectors. The services sector share reached above 60%. Thus, the service sectors grew at the expense of not only agriculture but also industry.

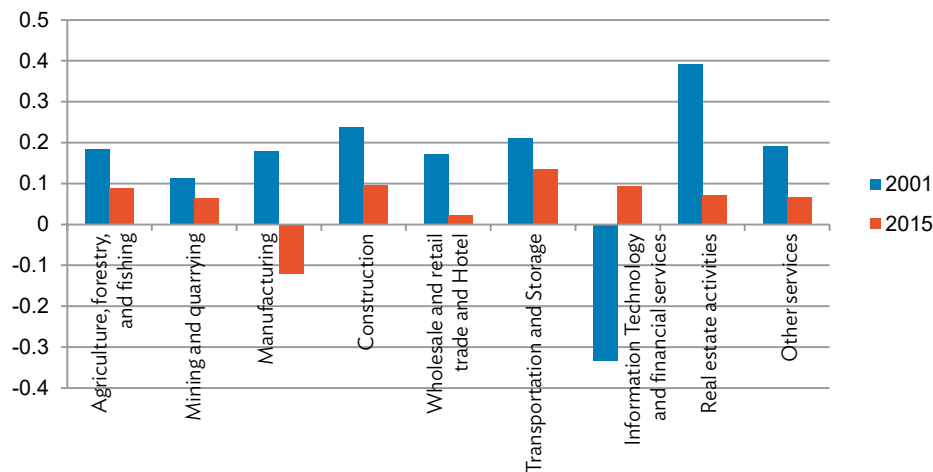
Microeconomic foundations of structural change also merit attention. Restructuring within the industrial sector has important implications. Industry comprises mining, manufacturing, construction and utilities (e.g., electricity, water, and construction). Manufacturing is regarded as the engine of productivity growth in the development process, meaning that structural shifts in favor of the manufacturing sector can influence productivity in other sectors as well, pushing the overall economy to a virtuous circle of high productivity and growth (Szirmai 2009). However, manufacturing in Kazakhstan seems to be facing a steep fall in its share since 2001, despite several ambitious programs launched to promote manufacturing since 1997 (Figure 13).

Industrial growth was driven by mining and construction in the first decade of the 2000s. These sectors, along with utilities, also witnessed erosion in their shares after 2010. While the mining sector was hit by a fall in commodity prices, the real estate market crash appears to have affected the construction sector as well.

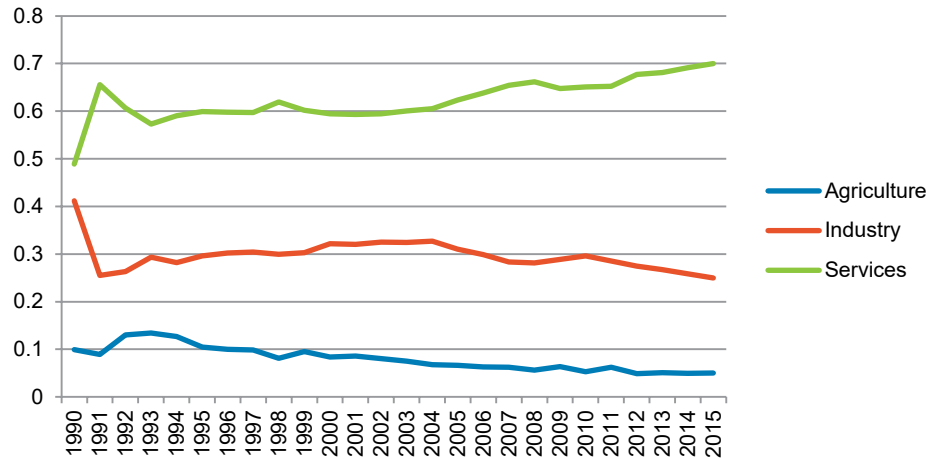
According to Konkakov and Kubayeva (2016), from 2008 to 2014, more than 70,000 businesspeople received financial and nonfinancial business support in Kazakhstan; 770 projects were introduced, creating 75,000 permanent jobs 400 types of new products; output in the manufacturing industry increased by 1.8 times from 2008 to 2014; the real manufacturing growth index grew from 100 in 2000 to 207 by 2014; real growth in the manufacturing industry overran other Eurasian Customs Union members (i.e., Belarus and the Russian Federation); and the nomenclature of exported goods in manufacturing increased by 40%. However, evidence still shows that manufacturing is losing its share in the economy.

Manufacturing in Kazakhstan is also narrow-based and dominated by resources-intensive industries (Figure 14). While metals-based firms account for over 37.5% of manufacturing value added, food and petroleum-based companies contribute almost 16.0%

Figure 11: Productivity Growth in 2001 and 2015



Source: ADB.

**Figure 12: Sector Shares in Gross Domestic Product (total value added)**

Source: United Nations. UNSD Statistical Databases. <https://unstats.un.org/unsd/databases.htm>.

each. Further, industrial concentration has shown upward trends over time. During 2003–2005, resources-intensive sectors accounted for 66% of the manufacturing sector, increasing to almost 70% during 2013–2015. These are strong symptoms of Dutch disease, as the mining sector is clearly crowding out manufacturing and other tradable sectors.

Within the services sector, real estate and financial services were the drivers of growth in the early 2000s (Figure 15). All other sectors witnessed southward patterns. In 2007, as the real estate bubble burst, the finance sector also was affected adversely. It was replaced by internal trade and other services (e.g., education, health, administration, and defense), which are low-productivity services in Kazakhstan. This, therefore, affected productivity growth in the economy.

#### **Structural retrogression in employment patterns.**

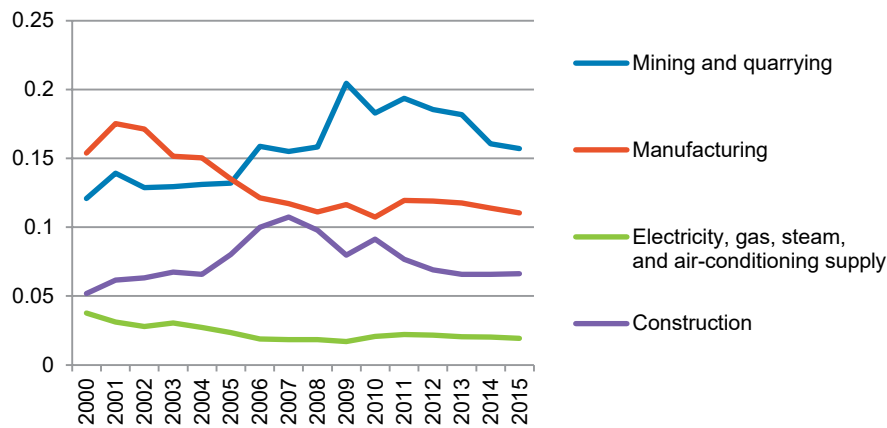
New structural economics places structural change

in employment at the center of sustained growth and productive employment. According to this view, structural shifts in value added in favor of high-productivity sectors need to be accompanied by similar shifts in employment. When labor and other resources move from less- to more-productive activities, the economy grows even if there is no productivity growth within sectors.<sup>10</sup> Structural change thus removes constraints on productivity growth; without such a change, the scope for a sustained increase in productivity and hence per capita income remains limited. Structural change in employment from low- to high-productivity sectors also contributes significantly to poverty reduction by raising average wage levels.

Figure 16 shows that the workforce of Kazakhstan is largely absorbed by three sectors: agriculture, internal trade and hotels, and other services (i.e., administrative, health, education, defense, and recreation). In 2000, these three sectors employed

<sup>10</sup> Timmer and Szirmai (2000) coined the term “structural change bonus” (see also Bosworth, Collins, and Chen 1995; Fagerberg and Verspagen 2002, 2007; Timmer and de Vries 2009). McMillan and Rodrik (2011) showed that the bulk of growth in Asia and developing countries in Latin America and Africa can be explained by the contribution of structural change to overall labor productivity, whereas the contribution of trend productivity growth to total productivity growth remains rather limited.

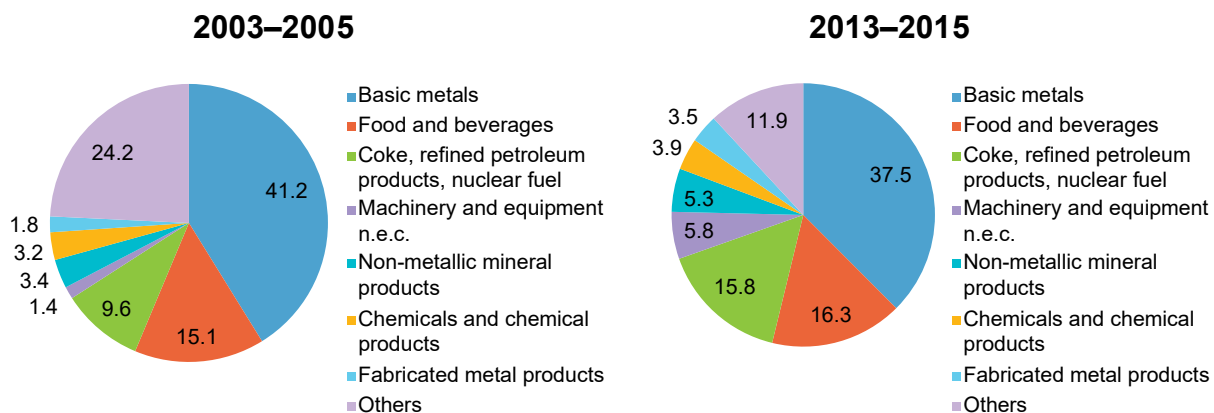
**Figure 13: Sector Composition of Industry in Kazakhstan, 2000–2015 (share of GDP)**



GDP = gross domestic product.

Source: ADB.

**Figure 14: Composition of Manufacturing Value Added: 2003–2005 and 2013–2015**

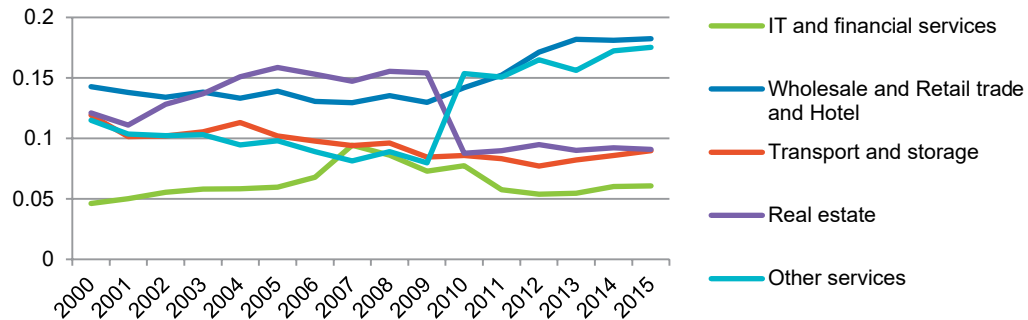


Source: UNIDO.

74% of the total workforce; this figure declined to 68% by 2015 but still remains dominant.

Outside of these three sectors, construction expanded its share in the workforce from 3% in 2000 to 8% in 2015, but there is no perceptible change in

the workforce share of other sectors. The mining and retail sectors, which made major contributions to value added during the high-growth period, and still contribute over 25% of the value added, generate a total of 4% employment. Further, the share of manufacturing in the workforce declined over time

**Figure 15: Sector Composition of Industry in Kazakhstan, 2000–2015 (% of GDP)**

Source: ADB.

and was accompanied by a decline in its share in total value added. This indicates that the process of deindustrialization is set in the country despite its focus on industrial diversification. It also supports the hypothesis that resources are shifting to low-productivity services.

**Structural change and productivity.** To understand the impact of labor reallocation on productivity, growth was decomposed into changes in productivity and growth associated with employment changes using the Shapley inequality decomposition. Under this method

$$\frac{Y}{N} = \frac{Y}{E} * \frac{E}{N} \quad (5)$$

where Y is total value added, E is total employment, and N is total population.

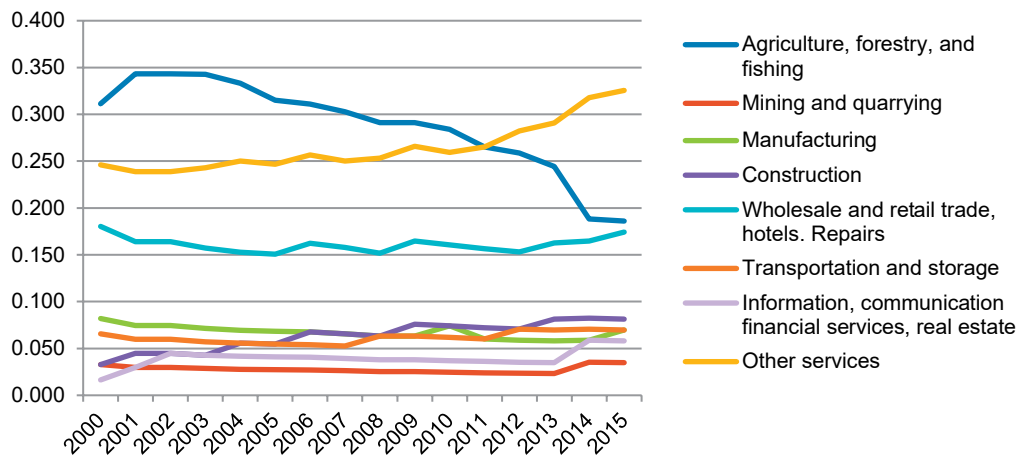
Thus,  $Y/N$  is GDP per capita,  $Y/E$  is total output per worker, and  $E/N$  is the share of workforce in population (i.e., workforce participation rate). The Shapley inequality decomposition provides the continuation of employment and productivity at the aggregate and sector level, and hence offers insights on diversification as well as efficiency. Productivity is further decomposed into the intrasector increase

in productivity, and increased productivity due to intersector shifts in employment.

Intra-sector productivity growth is associated with increases in total factor productivity due to enhanced efficiency or increased capital-labor ratio, while inter-sector shifts in labor or the labor relocation effect means relocation of jobs between “bad” job sectors (i.e., low-productivity) to “good” job sectors (i.e., high-productivity). As McMillan and Rodrik (2011: 49) stated, “When labor and other resources move from less productive to more productive activities, the economy grows even if there is no productivity growth within sectors.” This kind of growth-enhancing structural change can be an important contributor to overall economic growth.

The decomposition exercise was conducted for the high-growth period of 2001–2008. Figure 17 depicts the results of the Shapley inequality decomposition of growth per capita into growth linked to employment growth, intersector productivity growth, and intrasector productivity growth, yielding two major observations: (i) growth in per capita was mainly led by intrasector productivity growth, but in contrast, the reallocation effects were small; and (ii) labor effects, in particular growth in the labor force, exerted a positive effect on growth due to an increased working-age population in the total population. The employment effect was negative, indicating a decline in the number of jobs created.

Figure 16: Employment Shares by Sector



Source: ADB.

The fact that intersector shifts had a positive contribution means that, on average, labor moved from lower-than-average productivity sectors to above-average productivity sectors. However, this effect remained rather small. There is potential for achieving productivity gains from the reallocation of resources toward more productive uses.

Figure 18 indicates that only three sectors, construction, other services, and business services and finance, expanded in terms of employment during the high-growth period. In general, as growth takes place, labor is displaced and absorbed into manufacturing and services, which have higher productivity than agriculture. In Kazakhstan also the low-productivity agricultural sector released labor, but so did relatively high productivity manufacturing and most other sectors, pulling down the contribution of intersector productivity growth. On the other hand, of the three sectors that absorbed the displaced labor (i.e., other services, construction and ICT, and financial services) only ICT and financial services added to productivity growth; reallocation of labor to construction and other services exerted downward pressures on their productivity growth, pulling it down and exerting negative intersector productivity effects.

Thus, a challenge that the economy is facing has been a lack of productivity enhancing structural change. As discussed above, growth that is accompanied by increased employment opportunities in “good” sectors is more likely to be sustained and to alleviate poverty. This creates productive employment associated with higher productivity, decent earnings, and, in turn, poverty reduction. Even if there is growth in intra-sector productivity, it cannot be sustained unless there is expansion of employment in high-productivity sectors.

## 2.4 International Competitiveness

### 2.4.1 Export Structure: A Comprehensive Indicator of Productivity

A high export-GDP ratio is an economic phenomenon of a resources-abundant country. However, the structure of exports reflects the domestic production structures and its challenges. Export diversification is pivotal to a country’s growth ambitions; it is a strong source for accelerating growth and providing high-productivity and -quality jobs. Yet the analysis of Kazakhstan’s export composition reveals that there is little evidence of diversification at any level of disaggregation.

**Composition of exports.** Figure 19 presents broad export patterns of the economy at the one-digit level. It reflects a high share of the mining sector in total exports, an indicator of the resources curse (Sachs and Warner 1995). The share has also been rising over time, while the shares of both agriculture and manufacturing in merchandise exports have been declining. The share of “manufactures” in total goods and services trade declined sharply from 40% in 1995 to around 20% in 2014.

At the two-digit level, from 2000 to 2015, three products accounted for 86%–89% of Kazakhstan’s total exports. In the early 2000s, these were crude petroleum and natural gas, manufacturing of basic metals, and agricultural products. Since 2004, coke and refined petroleum products entered the top three, displacing agriculture. Apparently, the hydrocarbon sector has been steadily growing over the last decade, creating several vulnerabilities related to the increased dependence on commodity exports. This scenario is a clear manifestation of the resources curse.

At the four-digit level, the share of seven top export products, which was 76.4% in 2000, increased further to 80.0% in 2015. The composition of these top products did not change substantially. Silver and zinc were replaced by natural gas and radioactive materials. Other four-digit products, including crude petroleum, wheat, ferroalloy, copper, and special transactions, remained the same.

**Revealed comparative advantage.** A critical indicator of a country’s competitiveness in export markets is

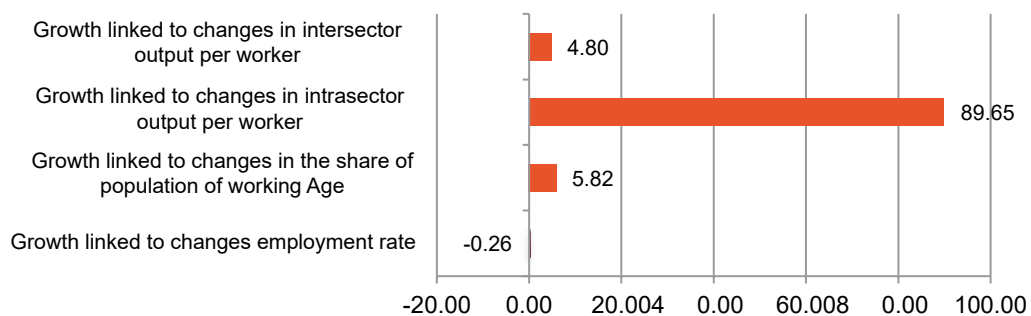
$$RCA = \frac{E_{ij} / E_{it}}{E_{nj} / E_{nt}} \quad (6)$$

where RCA = revealed comparative advantage,  $E_{ij}$  = exports of good  $i$  by country  $j$ ,  $E_{it}$  = total exports of country  $j$ ;  $E_{nj}$  = world exports of good  $i$ , and  $E_{nt}$  = total world exports.

In other words, a country is considered to have a revealed comparative advantage in some product  $i$  if the share of  $i$  in the country’s exports is above its share in total world exports. The more revealed comparative advantages a country has, the more competitive productive capabilities it possesses. A high number of revealed comparative advantages implies that a country has capabilities in many sectors.

The analysis of the export data at the four-digit level shows that the number of products at the four-digit level in which Kazakhstan has a revealed comparative advantage declined continuously from 2004 to 2012. In 2013, it rose to touch the level of 2000, but the composition of the products changed. The revealed comparative advantages in some categories, such as the preparation of cereals, animal hides and skins, crude animal materials, footwear, hydrocarbons,

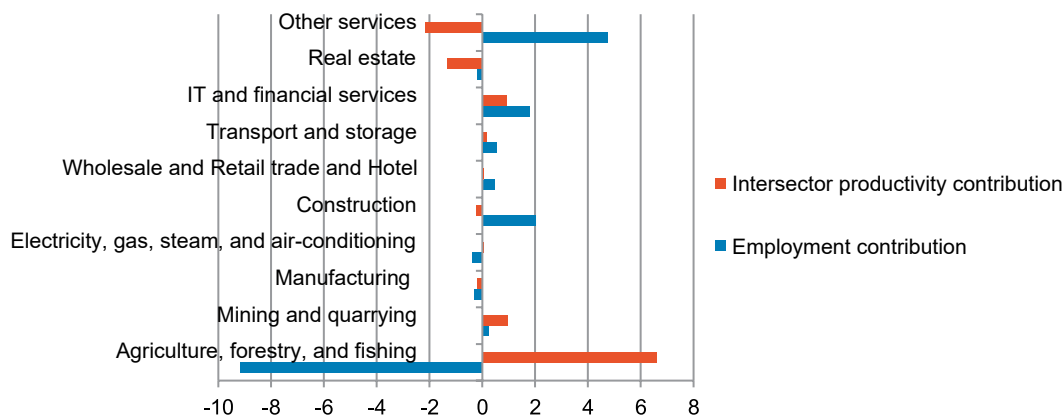
**Figure 17: Decomposition of Growth in Gross Domestic Product per Capita into Intrasector and Intersector Productivity Growth and Employment Growth, 2001–2008 (%)**



Source: Author’s calculations.



**Figure 18: Understanding the Composition of Intersector Productivity Effects in Kazakhstan, 2001–2008**



Source: Author's calculations based on ADB.

ground-laying tractors, and textile fibers, were lost. The economy instead became more specialized in minerals and mineral products, as well as crude fertilizers, natural gas, and iron and steel products. Overall, there is evidence of increasing specialization, with the ratio of four- to two-digit products increasing from 3.1 to over 4.1 in 2015.

#### 2.4.2 Foreign Direct Investment

There has been a multifold increase in inward FDI stocks within Kazakhstan, growing from \$1.3 billion in 1992 to \$119.8 billion in 2015 (Figure 21). In 2016, gross FDI inflow in Kazakhstan increased by 40% compared to 2015 and amounted to \$20.6 billion.

However, much of this investment is concentrated in mining and quarrying, geological exploration, and prospecting activities. The upsurge in FDI inflows in 2007 and 2016 was mainly due to the active phase of exploration of the Kashagan Field, one of the five largest oil deposits in the world (Hong 2012). The

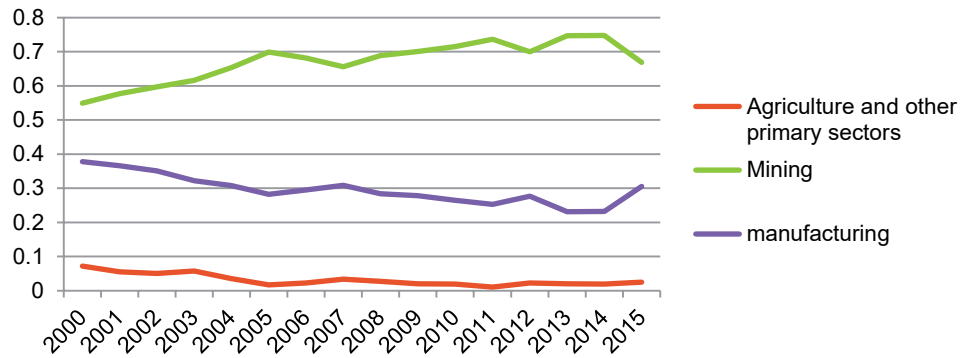
project was delayed due to leaks in the pipelines caused by a high sulfur content in associated natural gas, but was re-launched in September 2016, resulting in an upsurge in the FDI flow in Kazakhstan.

The sector distribution of FDI is highly skewed. Of the total, 92% is concentrated in service and primary sectors. These are business services (mainly geological explorations), finance, communication, transport, petroleum, mining, construction, trade and utilities. The only manufacturing sector that attracts substantial FDI inflows (4.7%) is metal products. Food and beverages and equipment also make above 1% share each. The share of other sectors remains miniscule.

It has also been observed that reinvested earnings constituted an unusually small share of gross FDI inflows to Kazakhstan, averaging just 10% during 2005–2014, although in 2014 this share increased to 22% (World Bank 2015).<sup>11</sup> Reinvested earnings typically represent between one-quarter and one-third of inbound FDI. Low ratios of reinvested earnings imply that profits are typically repatriated rather than

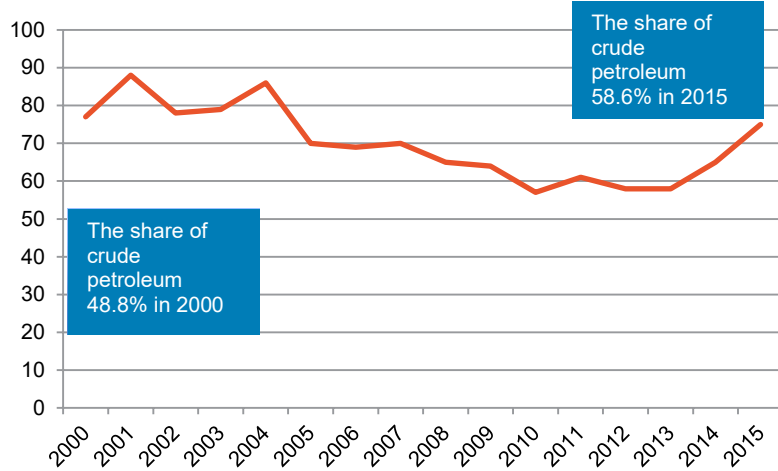
<sup>11</sup> According to the National Bank of Kazakhstan, reinvested earnings have been growing; in 2016, they exceeded \$4.9 billion.

**Figure 19: Patterns of Export Shares in Kazakhstan at the One-Digit Level, 2000–2015**



Source: United Nations. UN Comtrade Database. <https://comtrade.un.org/>.

**Figure 20: Number of Products at the Four-Digit Level**



Source: World Bank. World Integrated Trade Solution Database. <http://wits.worldbank.org/>.

retained for reinvestment and expansion. This, in turn, may indicate challenges in retaining existing foreign investors or that foreign investors face weak incentives to remain in the country and expand their operations.

## 2.5 Regional Inequalities

Kazakhstan is divided into 14 administrative *oblasts* (regions). Astana and Almaty are classified as cities of national importance and do not belong to any particular *oblast*. Each *oblast* is headed by an *akim* (governor), appointed by the president. Municipal *akims* are appointed by the *oblast akims*.

Regional discrepancies in gross regional product per capita remain exceptionally high. The administrative cities of Astana and Almaty, main oil-extracting region of Atyrau, and industrial regions of Karaganda and South Kazakhstan alone accounted for 55% of the cumulated gross regional product in 2013 (Figure 23).

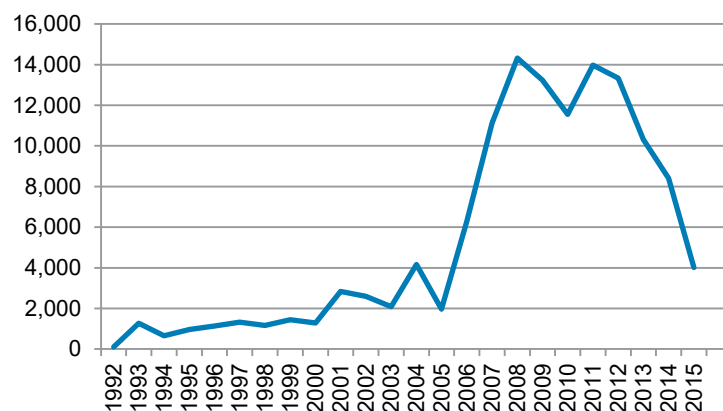
The genesis of regional inequalities may be found in the history and geography of Kazakhstan. Geographically, it is explained by the availability of natural resources. Historically, as mentioned previously, under the Soviet system, *oblasts* often had

stronger links to the rest of the Soviet Union than with each other:

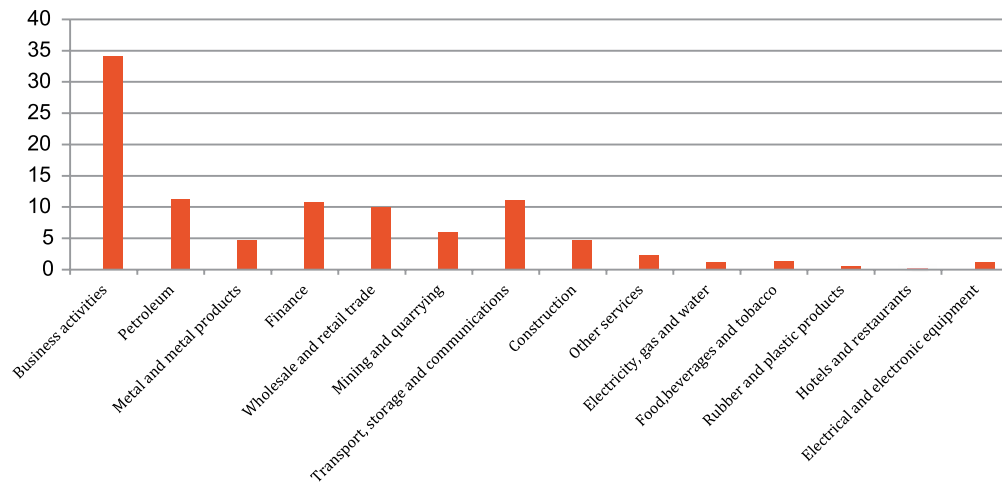
In 1960, for example, 61 per cent of all rail shipments (by weight) from cities in the northern two-thirds of the country were destined for locations outside of Kazakhstan. Of the remaining 39 per cent of rail shipments, 26 per cent were to other locations in the northern region and only 13 per cent were to locations in the southern third of the country (Peck 2004: 53).

These external links were largely to the Russian Federation. Even within the northern region of today's Kazakhstan, where there were four distinct sub regions, very little trade occurred among these areas. Less than 15% of rail shipments originating there went to other regions in Kazakhstan. During this time, there was “not a development plan which fostered the creation of an integrated national industry where growth in one region might have supported development in another or become the impetus for ‘rapid self-sustaining’ growth” (Peck 2004: 54). Post-independence efforts were made to bring about greater equality, but, despite moderate convergence over the last decade, the difference in nominal gross regional product per capita between the top and

Figure 21: Foreign Direct Investment Inflows to Kazakhstan, 2000–2015 (\$ million)



Source: UNCTAD.

**Figure 22: Sectors Attracting Foreign Direct Investment in Kazakhstan: 2012 (%)**

Source: International Trade Centre.

bottom regions was more than 10 times in 2002 versus 8 times in 2013 (Whiteshield Partner 2015).

An overtime analysis shows that only the Almaty province, Jambyl, North Kazakhstan, and Atyrau have upgraded their economic structures between 2002 and 2013. In contrast, the two largest industrial centers, Karaganda and Pavlodar, were stagnating along with Astana, Akmola, Aktobe, and Kostanay in terms of improving the complexity of their economic activity. West Kazakhstan, East Kazakhstan, and South Kazakhstan declined in terms of industrial diversification, competitiveness, and complexity of products. Government initiatives have met with limited success.

## 2.6 Conclusion

Under the Soviet regime, today's Kazakhstan was placed at the bottom of internal value chains, supplying grains and natural resources for the industries of the rest of the Soviet Union, with little productive capacity of its own. In the late 1990s, it started to catch up, with an ambitious goal of becoming one of the 50 most advanced economies.

It has adopted a developmental state approach to quicken the catch-up process.

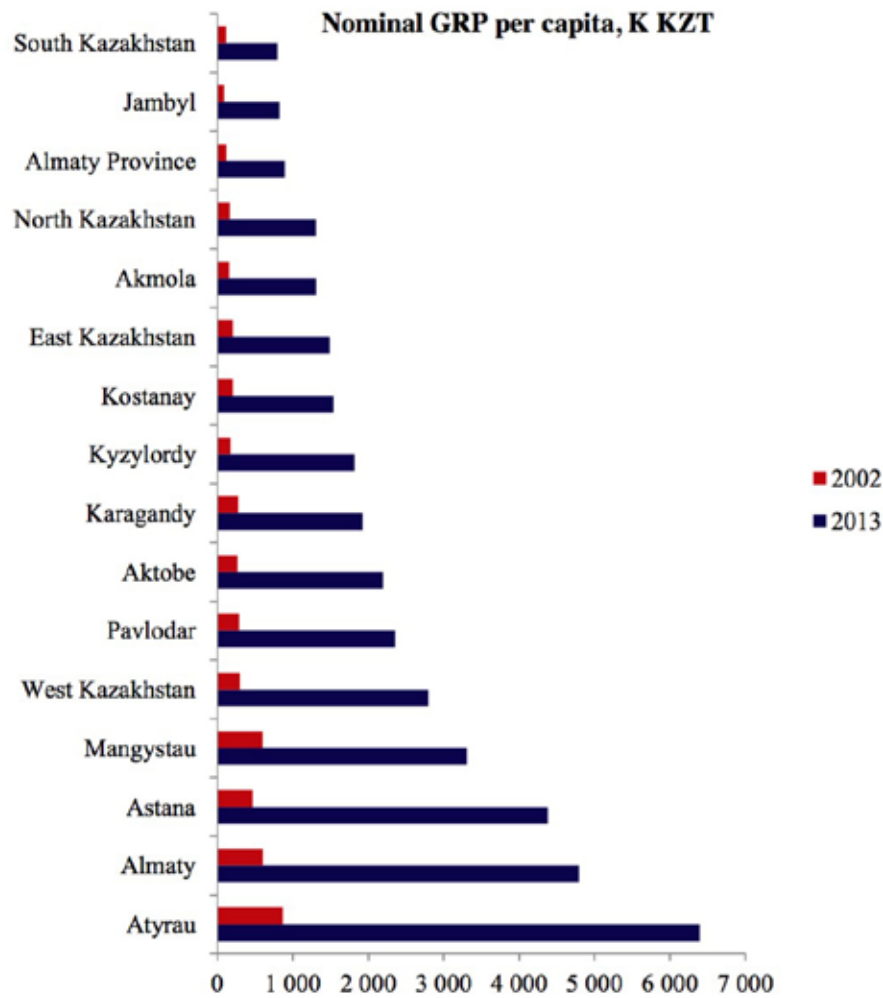
Kazakhstan faces major challenges from its physical features, most notably connectivity issues because it is landlocked. The government strategy for the transport sector aims to transform it into a "landlinked" country. Another challenge is posed by its natural resources abundance; despite several initiatives, Kazakhstan could not escape the resources curse. The leadership has not been successful in putting Kazakhstan on the path of sustained economic development, like many other resources-cursed countries such as Australia, Norway, and the United States. This is reflected in highly volatile growth rates, which are associated with commodity prices, and symptoms of Dutch disease, which is manifested in low competitiveness, low and diminishing productivity rates, and sector retrogression with low and declining shares of manufacturing.

In addition, there are clear symptoms of deindustrialization, affecting Kazakhstan's export competitiveness and attractiveness to foreign investors. Thus, the most challenging task is to push the economy from a low-competitiveness

trap to high-competitiveness virtuous circle. The challenge before policy makers is to search for policy alternatives that help moderate the adverse effects of natural resources on domestic goods-

producing sectors, and realize the full potential of the opportunities by translating the rent on natural resources into investment to put the economy on the path of industrial diversification.

**Figure 23: Regional Distribution of Gross Regional Product (T)**



Source: Whiteshield Partner (2015).

## Chapter III: Competitiveness Drivers: Factors that Hamper Business Competitiveness in Kazakhstan

Strong symptoms of Dutch disease in Kazakhstan's economy have affected its competitiveness. As a result, the country is facing deindustrialization and a drop in export shares in manufactured products, despite the fact that it has set a long-term economic goal of promoting a diversified industrial base dominated by high value-added activity. In line with this goal, the government has undertaken several initiatives to improve its competitiveness, but the country could not escape the resources curse. This chapter focuses on the drivers of competitiveness that have hindered the economic performance of Kazakhstan's economy.

ability to compete successfully in global markets. This definition is motivated by a concern about a country's external balance, that is, its ability to sell its products and services, defend its international market share, and thus generate the inflows needed to pay for imports. A country is competitive if its macroeconomic aggregates are in balance. Countries that are losing competitiveness in the sense of rising relative unit labor costs are seen to be in danger of building up current account imbalances. This perspective is criticized for motivating policies that focus on lowering costs to raise exports. However, cost-based competitiveness is a dominant form of competitiveness at lower levels of development, at least from a short-term perspective.

### 3.1 What are Competitiveness Drivers?

#### 3.1.1 Types of competitiveness drivers

**Cost-based drivers.** Cost competitiveness is defined by a country's unit cost level, which drives companies'

**Productivity-based drivers.** These drivers are concerned with value creation and are associated with education, high skills, research and development, and innovation (Porter 1990, Porter 2000, Delgado et al. 2012). They are at the center of productive

**Figure 24: Framework for Competitiveness Drivers**

#### Cost-Based Competitiveness Drivers

- Factor costs (e.g., land, labor, capital, utilities)
- Tax rates
- Tariffs

#### Productivity-Linked Cost-Competitiveness Drivers

- Institutions
- Infrastructure
- Business environment
- Labor availability and flexibility

#### Productivity-Based Competitiveness Drivers

- Higher education and training
- Goods market efficiency
- Finance market efficiency
- Availability of talent
- Business sophistication
- Technological readiness
- Innovation

Source: Author.

employment, higher wages, long-term growth rates, and prosperity (Pages-Serra 2010, Lewis 2004). This perspective is focused on the medium to long term. The literature on growth spurts has shown that the level of sustained productivity growth is what ultimately matters, not the stability or variability of growth rates.

#### **Productivity-linked cost-competitiveness drivers.**

This perspective of competitiveness is associated with low costs driven by institutional and macroeconomic conditions that allow productive firms to thrive; in turn, the development of these firms supports the expansion of employment, investment, and trade (Altomonte and Békés 2016). This perspective brings the two views on competitiveness closer: cost-based and productivity-based.

In the literature, the focus on productivity drivers is paramount. Productivity drives long-term prosperity levels and is thus an appropriate and critical target for policy. However, the drivers of cost-competitiveness and productivity-linked cost-competitiveness cannot be overlooked.

### **3.1.2 Competitiveness Indexes**

Several international organizations provide annual country rankings of competitiveness covering a wide spectrum of competitiveness drivers:

- (i) The Doing Business Project of the World Bank compiles information on starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, and resolving insolvency. It focuses on institutions surrounding the business sector.
- (ii) The World Bank Group's Enterprise Surveys cover a broader range of investment climate factors including access to finance, tax rates, corruption, labor regulations, informal sector practices, business licensing and permits, courts, infrastructure, crime, and competition.
- (iii) The World Bank Group's Worldwide Governance Indicators assess six categories of governance: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption. The indicators present

country rankings based on the perceptions of governance and may not reflect real changes in governance over time.

- (iv) The Global Competitiveness Index, provided by the World Economic Forum, is based on components grouped under 12 pillars to assess institutions, infrastructure, the macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labor market efficiency, finance market development, technological readiness, market size, business sophistication, and innovation.
- (v) Global Innovation Index is the result of a collaboration between Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO) as co-publishers, and their Knowledge Partners. The GII relies on two sub-indices—the Innovation Input Sub-Index and the Innovation Output Sub-Index— each divided into three sub-pillars, each of which is composed of individual indicators, with a total of 81 indicators in 2017.

Of the above, the World Bank's indices, namely Doing Business Index, Worldwide Governance indicators, and Enterprise Surveys are used for assessing productivity-linked cost competitiveness drivers while the World Economic Forum's Global Competitiveness ranking covers indicators of both, productivity linked cost competitiveness and productivity-based competitiveness drivers.

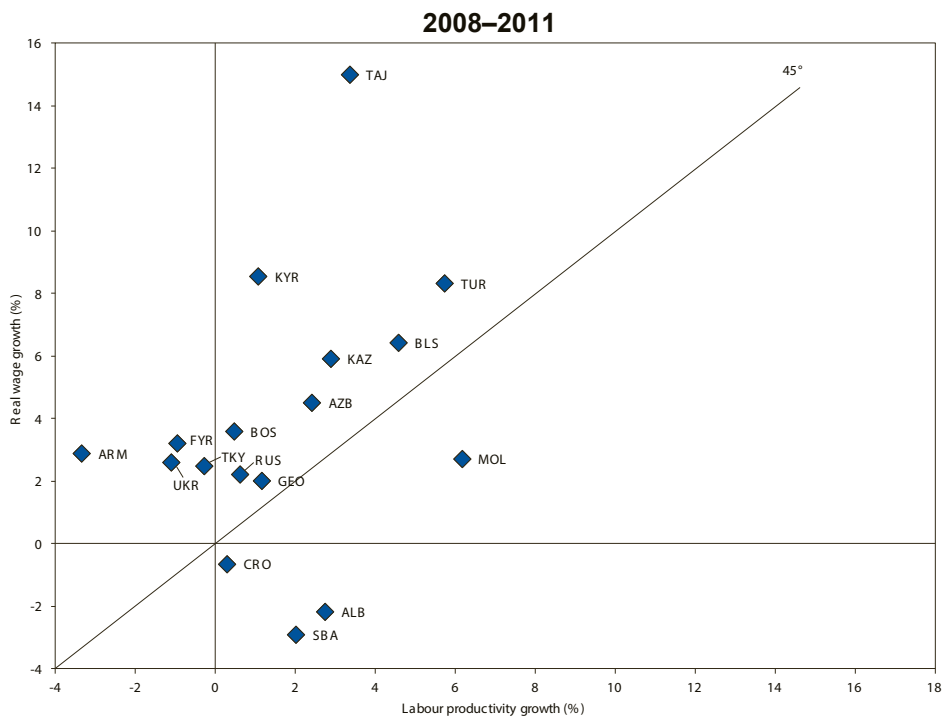
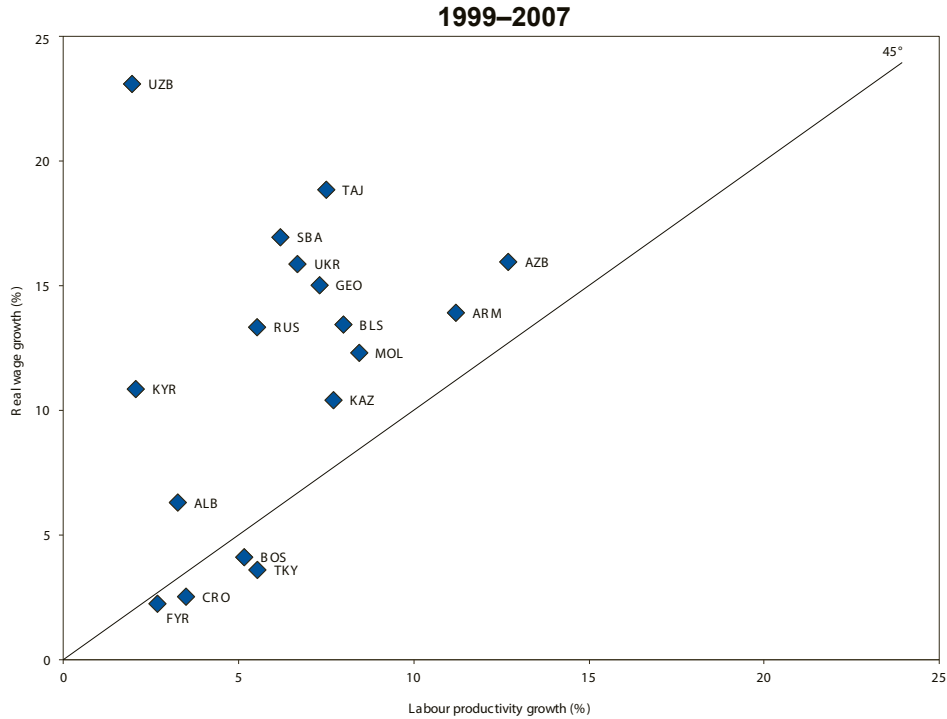
## **3.2 Analysis of Competitiveness Drivers in Kazakhstan**

### **3.2.1 Cost-based Drivers**

Cost-Competitiveness is critical for Kazakhstan to improve its export performance and to position itself as an attractive destination for FDI, in particular export-oriented FDI, which can bring necessary technology and improve productivity levels in the long term.

**Cost of labor.** The most successful countries used cheap labor, tax breaks, and cheap land with good infrastructure to build manufacturing competitiveness and attract more FDI. Kazakhstan, however, has not been able to offset its Dutch disease paradigm to gain competitiveness in wages. Since 1997, real wages have

**Figure 25: Productivity–Real Wage Growth Relationship in the Commonwealth of Independent States**



ALB = Albania, ARM = Armenia, AZB = Azerbaijan, BLS = Belarus, CRO = Croatia, BOS = Bosnia, FYR = Former Yugoslav Republic of Macedonia, GEO = Georgia, KAZ = Kazakhstan, KYR = Kyrgyz Republic, MOL = Republic of Moldova, RUS = the Russian Federation, SBA = Serbia, TAJ = Tajikistan, TKY = Turkey, UKR = Ukraine, UZB = Uzbekistan.

Source: International Labour Organization. 2013. *Global Wage Report 2012/2013: Wages and Equitable Growth*. Geneva.



**Figure 26: Exchange Rate Movement in Kazakhstan, 2000–2014**



Source: Based on <http://www.nationalbank.kz/?docid=364&switch=english>.

been growing faster than productivity in Kazakhstan (ILO 2013). Between 2008 and 2011, when real wage growth became more closely aligned with productivity growth (value creation) in many countries, in Kazakhstan, the gap between the two enlarged (Figure 25), hampering cost competitiveness.

High wages are largely concentrated in the mining and finance sectors, and in US dollar terms, wages have quadrupled since 2000 (OECD 2016). Further, there is evidence of prices of nontradables consistently rising faster than prices of tradables. Growth in domestic spending seems to have fueled the growth of nontradable sectors in Kazakhstan, in line with Dutch disease drivers.

**Exchange rate.** The foreign exchange rate also tends to rise, affecting the relative competitiveness of exports and imports in Kazakhstan. The National Bank of Kazakhstan has devalued the currency twice since 2009 to keep the exchange rate rise modest. However, the exchange rate still remains highly volatile, affecting domestic investments adversely and hampering the cost-competitiveness of the economy (Figure 26).

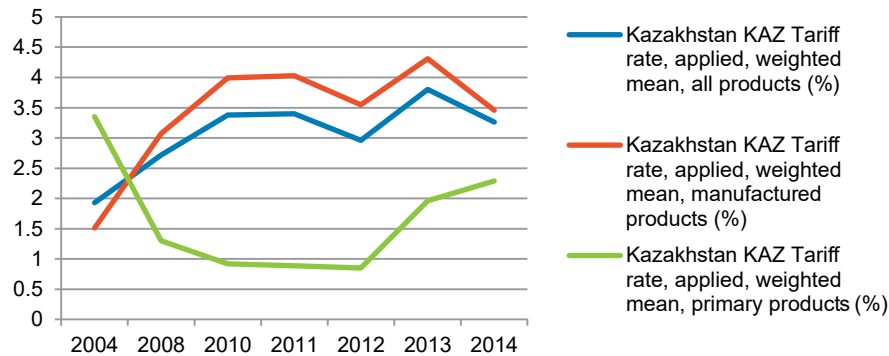
**Tariff rates.** Finally, applied tariff rates have also been showing upward movements, creating cost

implications for tradable sectors, affecting their competitiveness. Figure 27 shows that the tariff rates increased continuously on manufactured products between 2004 and 2010. As a result of its membership in the EAEU in 2010, rates stabilized somewhat and then declined. In July 2012, Eurasian Customs Union countries adopted a new common external tariff (CET) that reflects the Russian Federation's tariff commitments. Under the new common external tariff, tariff rates on manufactured products shot up again, while tariff rates on primary products also started trending upward.

### 3.2.2 Productivity-Linked Cost-Competitiveness Drivers

There has been a steady improvement in regulatory quality and the climate for doing business in Kazakhstan. As a result, the World Bank in 2016 ranked Kazakhstan 41 out of 189 countries in its Doing Business Report (World Bank 2016). Kazakhstan has streamlined bureaucratic practices, provided accelerated business start-up procedures, reduced minimum capital requirements for businesses, and simplified procedures for registering property and obtaining construction permits. The government

Figure 27: Tariff Rates in Kazakhstan, 2004–2014



Source: World Bank. Indicators. <http://data.worldbank.org/indicator>.

has also established special offices around the country where investors can receive a wide range of government services, such as business registration and work permits.

The corporate income tax rate dropped from 30% in 2009 to 20% in 2015. The 2015 Entrepreneurial Code and 2009 Tax Code provide for tax preferences, customs duties exemptions, investment subsidies, and in-kind grants as incentives for foreign and domestic investment in priority sectors. The government's preference system applies to new and existing enterprises, and the duration of tax preferences increases with the size of investment. The Labor Code leaves many labor-related issues at the discretion of employers and gives them more rights, especially in relation to dismissals and layoffs. It also imposes tighter collective bargaining requirements and restrictions on employees involved in labor disputes. It has therefore climbed up the 35<sup>th</sup> rank in Doing Business Index among 190 countries. However, a disaggregated analysis shows that it has is facing serious challenges in key dimensions affecting its competitiveness.

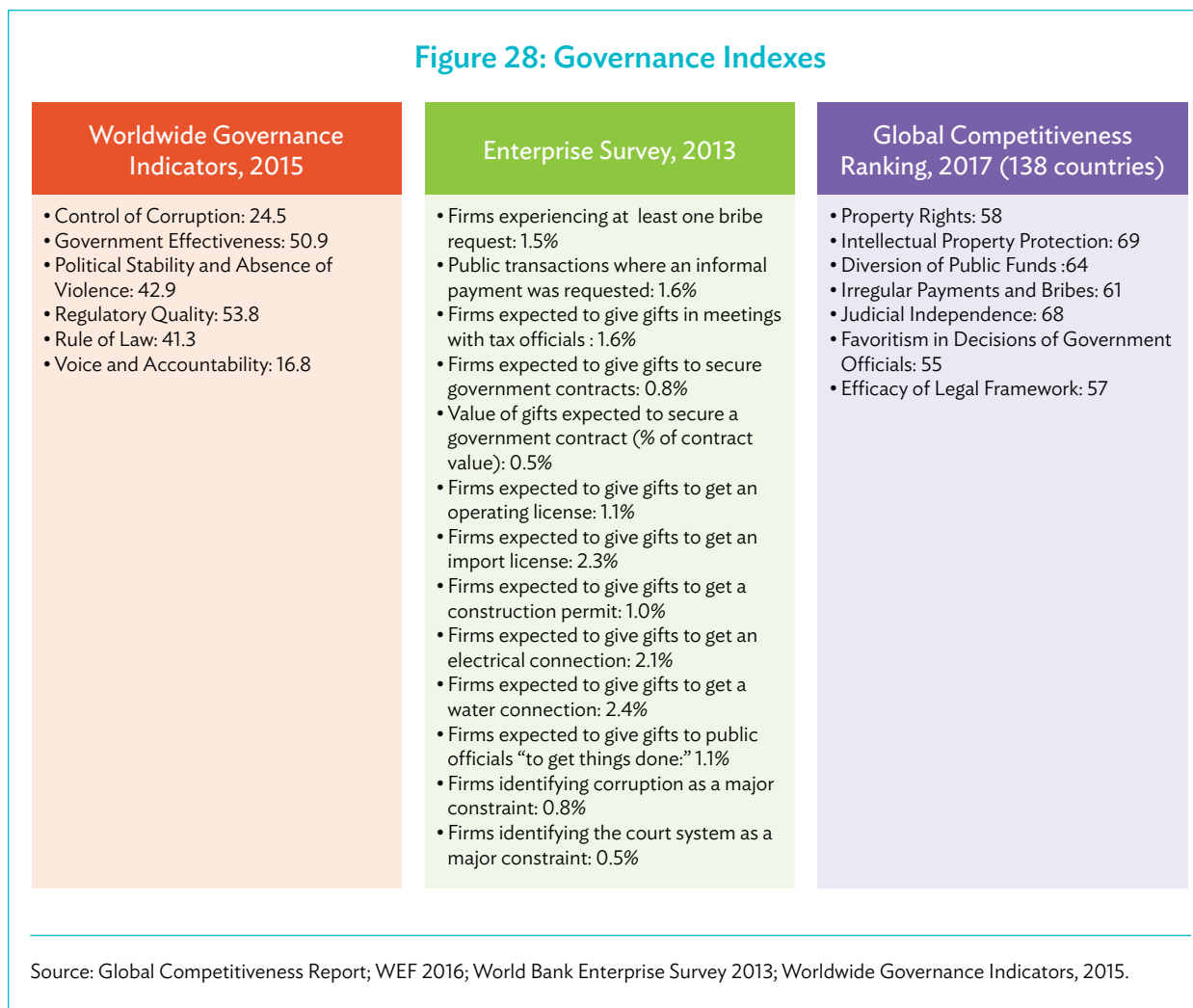
**Governance.** There is an overwhelming effect of governance-related factors—such as political stability, bureaucratic systems, corruption, and level

of transparency and efficiency in public service delivery—on investment and economic growth. Indeed, countries and areas with poor governance are likely to have low growth rates. Kazakhstan ranks relatively low in governance.

Political power is distributed highly hierarchically in Kazakhstan, that is, commands and controls with directions, policies, guidelines, information, plans, and fund processes come from top authorities based on their visions. This system has had demoralizing effects on local officials, as they typically have little control over what they are expected to do and how they are expected to do it. Despite being fully aware of local issues and solutions, they have little say in the system, affecting their creativity and innovation.

This problem is further aggravated by a steady stream of decrees and legislative changes, most of which do not exempt or grandfather in existing investments. In addition, there is a frequent change in the leadership of various economic organizations, which discourages initiatives and institution building. The government's tendencies to challenge contractual rights, legislate preferences for domestic companies, and attempt to intervene in foreign companies' operations poses discomfort to foreign investors (DOS 2016).

Figure 28: Governance Indexes



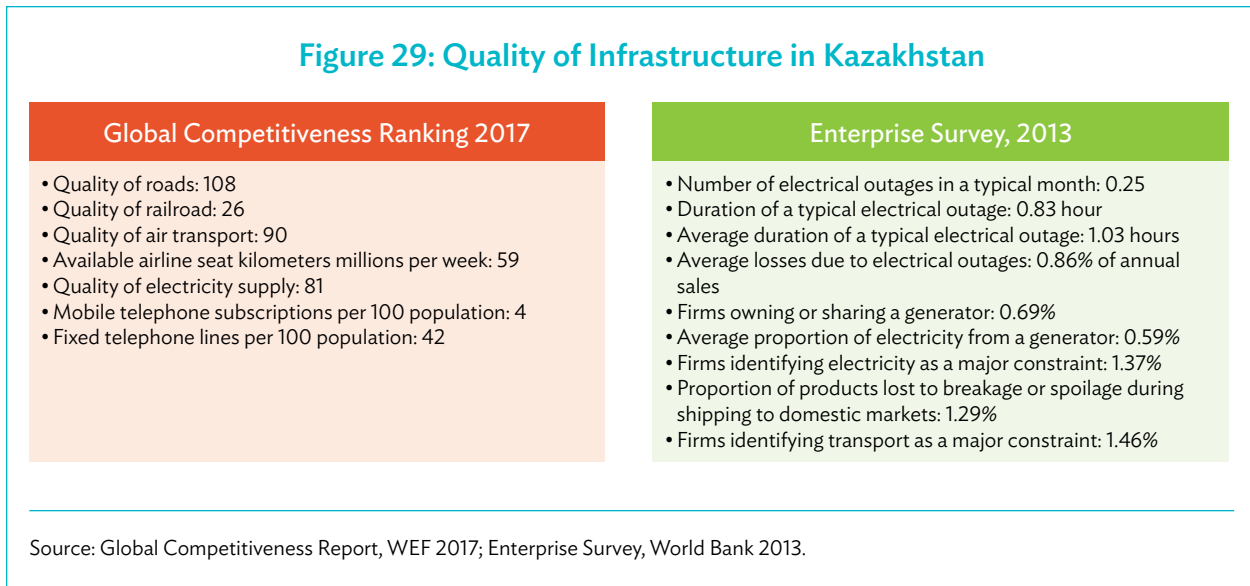
Finally, ambiguities in the communication of policies, decrees, and rules lead to their misinterpretation and potential failures at the local level. As a result, despite many positive and progressive laws introduced over the years, implementation remains poor. There are reports of corruption; bureaucracy; arbitrary law enforcement; inconsistent standards; extraction of bribes; harassment by the Financial Police via unannounced audits, inspections, and other methods; criminal charges in civil disputes as a pressure tactic; arbitrary tax inspections; problems in finalizing contracts; delays and irregular practices in licensing; and arbitrary environment fines and land fees, especially at the regional and municipal levels.

These institutional bottlenecks in governance are reflected in Figure 28. The Worldwide Governance

Indicators provides percentile ranks; higher values correspond to better outcomes. For Kazakhstan, the percentile score is less than 50. In voice and accountability, it is only 17%. The Enterprise Survey indicates that a greater percentage of firms reported bribery in public transactions in Kazakhstan than in the regional economies, and the Global Competitiveness Report supports the findings.

**Infrastructure.** That infrastructure matters to growth is now well recognized; a plethora of evidence exists that better quantity and quality of infrastructure can facilitate private investment by cutting costs. This can, in turn, raise the productivity of human and physical capital and hence growth. Good transport infrastructure, a robust communications infrastructure, and access to efficient utility providers

### Figure 29: Quality of Infrastructure in Kazakhstan



for electricity and water have important influence on cost-competitiveness and have direct links with productivity.

An overview of Kazakhstan's infrastructure indicates that the country is facing challenges. In infrastructure subindexes in the Global Competitiveness Report, Kazakhstan ranks 10 places below its overall competitiveness ranking. More worrisome is the quality of infrastructure, where Kazakhstan is ranked 73 (Figure 29). While the country has developed a railway network, roads, which are the main means of transport, remain a huge challenge. This is especially true in mountainous terrain where road building requires not only considerable initial investment but also funds for continued maintenance and reconstruction.

Another major infrastructure issue is quality of electricity. Kazakhstan inherited excess capacity from the Soviet system; as a result, the government originally neglected the sector. The market prices were too low to attract serious investors. In the mid-2000s, the investment bust unfolded (Aldayarov, Dobozi, and Nikolakakis 2017) when it was realized that existing and planned capacity extension were insufficient to keep up with strong increases in demand for power. Three major risks were identified for the power sector: energy supply security, need for investment, and efficient regulation.

Overall, a relatively large percentage of executives in Kazakhstan perceive infrastructure as a major

challenge for their businesses (Enterprise Surveys 2016). Apart from quality, other problems associated with infrastructure are underdevelopment of metrological infrastructure in western and central Kazakhstan, high tariffs on railway traffic and transport of electricity, frequent changes in rates of transport and energy supply, and the lack of predictable long-term tariffs for services of natural monopolies.

**Rule and regulations.** As stated above, rules and regulations are another major determinant to wealth and long-term growth, as they shape incentives for key economic actors in society, are created to reduce uncertainty about exchanges and to enhance predictability (Coase 1937, Shubik 1975, Williamson 1975 and 1985). They also reduce transaction costs that arise in economic activities from the separation of buyers and sellers and ensuing information problems. This may have an affirmative impact on the firms' performance, but the possibility that these rules may constrain the economic freedom of firms, reducing their efficiency, cannot be ruled out. These rules and regulations also increase entry costs disproportionately, deny economic freedom to do business, and restrict the entry of dynamic enterprises and exit of sick businesses. A number of studies show that cross-country differences in business rules affect firms' performance (Dollar, Hallward-Driemeier, and Mengistae 2005; Levie and Autio 2011).

The World Bank's Doing Business surveys show a significant improvement in business regulations

Table 1: The Business Environment in Kazakhstan

Enterprise Survey 2013		Doing Business rank	2017	2016
Senior management time spent dealing with the requirements of government regulation (%)	7.5	Overall	35	51
Number of visits or required meetings with tax officials	0.6	Starting a Business	45	54
If there were visits, average number of visits or required meetings with tax officials	2.2	Dealing with Construction Permits	22	78
Days to obtain an operating license	49.3	Getting Electricity	75	102
Days to obtain a construction-related permit	78.6	Registering Property	18	18
Days to obtain an import license	26.9	Getting Credit	75	70
Percent of firms identifying tax rates as a major constraint	12.0	Protecting Minority Investors	3	25
Percent of firms identifying tax administration as a major constraint	4.4	Paying Taxes	60	57
Percent of firms identifying business licensing and permits as a major constraint	7.5	Trading across Borders	119	128
Percent of firms identifying labor regulations as a major constraint	0.83	Enforcing Contracts	9	9
		Burden of customs procedures, 1-7 (best)	55	
		Trade tariffs, % duty*	73	

Source: World Bank. Enterprise Surveys. <http://www.enterprisesurveys.org/>; and Doing Business Surveys, 2016, 2017 World Bank.

in Kazakhstan over the past 2 years. However, the regulatory burden is still quite substantial. For example, getting permits and licenses can be arduous, with long waits; trading across borders involves high transaction costs; and it takes 12 days to clear direct imports from customs, while for exports it takes more than 7 days. According to Davaa and Namsrai (2015), trade turnover per employee in Kazakhstan is around \$21.0 million, compared to \$75.5 million in the PRC. Finally, the land code is archaic. Land transactions are time-consuming, opaque, and account for large number of disputes.

### 3.2.3 Productivity-based Drivers

While its overall productivity-linked cost-competitiveness has improved, productivity-based drivers also seem to have shown an upward movement in Kazakhstan. The country's Global Competitiveness ranking has improved steadily over time, and in 2015–16, it was elevated to 42 out of 138

countries (WEF 2015). In 2016–17, its competitiveness was downgraded to 53 but remains higher than those of Brazil, Greece, and Turkey (WEF 2017).

It is puzzling that high rankings in various competitiveness indices do not match with the actual performance of the economy. This calls for a disaggregated analysis to identify the drivers that have impeded the economic performance of Kazakhstan.

**Human resources.** The emergence of endogenous growth theory in the 1980s (e.g., Romer 1986) placed human capital at the core of economic development. Knowledge can raise the returns on investment, which can, in turn, contribute to the accumulation of knowledge. It does this by stimulating more efficient methods of production organization as well as new and improved products and services. Knowledge can also spill over from one firm or industry to another. Such spillovers can ease the constraints placed on growth by scarcity of capital. Since knowledge investments are characterized by increasing (rather

Figure 30: Human Capital Indexes

Enterprise Survey, 2013	Global Competitiveness Ranking, 2016	Global Innovation Index, 2015
<ul style="list-style-type: none"> <li>• Firms offering formal training: 25%</li> <li>• Workers offered formal training: 48%</li> <li>• Firms identifying an inadequately educated workforce as a major constraint: 20.1%</li> </ul>	<ul style="list-style-type: none"> <li>• Higher education and training: 60</li> <li>• Quality of math and science education: 71</li> <li>• Quality of management schools: 101</li> <li>• Quality of education: 64</li> <li>• Quantity of education: 59</li> <li>• Availability of scientists and engineers: 70</li> </ul>	<ul style="list-style-type: none"> <li>• Human capital and research: 66</li> <li>• Education: 79</li> <li>• Expenditure on education, (% GDP): 102</li> <li>• PISA scales in reading, math, and science: 416.4</li> <li>• Pupil-teacher ratio, secondary: 8.7</li> <li>• Tertiary education: 39.4</li> <li>• Tertiary enrollment (% gross): 48.5</li> <li>• Graduates in science and engineering: 25.7</li> <li>• Tertiary inbound mobility: 2.7</li> </ul>

Source: Global Competitiveness Report, WEF 2016; Global Innovation Index, 2015; Enterprise Survey, World Bank 2013.

than decreasing) returns, they are the key to long-term economic growth. A successful growth strategy must have, at its core, measures to promote education. Higher education, in particular, is crucial for economies to move up the value chain beyond simple production processes and products.

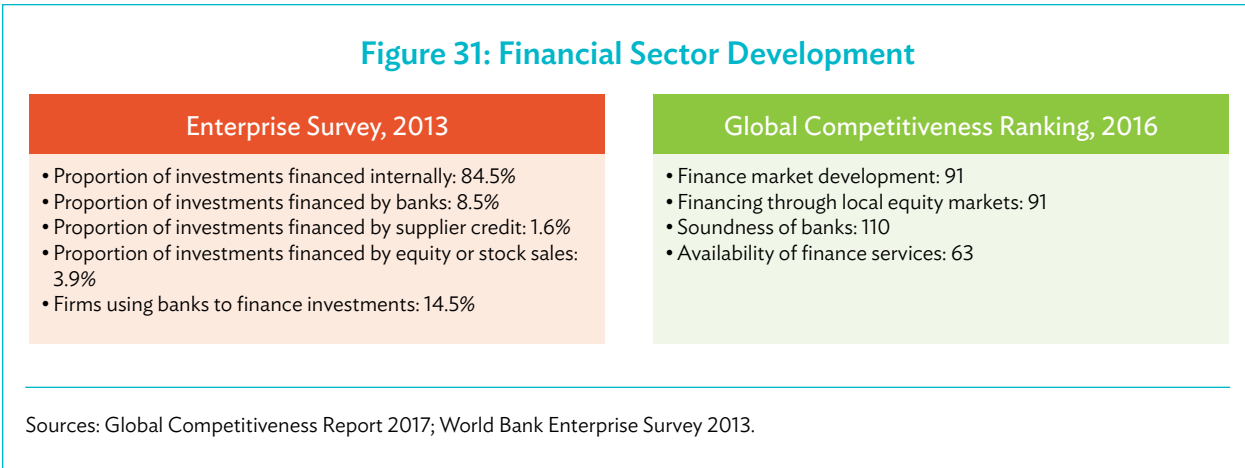
According to KazCham (2014), Kazakhstan is facing several challenges regarding human capital. These pertain not only to the shortage of scientific personnel for technical, engineering, and innovation management, but also to personnel with technical and engineering skills based on technical and vocational education. Kazakhstan has a high enrollment ratio in the tertiary sector (48% gross), and over 25% of the graduates are in science and engineering, but the key problem is the overall low quality of education (Cornell University, INSEAD, WIPO 2015). Kazakhstan ranks 48 (of 128) in Programme for International Student Assessment scales in reading, math, and science, and Global Competitiveness Index results indicate low rankings in quality of education across most spheres. Low government expenditure (i.e., 2.9% of GDP) and low mobility of tertiary students, which plays a crucial role in the exchange of ideas and skills necessary for innovation, appear to have contributed to the poor quality of the country's education.

Over 20% of firms in the Enterprise Survey considered a shortage of trained workers a major constraint on their performance. On-the-job training presents a prime opportunity to expand the knowledge base of workers, improves employability, and compensates for the low quality of education. However, only about 25% of the firms offer such training.

**Financial system.** Financial markets are critical to providing capital for investment in physical assets. A positive link exists between the sophistication of the financial system and economic growth. Financial sector development can enhance resources allocation and accelerate growth. Similarly, by facilitating risk management, improving the liquidity of assets, and reducing trading costs, financial development can encourage investment in large-scale and high-return activities (Levine 1997). This removes constraints on productivity growth (Kumbhakar and Mavrotas 2005).

Figure 31 suggests that one of the major constraints to domestic investment is the lack of financial deepening. Kazakhstan consistently ranks low in nearly all aspects of financial markets. About 84% of the investment is funded through internal funding, so it cannot sustainably support the needed transformational agenda that the government envisions.

**Figure 31: Financial Sector Development**



**Technological capabilities.** Investments in research and development and innovation are central for competitiveness and economic growth. Rapid advances in new technologies, reinforced by the process of globalization, have exposed firms in developing countries to intense technological competition both in domestic and export markets. Conscious efforts toward building technological capabilities are increasingly becoming vital to survive.

There is an intense race to attract FDI to acquire cutting-edge technology and innovation. It is expected that the presence of global multinational enterprises should encourage technology transfers to local firms, automatically through spillover mechanisms such as labor turnovers, imitation, competition, and demonstration. However, this requires a comprehensive approach toward building technological capabilities for adaptation, diffusion, and use of these technologies in local contexts.

Figure 32 presents the ranking of Kazakhstan in Global Competitiveness Report and Global Innovation Index.<sup>12</sup> The latter shows that Kazakhstan lags far behind in innovation and research and development, not only in global ranking (75 of 128) but also among its upper-middle-income peers. In addition, its output ranking at 90, relative to the input ranking of 65, shows the low efficiency of its research and development resources. The overall low productivity

that characterizes the economy is reflected in the productivity of research and development inputs, where it ranks 108.

On the input side, factors that have been responsible for Kazakhstan’s low rankings in terms of technological capabilities are low-quality education, lack of technological and managerial competency, underdevelopment of innovative technology in the education system, lack of financial sector development, weak university–industry collaboration, and meager budgetary allocations to education and research and development. Further, FDI which is an important source of technology transfer is mainly in exploration, extractive, and mining. This has affected technology transfers and technology acquisition across the economy. Finally, there is a low level of susceptibility of business to technological activities, attributable to a lack of local and foreign competition.

### 3.3 Conclusion

Notwithstanding the fact that Kazakhstan has improved its overall competitiveness, which is reflected in various indexes, there are areas of concern that have led to low competitiveness and productivity, and impeded investment and diversification. These areas are summarized for each category of competitiveness in the figure below.

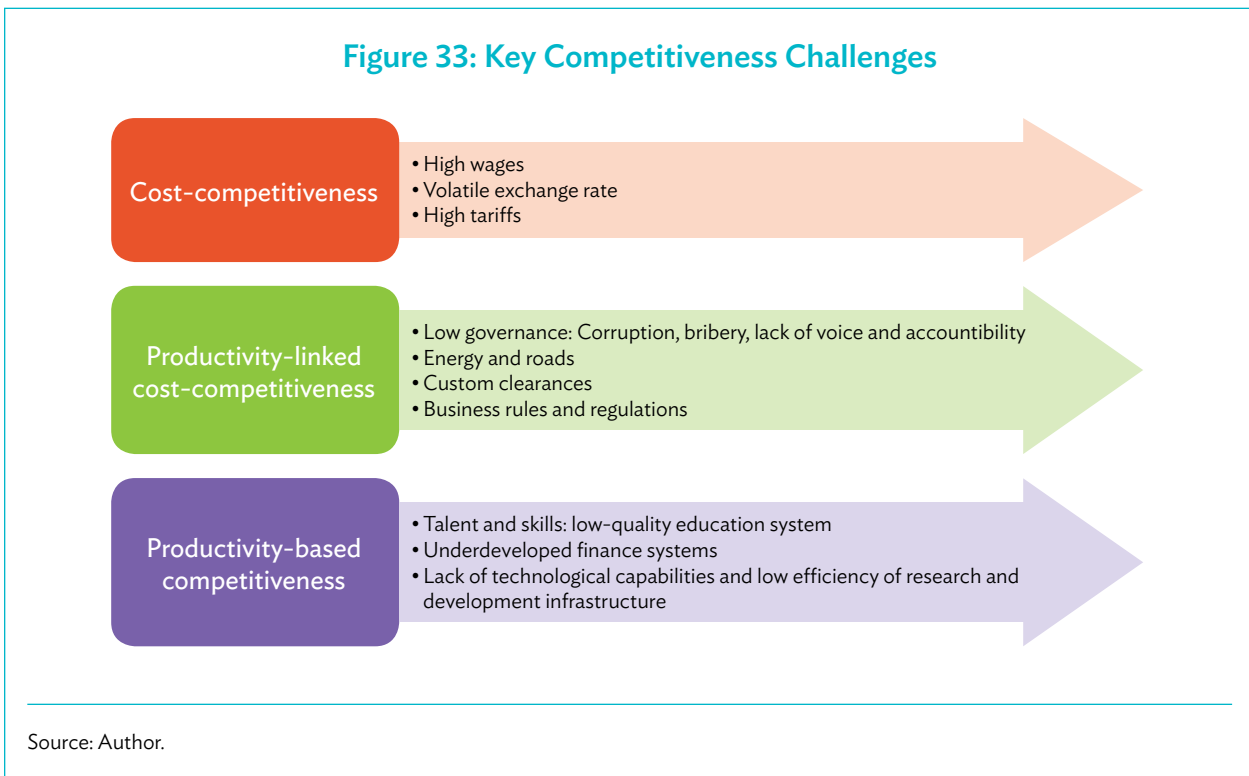
<sup>12</sup> The first subindex of the Global Innovation Index, the Innovation Input Subindex, has five enabler pillars: institutions, human capital and research, infrastructure, market sophistication, and business sophistication. Innovation outputs are the results of innovative activities within the economy. Although the Output Subindex includes only two pillars, knowledge and technology outputs and creative outputs, it has the same weight in calculating the overall index scores as the Input Subindex.

**Figure 32: Research and Development and Innovation Indicators and Drivers**

Global Innovation Ranking	Global Competitiveness Ranking: Access to Technology	Global Competitiveness Ranking: Supply-Side Factors	Global Competitiveness Ranking: Demand-Side Factors
<ul style="list-style-type: none"> <li>• Overall rank: 75</li> <li>• Input: 65</li> <li>• Output: 90</li> <li>• Efficiency: 108</li> <li>• PCT patents, applications per million population: 68</li> <li>• Innovation: 72</li> </ul>	<ul style="list-style-type: none"> <li>• Company spending on research and development: 55</li> <li>• Government spending on research and development: 0.51%</li> <li>• Availability of latest technologies: 89</li> <li>• Firm-level technology absorption: 90</li> <li>• FDI and technology transfer: 103</li> <li>• Technological adoption: 92</li> </ul>	<ul style="list-style-type: none"> <li>• University-industry collaboration in research and development: 88</li> <li>• Quality of scientific research institutions: 81</li> <li>• Capacity for innovation: 68</li> <li>• Technological readiness: 61</li> </ul>	<ul style="list-style-type: none"> <li>• Intensity of local competition: 94</li> <li>• Foreign competition: 100</li> <li>• Competition: 59</li> </ul>

FDI = foreign direct investment, PCT = patent corporation treaty.  
 Source: Global Competitiveness Report, WEF 2017; Global Innovation Index, 2015.

**Figure 33: Key Competitiveness Challenges**





## Chapter IV: Promoting Economic Zones: Toward a Virtuous Circle of Competitiveness and Productivity

As discussed in previous chapters, the major challenge that Kazakhstan's economy faces today is low competitiveness and productivity, which is a clear manifestation of Dutch disease.

Low-cost competitiveness and low productivity discourage investment in productive activity, impeding expansion in the scale of production, which in turn prevents the use of new technologies, investment in learning, and upgrading businesses. Low levels of productive investments thus keep costs high and productivity low, creating a vicious circle back to low competitiveness and productivity in the economy. This circle is reinforced by another circle of low competitiveness, low investment levels, low competition in the market, high costs, and low productivity.

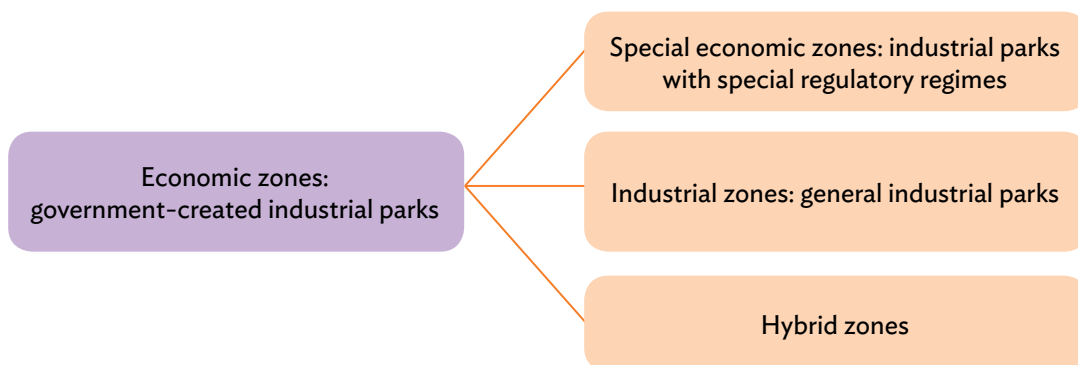
The challenge is to break these circles to push the economy into virtuous circles of higher investment, increasing scales, higher learning curve effects, and higher efficiency and productivity by raising the

levels of investment. In the contemporary world, two major tools to do so are SEZs and industrial zones. This chapter explores how these policy tools can be leveraged to give a major push to initial investment and to improve competitiveness and productivity in Kazakhstan.

### 4.1 Special Economic Zones and Industrial Zones: Conceptual Clarification

Zones have become a worldwide phenomenon and are ubiquitous in both developed and developing countries. There has been a proliferation in the number of zones with different designs and objectives; therefore, a clear distinction among the different types of parks and zones is needed. Figure 34 provides a broad classification of zones according to their design, functions, and market orientation. Broadly, there are three types: general industrial zones/parks, SEZs, and hybrid zones.

Figure 34: Classification of Zones



Source: Author based on the literature.

### 4.1.1 Industrial Zones

An industrial zone is a tract of land developed for industrial activity. It consists of a geographically delimited area, created with the intention of offering well-developed yet cheap industrial space for small and medium-sized enterprises (SMEs). According to UNIDO (1997) they are tracts of land developed and subdivided into plots, according to a comprehensive plan, with a provision for roads, transport, and public utilities with or without factories for the use of a group of industrialists (UNIDO 1997). In other words, they are planned and government-created industrial areas that offer enabling environments in a limited place, with their own administrative regime. Infrastructure, such as roads, power, and other utility services, is provided to facilitate the growth of industries. The most common names given to them are industrial zones, industrial districts, industrial subdivisions, trading zones, industrial areas, and industrial tracts.

The underlying principle for industrial zones is clustering general or specialized firms. Zones have gained increasing prominence in industrial and innovation policies throughout the world due to the agglomeration benefits that are instrumental in enhancing the competitiveness of the firms, regions, and countries.

### 4.1.2 Special Economic Zones

SEZs are government-promoted industrial zones on well-defined geographically delineated economic spaces where commercial activities are primarily export-oriented and are carried out under special regulatory, incentive, and institutional frameworks that are different from the rest of the economy. The three distinctive elements of a basic SEZ design are: (i) it is set up for export-oriented enterprises licensed under the zone regime; (ii) it offers special benefits to enterprises physically located within the zone for exporting activity; and (iii) it has a separate customs area, offering duty-free benefits and streamlined procedures, and its own management authority (Akinci and Crittle 2008).

The principles incorporated in an SEZ include special features different from other geographically delimited areas, single management, eligibility for benefits based upon physical location within the zone, separate customs areas and streamlined procedures.

The benefits offered to firms located in SEZs include import duty exemptions, simplified custom procedures, liberal foreign exchange policies, and fiscal incentives to reduce their entry and production costs, enabling them to compete in the global market.

An SEZ is a distinct variety of an industrial zone, with a specialized institutional environment. The objective of setting up SEZs is to facilitate the inflows on export-oriented investment, particularly through FDI. The rationale of setting up SEZs is to overcome institutional deficits in the wider economy, which industrial zones cannot address. Therefore, SEZs are set up only for firms that predominantly cater to foreign markets or are located in undeveloped regions.

Different terms are applied to SEZs, partly reflecting their functional differences as well as authorities' preferences (Farole 2011, Akinci and Crittle 2008). There are four different SEZ types: free-trade zones, export-processing zones (EPZs), single-factory zones, and SEZs.

Each type further branches out, with variations in objectives, location, design, composition of activity, services provided, and ownership. The variety of SEZs are outlined in Figure 4.

The upshot is that the concept of SEZs has evolved over time, with changes in the economic conditions in which they operate (Aggarwal 2012, Kusago and Tzannatos 1998). Originally SEZs were set up to promote trade and to acquire bullion, but today, governments have increasingly embraced them as part of their development and international relations strategy and experimented with particularly innovative features to use them more effectively.

### 4.1.3 Hybrid Economic Zones

One aspect of SEZ evolution is the shift in their status from being purely 'export oriented' to 'Hybrid zone'. A HEZ encompasses both general economic zones (GEZs) and one or more types of SEZs. A 'simple hybrid zone' is divided into two parts: a general zone open to all industries and a separate EPZ area reserved for export-oriented EPZ-registered enterprises (as in Thailand). A complex hybrid zone is a geographically delineated area encompassing a variety of SEZs and general industrial parks (Malaysia, Indonesia, the Philippines). The objective is to cluster

Table 2: Types of General Industrial Zones

Location
In or near big cities
In undeveloped regions
In rural areas
Industrial activity
Traditional manufacturing industries
Heavy manufacturing industries
Eco-industrial parks, which are communities of manufacturing and services businesses seeking enhanced environmental and economic performance by collaborating in the management of environmental and reuse issues including energy, water, and materials (Tudor, Adam, Bates 2007)
Technology parks, which are clusters of universities, research and development institutions, companies, and markets, that facilitate the creation and growth of innovation-based companies through incubation and spin-off processes and provide other value-added services together with high-quality space and facilities to stimulate and manage the flow of knowledge and technology
Innovation districts, which are top-down urban innovation ecosystems designed around four multilayered and multidimensional models of innovation—urban planning, productive, collaborative, and creative—all coordinated under strong leadership, with the ultimate objectives of accelerating the process of innovation and strengthening the location's competitiveness
Composition
Multi-trade zones, which are industrial zones providing factory accommodations to any manufacturing unit irrespective of its line of production
Single-trade zones, which are industrial zones providing factory accommodations exclusively to industrial units belonging to the same trade in manufacturing or services (e.g., an industrial estate for manufacturing of leather goods, pottery, or wooden furniture), with the advantage of common technical service facilities that are organized efficiently and economically for the benefit of the tenants, collective purchases of raw materials, and joint efforts in sales of finished products
Vertically integrated zones, which accommodate industries that are vertically integrated (e.g., functional estates for radios or sewing machines) that may have many small-scale units that are manufacturing components and parts with one central assembly and finishing unit, creating advantages of specialization, standardization, and economies of scale
Ancillary zones, which are zones in which different small-scale units manufacture components, parts, and stores that are required by a large industrial unit on a subcontracting basis and are located in close proximity to the large industrial unit to facilitate technical supervision and economic transport
Incubator zones, which are zones that provide startups with the transitional space requirements of small enterprises as they develop from one phase of growth to another
Ownership
Private economic zones are models where the private sector designs, builds, owns, develops, operates, manages, and promotes a zone.
Government economic zones are fully developed, managed, and operated by a government.
Public-private partnership zones have a variety of forms, including buy-build-operate, lease-develop-operate, build-own-operate, build-develop-operate, design-construct-manage-finance, design-build-finance-operate, and design-build-operate-manage.

Source: Compiled by the author.

Table 3: Categories of Special Economic Zones

Type	Description
Free-trade zones	Located in most ports and airports around the world, free-trade zones are small, fenced-in, duty-free areas, offering ware housing, storage, and distribution facilities for trade, transshipment, and reexport operations without import- or export-duty payments.
Export-processing zones	An export-processing zone is a relatively small, geographically separated area within a country to attract export-oriented industries by offering favorable investment and trade conditions. In particular, these zones provide for the importation of goods to be used in the production of exports on a bonded, duty-free basis.
Single-factory zones	These schemes provide incentives to individual enterprises regardless of location; factories do not have to locate within a designated zone to receive incentives and privileges. Mexico's maquiladoras and Mauritius's export-processing zones are examples.
Special economic zones	Special economic zones are generally a much broader concept and typically encompass much larger areas. They accommodate all types of activities, including tourism and retail sales, permit people to reside on site, and provide a broad set of incentives and benefits.

Source: Conceptualized by author.

Table 4: Variety of Special Economic Zones

By Development
<p><b>First-generation.</b> These special economic zones (SEZs) are dominated by low-cost labor-intensive activities, embodied by the earliest zones. Low (i.e., unskilled) labor costs are the major factor driving competitiveness of these zones.</p> <p><b>Second-generation.</b> These SEZs benefit from the tendency of multinational companies to offshore increasingly complex economic activity. They have emerged in relatively more developed economies, where production processes are more sophisticated and technologies are more advanced. The skills formation effect of these SEZs is important.</p> <p><b>Third-generation.</b> As SEZs upgrade further, third-generation firms emerge, using highly complex skills and technology-intensive operations. They become important contributors to technology generation and spillovers.</p> <p><b>Fourth-generation.</b> In recent years, diverse types of highly specialized, fourth-generation zones have emerged, adapting to diverse economic needs.</p>
By Economic Activity
<p><b>Sector-specific.</b> These offer facilities configured to the needs of specific industries.</p> <p><b>High-technology.</b> These zones promote research and development, high-technology, science, petrochemical, and heavy industry.</p> <p><b>Services-based.</b> These focus on trade in services. Historically, services were considered nontradable, and offshoring was confined to manufacturing. However, the evolution of information and communications technology opened up the possibilities of outsourcing and offshoring in the services sector.</p> <p><b>Country-specific.</b> These are set up by foreign companies or governments to bring in substantial foreign direct investment, such as Taipei,China zones in the People's Republic of China (PRC); PRC, Australia, and Saudi Arabia zones in Pakistan; Singapore SEZs in Indonesia; and a Republic of Korea zone in Bangladesh. More recently, the Government of the PRC has made significant investments to establish SEZs in several countries of Africa.</p>

*continued on next page*

Table 4: Variety of Special Economic Zones (continued)

**By Market Orientation**

**Enterprise zones.** The concept of enterprise zones was introduced in the United Kingdom during the mid-1970s to revive its declining industrial cities through the provision of tax incentives and financial grants. Today, they are mostly set up in industrialized countries, such as France, the United Kingdom, and the United States. In recent years, many developing countries have also adopted regional development as the main focus of their SEZs.

**Hybrid SEZs.** These are typically subdivided into a general zone, open to all industries, with a separate export-processing area reserved for export-oriented, registered enterprises. The objective is to cluster the export-oriented and domestic market-oriented firms to facilitate linkages between the two and to enhance spillovers.

**By Ownership**

In the initial phase of their evolution, all SEZs were owned by the public sector. Even in the 1980s, less than 25% were in private hands. By 2006, 62% of the 2,301 zones were privately developed and operated (Akinci and Crittle 2008). A key factor behind the rise of private participation is the belief that such facilities can be profitably operated by developers, and that the burdens that SEZs place on government resources can be reduced. SEZs cannot, however, be operated without government support (i.e., governments must provide administrative services and customs facilitation). Further, although the government does not provide direct funding in these models, it may offer some concessions, such as subsidized land prices and/or financial incentives such as tax-exempt status.

**By Geography**

**Port- and airport-based.** Traditional trade-based SEZs are parts of port or airports with international routes. Many first-generation zones were also set up as enclaves near ports.

**Flexibly located.** Following their evolution from being trade-based to comprehensive SEZs, they are flexibly located in interior and border regions with convenient accessibility.

**International**

The objective of international SEZs is to enhance regional cooperation by promoting exchange of information, mutual understanding, transfer of technology and investment, as well as improving the infrastructure. These SEZs take the form of growth triangles and cross-border economic zones.

**Border economic zones.** Set up in border areas to exploit comparative advantages of border areas that arise due to their climatic conditions, factor endowment, spatial proximity to foreign markets, and the relatively high potential for developing cross-border backward and forward linkages and regional cooperation, examples include those in the PRC, Thailand, Viet Nam, and countries in the Greater Mekong Subregion.

**Growth triangles (GT).** A GT is an economic and social transaction space, covering parts of three adjoining countries to improve their regional competitiveness. It brings together the resources of three neighboring countries to foster economic development. Since 1998, the first time that this term was coined, several GTs have emerged. These are: the Tumen River Delta on the PRC's northeast border- the Russian Federation-Democratic People's Republic of Korea; Cambodia-Lao People's Democratic Republic-Myanmar; Thailand-Viet Nam-Yunnan province in the People's Republic of China; Indonesia-Malaysia-Thailand; and Brunei Darussalam-Indonesia-Malaysia- Philippines East ASEAN Growth Area (BIMP-EAGA).

**Cross-border economic zones.** These zones are spread over well-defined, geographical proximate areas in border areas covering two or more countries and/or areas. They are established by integrating border economic zones on both sides of the border to catalyze economic activity and to promote regional cooperation, including Hekou-Lao Cai and Pingxiang-Dong Dang on the PRC-Viet Nam border, Ruili-Muse on the PRC-Myanmar border, and Mohan-Moding on the PRC-Lao People's Democratic Republic border and social transaction space, covering parts of three adjoining countries and/or areas, to improve their regional competitiveness and to foster economic development.

the export-oriented and domestic market-oriented firms to generate scale advantages and facilitate linkages between the two and enhance spillovers. The emergence of hybrid zones has blurred the distinction between SEZs and GEZs.

## 4.2 Economic Zones and Industrial Diversification: Underlying Mechanisms

There are four ways in which zones can break the vicious circle of low competitiveness and productivity (Figure 35). First, by lowering the cost of doing business, zones can attract investment from both domestic and foreign investors. Second, by attracting in particular FDI, they can serve as a tool to bring new technologies into a country. FDI can have spillover effects in the rest of the economy through the demonstration effect, labor movement effects, and competition to push productivity levels up. Third, by generating agglomeration economies they can increase scales of production and reduce costs. Finally, they can be a tool to promote vertically specialized industrialization, also known as smart industrialization.

### 4.2.1 Enhancing cost competitiveness

The key challenge that developing countries face in the process of industrialization is low-incentive structures to invest in industrial activity, directly linked to the high indirect costs of doing business. The indirect cost of doing business is high in these places due to various structural bottlenecks such as infrastructure deficiencies, procedural complexities, bureaucratic hassles, and barriers raised by monetary, trade, fiscal, taxation, tariff, and labor policies and strong domestic lobbies. Further, the high costs of production, coupled with imperfect capital and financial systems, discourage both local and foreign investment in the industrial sector.

Since countrywide development of infrastructure is expensive and implementation of structural

reforms requires time due to socioeconomic and political realities, economic zones can be created as strategic locations that offer enabling investment climates. These zones can offer numerous benefits to reduce the cost of doing business, including provision of standard factories or plots at low rents with extended lease periods and cheap utilities. Many other provisions, including single-window clearance, specialized infrastructure, centralized administration, and simplified procedures, also ensure productivity-linked cost competitiveness. SEZs, which are in particular characterized by special regulatory regimes, are expected to be more efficient locations to attract GVC-linked activities than even industrial zones.

In the 1960s, the emergence of economic zones in developing countries was concomitant with the rise of GVCs. As competition for market access between the United States (US) and European firms intensified as a result of GATT negotiations, the US companies initiated the model of GVCs wherein production processes were fragmented to offshore labor-intensive segments to developing countries to exploit differences in location costs. To attract this investment, many developing countries opted to set up economic zones as attractive production sites. As European and then Japanese companies also started offshoring, the number of economic zones started surging during the 1980s.

The wave of globalization and explosion of ICT post-1990 which propelled globalization of production and trade not only in simple manufacturing processes but also in complex processes and services through increasingly complex global supply chains led to a proliferation of economic zones (Coffey 1996, Gereffi 1999, LaRRI 2000). Production processes are being relocated not only through offshoring but also through offshore outsourcing to local firms.<sup>13</sup>

Today, there is an intense race to attract GVC-propelled investment, particularly FDI, by setting up industrial zones and SEZs. Each country and/or area offers an array of incentives to attract FDI, not only for increasing investment inflows but also to access technologies that foreign investors possess.

<sup>13</sup> Offshore outsourcing is associated with subcontracting parts of the whole production process to specialized firms abroad, while offshoring is the shift of production to a new location in another country through affiliates.

#### 4.2.2 Promoting Productivity-Based Competitiveness

The presence of foreign firms in economic zones generates important spillovers through demonstration effects, on-the-job training, learning by doing and copying, and diffusion of technology and knowledge. These spillovers fill gaps in technical, marketing, and managerial know-how which firms in developing countries and areas face. Thus, in essence, economic zones contribute to entrepreneurship and productivity-based competitiveness through the spillover effects of multinational corporations.

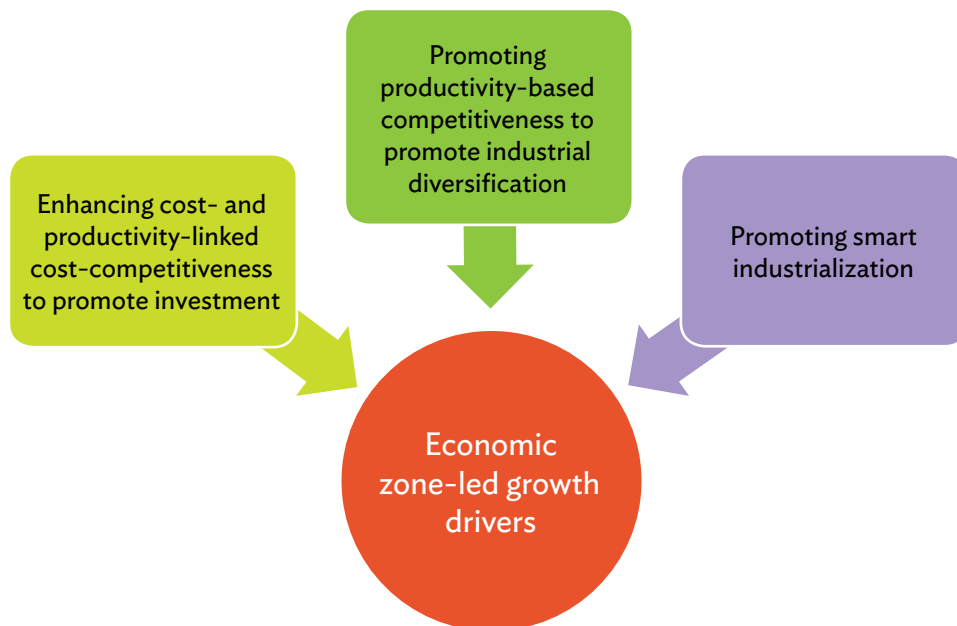
Technology and skills transfers within zones spill over through backward and forward linkages to the rest of the economy to promote knowledge and upgrade the productive structure of the economy. Backward linkages occur when zone firms source intermediates locally and/or outsource a part of their activity to local firms, stimulating the production of intermediate inputs into the local economy, leading to an increase in national income and welfare. Further, learning and knowledge created in zones are eventually transmitted to domestic firms that supply the zone firms when

the companies within a zone buy inputs from the host country.

Forward linkages are established when final products produced in a zone are sold in the domestic market (Warr 1989). Two other important channels promote forward linkages between zones and the domestic mainland. First, when firms set up production units in the domestic mainland to cater to domestic markets after succeeding in export markets, they introduce new products and new technologies in the domestic mainland. Second, trade bodies, manufacturers' associations, and export-marketing bodies provide a valuable forum for information sharing and spillovers and act as catalysts (Aggarwal 2012).

While there is a significant literature on the role of FDI in technology transfers and diffusion in developing countries, the contribution of GVC-linked outsourcing to domestic firms in technological upgrading of the economy has attracted little attention. Yet outsourcing has exposed large export opportunities for domestic firms in developing countries. Integration within GVCs is an important way to strengthen the competitiveness of developing country firms and

**Figure 35: Economic Zones and Industrial Diversification: Underlying Mechanisms**



Source: Author.

build their productive capacities. Entry into GVCs promises access to a global pool of new technologies, skills, capital, and markets, as well as upgrading of firm-level capabilities from learning through technology diffusion and exposure to international best practices of corporate governance. As a consequence of learning by exporting, they can target more sophisticated market segments such as design, marketing, and branding, thus becoming instrumental in promoting and diversifying export activities in the country. One clear example of upgrading among developing country producers happened in East Asia. According to Gereffi (1999) domestic producers in these countries and areas moved from assembly of imported inputs, to increased local production and sourcing, to the design of products sold under the brands of other firms, and finally to the sale of own-branded merchandise in internal and external markets.

#### 4.2.3 Promoting Industrial Clustering

The foundation of the theory of geographical clustering of firms was laid by Alfred Marshall as far back as 1890. The concept has evolved, with many scholars underscoring the role of clustering in accelerating the process of growth and development.

A myriad of definitions of clusters exists, but two main elements characterize a cluster. First, a cluster consists of groups of firms that are linked vertically and/or horizontally through their commonalities and complementarities in products, services, inputs, technologies, or outputs. Second, firms in the cluster encourage the formation, and enhance the value-creating benefits via their interaction. The clustering benefits include, scale economies, pool of labor, innovation and productivity growth (Kuah 2002).

Clusters and industrial zones share the advantages of economic agglomeration even while, they differ fundamentally in terms of origin, entry barriers, composition of enterprises, and entrepreneurship impacts on the local economy. Clusters are often organically formed from existing industries as determined by historical legacy (Miller and Côté 1985). Governments, in particular local governments, can only help facilitate the growth of existing clusters.

Economic zones, on the other hand, are government-created agglomerations of industries in a limited geographic area, in which adequate infrastructure and an enabling business environment are provided mainly to promote priority industries. Zones are largely seen as industrial enclaves offering good infrastructure to attract investment, while organically developed clusters are associated with agglomeration economies and are seen as instruments of promoting growth and productivity.

Because of their image as enclaves, agglomeration economies associated with SEZs have been assumed to be of minor importance (Akinci and Crittle 2008, Meng 2005). However, they are growing bigger, becoming better integrated with the economy, and are shifting to more technology- and capital-intensive production. There is a need therefore to move to new policy paradigms to capture their potential benefits.

Porter (1990) promoted his cluster concept with an overarching focus on the competitiveness of firms, industries, regions, and nations in a global economy, which makes his clusters trade-oriented. He identified exposure to foreign competition of firms and industries as both a driving factor and distinctive feature of cluster formation and development. The concept of SEZs thus bears clear commonalities with both Porterian clusters. SEZs are, essentially, highly geographically concentrated government-promoted agglomerations of 'internationally competitive enterprises' equipped with inherent advantages of an efficient infrastructure and quality services and a favorable business environment, few regulatory restrictions, and a minimum of red tape. Their advantages are thus, rooted in agglomeration economies arising out of knowledge spillovers, resource sharing, and labor pooling (Marshall 1890). The specialization of activities within these clusters creates pool of skilled labor; external economies in the form of lower transport and logistics costs, lower communications costs, and (to the extent that utilities are shared) lower infrastructure costs; and knowledge spillovers. These external economies can have strong positive effects on FDI inflows ( see, e.g. Ng and Tuan 2006). Further, initial investment attracts more foreign and domestic firms and promote further



specialization; thus launching the process of ‘circular and cumulative causation’ (Myrdal 1957) or chain reactions (Kaldor 1966). The concentration of rivals, suppliers, and customers fosters important linkages, complementarities, knowledge, and technology spillovers, stimulating innovative activity and raising productivity and competitiveness (Porter 1990). The cluster can further expand by the tendency of spin-offs and suppliers of both the clustered industry and related industries to locate near the zone. According to Porter, these processes can take place in all clusters, but “traded” (i.e., export-oriented) clusters are more important than “nontraded” clusters—that is, economic zones. This simultaneous expansion of activities may be linked with the theory of big push (Rosenstein and Rodan 1943), which characterizes the process of balanced growth and is crucial for sustained economic growth. In the terminology of Hirschman (1958), this process involves forward and backward linkages and hence, results in unbalanced growth. SEZs in his framework, serve as growth poles/growth centers which can have through their own strong development direct or indirect effects on other regions. They can be “Gerschenkronian institutional innovations,” used by developing countries to catch up with the early industrializers.

There is one caveat, however. Economic zones, which are government-created, may lack the social capital and cultural cohesion due to their linkages with global rather than local production systems. Thus, government interventions in domestic capacity building, network platform development, skills development, and technology and marketing development are critical in the process.

### 4.2.3 Promoting Smart Industrialization

In this era of globalization and radical technological explosion, when industrialization is becoming an increasingly complex process, the proliferation of GVCs across both manufacturing and services sectors, and at all levels of production, has opened up a new channel of industrialization for developing countries. Instead of developing fully integrated production structures, developing country producers can focus on processes in which they have competitive advantages. In the early stage, these may be low value-added

processes. However, over time, they can move up the value chain by moving to higher value-added activities or upgrading in terms of more technological sophistication in production. This process is termed “smart industrialization” or “vertically specialized industrialization” (Milberg, Jiang, Gereffi 2014). The SEZs and IZs, which are vehicles of the GVCs, can become the centerpiece of this type of industrialization.

## 4.3 Economic Zones and Industrial Diversification: Strategic Approaches, Critical Success Factors, and Development Outcomes

The economic performance of economic zones is mainly determined by the strategic approach adopted toward them. A country, which clearly assigns a well-defined strategic role for economic zones and implements that effectively, tends to perform better.

Theoretically, there are a variety of policy approaches. Different strategic approaches are associated with different execution plans, and hence different critical success factors (CSFs). CSFs are core factors that pertain to zone design, location, incentive structure, management processes, services to be provided, governance, action plans, and any other initiative in the execution plans. There is no generic list of these factors; they are conditional upon the strategic approach.

Based on the mechanisms of zone-induced growth, two approaches to promote zones and to discuss CSFs have been distinguished: Investment centered approaches and development-oriented approaches.

### 4.3.1 Investment-Centered Approaches

The key idea underpinning investment-centered approaches is that economic zones are economic enclaves that are set up to attract FDI investment to promote manufacturing for fostering export and employment growth. Thus, these approaches require SEZs to offer numerous benefits<sup>14</sup> to reduce both direct and indirect costs in order to succeed.

<sup>14</sup> These include preferential tax treatment, subsidized land on rental basis, locational advantages, better governance, freedom from various investment restrictions.

These include, tax exemptions, provision of standard factories/plots at low rents with extended lease period, provision of infrastructure and utilities, single window clearance, centralized administration and simplified procedures. In addition, zones are also exempted from various restrictions, which characterize the investment climate of the domestic mainland (Figure 36). They are thus seen as a driver of cost- and productivity linked cost-competitiveness. By offering a viable internationally competitive platform they can be instrumental in attracting foreign direct investment and GVC-linked activity.

The investment-oriented approaches assume that investment in particular FDI generates spillover effects and has catalyzing effects on growth. However, it has been observed that the development effects of these trade and investment enclaves on the wider economy remain rather limited (Jayanthakumaran 2003, Warr 1989). Hamada (1974) showed that technology accompanied by FDI in economic zones is capital-intensive and may have little relevance for the wider economy. Companies are typically more integrated with other foreign countries than the domestic economy and generate few backward and forward linkages. These approaches may also

be associated with colossal revenue forgone in tax incentives, large government expenditures on infrastructure, and lowering of labor and environment standards (Figure 36).

#### 4.3.2 Development-Oriented Approaches

These approaches underscore the role of economic zones as development engines. These approaches require a shift from an investment to a development paradigm to promote spillovers (Kim and Zhang 2008, Wilson 1992). Central to these approaches is the role of policy makers in upgrading activities within and outside of economic zones through well-designed policy packages. The development effects of SEZs and IZs according to these approaches are directly related with the width and depth of government intervention (Figure 37).

Under development approaches, the vision of policy makers is to drive industrial diversification; not merely investment through economic zones. GVC participation promoted by SEZs may offer firms access to a global pool of new technologies, skills, capital, and markets. Government intervention must focus on creating dynamic domestic firms by offering

**Figure 36: The Development Outcomes and Success Factors:  
Investment Centered Approach**

<p><b>Direct benefits</b> Trade promotion Employment generation Income generation Foreign exchange earning</p> <p><b>Multiplier Effects</b> Indirect income generation through demand created for domestic products</p> <p><b>Spillover Effects</b> Transition to a liberal economy</p>	<p><b>Costs</b></p> <p>Allocative inefficiencies Loss of welfare Costs of setting up SEZs Tax revenue foregone Rent seeking Shift of activity from the wider economy to SEZs with little additional benefits</p>	<p><b>Success factors</b></p> <p><u>Cost-based factors:</u> Fiscal incentives, Non fiscal relaxations, Low wages, Relaxation in labor standards Cheap land and utilities</p> <p><u>Productivity-linked cost-based drivers:</u> One-stop shop, good location, world class infrastructure, well designed legal framework to reduce uncertainty</p>
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Source: ADB.

**Figure 37: The Outcomes and Success Factors: The Development Oriented Approaches**

<p><b>Direct benefits</b> -Getting domestic firms in particular SMEs inserted into GVCs</p> <p><b>Multiplier Effects</b> Value chain multiplier effect</p> <p><b>Spillover Effects</b> Cluster development Industrial diversification</p>	<p><b>Costs</b></p> <p><b>Risks and uncertainties</b> Risk of dependency, downgrading and diversion of resources to SEZs delaying industrialization in the wider economy if the economy fails to move up the value chains</p> <p><b>Social costs:</b> Poor labor standards Environment costs</p>	<p><b>Success factors</b></p> <p><b>The ability to attract investment</b> Cost competitiveness</p> <p><b>Ability to generate spillover effects</b> State intervention through well designed industrial policy in strengthening domestic capabilities</p> <p>Strong commitment and political will</p>
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Source: ADB.

incentives, building production and networking capabilities, and managing technology development and skills formation.

If the government adopts the approach of smart industrialization, its efforts must center around the requirements of zone industries and promotion of domestic capabilities in these industries. With government support, firms can upgrade and eventually target more sophisticated market segments, such as design, marketing, and branding. A serious risk is that if a country fails to upgrade, it is locked in low value added operations where it starts losing competitive advantage due to rise in wages and other costs (Milberg, Jiang, and Gereffi 2013).

This can also delay the process of industrialization in the economy due to large scale diversion of resources to SEZs. In this process, economic zones lose their relevance and harm the process of industrialization in the wider economy.

In sum, the critical factors and economic outcomes (benefits and costs) of SEZs will depend on the strategic approach adopted by policy makers.

- If they adopt the investment centered approach they tend to focus on making SEZs attractive to investors and do nothing else.
- If they adopt the development approach, they need to not only generate economic activity but should also have strategic plans integrated with national development plan to promote spillover effects
- If smart industrialization is considered the way forward, they need to align their industrial policy with SEZ strategy.

The approach adopted needs to be contextual based on the development challenges and development strategy. SEZ is not merely a policy. It is a development strategy and needs to be used strategically. As an economy transitions from one stage of development to another and moves up the value chain, new challenges emerge. This requires evolution in design, services, infrastructure facilities, and incentive structures of economic zones. Thus, the development process initiated by economic zones feeds back into the economic zone system; economic zones evolve and reinforce the development process in the wider economy.

#### 4.4 SEZs and Economic Zones: The Relevance for Kazakhstan

As stated in Chapter 2, the most challenging task for policy makers in Kazakhstan is to push the economy from a low-competitiveness trap to high-competitiveness virtuous circle. Low competitiveness discourages investment in productive activity, which impedes expansion in the scale of production, and in turn prevents investment in learning, and upgrading businesses. Investment promotion therefore is central to Kazakhstan's industrial development in the first place. SEZ and IZ policies can be powerful means to attract investment. It is observed that structural failures have impeded cost competitiveness of the economy. This provides a strong basis for setting up economic zones and SEZs in Kazakhstan as a strategy of promoting location specific competitiveness. By reducing cost of establishing and expanding business operations for both foreign and domestic investors, they can be instrumental in promoting investment and attract GVC-linked activity. Technology transfers associated with GVC-linked FDI are potentially an important source of productivity growth and may help host country firms upgrade their technological capabilities through spillover effects, which can improve productivity-based competitiveness of the economy to drive its growth. The development of economic corridors, accession to WTO and membership of EAEU (Chapter 2) will bring immense trade and investment opportunities for Kazakhstan leveraging SEZs and IZs. Economic zones can thus well serve as an instrument of industrial diversification if they are effectively designed to address growth impeding constraints.

But attracting FDI alone is not sufficient for promoting growth and economic restructuring. There is a need to adopt an appropriate policy approach to economic zones with a well-defined vision, mission, action plan, development outcomes, and success factors. Promoting industrialization through these zones

requires concerted efforts by the government to build strong domestic capabilities to reap the benefits of technology and knowledge transfers. Moreover, the development of both economic zones and the wider economy needs to be fully synchronized. If it remains focused on creating economic zones and does nothing else, it cannot leverage the benefits of these zones for promoting productivity-based competitiveness which is central to sustained long term growth.

Notwithstanding the above possibilities, there are costs and risks attached with the policy if it is not effectively implemented, as discussed above. Further, there have been changes in the regional and international contexts that are seen to have affected the dynamism of SEZs as a tool of attracting trade and investment activity in general. These are: restrictive WTO rules, global slow down, growing protectionism, and perceived contradictions between SEZs and regional trading agreements. Kazakhstan became the 162nd member of the WTO on 2 November 2015 and is obliged to follow the WTO principles of non-discrimination and transparency in trade and trade-related policies and measures. There are no direct WTO commitments for SEZs. But, its disciplines regarding subsidies are of main concern for the viability of SEZ programs in developing countries (ADB 2017, Creskoff and Walkenhorst 2009). The 'Subsidies and Countervailing Measures (SCM) Agreement' influence SEZs by restricting all direct (not indirect) subsidies and direct taxes exemptions contingent on export performance provided by SEZs. Kazakhstan's accession to the Eurasian Economic Union (joining Armenia, Belarus, the Kyrgyz Republic, and the Russian Federation), on 1 January 2015, has also influenced its regional economic contexts. With several SEZs across the region, there is a possibility of intense regional competition. As suggested in the diagnostic report (ADB, 2017) the strategic framework of SEZs and IZs must take these changing contexts into account in strategic proposals.

## Chapter V: Economic Zones in Kazakhstan: A Proposed Strategic Framework

Existing studies recognize that economic zones in Kazakhstan have failed to generate substantial gains for the country, although they were assigned the highly ambitious goals of promoting industrial diversification, competitiveness, and productivity in the economy. The analysis in this chapter reveals that there is a mismatch between the policy approach adopted toward economic zones and their objectives. There is also a disconnect between the key elements of the development strategy and development of economic zones. A new strategic framework is proposed to close these gaps.

### 5.1 Evolution of Economic Zone Policy in Kazakhstan

The history of economic zones in Kazakhstan dates back to 1990, when nine free zones were created for the purposes of social and economic development of specific areas and acceleration of restructuring the national economy from a centrally planned to a market system. These included Zhairm-Atasu in Zhezkazgan; Alakol and Zharkent; Lisakov in Kostanay; Atakent in Almaty; and free economic zones in Atyrau, East Kazakhstan, Karaganda, and Mangystau. The life of a free economic zone was set at 25 years. However, all were ineffective and eliminated by 1996, except for Lisakovsky. Some of the reasons for the failure of these zones were corruption, large sizes, lack of transparency, shortcomings in the regulatory and legal frameworks, and poor site selection (Nevmatulina 2013, Karzhaubayeva 2013).

In 1996, the Decree of the President of the Republic of Kazakhstan “About Special Economic Zones” was issued. The term “free economic zone was replaced by the new concept of “special economic zone”. The purposes of SEZs were attracting investments for the accelerated development of certain regions, forming production capacities, producing competitive products for the global market, and

developing modern market-based management and entrepreneurship. In addition to modifying the management of an SEZ, the decree also formalized the process of its liquidation, and added a provision of annual corrections to the regulatory and legal framework. By 2000, however, all SEZs under this law were again scrapped.

In the following period, a few SEZs and industrial zones were created by special decrees. For instance, the Decree of the President of the Republic of Kazakhstan on the Creation of SEZ Astana-New City in 2001 created the Astana SEZ. Other were added, including Sea Port Aktau in 2002, IT Park Altai in 2003, Ontustik in 2004, Burabay SEZ in 2008, industrial zones in Karaganda, and Khorgos International Cross-Border Cooperation Center. In 2007, once again, a new law on SEZs was introduced, which was further amended in 2010. This law was seen as highly restrictive, however, and did not effectively attract new investment.

Currently, Kazakhstan SEZs are regulated under the Law on Special Economic Zones in the Republic of Kazakhstan, also known as the SEZ Act 2011. Under this law, the purposes of an SEZ are to develop the most advanced production environment with high productivity and competitiveness, attract investment and new technologies in relevant industries and regions, and improve employment in the country. SEZs are viewed as an important tool in achieving the major objectives of the economic policy, such as economic diversification, competitiveness, and technological upgrading.

To improve the practical effectiveness of SEZs, it grants exceptions from three codes: tax, labor, and customs.<sup>15</sup> SEZ participants are given additional rights and opportunities, with the purpose of introducing the one-stop principle. It eliminates restrictive provisions, such as requirements regarding the sufficiency of funds and property, and obligations to terminate separate structural units outside of an SEZ.

<sup>15</sup> Every SEZ has a territorial body in the State Revenue Committee of the Ministry of Finance to deal with customs and tax issues. Companies in SEZs can hire foreign workers with no work permits required, and there is a simplified visa regime for citizens of 19 countries. The Investor Service Center under the Ministry for Investments and Development (MID) provides public services to investors.

In November 2014, President Nursultan Nazarbayev announced the launch of a new economic policy, Nurlı Zhol, allocating the Kazakhstan National Fund to the development and improvement of infrastructure for logistics, manufacturing, energy, utilities, and housing; support for SMEs; and new jobs. As a specific measure for developing industrial infrastructure, the government declared the allocation of T81 billion to complete the construction of infrastructure facilities in existing SEZs, signaling a commitment toward SEZs by the highest authority in Kazakhstan.

While there has been evolution in the SEZ policy over time, there is no law on industrial zones. Of late, however, the government is considering pushing the development of industrial zones by bringing forth a law.

## 5.2 Performance of Economic Zones in Kazakhstan

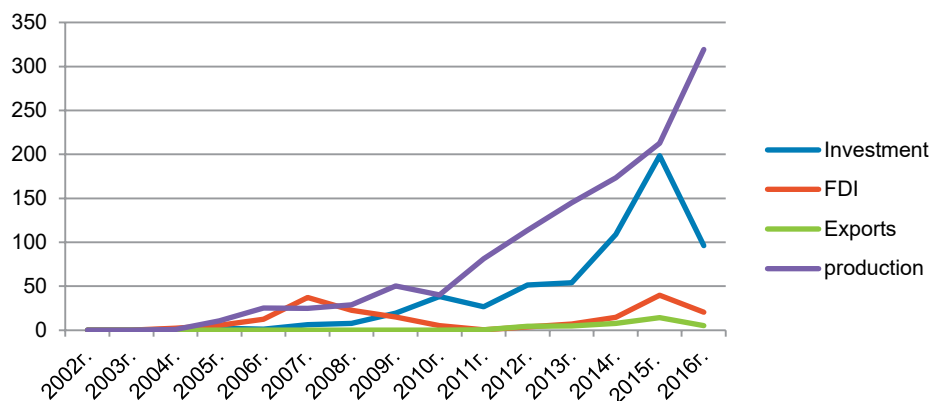
The assessment of economic zones in Kazakhstan focuses on broad quantitative economic indicators: FDI, employment, and exports. The current SEZ Act 2011 has the following objectives for SEZs: attract investments and increase employment; introduce new technologies into sectors of economy and to regions;

and accelerate the development of modern, high-productive, competitive industries. These objectives are in line with the three mechanisms underpinning SEZ-induced growth as discussed in Chapter 4. In what follows, the performance of SEZs against the backdrop of these three objectives is assessed.

### 5.2.1 Investment and Employment Promotion

**Aggregate Analysis.** Figure 38 presents a comprehensive picture of investment, production, FDI, and exports in the context of SEZs. It shows that investment in SEZs increased more than 10 times from T40 billion in 2003 to around T470 billion in 2015. Production also increased from less than 1 billion in 2004 to over 339 billion in 2016. However, increased investment and production have not been accompanied by increased exports. Since 2011, there has been consistent reporting of exports; their share has remained between 3% and 6% of total production. Similarly, FDI inflows have been insignificant and inconsistent, with only 2 years (2007 and 2015) showing substantial FDI inflows. However, SEZs have been instrumental in generating employment, which grew from a mere 29 to around 11,527 in 2016, at an average annual rate of 30.4%.

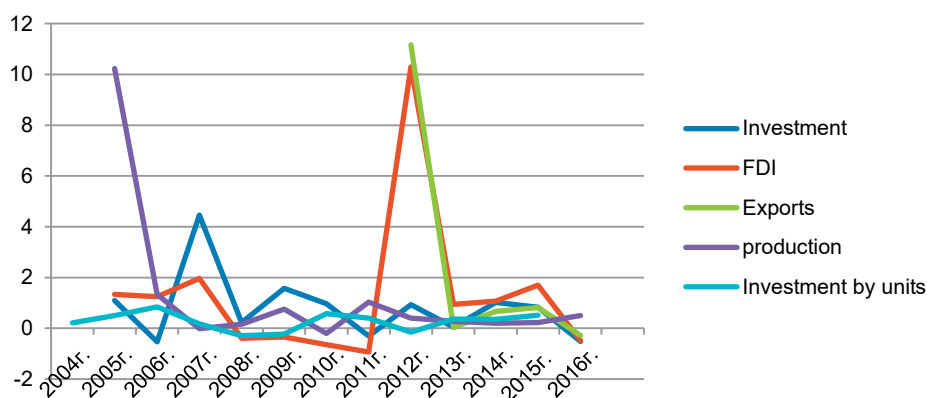
**Figure 38: Special Economic Zone Exports, Production, Investment, and Foreign Direct Investment, 2002–2016 (T billion)**



FDI = foreign direct investment.

Source: Ministry for Investments and Development.

**Figure 39: Annual Growth Rates in Exports, Production, Investment, and Foreign Direct Investment, 2002–2016**



FDI = foreign direct investment.

Source: Ministry for Investments and Development.

Figure 39 presents the annual growth rates in exports, production, investment, and FDI. The rates of growth have been close to zero. High initial growth rates can be attributed to low bases. It is worth noting that the SEZ Act 2011 did not impact on the growth of production, FDI, or even total investment. Even while production and investment grew, the growth rates do not show acceleration.

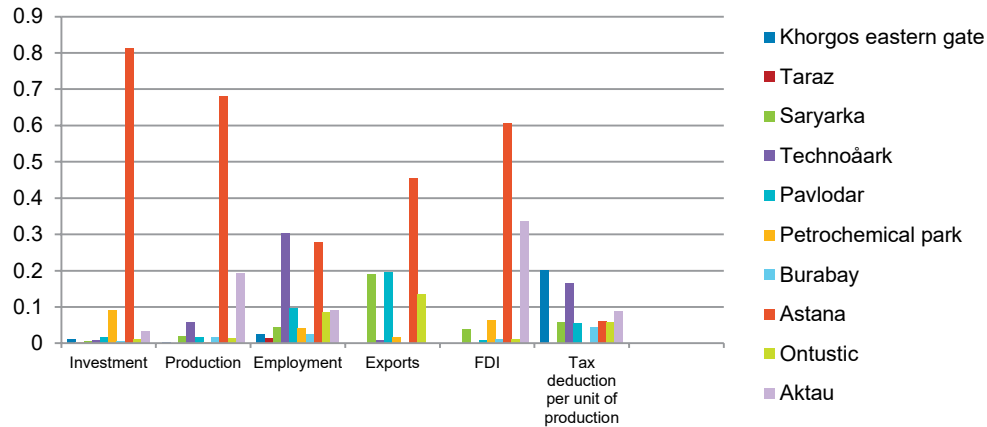
SEZs are set up mainly to promote private investment, in particular FDI. However, the growth rate of FDI inflows have been hovering around zero. More worrisome is the fact that even private domestic investment does not have substantial presence in the zones. In fact, interviews with officials revealed that most investment in SEZs comes from state-owned companies, either directly or through daughter companies. Thus, the government itself is a major beneficiary of lucrative incentives offered in the zones. It is not clear if this investment is additional in the sense that it is induced by the presence of SEZs.

**Zone-wise analysis.** Of the 10 SEZs, 3 have started their operations recently: Khorgos-Eastern Gate, National Industrial Petroleum Park, and Saryarka.<sup>16</sup> No data is available on Taraz SEZ. Of the operational SEZs, Astana emerges the leader in terms of key indicators of investment, production, exports, and FDI; Technopark is the leader in employment generation. FDI inflows are small in all SEZs, except for Astana and Aktau. The National Industrial Petroleum Park, Pavlodar, and Saryarka have also been constantly attracting FDI. These SEZs are also reporting exports, along with Astana and Ontustik. It must be noted that only three SEZs—Chemical Park Taraz, Ontustik, and Pavlodar—have export requirements (ADB 2017). Astana emerges as the leader in exports, and Technopark did not report any FDI or exports.

It is also noted that tax deduction per unit is inversely related to production. This is an important observation, which implies that as production increases, the fiscal cost falls.

<sup>16</sup> There were no data available on Taraz. Therefore, it is assumed to be nonoperational.

**Figure 40: Share of Exports, Production, Investment, Foreign Direct Investment, and Tax Deduction of Special Economic Zones, 2016**



FDI = foreign direct investment.

Source: Ministry for Investments and Development.

Figure 41 summarizes the growth in production and employment of the six SEZs operating in 2011. The two fastest-growing SEZs were Ontustik and Pavlodar, followed by Astana and Technopark. Of the remaining two, Aktau showed a decline in production but a rise in employment, while Burabay was declining in both production and employment.

While the average growth rates in production look impressive, the base figures are rather small. These figures also hide annual volatility. Overall, the new law on SEZs (2011) did not appear to have made a significant impact with most investment being government driven and domestic market oriented, and with large variations in the inter-SEZ performance.

**Industrial zones.** The performance of industrial zones also appears lackluster. In 2015, there were 42 industrial zones, with 339 registered members according to the Atameken Union.<sup>17</sup> However, only around 10 with 93 participants, located in

Almatinskaya, Astana City, Kyzylordinskaya, and South Kazakhstan, were operational. Damu in Almatinskaya is the only privately owned industrial zone. The Ministry of National Economy recognizes that only 2 out of 42 industrial zones had tangible outcomes, and Ontustik is considered to be the most successful.

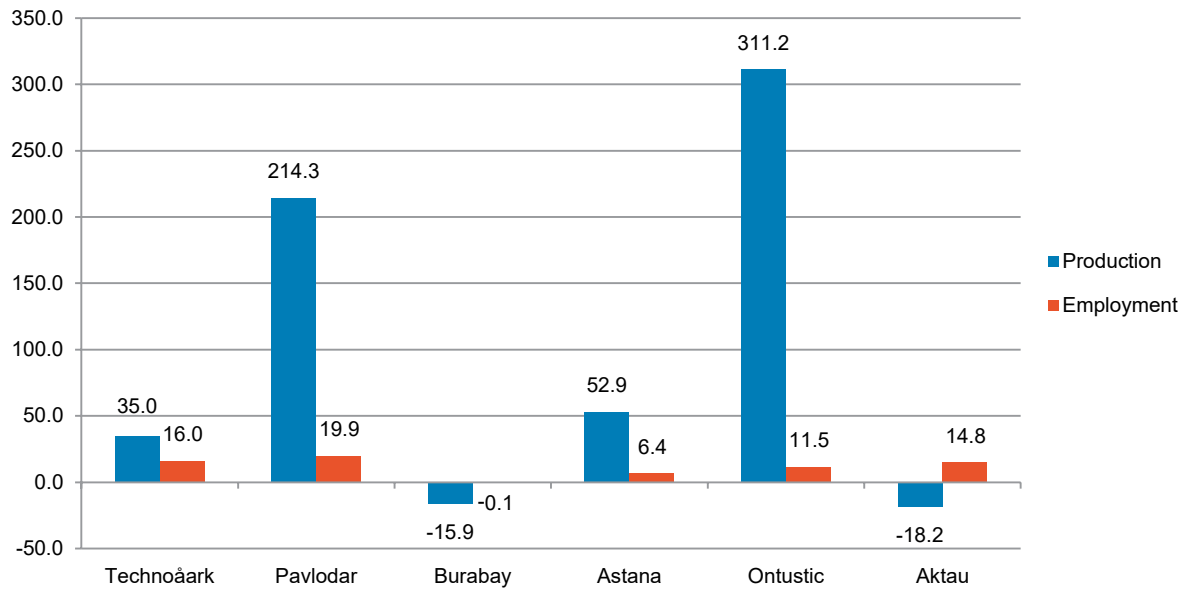
## 5.2.2 Introducing New Technologies into Sectors of the Economy

The main focus of SEZ policy in Kazakhstan has been to attract FDI to obtain technological know-how. The underlying assumption is that FDI is accompanied by new knowledge, technologies, products, and processes. Technologies and skills are expected to spill over, not only to other zone firms, but also to entrepreneurs in the domestic mainland through vertical (i.e., backward) and horizontal (i.e., forward) linkage effects, catalyzing productivity growth (Johansson 1994). These effects are, however, contingent on the type of investment attracted to SEZs.

<sup>17</sup> This is a nongovernment organization and business society. Its goal is to consolidate entrepreneurs in Kazakhstan.



**Figure 41: Annual Growth Rates in Special Economic Zone Production and Employment, 2002–2016**



Source: Ministry for Investments and Development.

**Figure 42: Some Examples of Technology Transfers in Kazakhstan Special Economic Zones**

Special Economic Zone	Foreign Companies	Technology
Astana	Alstom, France	Electric train cars
	General Electric, United States	Diesel locomotives
	Astana Solar, subsidiary of KazAtomProm	Latest production equipment from Europe to produce PV modules with domestically produced silicon
Almaty	15 foreign companies of 150 as of May 2015	
	Planned: Kazakh–British Technical University	
Pavlodar	Khimprogress, a joint venture with a company from the People's Republic of China	Petroleum coke
Saryarka	Böhmer, Germany	Valves
	Izoplus, Central Asia, with German capital	Thermal insulation pipes
	Hyunwoo, joint venture with the Republic of Korea	Steel pipes, plastic products, and parts of thermal insulation materials for fixing the pipes

Source: JICA, MRI, JATRN (2015).

As already stated, a large proportion of investment has come from state-owned companies. This has severely limited the scope of technology transfers in the zones. There are also little data available to assess the quality of FDI that is coming into zones. There are, however, a few instances of technology creation in SEZs available from non-official sources (Figure 42).

These examples are very few but they are indicative of the potential of SEZs in attracting new technologies. It is also indicated that there is a need to maintain more detailed data on investment in SEZs to better inform policy makers.

### 5.2.3 Accelerating Spillovers for the Development of Modern, Highly Productive, Competitive Industries

There are little data to analyze the spillover effects from SEZs in Kazakhstan. However, considering that SEZs have not generated substantial activity, this is a foregone conclusion.

As discussed in the previous chapter, the SEZ sector can play an important role in promoting and strengthening technological capabilities. As an example, in 1991, only 2.8% of Shenzhen's manufactured exports were high-tech. By 2004, they

amounted to \$30.6 billion, accounting for 51.2% of manufactured exports (Li 2006). By 2007, in all large SEZs in the People's Republic of China, over 40% of the total industrial output was from high-tech industries (Zheng 2010). But, SEZs must generate a critical mass of economic activity to set the conditions for the subsequent process of growth. In Kazakhstan, zones have yet to witness the flow of substantial private innovative investment to make an impact on the process of industrialization.

## 5.3 Assessment of Special Economic Zone and Industrial Zone Policies and Implementation

### 5.3.1 Mismatch between Objectives and Approaches

**Investment climate in SEZs.** Kazakhstan has adopted first-generation EPZs type SEZs with public ownership, small size, and fenced-in boundaries. In what follows, the investment climate in these SEZs is analyzed. A dig into the literature reveals that the performance of SEZs and IZs is influenced by several factors, which can be seen as a four-level hierarchy (Figure 43) (Akinci and Crittle 2008, Madani 1999, Yuan and Lorraine 1992, Sit 1988).

**Figure 43: Critical Success Factors for Attracting Investments in Special Economic Zones**

International	Macro	Regional	Micro
<ul style="list-style-type: none"> <li>• Growth in global gross domestic product, trade, and foreign direct investment flows</li> <li>• Multilateral and regional trade agreements</li> </ul>	<ul style="list-style-type: none"> <li>• Trade policy tools</li> <li>• Political stability</li> <li>• Competitive advantages</li> <li>• Level of industrialization</li> <li>• Government attitude and role</li> </ul>	<ul style="list-style-type: none"> <li>• Regional economic infrastructure</li> <li>• Connectivity and export infrastructure</li> <li>• Availability of labor</li> <li>• Bureaucratic hurdles</li> <li>• Local government attitude</li> </ul>	<ul style="list-style-type: none"> <li>• Legal framework</li> <li>• Incentive package</li> <li>• Zone infrastructure</li> <li>• Zone administration</li> </ul>

Source: ADB.

**International conditions.** These define opportunities and constraints for SEZs. Part of the poor SEZ performance in Kazakhstan may be attributed to the general global slowdown since 2008, decelerating trade and FDI growth, particularly in developing countries.

**Macro conditions.** The resource curse, as in Kazakhstan, has affected the cost-competitiveness of the economy. Indeed, manufacturing exports have been falling due to the lack of competitiveness. SEZ performance cannot be assessed independently of the comparative advantages of the macro-economy despite the fact that SEZs offer low-cost destinations. Thus, a part of SEZ performance reflects the symptoms of Dutch disease.

**Meso conditions.** Kim and Zhang (2008) emphasized that setting up specialized SEZs can work, but only if sufficient extant industrial capacity and organizational skills in the area exist in terms of networks of specialized firms, service providers, human skills, start-ups, and consortia that creates an eco-system for the industry development and upgrading. Indeed, Kazakhstan has embedded in its SEZs regional specialization to draw strengths from regional economies for their development. But, a study on regional capability conducted by the Whiteshield Partner (2015) indicated that most regions lack industrial capability in Kazakhstan. Regional capability development in Kazakhstan is mainly driven by Almaty and Astana, and to a lesser extent by Karagandy. These regions have the strongest capabilities in the country as estimated by the Regional Capability Index and account for about 40% of cumulated gross regional product.<sup>18</sup> Statistics also suggest that the SEZs in these regions are performing better than others, while the lack of dynamism in other regions may have affected SEZ activity there as well.

**Microclimate.** The objective of creating SEZs is to insulate them from the prevailing business environment in the wider economy to ease doing business and to cut costs. Investment climate prevailing in SEZs can therefore overcome some of the institutional bottlenecks characterizing the macroeconomic investment climate. The

performance of Kazakh SEZs in four pillars of the microeconomic climate is discussed as under:

- (i) **Governance.** Despite market transition and economic liberalization, the institutional setup in Kazakhstan is characterized by command and regulation. This philosophy has influenced the business climate within SEZs as well, creating a top-down approach not only in strategy building but also in implementation. Zonal authorities (i.e., managing committees) have limited powers to oversee the operations, and even the administrative structure of these committees is not institutionalized. The director is centrally appointed with no structured administrative framework in place, creating uncertainty at all levels. At the national level, the Ministry for Investments and Development (MID) is in charge of SEZ strategies, their development, and performance monitoring; thus, it has assumed the role of both developer and regulator. At the regional level, customs territorial bodies are in charge of SEZ customs posts, and *akimats* are in charge of SEZ land allocation, various approvals, and infrastructure development; managing companies merely oversee the compliance of the rules. Further, SEZs are governed by different codes implemented in the wider economy, and frequently changing rules outside of SEZs affect their business environments. Management committees are joint-stock companies, but 100% of their shares belong to the government. Private SEZs are allowed, but their management is controlled by the government through a 26% equity partnership, perhaps discouraging private investment in the development of SEZs.<sup>19</sup>
- (ii) **Absence of single-window clearances.** There is no one-stop-shop in SEZs. All clearances must be sought from local government units, as management committees only play the roles of facilitators. Interviews with relevant officials indicated that acquiring land can take up to 7 months; on average, the approval process takes 2 months. In 2015, government established a one-stop-shop as a physical facility called an Investor Service Centre at the

<sup>18</sup> The Regional Capability Index is calculated as the weighted sum of four subindexes: economic diversity, economic complexity, development of business services, and share of the processing industry (Hausmann et al. 2011).

<sup>19</sup> To date, no private SEZ has been set up in Kazakhstan.

Ministry of Investment Development with 16 regional offices. It offers support only to priority industries and is yet to be fully operationalized.

- (iii) **Incentive package.** An attractive incentive package is the highlight of SEZs in Kazakhstan. The package includes exemption from the corporate income tax (usually 20%), land tax (10%), property tax (1.5%), duties on the import of fuel and raw materials, as well as value-added tax (VAT) on the sales and exports of goods produced with local raw materials and equipment (12%), and payments for land use. To receive these benefits, companies must be in a priority sector according to ambiguous criteria, and should earn at least 90% of their total annual income by the sale of goods produced by SEZ priority activities. Moreover, customs duties are only exempted where the license center operating under the National Chamber of Entrepreneurs of Kazakhstan approves the fulfillment of the local content requirement. Finally, the period of operation of SEZs is 25 years from the foundation, so as time passes, they lose attractiveness in terms of incentives.
- (iv) **Infrastructure.** While zones provide the basic industrial infrastructure, there is no specialized infrastructure for business development (e.g., common business facilities, recreation, banking, or transport) or sector-specific infrastructure. Since electricity is not produced within SEZs, residents must get it from the outside, and electricity shortages pose a major bottleneck.
- (v) **Custom facilities.** Although Kazakhstan has established dedicated customs offices within zone premises, zones do not have the scale to support dedicated customs personnel, decreasing incentives to invest in Kazakhstan's SEZs.

SEZs in Kazakhstan are first-generation traditional EPZs not only in terms of size and fencing but also because they provide only basic facilities and are overregulated. The concept of SEZs has evolved dramatically worldwide. New innovative features are being added to SEZs to make them more attractive. Each country is attempting to offer an array of services and incentives to attract FDI. SEZs are growing large; small, enclosed public owned and highly specialized SEZs are discarded

in favor of large, private, hybrid, and comprehensive SEZs, which offer large scale advantages. Yet the approach of policy makers toward them in Kazakhstan remains traditional and cautious. This has lowered the relative attractiveness of its SEZs and has harmed their performance.

**Investment climate in industrial zones.** The Entrepreneurship Code (29 October 2015 No. 375-V) defines an industrial zone as non-agriculture land with utilities provided by the state to private enterprise for allocation and operation of industry facilities as established by the Land Code and other laws. Apart from the, little is known about the investment climate in industrial zones, but their governance is also complicated and obstructive. Policy development concerning industrial zones is under the control of MID, while support to infrastructure development remains with the Ministry of National Economy, for which funding is made available by the Ministry of National Economy on the basis of expertise provided by MID. Operators are Social Entrepreneurial Corporations (SECs) which are distinct from the developers. Their role is to oversee the management. SECs can create MCs, with involvement of local and international organizations. Thus the institutional structure surrounding zones is multilayered and restrictive in decision making and their implementation affecting the development and management of these zones.

**Spillover effects.** Backward linkages occur when SEZ firms source raw materials and components from domestic firms and/or enter into subcontracting arrangements with them. These arrangements integrate the zone into the regional and national economy by allowing domestic firms to step in as suppliers to SEZ firms, to, in turn, create demand for local products and services, and to transfer technology to the local economy. Knowledge spillover and demonstration effects thus act as catalysts for learning and human capital development. In Kazakhstan, however, these linkages are discouraged by not conferring the exporter status to domestic firms that are offering services and raw materials to SEZ firms. Most countries have this provision in their SEZ rules. Further, there does not seem to be any clause on the possibility of subcontracting to local firms.

Forward linkages occur when SEZs sell part of their production in domestic markets. Normally, domestic tariff area sales are very small. In Kazakhstan, however, most sales are domestic market-oriented, which are made after paying custom duties on raw materials and components. These linkages are not likely to bring many benefits because SEZs are not yet attracting outward-looking competitive investment that have the potential of technology transfers.

### 5.3.2 Mismatch between the Development Strategy and Approach toward Economic Zones

Kazakhstan embarked on the process of industrialization in the late 1990s, when ‘Kazakhstan 2030’ placed industrial diversification at the center of the development process. The first industrial policy for 2003–2015 launched programs for industrial development, which was followed by 5-year plans on industrial development starting from 2010 as well as several supporting documents for driving the economy’s sustained growth through accelerated diversification through industrialization and infrastructure development.

The major cornerstones of the policy are the developmental state, priority sectors, and cluster development. The government is responsible for promoting private investment by providing a good business climate through a foundation of market-based institutions, making Kazakhstan more appealing to foreign investors to attract investments into the major sectors of industry. The government has established several large state-owned development institutions and “backbone” parastatal companies operating in all major sectors of the economy. These companies are intended to serve as engines of rapid industrial modernization. The government also established control over the financial system and strategically important industries via nationalized companies. In addition, a host of financial and nonfinancial measures were adopted to support priority industries.

One of the tools adopted to promote priority sectors is the creation and development of clusters. The first

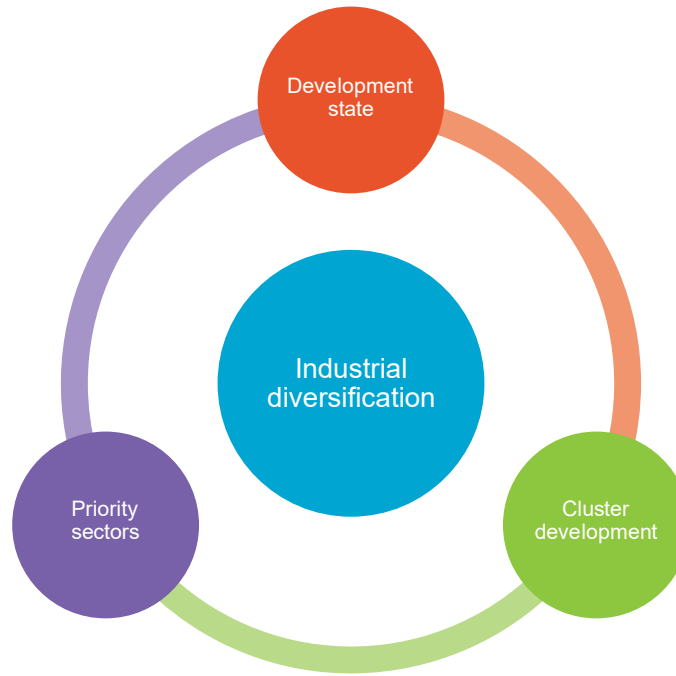
cluster policy document was launched in 2004. Since then, cluster development remains the hallmark of government programs on industrial and innovation development. Industrial clusters are recognized as an important instrument of industrial development, competitiveness, and economic efficiency. They are expected to promote the country’s economy to a new technology platform by encouraging the formation of industries with a high level of productivity, added value, and a limited degree of goods and services; be drivers of the regional development program of the government, which is at the core of the policy reform agenda; develop a structured institutional framework surrounding them; and provide an impetus to the development of related relevant industries in priority sectors.<sup>20</sup>

Despite the fact that economic zones have the potential of promoting clusters (Chapter 4), the cluster development program is not linked to them, however. While the industrial policy focuses on cluster development as a tool to promote industrial diversification, economic zones are viewed as industrial infrastructure to attract investment, not as instruments to propel cluster development. There is thus a disconnect between the two tools in the industrial policy.

Further, there is a disconnect between the policy and the changing global trade and investment landscape. Today, where the rise of GVCs has reshaped global production and trade systems and altered the organization of firms, industries, and national economies, the development of stand-alone domestic industries is no longer possible. Domestic industries have become deeply involved in complex, overlapping business networks created through GVC-linked FDI and global sourcing. Companies, industries, localities, and countries have come to occupy specialized niches within GVCs (Gereffi and Sturgeon 2013). The changing landscape in production systems has affected industrial policies and participating in and moving up GVCs when targeting key sectors and activities are critical for industrial development for “late-comer” countries to help generate productive activities and capacities, which in turn contribute to increasing income, employment, economic diversification, and resilience.

<sup>20</sup> The industrial development program has been surrounded by several other initiatives, including Employment 2020, Productivity 2020, “Ak-bulak 2020” (aimed to supply all regions with fresh water), Education Development Program 2020, Business Road Map 2020, “Salamatty Kazakhstan 2020” (national health care program), and “Affordable Housing 2020.”

Figure 44: Major Cornerstones of Industrial Strategy in Kazakhstan



Source: Author.

As stated previously (Chapter 4), economic zones could be instrumental in attracting GVC-linked investment and critical elements of an industrial policy. However, the industrial strategy in Kazakhstan does not have any narrative on GVCs; it is molded in the traditional case where the objective is to nurture a set of fully blown national industries in key sectors that could eventually compete head to head with the industrialized nations (Baldwin 2011). Despite government efforts to build industries from scratch, however, Kazakhstan performs poorly in value chain breadth (106), local supplier quantity (102), and local supplier quality (88) in Global Competitiveness Rankings.

#### 5.4 Strategic Framework

The above discussion shows that economic zones have been severely underutilized in Kazakhstan. The strategic framework needs to address this situation.

It must take into account the opportunities and challenges emerging in the global and regional contexts. The new strategic framework is based on six pillars to exploit the full potential of economic zones (Figure 45).

In late industrialized countries, rapid development or application of technological change becomes necessary to catch up with the early industrializers to bridge the technological gap. The more backward a country's economy is and the later it embarks on industrialization, the more acute is the need for acceleration of growth in technological capacity, capital accumulation, and socioeconomic and institutional change.

One important advantage of late industrializers is the availability of not only foreign technology but also other foreign resources, skills, and capital in the form of FDI. The proliferation of GVCs has opened enormous possibilities of tapping into these resources. In this era of globalization when it is becoming

increasingly difficult to build industrial capabilities and across the full range of activity, countries can insert themselves in GVCs and specialize in a single stage of production, depending upon competitive advantage, and then upgrade themselves.

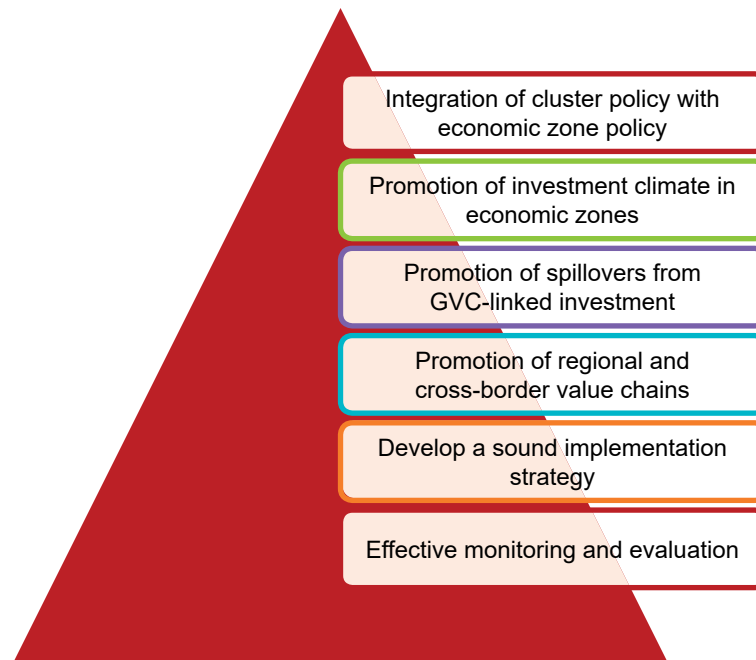
While GVCs are proliferating, the focus is now shifting to RVCs and cross-border chains, with regional trading agreements multiplying. The new strategic framework is an attempt to harness the power of SEZs to leverage the opportunities presented by the proliferation of value chains at different levels.

Economic zones can play an instrumental role in generating these chains to promote industries of regional importance. The agglomeration of outward-oriented firms within these zones can help augment

these chains by assisting in capital accumulation, technology transfers, and management training (Shafaeddin 1998).

This requires a shift from an investment-based approach of economic zones to a development-oriented approach, and from small-sized economic zones to large cluster-based economic zones that can create critical mass of activity. Success is contingent upon the ability of zones to attract investment, ability of economic zones to generate spillover effects, and ability of the authority to implement the strategy effectively while being in full compliance with WTO obligations. These form the foundation of the new strategic framework, which will be elaborated in the next six chapters.

**Figure 45: Strategic Framework for Economic Zones in Kazakhstan: Six Pillars**



GVC = global value chain.

Source: Author.

## Chapter VI: Pillar 1: Integrating the Cluster Development Program with Economic Zones

This chapter outlines the first pillar of the strategic framework surrounding economic zones. It recommends placing economic zones at the center of the cluster development strategy, builds on the agglomeration approach to economic zones, and is founded on the experience of countries that have successfully leveraged the opportunities presented by economic zones to promote industrial diversification.

### 6.1 Cluster Development

#### 6.1.1 Cluster Development Approaches

Traditionally, clusters are formed organically through a bottom-up process. There are different conditions in which clusters emerge and develop (Figure 46).

**Marshallian districts.** An industrial district is a highly geographically concentrated group of firms that conduct activities in the same field, share values and knowledge and are linked in a complex mix of competition and cooperation (Bergman and Feser 1999). They either collaborate with each other, are in direct competition with each other, or are in a supplier–producer relationship. Their most distinctive feature is their being embedded in the social-cultural milieu of the region, which nurtures the functional dynamism of the cluster as well as trust and collaboration, generating agglomeration benefits. Their emergence is facilitated by initial resources, a series of business conditions that facilitate them, and chance.

**Hub-and-spoke clusters.** These clusters are formed around a single or few dominant firms that represent the core of the cluster. Numerous small firms that surround them represent suppliers of raw materials, of externalized services, or are specialized in a particular phase of the hub production process. These firms trade directly with large ones. While there are strong ties between the spoke and hub firms, cooperation between spokes may be lacking, enhancing the bargaining power of dominant firms. This hub is dependent on the strategies and performance of hub firms.

**State-anchored clusters.** A state-anchored cluster is a variant of the hub-and-spoke cluster in which

the dominant player is not controlled by the private sector. It is formed around a public or government organization that dominates the region and economic relationship among cluster members. This hub entity is surrounded by numerous small firms that benefit from public–private contracts.

**Satellite clusters.** Satellite clusters arise when multiplant and/or multinational firms locate their subsidiaries in a particular geographic region to benefit from government facilities and low costs associated with supplies and workforce. These firms are not linked by upstream or downstream operations in the same area; they are entirely controlled by a remotely located parent firm. They are often stand-alone firms and lack a blend of competition and collaboration.

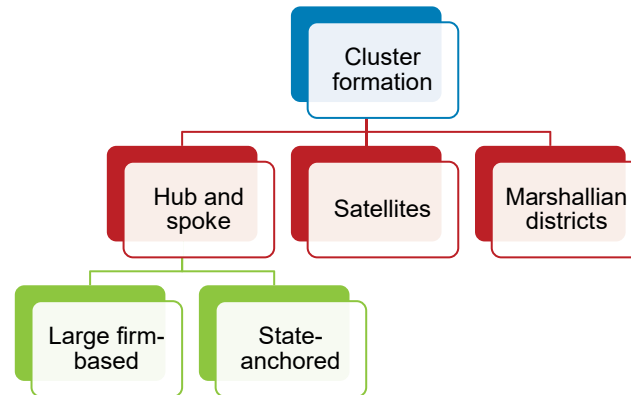
Formation of industrial clusters tends to adopt different modalities according to the specific characteristics of a country or region. , But once the process of local specialized industrial concentration is underway, it becomes cumulative and socialized in the locality through cumulative and circular processes and generates agglomeration economies. Clusters evolve over time and can transform from one type of cluster into another. A Marshallian district can transition to a hub and spoke (Detroit) or vice versa (Los Angeles, Aero Space). Similarly, satellite clusters are transformed into Marshallian clusters if backward and forward linkages are encouraged (Japanese autoplants in the US). Thus, from a dynamic perspective, clusters keep changing, depending upon internal and external dynamics.

#### 6.1.2 Cluster Development in Kazakhstan

Historically, organic clusters could not take root in the centrally planned economy of Kazakhstan. As mentioned, the process of industrialization initiated under the Soviet regime was largely driven by company towns where a single industry or a large state-owned factory accounted for most of the local economy and reaped the advantages of economy of scale and absence of market competition. These core companies had stronger links with rest of the Soviet Union than internal economies which together with the tightly controlled centrally planned economic



Figure 46: Formation of Clusters



Source: Markusen (1996).

system impeded spillovers from these company towns and, in turn, growth of the state-anchored clusters surrounding them.

In the early 2000s, Kazakhstan adopted the strategy of developing hub-and-spoke clusters around these large state-owned enterprises as a major plank of its industrial diversification plan. It initiated the cluster program in 2004 when it launched the *Diversification of Kazakhstan's Economy through Cluster Development in Non extraction Sectors* project developed by the Centre for Marketing and Analytical Research with the help of foreign consulting firms. The goal was to form geographically located agglomerations of suppliers and services providers around large enterprises as growth poles. While some clusters were relatively developed, others were to start from scratch. The program was supported by four state holding companies: Samruk, National Fund for Sustainable Development, Samagau, and KazAgro. In this initiative, 55,000 firms across 46 industries and 12 regions were studied, and 7 clusters at different stages of development were identified to be promoted: tourism, metallurgy, textiles, construction, agriculture and food processing, oil and gas machinery, and logistics and transport (Zabortseva 2009).

In February 2007, the government announced the *Program of 30 Corporate Leaders* in Kazakhstan, intended to complement the cluster development program by identifying enterprises that could be drivers of cluster development. The objective was to form interrelated and integrated complexes around these private large enterprises. Thus, the state-anchored model was conceived to be complemented by a large firm-based hub-and-spoke model to accelerate the process of cluster formation. Samruk, Kazyna and KazAgro were to be the vehicles for identifying and supporting these leaders, similar to Temasek in Singapore and Khazanah in Malaysia.

There is no evaluation of these initiatives, but according to official sources, these programs have been instrumental in initiating the process of industrial diversification (Government of Kazakhstan 2015). It has been reported that in 2010–2014, these projects produced goods in manufacturing amounting to T2.1 trillion and introduced more than 400 new products not previously manufactured in Kazakhstan, including cargo and passenger carriages, locomotives, trucks, cars and buses, transformers, X-ray equipment, LED lighting, titanium ingots and slabs, and pharmaceuticals. Further, Kazakhstan was also able

to attract 29 foreign investors from the Forbes Global 2000 during 2010–2014.

As a result, the cluster development program has been further expanded by classifying clusters into three distinct categories: national, regional, and innovative. The government set ambitious targets for cluster development projects and invited *oblast* governments and various bodies in the public and private sectors to develop clusters. However, most development appears to have been centered around Astana and Almaty (Whiteshield Partner 2015). Karaganda and Pavlodar, which are also industrial hubs, have been stagnating in terms of moving up the value chains. Overall, the country has been slipping in the Economic Complexity Index since 1996, and the share of manufacturing in merchandise trade has been declining (Whiteshield Partner 2015).

Some criticize this complete top-down approach with heavy state interference in cluster development. They believe that government-sponsored clusters are extended industrial complexes, as found in the Soviet Union, rather than clusters of industrial agglomerations (see, Aizhan, 2010 for discussion). There has also been a lack of transparency in identifying and implementing projects. According to one estimate, only 5 of 121 projects financed by Samruk-Kazyna were functional (Aizhan 2010).

## 6.2 Toward an Economic Zone-Based Cluster Development Strategy

The existing approaches of cluster development in Kazakhstan place large firms, mainly state-owned, at the center of cluster development. In these approaches, cluster development becomes dependent on the growth of these firms, but many are not on the technological frontier nor are internationally competitive. As such, clusters built around them may not have the potential for stimulating learning and innovation. Clusters, by themselves, are not the innovation systems, and the geographic proximity of actors does not automatically lead to learning and innovation unless there is continuous technological upgrading of firms in clusters.

Over the past 25 years, the pace of technological change is becoming more rapid and the knowledge intensity of production is growing remarkably. This has made continuous technological upgrading of firms crucial for growth and competing in international markets. A considerable amount of technology transfer is occurring through GVCs-linked foreign direct investment (FDI) and outsourcing activity. GVCs have thus become the pathways of technology diffusion (Pietrobelli 1996, Cantwell and Iammarino 2001).

Firms are increasingly attaching themselves to GVCs and acquiring associated knowledge through linkages with other firms and organizations. Economic zones that are set up to attract GVC linked FDI and outsourcing activity (Chapter 4), can serve as important vehicle of technology transfers and tools to augment existing clusters or to create technologically dynamic ones (i.e., satellite growth).

Porter (1998) argued that traded clusters are more competitive; in this context, he observed that economic zones can be powerful levers of cluster development. The presence of agglomeration economies within these zones can serve as a critical pulling force to more foreign and domestic investment, while creation of industrial parks in their proximity further augment these clusters. They can, together, generate evolutionary dynamics that are capable of pushing the economy to a process of growth that is self-reinforced; accelerated; cumulative; and driven by localization economies, knowledge inflows, knowledge creation, and knowledge spillovers, contributing not only to productivity improvement but also to trade gains by generating scale advantages.

The prevailing models of cluster development in Kazakhstan are inadequate for cluster-based development. They are less capable of tackling the challenges posed by a new technological regime, as emerging environment demands internationalization of production, commercialization, and most notably, knowledge creation. Economic zones can play an important role in promoting clusters and industrial diversification. These satellite platforms may transform into Marshallian industrial districts by strengthening and intensifying backward and forward linkages among economic zone firms, both suppliers

of intermediate goods and competitors for the same final markets.

### 6.3 Promoting New Clusters through Economic Zones: Action Plan

Currently, Kazakhstan is focused on setting up first-generation EPZs, which are not expected to yield economy-of-scale advantages. It is imperative for the country to envision a larger role for economic zones. In what follows, alternative approaches to develop clusters with economic zones at the center are proposed.

#### 6.3.1 The Polish Model

Poland has one of the most successful industrialization programs and has its SEZs at its center. The first SEZ was established in 1995 in Mielec; currently, 14 zones are operational. These are open regional economies, dotted with FDI enterprises. These enterprises can have subzones (their subsidiaries) in other parts of the country. Zones are offered exemption from the income tax on activity conducted in an SEZ and specified in a permit. Other incentives include fully prepared development sites offered at competitive prices, the possibility of purchase or lease of properties located within an SEZ without the need to construct new properties, access to government investment grants, and subsidies in local employment offices. Companies located in SEZs can also count on partial or full real estate tax exemptions, know-how, and post-investment assistance comprising skilled employees and proximity to other companies. The costs of a new investment project, however, may not be lower than €100,000 and must be creating a stipulated number of jobs. SEZ incentives offered in Poland are a type of regional aid; it is not prohibited under the WTO rules. These incentives carry obligations for investors who have to create the declared number of new jobs within the declared deadline and maintain them in the region for up to 5 years.

SEZs in Poland are managed by a joint-stock company or limited liability company in which the Treasury or regional government holds the majority of shares.

The most important tasks of management companies include organizing negotiations and issuing permits to conduct activity in SEZs; constructing and developing infrastructure in SEZs; selling or intermediating in the sale of land within SEZs; intermediating in communications between investors, utility suppliers, and local government authorities; and monitoring the activity of entrepreneurs with regard to the compliance of their activities with permits.

The clustering of firms also facilitates cooperation between schools and entrepreneurs by offering apprenticeships and training programs, conducting research projects in collaboration with universities, supporting student associations, and providing equipment used as teaching aids. One of the most efficient forms of cooperation is classes sponsored by companies functioning in the zones. Over 100 have been created in the last 2 years, contributing to skills formation in the country.<sup>21</sup>

As of 31 December 2015, the total employment in Poland's SEZs stood at 312,022 persons. The area under SEZs has increased from 5,000 hectares in 2004 to 20,000 by 2015 (Chance 2017). Following the steady growth of SEZs, the Council of Ministers decided to increase the size of all zones up to 25,000 hectares in 2015. On 23 July 2013, it also extended the term of SEZ operation until 31 December 2026, and it is expected to be extended further in the future.

#### 6.3.2 Augmenting Existing Industrial Clusters through Special Economic Zones and Industrial Estates: The People's Republic of China Model

SEZs in the PRC were launched in 1979 as part of Deng Xiaoping's program of turning the country into an advanced industrialized nation by 2000 (McKenney 1993). Initially, four SEZs (i.e., Shantou, Shenzhen, Xiamen, and Zhuhai) were set up (Chang 1988). The PRC discarded traditional closed processing zones and set up SEZs, as industrial mega towns spread over several square km. Shenzhen, for instance, today spans nearly 2,000 square km, while Shanghai's Pudong district is 522 square km, and Hainan is 34,000 square km.

<sup>21</sup> Invest Park. <https://invest-park.com.pl/en/blog/2017/02/07/special-economic-zones-in-the-new-model-of-vocational-education/>

Initially, four SEZs (i.e., Shantou, Shenzhen, Xiamen, and Zhuhai) were set up along the East Coast (Chang 1988). The choice of coastal areas was not merely to facilitate trade; cheap land, active participation by officials, a long tradition of trade and entrepreneurship, and a greater likelihood of nonresident PRC investment were other important factors for the choice of location (Lai 2006). SEZs in the PRC aimed to create large clusters of highly competitive export industries in locations where the outside investment climate was already conducive for spin-off activity.

Subsequently, smaller zones were created in proximity to existing zones or near industrially developed locations and clusters<sup>22</sup> to generate synergies and to promote a critical size of economic activity. For instance, at the beginning of 1984, the PRC decided to establish economic and technological development zones in highly developed areas and existing industrial clusters (that were created in the earlier regime but were incipient) with good industrial foundations and convenient communication to infuse new technologies. Further, in 1998, the government began establishing national hi-tech industrial development zones to promote local, new, high-tech industries oriented to both domestic and overseas markets and based on local scientific and technological strength, similar to industry zones with various incentives, located primarily in the vicinity of economic and technological development zones.

The strategy of locating these zones in the same region paid off. While economic and technological development zones attracted foreign enterprises, hi-tech industrial development zones fostered the development of high-tech indigenous firms. Liu and Wu (2010) found that an economic and technological development zone and a hi-tech industrial development zone located in the same region have significantly more FDI after controlling for the effects of other factors.

To reinforce this dynamism, newer varieties of SEZs are being created within the existing zones. In April 2000, traditional zones of the closed industrial estate variety were launched within the existing economic and technological development zones and hi-tech industrial development zones. The PRC has also set

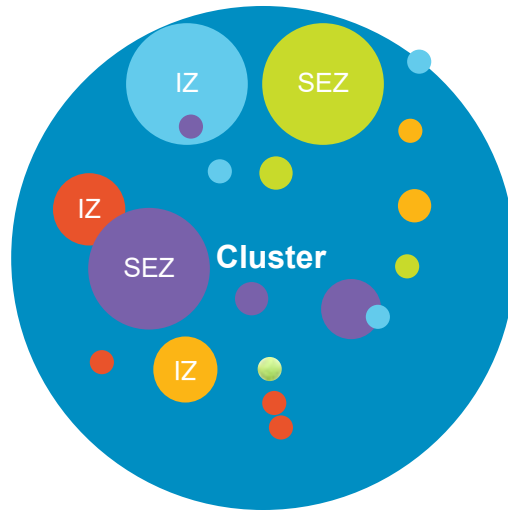
up free trade commercial zones, logistics parks, border economic zones, and cross-border zones. Thus, the SEZ sector has been expanded both horizontally (i.e., stretching from the east coast to the inland middle and west region) and vertically (i.e., the creation of zones within zones).

As part of the industrial cluster strategy, a variety of zones are being located in proximity of each other to augment and reinforce each other (Kim and Zhang 2008). By 2007, 300 of 326 municipalities had 1,346 zones (Wang 2009). Zones are also being developed not only by the national, provincial, and municipal governments but also by the private sector. Agglomeration economies generated in the process have attracted further inflows of FDI (Amiti and Javorcik 2008; Wang 2009; Debaere, Lee, Paik 2010), while Wang (2009) showed that increasing investment in SEZs affects domestic investment also positively. One of the primary benefits of SEZs to investors is tax breaks, which are not conditional on exporting activity. There is no tax before the investment turns a profit. Once there are profits, corporations enjoy a tax holiday for 2 years followed by 50% exemption in the third and fourth year. It is in the fifth year that they start paying taxes.

As a result of the dynamic forces generated by agglomeration economies, the PRC succeeded in developing growth poles around its largest SEZs (Mathews 2010). Two of the most powerful growth poles are the Pearl River Delta in the south, with Shenzhen at the core; and the Yangtze River Delta in the east, with Shanghai as its principal. Mathews (2010) argued that as industrial concentration in Shenzhen and Shanghai grew, firms agglomerated around them, creating industrial towns and cities. He reported that there are more than 200 specialized towns in the Pearl River Delta alone. The success of SEZs in the PRC, therefore, is not due to their location in coastal areas. The PRC succeeded due to the web of SEZs and clusters that it created throughout the country in such a way that they reinforced each other. Under the Partnership Assistance Program initiated by the government, well-developed, large SEZs are matched with less developed SEZs to promote them, building dynamism in less developed regions through SEZ partnerships.

<sup>22</sup> The PRC already had inward-looking clusters when it began the process of industrialization.

**Figure 47: The People’s Republic of China’s Model of Special Economic Zones**



IZ = industrial zones, SEZ = special economic zones.

Note: The dots represent different types of special economic zones at different levels of government.

Source: Author.

## 6.4 Strategies for Kazakhstan

The cluster development strategy in Kazakhstan calls for a two-pronged action plan: (i) to emulate the Polish model of creating large open SEZs in selected regions with foreign and domestic companies issued permits to operate in them according to SEZ rules, and (ii) to further reinforce them by developing industrial estates in their proximity as in the People’s Republic of China.<sup>23</sup>

### 6.4.1 Transform Satellites of Economic Zones into Dynamic Clusters Rejuvenating Regional Economies

Kazakhstan has identified 10 locations for SEZs; all are based on regional specialization. The locational advantages need to be leveraged to develop these regions into dynamic industrial clusters by drawing on Poland’s model and complementing the PRC model.

To create SEZ-centered clusters, geographically delineated regions around existing SEZs (excluding the Khorgos Free Trade Zone, Khorgos-East Gate, and Burabay) may be designated as economic zones and augmented by bonded (i.e., single-enterprise SEZs) and nonbonded companies, both foreign and domestic in line with the Polish model, as well as industrial parks similar to the PRC model. This will synergize efforts being made both at the national and regional levels in promoting industrialization and developing infrastructure. Thus, the core idea is to designate wide regions around current EPZ-variety SEZs, and promote them as industrial hubs with single enterprise SEZs and IZs. These ‘hybrid zones’ will complement the cluster development program of the country.

In Kazakhstan, there is a strong case for transforming existing SEZs into the nodes of clusters. This would increase not only the competitiveness of firms

<sup>23</sup> Enterprise-specific SEZs are single-company SEZs that resemble maquiladoras clustered on the United States–Mexico border to create an economic wall. Many countries, including India, Malaysia, Mauritius, and Poland, have set up this type of SEZ as well.

in international markets but ensure larger gains from effective trade and spatial transformation. Theoretically, SEZs should be embedded in the local economic milieu. They should build on existing specialties and competencies within a region rather than trying to create them anew.

Kazakhstan has strategically located its SEZs in regions that have some competitive advantage. For instance, in Atyrau, a district rich in underground mineral resources, the National Industrial Petrochemical Park was established to make use of its natural resources. Khorgos-East Gate, which is on the border with the PRC, was identified to set up a logistics SEZ in cooperation with the PRC. It is likely to facilitate trade with other countries in Asia, including Afghanistan and Pakistan.

Promotion of the region surrounding them as open hybrid zones through a mix of bottom-up and top-down approaches synergizing the efforts of the government at the national and regional levels will be instrumental in catalyzing the process of cluster

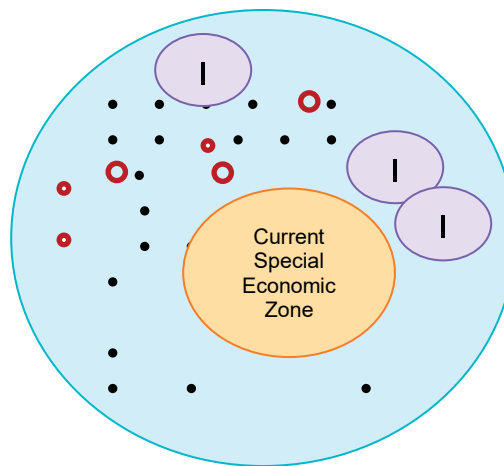
formation and their evolution. As mentioned, direct fiscal incentives on exports are prohibited under WTO rules, but regional subsidies are not prohibited (they are actionable though), so regional rejuvenation may be set as the plank of developing SEZ-based clusters.

#### 6.4.2 Complement SEZs with IZs

There are three approaches to target activity in economic zones.

- (i) **Horizontal approach.** This approach includes promoting industrial clusters without setting any industry-specific choices. From this perspective, both SEZs and industrial zones are created with basic government infrastructure and differing incentives for investment, the nature of activity is determined by market forces.
- (ii) **Vertical approach.** This approach aims to improve the performance of particular industries, firms, or sectors. Here, the focus is on promoting clusters, both of SEZs and industrial zones of priority industries.

**Figure 48: Proposed Special Economic Zone Model for Kazakhstan**



Note: Dots represent single-unit special economic zones, both small and large.

Source: Author.

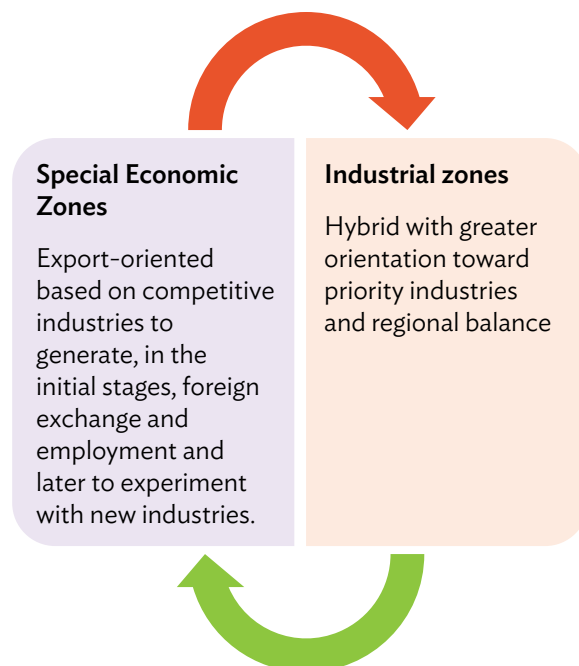
- (iii) **Complementary approach.** This approach views SEZs and industrial zones as serving two distinct sets of objectives. SEZs are relevant because they promote trade and FDI, so export-oriented tenants of SEZs would focus on sectors where the country has competitive advantages (not insisting on priority industries). Industrial zones are set up to promote priority industries. Both SEZs and industrial zones would bring industrial technologies that are critical for ensuring the competitiveness of SEZ-induced clusters, which strengthen urban economies for more balanced regional growth.

The Republic of Korea followed the strategy of leveraging the benefits of EPZs and industrial zones to generate industrial capabilities. The Government of the Republic of Korea introduced an economic development strategy in 1962, and the country has achieved unprecedented rapid growth since then. The manufacturing sector was placed at the center of its economic growth process, and industrial zones and EPZs significantly contributed to its manufacturing growth as incubators of the sector. To support an

export-driven industrial strategy, the government established “Korea Export Industrial Parks” and EPZs to attract FDI to bring in foreign exchange and new technologies in matured export sectors. At the same time, it developed industrial zones that were aligned with economic development strategies.

The government aggressively developed large, medium, and small parks, especially targeted to develop specialized industries covering all regions. While national parks were under the purview of the Ministry of Land, Infrastructure, and Transport, the local parks were under the direct supervision of the heads of the regional governments. As the economy developed, the industrial structure was upgraded by shifting to industrial zones and EPZs of more sophisticated industries. The existing parks and SEZs have been upgraded with more complex services, including research and development support, business services, and residential services provided by the government. This approach widened the scope of industrial activity in the economy. Typically, SEZs tend to specialize by themselves in sectors with regional advantages. Thus, overregulation of activities in SEZs is counterproductive.

**Figure 49: Strategic Relationship between Special Economic Zones and Industrial Zones**



### 6.4.3 Target the Scope of Priority Activity

While industrial targeting has occurred in Kazakhstan, the scope of priority activity still must be addressed. Two approaches to define priority industry may be used.

- (i) **Classical approach.** In this system, sectors are defined according to traditional statistical nomenclature.
- (ii) **System-based approach.** In this system, sectors are defined across value chains to promote integrated industrial parks to localize value chains. This strategy is adopted by large companies to cut logistics costs by using SEZs to upstream and downstream links in a GVC within an SEZ or local production systems and to forge an industrial chain by creating all necessary backward and forward linkages. This process enhances industrial efficiency by reducing transport and inventory costs and ensures all advantages of vertical integration.

According to the current practice in Kazakhstan, the criteria adopted for defining priority industry is not transparent. It creates confusion and uncertainty. Investors find it highly restrictive (JICA, MRI, JATRN 2015). A system-based approach would help targeting value chain-linked activities forming local value chains in the zones.

### 6.4.4 Target Value Chains

As emphasized in chapters 4 and 5, developing countries must integrate into GVCs to strengthen their competitiveness and to build their productive capacities. Such participation grants considerable benefits to developing countries: access to global markets, network technology that would not otherwise be available, and new sources of capital through GVC-linked FDI.

There are two types of GVCs: producer- and buyer-driven. Producer-driven chains arise when multinational corporations disintegrate their production and restructure their operations to advance core competencies in global markets and to offshore an increasing share of their noncore manufacturing and services activities.

Over the years, along with offshoring, offshore outsourcing has also become increasingly important.

Contract manufacturing, for example, is used by large original brand manufacturers or original equipment manufacturers in capital- and technology-intensive sectors as an alternative to operating and maintaining their own offshore facilities. Contract manufacturers are domestic producers that are approached for outsourcing by original brand manufacturers or original equipment manufacturers to make specific parts using their designs and technology. This has led to a growing proportion of international trade occurring in components and other intermediate goods (Yeats 2001). These supply chains are typical of capital- and technology-intensive industries. But they are also formed in low tech industries. Figure 44 depicts an offshoring-based (producer-driven) value chain of Nutella, a chocolate spread, to provide an overview of how these chains operate.

In buyer-driven chains, power and sources of profit are in the hands of companies at the end of the chain (i.e., large retailers, importers, and brand-name companies). They build partnerships with existing suppliers, identify new suppliers, and source new products. In most cases, such companies own no production facilities at all. They focus only on designs, retailing, and marketing their products, and subcontract all manufacturing activities. The subcontractor must source materials and components, manufacture the article, and perform necessary quality controls. The establishment of overseas buying offices and frequent international travel support the intense interaction required for exchanging tacit information and building personal relationships between buyers and suppliers. Figure 50 depicts a offshoring-based (producer driven) *value chain* of Nutella, a chocolate spread, to provide an overview of how these chains operate and how they can be identified.

The Organisation for Economic Co-operation and Development (OECD), in cooperation with WTO, launched an ambitious project on the measurement of trade in value-added terms. Intercountry input-output tables and a full matrix of bilateral trade flows are used to determine the trade in value-added data. This database, OECD-TiVA, along with the input-output tables, provide an overview of the length of GVCs across sectors. It shows that basic metals, electrical machinery, other transport equipment, construction, apparel, and food industries are among those with the relatively long GVCs—industries where Kazakhstan has competitive advantages (OECD 2012). Kazakhstan may target these value chains



**Table 5: Step-by Step Process to Attract Global Value Chain-Linked Investment**

<b>Step 1:</b> Map value chains through a simple flow chart	Identify the core transactions in a priority sector (i.e., the simple process from design to the end-customer).
<b>Step 2:</b> Illustrate opportunities and constraints	Identify opportunities and constraints (or SWOT) identified at each value chain level.
<b>Step 3:</b> Identify competitive advantages	Identify the range of activities in which the country has a competitive advantage.
<b>Step 4:</b> Create an inventory of market players	Identify and map key market players governing value chains.
<b>Step 5:</b> Target key suppliers	Target key suppliers.

Source: Author based on the existing literature.

depending on its competitive advantages by mapping them by sector and identifying the range of activities in which it has competitive advantages. Table 5 provides a step-by-step process to identify and target the relevant GVCs.

#### 6.4.5 Target Investors

It is often difficult to generate a critical mass of activity or to ensure the survival of SMEs in an isolated place. Many countries have adopted a strategy of attracting large multinational corporations that are developed as groups, with upstream and downstream firms connected in the supply chains. The “go-as-a-group” model has several advantages, such as achieving market internalization of intermediate products, formulating internalization advantages, reducing international market risk, and reducing export tariffs and other barriers. Governments in developing countries may exploit the increasingly popular use of this strategy by private enterprises and target such groups of foreign businesses. South Africa, for instance, has attracted the entire value chain of Mercedes. Similarly, the Dominican Republic has invited IBM, and Apple set up its group in Ireland. Many Japanese car companies have adopted this model. Kazakhstan may learn from the experience of these countries to identify the large investors in the selected value chains and facilitate investment by them to generate critical mass of activity.

#### 6.4.6 Set up Country-Specific Parks

Country-Specific Parks or SEZs may also be encouraged. Countries, like the PRC, Japan, and Singapore, have been promoting such parks in developing countries. Kazakhstan has shown interest in attracting Japanese companies, but recently, Japan has adopted a model of promoting industrial parks dedicated to Japanese companies. In that case, there is a strong need for industrial parks exclusively for Japanese companies in which Japanese trading corporations are involved in the design, development, and sale of these parks. Table 6 provides a list of selected Japanese parks in developing countries, which facilitate the operations of Japanese investors so that they recover their costs easily.

According to the Japan International Cooperation Agency (2015), when Japanese companies decide to invest abroad, they create more than 100 indexes to evaluate the attractiveness of various industrial parks across the globe. The main criteria are market size, location (i.e., distance to the target market or to Japan), availability of skilled labor, wage level, existing suppliers, infrastructure, permission and authorization services such as “one-stop service,” incentives for investment, and living environment in the area. Kazakhstan government may like to cooperate with Japanese agencies to develop such a park. This will also be a learning experience.

## 6.5 Major Recommendations

Recommendations from this section include, transforming the current satellite SEZs in Kazakhstan into dynamic Marshallian clusters, with industrial zones and single-unit SEZs around them within well-defined regions; adopting a horizontal approach of attracting activity in the initial stages to create a

critical mass of activity (but if a vertical approach is not discarded in SEZs, make it broad-based and involve the system-based approach, with industrial zones focusing on priority industries aligned with regional specialization); targeting investors, in particular, group investors by offering them good investment climate and planning a Japanese park in Kazakhstan in cooperation with Japan.

**Table 6: Development of Industrial Parks Exclusively for Japanese Companies**

Country	Japanese Companies	Area Name
Viet Nam	Mitsubishi Corporation	Vietnam Singapore Industrial Park
	Sumitomo Corporation	Thang Long Industrial Park
		Thang Long Industrial Park II
	ITOCHU Corporation	Amata Vietnam Industrial Park
	Sojitz Corporation	Long Duc Industrial Park
Thailand		Loteco Industrial Park
	Sumitomo Corporation,	Amata Nakorn Industrial Park
	ITOCHU Corporation	Amata City Industrial Park
Malaysia	Toyota Tsusho Corporation	Eastern Seaboard Industrial Estate
	Mitsui and Company	Iskandar Malaysia Industrial Park
Philippines	Mitsubishi Corporation	Laguna Technopark
	Sumitomo Corporation	First Philippine Industrial Park
	Marubeni Corporation	LiMa Industrial Park
Indonesia	Sumitomo Corporation	East Jakarta Industrial Park
		Surya Cipta Industrial Park
	Marubeni Corporation	MM2100 Industrial Town
	ITOCHU Corporation	Karawang International Industrial City
	Sojitz Corporation	Greenland International Industrial Center
India	Toyota Tsusho Corporation	Mitra Karawang Industrial Park
	Sojitz Corporation	Sojitz-Motherson Industrial Park
	Toyota Tsusho Corporation	Bidadi Industrial Area
Myanmar	Mitsubishi Corporation	Thilawa Industrial Park
	Sumitomo Corporation	
	Marubeni Corporation	
Cambodia	Sumitomo Corporation	Phnom Penh Special Economic Zone

Source: JICA, MRI, JATRN 2015 (2015).

## Chapter VII: Pillar 2: Promoting Investment Climate in Economic Zones

### 7.1 Conceptual Framework

As stated previously, a factor underpinning SEZ-led growth is zones' ability to attract investment, in particular GVC-linked investment, and be inserted into international production networks. SEZs are set up essentially to attract GVC-linked investment by overcoming the institutional and production bottlenecks that characterize the business climate of developing countries. Zones offer the investors high-quality infrastructure, good locations, incentive packages, simple administrative procedures, and relaxed regulatory machinery to reduce the cost of doing business and to make them attractive for investors. This, in turn, requires a well-developed and comprehensive institutional framework, which ensures stability and certainty in these provisions, and signals political commitment. This institutional framework encompasses three major principles (Figure 50).

### 7.2 Key Features of the Strategic Pillars

#### 7.2.1 Legal Framework

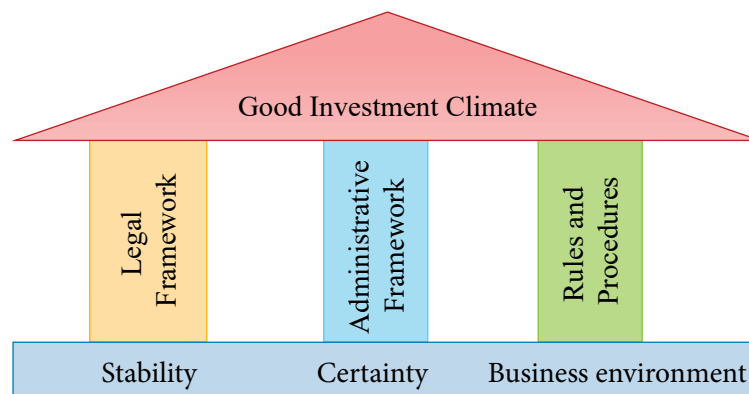
SEZ law and accompanying regulations are the critical foundation for any SEZ program. A legal

framework establishes an unambiguous set of rules and procedures guiding the entire process of site regulation, selection, investment, development, licensing, and operations. It must be comprehensive, stable, and transparent with unambiguous ground rules established for all stakeholders. It also must be insulated from policy changes outside of the zones by

- (i) **Overriding law.** In India, for instance, by virtue of Section 51 of its **SEZ Act**, the provisions of this act override provisions contained in any other act.
- (ii) **Grandfather clause.** This is an exemption that allows firms to continue with activities or operations that were approved before the implementation of new rules, regulations, or laws. As an example, Sri Lanka has a grandfather clause in contracts signed with foreign investors, reducing uncertainty and enhancing predictability (Aggarwal 2006a).

Many zone programs undermine investor confidence by failing to deliver a predictable policy environment (Farole 2011). Abrupt cancellation of existing policies, initiation of new ones, or return to old ideas create an unpredictable environment for investors. But it does not mean that the legal regime for SEZs should be

Figure 50: Principles of a Good Business Climate



Source: Author.

rigid. The legal framework must be flexible to meet changing policy needs. A more effective approach is to adjust the SEZ rules in an evolutionary manner to reflect ongoing changes in the program with a reasonable time frame to phase out old ones. The PRC, for instance, set the period of 5 years to roll back its tax benefits to foreign investors in its SEZs and to initiate a new tax regime.

Viet Nam implemented its zones on a pilot basis; maintained regulatory flexibility (particularly in the early days); and tested alternative models, approaches, and policies in different zones, often with various foreign partners. This flexibility allowed Viet Nam to learn and adopt good practices that could later be formalized in its national zone policy.

### 7.2.2 Administrative Framework

**Political support.** Consistent political support at the highest level is critical to the success of SEZ programs. One of the most important success factors for SEZs in East Asia was strong support and active commitment at the highest levels of political leadership. The most successful countries with SEZ policy, including the PRC, Costa Rica, the Republic of Korea, Mauritius, and Viet Nam, gave their zones the highest level of political attention, signaling to officials that the zones are a central instrument in the government's industrial development strategy. It is also an important signal to foreign investors of the government's commitment to outward-oriented growth and foreign investment, thus lowering the perception of risk on the part of FDI. Kazakhstan SEZs are indeed benefitted by top-level government commitment. However, the direction of its SEZ policy is still unclear. While highly ambitious goals are assigned to SEZs, the strategic approach does not match.

**Effective regulatory authority.** The SEZ regulatory authority is the most important institutional actor in any zone program. It can make the program if it has quality, capacity, and focus; includes cross-ministerial involvement and significant representation from the private sector; has a strong and institutionally founded mandate; and has an inclusive and capable agenda

of incorporating and coordinating across the many key stakeholders required to make a zone program successful.

A variety of institutional arrangements are adopted to designate the regulatory authority. It may be a government corporation, a department based in a specific ministry, a zone-specific management board, or an investment promotion agency. The best practice is to establish the regulator as an autonomous agency under a board of directors that includes cross-ministerial and private sector members. If it is not feasible to create an independent agency initially because of legacy situations or other political economy factors, then a timeline should be established to move toward an autonomous or semiautonomous body. Private participation should include an association of zone operators or companies if one exists.

Further, the autonomous body should be chaired by the top government authority. In the Dominican Republic, Kenya, and Senegal, for example, their SEZ programs report directly to the presidents; in Bangladesh, it reports to the prime minister.<sup>24</sup> This empowers the regulator to effectively coordinate actions with other ministries. However, there are cases, such as the Republic of Korea and Taipei, China, where line ministries have also anchored the authority successfully.

The point here is that the authority should be adequately empowered through the SEZ law. If the zone regulatory authority is institutionally and operationally weak, this affects its potential to plan and implement the zone program. SEZ regulation involves a wide range of activities that cross various ministerial domains including customs; land use and zoning; taxation; business registration and licensing; immigration; and environmental, labor, and social compliance. The best practice is that the regulator is empowered to make and enforce decisions on all of these issues. It is also critical that the regulator's authority extends over not just national but also local authorities, particularly with regard to land-use planning and environmental and licensing issues.

<sup>24</sup> The downside to having high-level authority on the board is that important activities of the regulator can be unnecessarily delayed due to the necessary engagement of the highest authority. In Bangladesh, to avoid such delays, the prime minister has appointed a permanent secretary to sit on the executive board of the regulatory authority.

**Roles of other stakeholders.** The operation of an SEZ requires four key players: the zone regulator, zone developer, zone manager or operator (i.e., management committee), and zone owner. Until the 1990s, most SEZs in the country were fully in the hands of the public sector, and the regulatory government body had also been performing all other functions simultaneously. However, with growing participation of the private sector, the traditional structure may create a conflict of interest and undermine private investment. In countries where private and government SEZs coexist, the regulatory role should be separated as much as possible from the roles of owner, developer, and operator. Even where the government is the lead developer, the regulatory activity of the zone authority should be conducted at arm's length. Alternatively, private sector representation should be allowed on the regulatory body. Two best practice examples are India, in which the regulatory body is under the authority of the Ministry of Commerce and has not been assigned any responsibility of zone development and management; and the Dominican Republic, where the Ministry of Industry and Commerce, who is the regulator, also manages zones through an autonomous agency called Proindustria. An autonomous body, the National Free Zones Council, has been set up with private representation on its board to address conflicts of interest.

**Managing committees.** The committees should be effectively empowered while managing the zones. Not all SEZs operate according to a master plan, and no central regulation authority exists to coordinate the SEZ portfolio. Due to heavy centralization, management issues are not addressed quickly, and SEZ projects and infrastructure development are not executed in a timely manner. These coordination issues are the outcome of an administrative framework in which management committees have a limited role. This also affects the motivation level among management committees to take proactive measures to improve services in SEZs. Healthy competition among managing committees for attracting investment may contribute to improvement in the investment climate in the zones. In the Republic of Korea, for instance, there is intense competition between various 'free economic zones' to attract investment.

**Budget:** Finally, the budget of SEZs should be linked to the revenues earned. In the PRC, a formula is set up for establishing the annual SEZ budget, including

giving the SEZ authority a specific share of taxes generated through the zone. This has the added benefit of giving the SEZ authority an incentive not to compete on tax holidays.

### 7.2.3 Rules and Procedures for Improving the Business Climate

**One-stop shop or single window.** Having a one-stop shop is the objective of virtually all zone programs. SEZs offer one-stop services to both developers and investors at two levels: setting up of a zone and company, and day-to-day operations of zone companies. Although many countries have made significant progress shortening the time between application and license provision, truly effective administrative delivery remains hampered by weak institutional authority and coordination in most zones. One-stop shops, a key draw for investors, are offered by SEZs in Kazakhstan, but these are ineffective. Investors have to seek licenses and permits instead from local government units. Management committees act as mere facilitators; even the registration of tenants in SEZs is controlled distantly by MID.

Some other best practices are:

- (i) create one point of contact for each investor, who is responsible for completing the necessary procedures related to moving in or post-production for the investor (e.g., Sri Lanka);
- (ii) have staff seconded from different agencies to the SEZ authority to form a physical one-stop shop for giving licenses and permits at the time of approval (e.g. India, the Philippines);
- (iii) create an online system of SEZ governance (e.g., India and Viet Nam);
- (iv) develop an interactive online system (e.g., the Philippines);
- (v) introduce the principle of automaticity, in which if an applicant receives no response from the authority, after certain a timeline, the authorization is granted by default (e.g., Bangladesh);
- (vi) confer on zone administrations powers of local governments in large SEZs and those of municipal governments in small SEZs (e.g., the PRC, the Philippines); and
- (vii) set up critical departments such as labor, property, engineering, and customer service within the zone (e.g., Sri Lanka)

The Philippines has been one of the most successful countries in attracting FDI through SEZs, thanks to its one-stop shops. Box 1 offers some insights on investment facilitation by their regulatory board, the Philippine Economic Zone Authority.

**Customs and Trade Facilitation.** This is a basic facility in any SEZ and it is important to have a permanent custom official in each zone. All public sector zones have custom officials deputed in SEZs. To provide such facilities in private zones, there are institutional innovations. In the Dominican Republic, for instance, an interagency commission includes the customs authority, the zone regulator, and the association representing companies operating in the free zone. In India and Honduras, customs facilities are provided by SEZs in private zones as well but for a price. Operators are responsible for paying a share of the costs of the customs officials.

**Infrastructure.** Three levels of infrastructure are critical for SEZs: onsite, offsite and social. Most countries in the contemporary world are offering world-class infrastructure within SEZs which enables resident companies to start production in the short term, and to reduce the initial investment. In some countries, SEZs have various sizes of rental factories. These factories are very attractive for small and medium-sized companies. While the focus is on onsite infrastructure, development of offsite infrastructure is often neglected. Investors sometimes face huge bottlenecks in accessing ports, highways, and airports due to poor roads and logistics. Another critical infrastructure issue that is seldom taken into account in zone planning is social infrastructure--schools and hospitals in particular but also recreational and other facilities that workers and

### Box 1: One-Stop Shop in the Philippines

The Philippine Economic Zone Authority (PEZA) is recognized internationally for its one-stop shop, providing 24-hour/7-day a week service to investors. In terms of investment facilitation, PEZA offers a one-stop shop providing building and occupancy permits, import and export permits with online procedures, environment certificate clearances, fast processing for food and medical devices, and special multiple-entry nonimmigrant visas. Under the law, all government agencies involved assign their respective representatives to the zone for this purpose. PEZA also offers exemption from local permits and fees, thus allowing investors to bypass local government units, notorious for their inefficiency and weak capacity to deal with the private sector. Therefore, firms are lured to PEZA zones, as they only must deal with one single agency.

Sources: Castell (2004), Pfister (2017).

### Box 2: Customs-Related Practices

**India.** All trading activities of the special economic zone, unless otherwise specified, are on the basis of self-certification. For imports, a bill of entry is submitted by the zone with customs, while exporters file a shipping bill. Goods are assessed on the basis of the information provided. There is no physical examination of the goods, and the goods are allowed to move after verifying marks and numbers on the packages only (although customs authorities may examine the consignment when there is specific intelligence, but to do so, an order of assistant customs commissioner must be obtained).

**People's Republic of China.** Despite its generally advantageous location in the People's Republic of China, Suzhou Industrial Park is landlocked. Thus, one of the most important areas for government support in the development of the park has been transport, logistics, and trade facilitation. From its inception in 1994, a customs sub administration was planned. Suzhou Industrial Park operates as a virtual port and is allowed to handle customs clearance of exports and imports directly. Firms there enjoy an efficient "green lane" and independent customs supervision, which runs 24 hours a day, 7 days a week. An integrated free trade zone was established in the park in 2008 by integrating two processing trade zones, one bonded logistic center, and one customs checkpoint.

Sources: Aggarwal (2012), Farole (2011: 224).

managers rely on. Social infrastructure in Kazakhstan SEZs as of now is very limited. Social infrastructure in Kazakhstan SEZs is also very limited, while only basic industrial infrastructure is provided in the SEZs in comparison with other countries.

**Private participation.** Private participation in infrastructure development and management generally relieves the government of the burden of initial investment costs and ongoing management, and channels private investment into economically desirable sectors. The spectrum of possible public-private partnership models extends from those almost entirely controlled by the private sector to those almost entirely controlled by the public sector. Some of these options are as follows.

- (i) The private sector designs, builds, owns, develops, operates, manages, and promotes an SEZ with no obligation to transfer it to the government, including build-own-operate, build-develop-operate, design-construct-manage-finance, design-build-finance-operate, and design-build-operate-manage. Although the government does not provide direct funding, it may offer some concessions such as subsidized land prices and/or tax-exempt status. Further, the government provides administrative services and customs facilitation. India's private SEZs can be placed here.
- (ii) The private sector buys or leases land or SEZs from the government and operates the SEZ with no ownership transfer obligation to the government under the buy-build-operate and lease-develop-operate models. The Aqaba SEZ in Jordan has adopted this practice. It regulates lease rates, public services, and fees, while private sector services, unless monopolistic, are left to the market.
- (iii) State governments partner with domestic private sectors (i.e., the traditional model); with foreign companies (e.g., Ghana's partnership with a Malaysian company in setting up the Tema SEZ, or development of the Dakar Integrated SEZ by investors from Dubai); or with other countries or areas (e.g., the Government of the PRC engaging Japan; Singapore; and Taipei, China to establish world-class zones).
- (iv) A private entity may be given a contract to manage a state-owned SEZ for a limited period of time. Colombia, for instance, divested five of its six SEZs in 1995 under 15-year leases specifying the value of the zones, required investments, and a detailed development plan.
- (v) Aspects of services or utilities are developed and managed by a private entity. The Ministry of Economic Affairs in Taipei, China gathered up the space to set up the core plaza in the Nantze EPZ.
- (vi) Aspects of services or utilities or their maintenance are subcontracted to specialist firms for management for a fee. Management contracts allow private sector skills to be brought into services design and delivery, operational control, labor management, and equipment procurement. However, the public sector retains the ownership of facility and equipment.

It is important that legal provisions clearly set the SEZ designation criteria; physical development standards; developer license criteria; and roles, rights, and obligations of zone developers, operators, and governments in SEZs. There should be a formal coordination mechanism and agreement between the private developer and government (i.e., a zone developer agreement) outlining specific time-bound obligations of both parties for the development, financing, operation, regulation, and promotion of a specific zone through a memorandum of understanding. The regulator must oversee the implementation of these agreements. Above all, the private developer should be ensured a voice in strategic decisions regarding the zone program.

**Fiscal incentives.** At least in the initial stages every zone program has offered some form of fiscal incentive to attract investors. Yet some argue that fiscal incentives distort investor behavior, resulting in loss of revenue and can put countries in a "race-to-the-bottom" situation. However, evidence suggests that fiscal incentives are important in attracting investment if other requirements are fulfilled. Countries like India, the Philippines, Viet Nam, and even Cambodia have been successful in using incentives to attract investment in their SEZs.

Evidence suggests that incentives alone will not be useful in attracting FDI. Depending upon country-specific contexts, experiences vary. Many African countries have been offering attractive incentives but with little success. In India, on the other hand, withdrawal of some key fiscal incentives has proven to be a death-knell. Poland extends the deadline for SEZs every time it starts approaching it, for the fears of losing FDI.

### Box 3: Public–Private and State–State Partnerships: Case studies

**Bangladesh.** In 1999, then–Prime Minister Sheikh Hasina of Bangladesh, at the groundbreaking of a zone to be developed by Youngone, a company from the Republic of Korea, pledged full support for the zone. Yet the company faced hurdles at every step, from obtaining an environmental clearance to electricity and water supply. The land deed was also not transferred. Progress ceased, and the zone size was cut. Some opined that the land prices appreciated after the development activity; the local government was therefore reluctant to honor the agreement. After several years of tussle between the company and the government, the SEZ is finally commission and is under operation now.

**Ghana.** The relationship between the private contractor in the Tema zone and the government became strained due to disagreements on issues related to infrastructure and services delivery. This slowed down investment in onsite infrastructure; eventually, the company sold most of its investments in Ghana.

**People’s Republic of China.** In 1992, the People’s Republic of China (PRC) and Singapore decided to develop a modern industrial park east of Suzhou. The Suzhou Industrial Park has a total area of 288 square kilometers, of which the PRC–Singapore cooperation area covers 80 square kilometers. The park was built simultaneously with the competing Suzhou New District Industrial Park. The Suzhou city government had only a minority (35%) stake in the Suzhou Industrial Park, but it had a major stake in Suzhou New District Industrial Park. Thus, the city government largely ignored the Suzhou Industrial Park and concentrated on promoting the Suzhou New District Industrial Park. After 5 years of loss, in 2001, the Singapore consortium lowered its stake in the Suzhou Industrial Park to 35%, raising the PRC consortium’s stake to 65% from 35%, reducing Singapore’s share from a planned 70 square kilometers to just 8 square kilometers. The city government thus raised its stake, turning the park into a profit-making venture.

Source: Various newspaper clippings and online reports.

Some best practices are as follows. First, fiscal incentives should be in conformity with the Agreement on Subsidies and Countervailing Measures of WTO, which prohibits tax incentives as well as other financial assistance contingent upon exportation or local content. Under the provision of special and differential treatment, least-developed WTO members are exempted from the prohibition on export subsidies subject to certain conditions.<sup>25</sup> Other countries and areas can offer incentives and still comply with WTO if they separate incentives from their trade, targeting them to specific industry sectors, research and development, and lagging regions. These subsidies are not prohibited, although they are actionable. Exemptions from indirect taxes in SEZs are fully WTO compliant. Therefore, the domestic material and service providers to SEZs should also be

given tax benefits without violating WTO compliance. Second, incentives may be linked to specific criteria defining the desirability of a given project. These may be type of activity (threshold employment, new technology), priority sector (Kazakhstan), or threshold investment (e.g. Poland). Third, in some countries the SEZ authority retains considerable administrative discretion to decide about the level of incentives on a project-by-project basis. This introduces in-transparencies and rent seeking opportunities and hence must be avoided. Kazakhstan for instance offers attractive fiscal incentives in its SEZs to entice investors, but to receive these benefits, a company must follow several prerequisites, such as the local supply rate of products must exceed a predetermined level, and the proportion of revenue from the products to the company’s total revenues must meet a certain

<sup>25</sup> There are two important caveats: (i) exemption does not necessarily prevent another country from bringing a case against an exempted country under the Agreement on Subsidies and Countervailing Measures; and (ii) Article 27 includes an export competitiveness clause (i.e., if an exempt country achieves 3.25% of the world market in any product for 2 consecutive years, it is no longer exempt and must phase out all subsidies within 8 years).



level. Fulfilling such conditions is not only an obstacle for investors but also time-consuming. Since there is no information or material that explains such implementation criteria clearly, investors often have to read the legal documents on their own and try to understand the relevant incentive system, which is time-consuming. Moreover, customs duties are only exempted when the license center operating under Atameken calculates and proves the proportion of local procurement accounted in the final product. Such conditions are most likely to have investment hampering effects. Finally, there should be periodic review of these incentives.

**Sunset clause.** Kazakhstan has a sunset clause in SEZs. It is defined that the period of operation of SEZ is 25 years from its foundation. No matter when a company became a resident of the SEZ, that SEZ will be abolished automatically after 25 years from its foundation. This provision is deterrent for investment in SEZs. This is because these projects have gestation period. As an SEZ starts approaching the sunset set clause it will lose attractiveness. Poland also sets time frame for its SEZs but it keeps extending them in order to retain investment in their country. In 2013, they extended their SEZs until 2026. A good practice is to set sunset or review clause on tax benefits.

**Labor.** Kazakhstan does not permit any derogation in the labor code in SEZs; it has only relaxed the foreign employment visa processes in SEZs. This is the case for several SEZs including those in Costa Rica, Honduras, India, Indonesia, Kenya, Mauritius, and Sri Lanka. These countries recently added services provided to SEZ tenants to reduce costs, including

- (i) **Integrating inspection systems.** The Ministry of Labor, Trade Union Relations and Sabaragamuwa Development in Sri Lanka have put in place an integrated inspection system with the assistance of the International Labor Organization, in which a multidisciplinary team of inspectors visit a factory to carry out an overall evaluation in a single visit.
- (ii) **Assigning specific labor window to the sector.** Some countries assign a special window for labor issues. In Guatemala, for instance, a special unit monitors labor inspections. In Sri Lanka, each EPZ has a labor inspection office situated on its premises. In Jebel Ali, United Arab Emirates, labor disputes are taken care of by the customer service department. Mauritius has a special migrant worker unit as well.

- (iii) **Promoting a culture of compliance through self-assessment.** In Costa Rica and Honduras, self-assessment forms are developed to increase the knowledge of employers of labor laws and to comply with them. Submission of self-assessment forms is followed by inspections.
- (iv) **Labor inspectors as advice providers.** In Kenya, Mauritius, and Sri Lanka, labor inspectors have been advising employees, employers, and trade unions on labor issues through training, workshops, and onsite talks.
- (v) **Improving working conditions through tripartite committees.** In Indonesia, Honduras, and Sri Lanka, local tripartite committees are created in each EPZ. Each committee is made up of representatives of local governments, employers, and labor unions, and they promote local social dialogue for collective bargaining and dispute settlement.

**Land acquisition.** Land code is a major issue in Kazakhstan. Land is the state property with some pockets of private land subject to the conditions, terms and limits of the land code. Tenants have to manage to acquire land from local government, which is time consuming and involves cost. As best practice, land in ‘traditional EPZ’ type SEZs may be acquired by Managing Committees in advance for future use. Benefits of this type of land banking include: making land available at lower prices for community purposes; increasing the efficiency of land assembly; providing for more effective planning; reducing or eliminating land speculation; and keeping the benefits of an investment in planning efforts for the planners themselves. In large open SEZs as suggested in Chapter 6, however, MCs cannot practice land banking. In those cases, land code may be simplified to address the delays in land permits.

**Environment.** Good practices in environmental standards must be followed by governments and firms involved in any SEZ. Environmental rules cannot be relaxed for either SEZ developers or units. However, environment impact assessments may be conducted for SEZs, not for units. An SEZ green policy should be initiated to promote green SEZs for energy and water conservation and to minimize land, water, and air pollution. Finally, practices to promote the environment in SEZs should be encouraged, including setting up water and effluent treatment plants; reusing wastewater for landscaping; constructing green buildings; creating common storage areas for recyclable waste; developing internal transport

### Box 4: Bangladesh's Labor Counselor Program

Bangladesh Export Processing Zones Authority (BEPZA) initiated an innovative program in 2005. The program, funded by the World Bank, recruited 67 counselors to work closely with employees and management to address issues related to wages, working conditions, food, child care, benefits, and security. These counselors worked on behalf of BEPZA but were perceived more as facilitators than as regulators or enforcers. The young recruits paid almost daily visits to their designated factories to work with management on the correct application of labor and compensation regulations and acted as informal arbitrators between management and workers to resolve grievances. The program appears to have been appreciated by both management and workers. The initial funding expired in 2009; at BEPZA's request, the Bangladesh Investment Climate Fund supplied additional funding to continue the program. BEPZA has committed to integrating the program into its mainstream operational budget. Despite significant unrest that shook Bangladesh's garment sector in 2010, no incidents were reported in any of the export-processing zones that featured this program.

Source: Farole and Akinci (2011: 40).

facilities such as electric vehicles, CNG, biodiesel, or any other environment friendly fuels; providing bicycle lanes to encourage cycling to and from the workplace; building exclusive pedestrian lanes; and creating internal connectivity through street networks. Many countries have been following these practices to create aesthetic environments within their SEZs.

**Accountability.** There must be a mechanism to ensure accountability and prompt redressal of complaints and grievances. To make the redressal mechanism more meaningful and effective, a structured mechanism needs to be in place. Such a system would ensure efficient and just redressal within the given framework of rules and regulation. Certain civil penalties must also apply for failure to follow SEZ rules. Goods of persons subject to such penalties may be seized and sold by the administration. In addition, criminal penalties may apply for certain offenses.

**SEZ promotion.** Moreover, efforts to attract investment by national or regional authorities and management companies of SEZs are duplicative and are often in conflict, while comprehensive and consistent information about SEZs is not available to potential investors. In principal, Kaz Invest is Kazakhstan's investment promotion agency and unified coordination center for developing special economic zones. However, it is revealed in a

survey study that leaflets and packages of laws and regulations for investors, which were prepared by KAZNEX INVEST, SEZ management committees, and others, are insufficient due to the complexity of the system (JICA, MRI, JATRN 2015). Some SEZs do not even have their own sites, and some do not have sites in English. These gaps need to be addressed to create awareness about their SEZs.

## 7.3 Conclusion

Strong government support for zones, demonstrated in the strategic intent and in the broad approach to an SEZ program, are critical to attracting high-quality, long-term investors. Policies and operational practices in the zones must be in line with the needs of private investors. SEZs must be set up to attract GVC-linked investors who face stringent requirements related to cost, time, quality, and flexibility to be successful. This requires hassle-free, low-cost locations. The business environment within SEZs must be insulated from that outside, and associated policies should be transparent and stable. Indeed, many zone programs undermine investor confidence by failing to deliver a conducive and predictable policy environment.

## Chapter VIII: Pillar 3: Promotion of Spillovers from Global Value Chain-linked Investment

As discussed in the previous chapter, under favorable conditions and good management, SEZs can serve as efficient locations to attract investment. Yet while attracting investment in economic zones is only a necessary condition to bring about industrial diversification in a host country, it is not a sufficient one. Much of the investment attracted by economic zones is integrated with global production systems; therefore, the activities and technology attracted by them may have little relevance for the wider economy. Economic zones cannot automatically generate spillover effects to introduce new technologies in the wider economy. Thus, there is a need for concerted efforts by the government to build and strengthen domestic capabilities to reap the benefits of technology and knowledge transfers, such as adopting a pragmatic and dynamic approach to bring about structural transformation in the economy through SEZs. The third pillar of the strategic framework deals with the strategic approaches to leverage the benefits of investment attracted in economic zones to promote industrial diversification. This chapter outlines these approaches and explains the factors critical for their success.

### 8.1 The Framework

SEZ effectiveness as instrument for achieving long-term industrial development is conditional upon the linkages that they create with the domestic economy. Linkages are defined as the ability of SEZ firms to develop productive relationships with domestic firms through exchange of information and resources. These linkages provide the key channel through which various technologies may be diffused from SEZs to the rest of the host economy.

To review, there are two types of linkages: backward and forward. Backward linkages integrate the zone into regional and national economies by allowing domestic firms to step in as suppliers to SEZ firms and, in turn, to promote industrial development by creating demand for local products and services and transferring technology to the local industry. In general, however, these linkages remain weak for several reasons (Aggarwal 2007). Often, local firms do not have the technological capability to provide

the inputs required by foreign companies. There may be an absence of necessary raw materials in the local market, so inputs must be imported and be subject to duties. Other factors include a poor work culture, poor infrastructure quality outside of the zones, and non-adherence to strict time schedules. Government regulation of SEZ transactions with the rest of the economy may also act as a barrier to connect them with the domestic economy. If domestic supplier firms do not benefit from functional drawback policies,<sup>26</sup> the tariff-free inputs within SEZs act as import subsidies competing against domestic input production and discouraging the creation of backward linkages (Madani 1999).

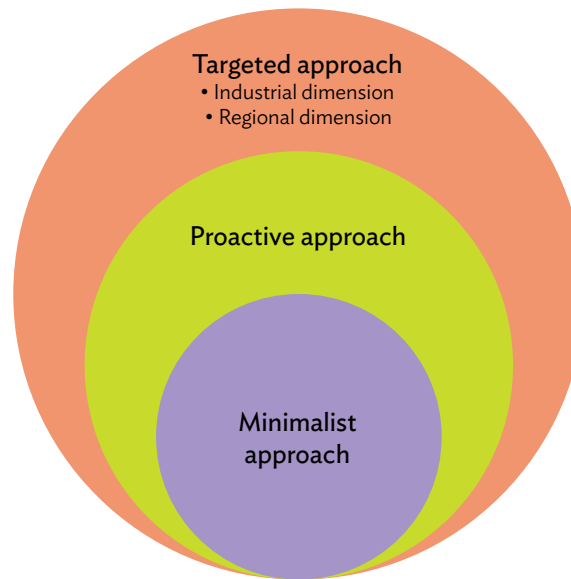
Forward linkages arise if SEZs are allowed to access the local market, inducing introduction of new products and new activity in the domestic mainland, thereby promoting industrial diversification. Since countries and areas do not allow domestic sales of SEZ products, the potential for forward linkages vanishes (Warr 1989). Given that most products produced in SEZs are exported, there is often little scope for forward linkages to domestic companies outside of the zone. Since domestic tariff area sales are very small, SEZs are not eligible to produce any form of forward linkages (Warr 1989, Jayanthakumaran 2003). However, there are best practices in this regard that are discussed later in this section.

Evidence suggests that the creation of linkages is largely conditional on three types of factors:

- (i) **Government policies.** In countries where government policy allows local entrepreneurs to supply SEZ producers with duty-free materials, significant backward linkages may be created. Similarly, the government policy of sales to domestic tariff areas may affect the creation of forward linkages.
- (ii) **Domestic capabilities.** In countries and areas that do not enjoy a solid industrial base, linkages are weak.
- (iii) **Composition of SEZ activity.** Low-technology and high labor-intensive activities are less likely to generate a significant impact on the rest of the economy.

<sup>26</sup> Drawbacks for tariffs and rebates of sales taxes for goods sold by domestic producers to enterprises in the SEZs.

**Figure 51: Approaches to Leverage the Benefits of Special Economic Zones for Industrial Diversification**



Source: Author.

Based on the above factors, three overlapping strategies are proposed to promote these linkages (Figure 51):

- (i) **Minimalist approach.** This focuses on remedying government policy barriers. It requires the government to lower transaction barriers between the SEZ and domestic firms. It represents a necessary policy action for establishing the linkages between SEZs and the wider economy.
- (ii) **Proactive approach.** This approach calls for a more interventionist approach. It focuses on creating favorable domestic conditions and strengthening domestic capabilities, which can be conducive for such transactions.
- (iii) **Targeted approach.** This is similar to a smart industrialization strategy, where government policy actions center around SEZs activity (Chapter 4). This is a broader approach and focuses on upgrading the SEZs to move up the value chains

## 8.2. Minimalist Approach: Lowering Policy Barriers for Linkages

### 8.2.1 Backward Linkages

Both policy and administrative factors play a role in limiting backward integration. On the policy side, a major issue has been the lack of a level playing field between local and foreign suppliers to SEZs. For example, in some countries, SEZ-based firms are required to pay tariffs and local sales taxes on all purchases from the local market, but they can access those same goods from international suppliers on a tax- and duty-free basis. These policies hamper the competitive position of domestic suppliers vis-à-vis international suppliers.

On the administration side, delays and heavy paperwork requirements make it difficult for local firms to take advantage of benefits. In most cases, concerns regarding security and leaks of SEZ products into the local market have resulted in restrictions on the movement of trucks from domestic territories into the SEZs.

The minimalist policy approach involves lowering these policy and administrative barriers and is based on the following subpillars:

- (i) Sales of goods and services by a domestic enterprise from the national customs territory to SEZ enterprises are considered exports, which gives local suppliers benefits as indirect exporters;
- (ii) Domestic enterprise exporting to SEZs does not require an export license for the sale of any goods and services to SEZs;
- (iii) SEZ companies may purchase goods and services sold by a domestic enterprise with local currency obtained through conversion of foreign currency through a bank or a licensed foreign exchange bureau; and
- (iv) Administrative barriers are lowered, and processes are simplified (e.g., in India, the government has introduced a self-certification system for domestic procurement just like exports and imports, so units need not seek permission for these transactions).

### 8.2.2 Forward Linkages

In terms of forward linkages, in general the main policy barrier in the zones are restrictions on local sales. Domestic tariff area sales strengthen SEZ linkage to regional industries to maximize their benefits and to facilitate the technological transfer from SEZs to domestic companies. Most countries, however, restrict these sales with a view to eliminate

competition between SEZ and domestic firms (e.g. EPZs in Viet Nam). Only a small proportion of sales are permitted to the local market.

The minimalist approach argues for lowering these barriers by allowing domestic sales subject to payment of corresponding taxes on the raw materials and other regulations that the units have foregone and allowing domestic sales duty-free if the SEZ product is manufactured using new and sophisticated technology not available locally (e.g. the People's Republic of China, Indonesia).

## 8.3 Proactive Approach

While the lowering of policy-related barriers in transactions between SEZ and domestic firms creates a necessary condition for promoting such linkages, alone it is insufficient. As discussed above, domestic suppliers often have problems in producing at the level of quality demanded by exporters, adhering to the time limits and offering the scale that they need. Thus, the minimalist approach needs to be complemented with appropriate and wide-ranging policy frameworks that strengthen domestic productive capacities and spillover benefits from foreign investment, knowledge, and innovations.

Policies include those for the labor market; competition; and investment in education, skills, technology, and strategic infrastructure.

### Box 5: The Republic of Korea's Policy of Subcontracting

In 1974, the Government of the Republic of Korea allowed outsourcing of production processes from its export-processing zones (EPZs) to firms in the wider economy, as zones were fully occupied, and firms had difficulty expanding their facilities within the zones. Outsourcing proved to be instrumental in the development and technological upgrade of firms located outside of the zones. In 1976, there were 94 firms in Masan EPZ, employing some 4,518 workers outside of the zones (or 15% of zone employment); by 1988, 56 out of the 73 zone firms engaged 525 domestic firms. These 525 firms employed 16,686 workers, equivalent to half of the entire Masan Free Trade Zone workforce. In 2001, there were 258 non-EPZ subcontracting firms of this kind around Busan and Masan zones employing 4,567 workers. This very successful backward linkage increased employment and exports as well as transfer of technology.

Sources: Madani (1999), Aggarwal (2012), Maruyama and Yokota (2008).

A well-crafted package of macroeconomic and industrial policies is required to complement the promotion of zones to stimulate the process of industrialization. These are essentially horizontal industrial policies. Some of these policies are

- (i) **Macroeconomic policies.** The stability of the macroeconomic environment is significant for improving the competitiveness of the economy. Fiscal and monetary imbalances raise costs, which hamper the cost-competitiveness of the economy. The government needs to keep these imbalances under control to maintain competitiveness of the economy and domestic producers.
- (ii) **Improved business-related institutions.** The quality of institutions has a strong impact on firm capabilities. Sound public institutions that enforce contracts, adequately secure property rights and investor protection, ensure an impartial judiciary, promote transparency and trustworthiness, and reduce overregulation and corruption can be instrumental in promoting entrepreneurship and startups and enhancing the scale of investments. They also improve trust between foreign and domestic firms.
- (iii) **Human capital.** Human capital is a major constraint in countries where limited educational resources have been targeted toward technical and vocational education. Technical workers are often central to ensuring standards compliance and quality requirements.
- (iv) **Technological readiness.** An efficient innovation system should be developed that facilitates investments in knowledge, technology dissemination, skills upgrading, and entrepreneurship.
- (v) **Financial systems.** Financial system development can alleviate cash constraints and facilitate GVC participation. By lowering the cost of borrowing funds, well-functioning financial systems can encourage domestic entrepreneurs to invest in productive capacities.
- (vi) **Infrastructure.** The quality and extensiveness of infrastructure networks significantly impact economic growth in a variety of ways. Well-developed multi-modular transport systems enable entrepreneurs to get their goods and services to market in a secure, timely, and cost-efficient manner, and to facilitate the movement of workers to the most suitable jobs. Uninterrupted electricity supplies allow factories

to run continuously. Finally, a solid and extensive telecommunications network allows for a rapid and free flow of information, which increases overall economic efficiency by expediting business processes and decision making.

- (vii) **Sophistication of business services.** Businesses require the services of a variety of professionals, including architects, designers, auditors, accountants, engineers, doctors, lawyers, tax consultants, management consultants, and ICT consultants. This highlights the importance of efficient services sectors to support GVC and non-GVC investment.
- (viii) **Strengthened small sectors in the economy.** Policies that artificially increase the participation of firms in GVCs through direct government incentives for specific activities and disincentives for other activities will not generate sustainable benefits. Linking with lead firms can be a more solid foundation on which to build for many innovative SMEs.

In sum, this approach focuses on creating domestic capabilities through horizontal policies. The present approach adopted by Kazakhstan is akin to the proactive approach. This strategy is aligned to the matrix-based approach adopted in the European industrial strategy of combining the vertical and horizontal tools. It requires a threshold level of technological, human capital, and industrial development on which SEZs and industrial zones of high-tech industries can draw. The idea is to improve domestic capabilities, which, in turn, are likely to be reinforced by technological spillovers from GVC-linked activities in economic zones. The underlying assumption is that the interaction between foreign firms and domestic producers is instrumental in generating productivity spillovers. In this approach, economic zones play a catalytic role and not a central one.

## 8.4 Focused Approach

Unlike the proactive approach, the focused approach places zones at the center of the process of industrialization. It is akin to a smart-industrialization strategy as discussed in Chapter 4. It is based on the realization that industrial transformation is a complex process that involves significant institutional and social transformation. It requires identification of the focused drivers of industrial development and formulation of well-designed policies to push these

drivers (Chang 2002).<sup>27</sup> Developing countries, as late entrants, face an even more complex and daunting set of circumstances than those faced by now-advanced countries when they embarked on industrialization, due to advancement in technology.

In this scenario, GVCs offer a new, focused industrial diversification path. Countries and areas can industrialize by joining a supply chain using SEZs as a tool, then moving up along them, and/or jumping to more sophisticated chains. (Milberg, Jiang, Gereffi 2013). From this perspective, SEZs are a tool of smart industrialization policy in which both SEZs and the wider economy require continuous upgrading by overcoming institutional failures to ensure evolution of the economy to higher value-added activities.

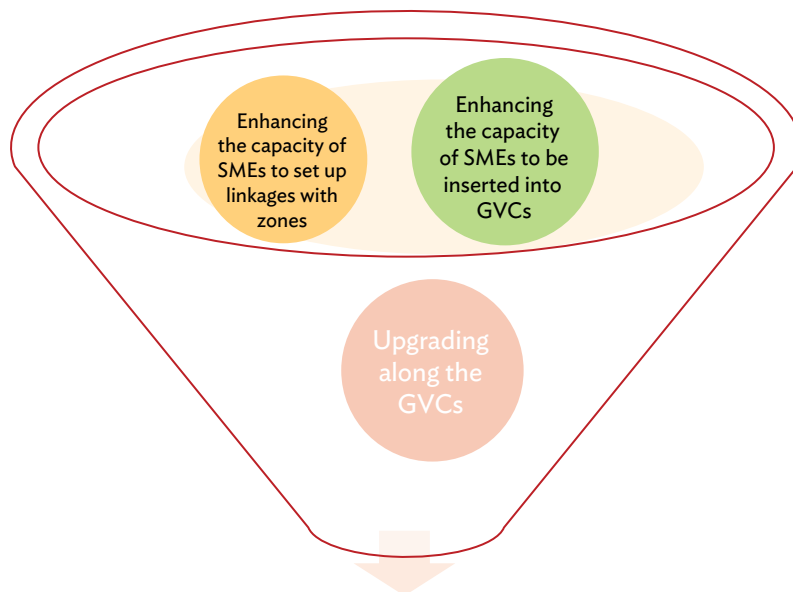
As discussed, there are two aspects of GVC-linked investment attracted by zones: 1. FDI through offshoring, and 2. domestic investment through offshore outsourcing. While FDI is a vehicle of transferring new technologies and managerial skills,

offshore outsourcing, through contract manufacturing both in technology and low-technology industries, has opened up a range of opportunities for developing country firms, in particular SMEs, to find a niche in which to specialize rather than be competitive along the entire production chain.<sup>28</sup>

The focused approach thus comprises three strategic tools (Figure 52).

**Integrating SMEs effectively within GVCs.** Contract manufacturing in GVCs has the potential to offer SMEs in developing countries access to a global pool of new technologies, skills, capital, and markets. The contractor is responsible for sourcing the materials and components, manufacturing the article, and performing the necessary quality controls. In high-technology industries, the contractor also has access to the technology of the outsourcing firms. As a consequence, it can upgrade itself and target more sophisticated market segments such as design, marketing, and branding. The government needs to make concerted efforts to develop

**Figure 52: Strategic Framework for Smart Industrialization**



GVC = global value chain, SMEs = small and medium-sized enterprises.

Source: Author.

<sup>27</sup> Chang (2002) argued that all major developed countries used interventionist economic policies to become industrialized.

<sup>28</sup> SMEs have emerged as major exporters all over the world. Even in the United States, nearly 90% of exporters were SMEs, and their share of merchandise exports hovers around 30%.

local suppliers and component manufacturers through identification of the sectors where the economy has competitive advantages; mapping the value chains in these sectors, and identifying the activities on which the country is ready to focus; offering training and assistance to improve capabilities in these activities; and identifying the GVCs, and helping firms to get inserted into these value chains through both joint ventures and contract manufacturing.

**Strengthening SEZ-centered capabilities of domestic producers.** This element of the policy focuses on enhancing backward linkages between zone and local firms. It involves the following action plan:

- (i) **Identify and target goods and services required by SEZ entrepreneurs.** Increasing participation in most GVCs requires a range of goods and services that must be available at competitive prices and quality. This is particularly crucial for local SMEs that need access to the necessary range of services to concentrate on the value chain-specific activity that they do best. Seizing the opportunities offered by GVCs requires competent and innovative domestic entrepreneurs as well as the country's policy makers to address a number of interrelated challenges, such as understanding the requirements of SEZ industries, creating dynamic domestic firms by offering incentives, building production capabilities and networking capabilities, managing technology development, and encouraging skills formation. For this, the government must develop policies, agencies, and institutions that ensure advancements in all segments of the production processes in SEZ industries. Raising competitiveness of domestic firms and industries thus becomes crucial in shaping outcomes.
- (ii) **Target "winner" firms and support them.** One approach is that the government identifies "winner" domestic firms, and provides targeted support to them to build domestic capabilities along the value chains through public-private collaborations, research funding, government procurement, subsidies, and other direct and indirect measures. An example is that of the PRC automotive industry, where a selected number of firms were given preferential treatment, and their alliances were forged with up to two foreign firms each to create domestic capabilities. Experts around the world are deeply divided over picking winners with some offering a complete hand-off approach by the government and others

supporting government intervention to promote national champions. An overview of these arguments in a comparative analytical framework shows that many arguments against champions-promoting policies are made in a static classical framework (Falk et al. 2011). From a dynamic view, a strong case may be made for champions-promoting policies but with a caveat that there are possibilities of government failures with political motives taking center stage. Its success requires political will and commitment.

- (iii) **Target new industries and support them through vertically strategic industrialization.** In late industrializing economies, industrial targeting may be a component of smart industrialization policy, although views differ on how to select the target industries (Lin and Chang 2009). Identifying the value chains in target industries and augmenting them through vertically strategic industrialization may be implemented using SEZs as a tool. The government needs to be proactive not only in developing industry-specific infrastructure but also in identifying human skills and technological needs, for which the demand may arise. It should proactively fund networks of researchers encompassing university-based personnel, startups, established firms, and consortia to create an ecosystem for industry development and upgradation.
- (iv) **Train labor.** Training of labor is critical in SEZ-centered industries to improve productivity. For this, SEZ authorities need to partner with the private sector to identify skills development needs, create programs to address them, and find sustainable funding sources. The best example of success in this area is the Penang Skills Development Centre in Malaysia, a public-private effort that is considered to be a key factor in the success of Malaysia's economic transformation.

Government-sponsored support helps domestic firms build their SEZ-centered productive capacities. As a consequence, they can target more sophisticated market segments such as design, marketing, and branding, and move up the value chains.

**Upgrading SEZs.** As economic development takes place and economic activities in SEZs upgrade, new institutional challenges arise, and new development goals are posed. There are thus evolutionary changes in the motives, approaches, and designs of SEZs that, in turn, impinge upon their development outcomes and success factors. More specifically, there are two-way dynamic linkages between SEZs and the wider economy.



To the extent that SEZs are successful in addressing institutional bottlenecks, they have income-enhancing impact in the economy. However, to the extent that the production capabilities grow and economic activities within them upgrade, SEZs must also be upgraded to push the economy up the development ladder to initiate a circular process that has self-reinforcing and cumulative effects on the economy.

SEZs can thus be used as incubators of ideas and policies for enhancing growth and economic development in host economies. As the economy transitions from one stage of development to another, new challenges emerge, as does the call for new policies to address them. Using zones as policy

laboratories can be useful to test critical changes in the policies before deciding to extend them to all firms in the economy. SEZs can also be testing laboratories for solutions to social and environmental issues that are bound to emerge in the process of transformation. India's policy of green SEZs and the PRC's eco-industrial parks are the cases in point.

The biggest threat associated with SEZ-driven industrialization is getting locked into low value-added stages of GVCs within SEZs. If local operations remain confined to the low value-added segments of a GVC, then the risk is that the country starts losing a competitive advantage at that level of production process due to SEZ-induced growth in the wider

### Box 6: Successful Upgrading of Special Economic Zones: Taipei, China and the Republic of Korea

**Taipei, China.** As industrialization progressed and labor costs began rising, Taipei, China upgraded its export processing zones (EPZs) from labor-intensive traditional industries to capital-intensive industries. In the beginning (1966–1968), all export-processing zone enterprises were exempt from taxes for 5 years. During the 1970s, tax incentives were focused on intermediate and capital goods industries and on upcoming export industries; traditional export items ceased to be eligible for tax incentives. In 1980, Taipei, China set up its first science park in Hsinchu as an industrial park to foster scientific and technological development. This was followed by Tainan Science Park in 1995 and Kaohsiung Science Park in the early 2000s to strengthen its innovation capabilities. In the late 1990s, against the backdrop of the Asian financial crisis, the government committed itself to the development of the logistics industry and decided to use EPZs as a vehicle to promote the industry. Since then, it has been promoting logistics facilities within its EPZs. In 2003, the government enacted the Act for the Establishment and Management of Free-Trade Ports, aiming to promote the development of global logistics and management systems; attract high value-added manufacturing; and upgrade national competitiveness. Under the act, six free trade zones have been set up. Of them, Taoyuan Air Cargo Park Free Trade Zone is a public–private partnership, and the rest are the government-owned zones. There has thus been continuous evolution in the EPZ sector, which occurred interactively with the development process taking place in the rest of the economy.

**Republic of Korea.** In the late 1980s, wages in the Republic of Korea increased steeply, and the country started losing competitive advantages in labor-intensive products. This led the government to restructure economic activity. In line with the changing industrial policy, export-processing zones were restructured in favor of capital- and technology-intensive products to attract more sophisticated technologies. In 2000, the Republic of Korea introduced duty-free zones under the aegis of the Ministry of Land, Infrastructure and Transport. These aimed at improving the competitiveness of the logistics industry through improved added value from transshipping, distribution, repackaging, multiple-country consolidation, processing, and manufacturing. Under the policy, six logistics-oriented zones are operational. Between 2008 and 2010, these zones generated \$8.3 billion of imports and \$14.6 billion of exports; the firms employed 13,676 persons. In 2002, the Republic of Korea devised the concept of free economic zones as part of its efforts to attract more foreign investment, particularly in high-technology services and cutting-edge technology sectors to transform itself into the financial, logistics, and business hub of Northeast Asia and bring about balanced regional development. There was thus continuous upgrading of EPZs depending on the goals of the national development strategy.

economy. Many countries, tempted by the direct gains of employment and income generation, continue to maintain the cost advantage of SEZs by lowering labor standards and offering attractive incentives. This can delay the process of development outside of SEZs due to large resources invested in SEZs.

Most successful countries, however, took a risk of adopting the focused approach and were paid off hugely (Box 6). This requires political will and the spirit of experimentation with strategic policy making informed by a medium- to long-term vision.

## 8.5 Complementing SEZ-Induced Industrialization with Agglomeration Economies

Chapters 5 and 6 proposed the development of SEZs in Kazakhstan within the framework of cluster development policies. In this framework, zones are a driving force of cluster formation and development.

Agglomeration economies that emanate from clustering of firms in SEZs can be a crucial factor in the smart industrialization strategy. While scouring the globe to identify the most efficient locations for offshoring and offshore outsourcing, multinational corporations take into account not only a relaxed regime and tax incentives but also the advantages of localization economies. According to Porter (1998: 90), “The enduring competitive advantages in a global economy are often heavily local, arising from concentrations of highly specialized skills and knowledge, institutions, rivals, related businesses, and sophisticated customers” (Porter 1998).

The presence of industrial clusters promotes the growth of shippers, logistics services providers, ICT vendors, providers of customized business development services, infrastructure providers, regulatory agencies, research institutions, consultants, and other logistics-related organizations in and around the cluster that can leverage interdependencies to provide efficient and effective logistics solutions and to create innovative new solutions, cut costs, and create external economies. Clustering and collaborating with other local firms offer substantial advantages, while also participating in GVCs. Agglomeration economies reduce costs, strengthen capabilities of firms, and generate growth dynamics. Cluster-based producers and workers can

be potentially better off than they would be if they were operating in isolation.

There is evidence that foreign companies looking for outsourcing options favor firms located in clusters as insurance against delays and risk of nondelivery (Aggarwal 2011, 2012). There is a stream of literature that shows that internationally competitive clusters in host countries act as a pull factor for inward FDI (Nachum and Keeble 2000; Ng and Tuan 2006; Amiti and Javorcik 2008; Debaere, Lee, and Paik 2010). They show that foreign firms choose to locate in the regions where they can easily supply their intermediate goods or purchase intermediate goods from other firms.

Further, the geographic proximity of firms can act as a major driving force for innovation, learning, and knowledge spillovers (Gilbert, McDougall, and Audretsch 2008; Kesidou and Szirmai 2008). Knowledge inflows, knowledge creation, and knowledge spillovers are key aspects of agglomeration economies. Clustering encourages networking among firms to take advantage of complementarities, exploit new markets, integrate activities, and pool resources and knowledge. Thompson (2002) revealed that geographically concentrated foreign firms were better than dispersed foreign transnational corporations in transferring technology and managerial skills via training and spillover to PRC firms.

Yeung (1995) highlighted the significant impact that SEZs have on the spatial and economic restructuring of regions surrounded by SEZs. For example, the transformation of Shenzhen from a small fishing town to a large metropolitan city is rather well known. However, the contribution of SEZs in turning Baguio and Bataan in the Philippines; Bayan Lepas in Penang, Malaysia; Lat Krebang outside of Bangkok; and Aqaba, Jordan into flourishing cities is little known.

An overarching focus on the development of these clusters using the focused approach should be the way forward for Kazakhstan. The government needs to be a catalyst in the development of SEZ-induced clusters, using the focused approach. A key element of agglomeration economies is circular and cumulative causation (Myrdal 1957) or chain reactions (Kaldor 1966) whereby initial investment attracts more firms and promotes further specialization. This process is supported by the tendency of spinoffs and suppliers of both the clustered industry and related industries to locate near the zone. The process is self-reinforcing,

in which the clustered industries make up a mutually supporting whole with benefits flowing forward, backward, and horizontally, and have the capacity to expand, given that one competitive industry begets another (Porter 1990).

The concept of a cumulative and circular process has been re-emphasized in the new economic geography theories wherein a concentration of manufacturing in one region can lead to a still larger concentration of manufacturing in that region, assisted essentially by international trade (Ottaviano and Naghavi 2009; Fujita, Krugman, and Venables 1999; Krugman 1991). It is, therefore, expected that SEZs, which are agglomerations of trade-oriented highly competitive firms, have better prospects of generating investments in the rest of the host country than inward-looking clusters.

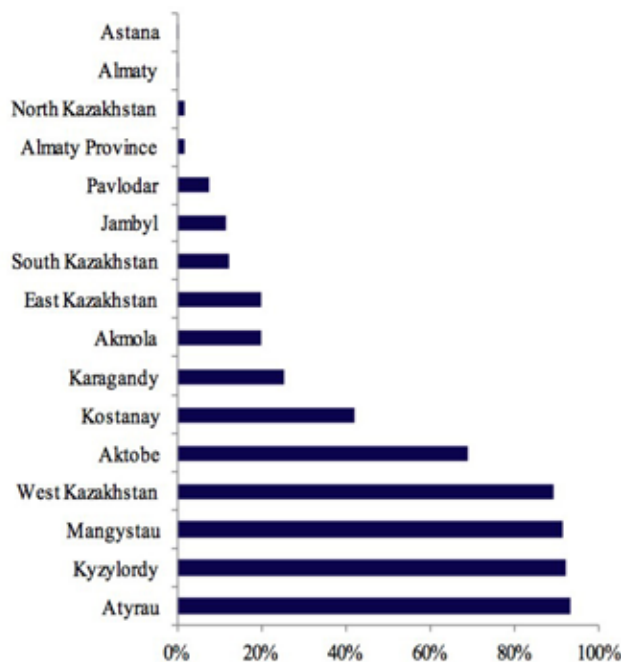
**Promoting petroleum cluster using SEZs.** The main industry in Kazakhstan is petroleum, which also attracts the most FDI. Figure 53 shows that 7 of the 16 provinces generate more than 20% of the

gross regional product from oil. The Atyrau SEZ is specialized in petroleum and can be used as the basis of smart industrialization in that region.

The petroleum industry produces highly customized knowledge-intensive goods and business-to-business services due to heterogeneous and increasingly demanding characteristics of the industry and increased focus on safe and green operations. Moreover, petroleum exploration and field development projects typically involve intensive interaction and knowledge sharing between suppliers and buyers, and innovations in subcomponents and the overall concept (Leskinen et al. 2012). Figure 54 presents the value chain of the petroleum industry.

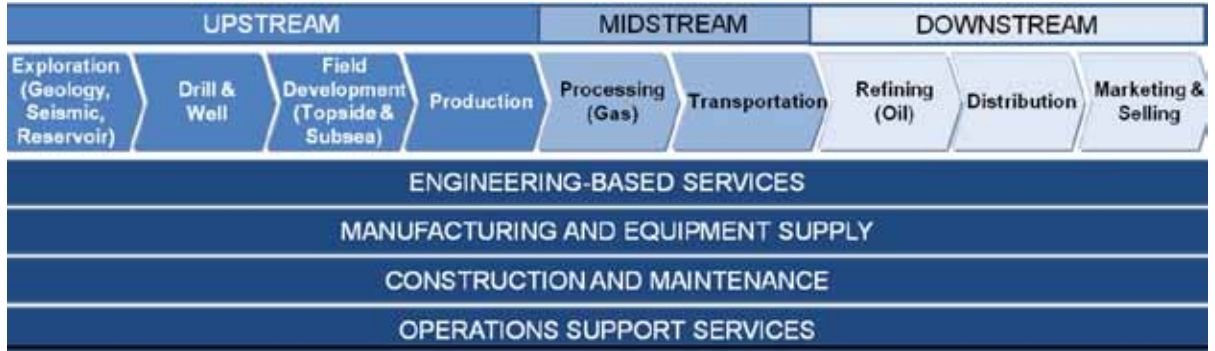
There are three levels of value chains: upstream, middle stream, and downstream. At each level, there is demand for components and equipment, construction and maintenance, and engineering-based services. The development of this industry can therefore lay the foundation of several new industries in Kazakhstan as well as national innovation systems.

**Figure 53: Regional Distribution of the Gross Regional Product share of Petroleum in Kazakhstan**



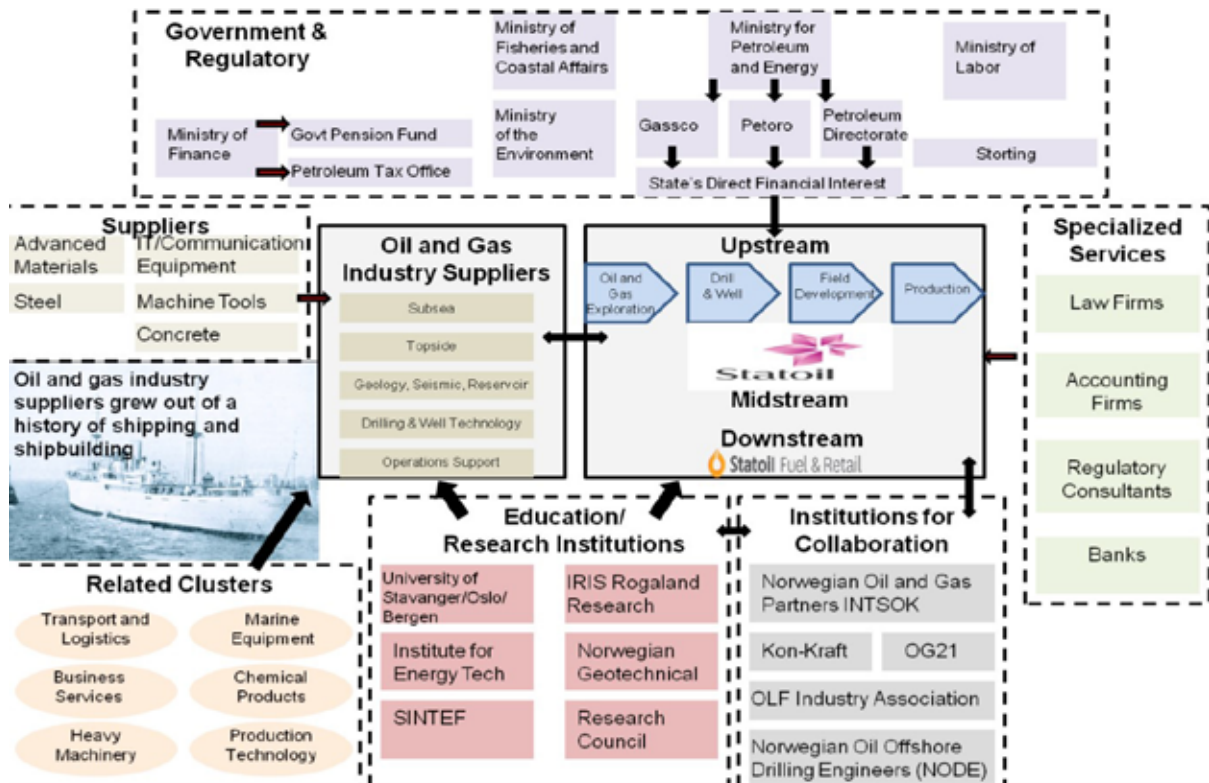
Source: Whiteshield Partner (2015).

Figure 54: Value Chain of the Petroleum Industry



Source: Leskinen et al. (2012).

Figure 55: Petroleum Complex of Norway



Source: Leskinen et al. (2012).

While developing this industry, much can be learned from Norway. The country built a highly competitive oil industry, and the national innovation system is developed around this industry. The industry, which at the outset was largely foreign-controlled, was transformed into a Norwegian Petroleum Innovation System through alliances within the Norwegian industrial environment, oil companies, research and development sector, public administrative institutions, and politicians (Andersen 1993, Engen 2002). Moreover, through different historical phases, the petroleum innovation system became more closely integrated into the national innovation system and actually became a cornerstone of the system (Gulbrandsen and Nerdrum 2007).

The incentives were derived partly from the incentive system, which was subject to the condition that Norwegian subcontractors be employed. Authority was granted to government agencies to distribute rights among companies and bodies that would best take into consideration Norway's interests. In the 1970s, the focus shifted to indigenous competence building, and a national company, Statoil, was set up to create technological capabilities. The government also implemented protectionist procurement to develop the competences of the local suppliers. The

government subsidized the local development costs with tax deductions, and there were location-based directives to keep research and development activities underway.

It is proposed that the Government of Kazakhstan negotiate favorable terms with foreign companies to promote knowledge and research and development in the region and use a comprehensive package to promote the whole value chain in the region.

## 8.6 Conclusion

Attracting investment is a necessary condition for driving SEZ-led industrialization but not a sufficient one. For industrial diversification, the government must adopt a dedicated strategic approach toward the development of SEZs to combine their synergies with regional economies, and reap the benefits of increasing returns, external economies, and complementarities. Strategic policy intervention with vision, strong commitment, a legal and institutional framework, and a continuously unfolding and dynamic set of policies are the key to success.

## Chapter IX: Pillar 4: Augmenting Regional Value Chains and Cross-Border Chains

As discussed previously, participation in the GVCs can generate considerable economic development benefits if accompanied by appropriate strategies to upgrade along them. Today, trade and FDI are inextricably intertwined through GVCs. According to an estimate by UNCTAD (2013), 80% of all international trade flows take place within global production networks that are built, coordinated, and governed by multinational corporations. The proliferation of these GVCs has been made possible by transformational changes in technology and the process of trade liberalization that has been brought about by the multilateral trading system institutionalized through WTO.

The process of trade liberalization is reinforced by the liberalization of FDI through a wave of new-generation regional trading agreements that involve deeper (i.e., WTO plus) integration of regional economies, i.e., “new regionalism.” This has directed the attention of experts to establishing RVCs and cross-border chains. This chapter focuses on the promotion of RVCs and cross-border value chains as the fourth pillar of the strategic framework of zones in Kazakhstan.

### 9.1 Relevance of Regional Value Chains

RVCs are organized at the regional, rather than the global level for consumption that may take place regionally or globally. Unlike GVCs, RVCs are organized mainly by regional companies. Therefore, their promotion is likely to enhance the capabilities of domestic companies, both through the participation in and governance of these chains. It must however be noted that the possibility of transnational corporation participation in building and coordinating them within the region cannot be ruled out.

It is increasingly being felt that the promotion of RVCs is critical for developing countries to promote the competitiveness of their firms for several reasons.

**RVCs as the pathway to GVCs.** Access to GVCs involves many prerequisites, including logistics the institutional and legal environments, which require significant investment both in human and financial resources, and active public policies in this area (World Bank 2016). In this system, late-industrializer

countries are more likely to attract the activities at the bottom of these value chains. Even when they are integrated into GVCs, many remain confined to the low value-added parts of GVCs due to competition from across the globe.

Participation in RVCs, however, can prepare firms from developing countries to eventually join GVCs. These chains center on the specificities of local demand and consumption practices and are not constrained by the demanding norms required in GVCs. RVCs can thus enhance integration, productivity, and division of labor in the region and incorporate indigenous firms into a regionwide logistics system that can be gradually upgraded. Once RVCs are established, the end-products can also be exported globally, particularly to other developing markets, laying the foundation for consolidating and upgrading the process to link it, as a next step, to GVCs (Weigert 2016).

**RVCs for decoupling of growth from that of advanced countries.** The dependence on GVCs has coupled the growth of developing countries with that of industrialized countries. For decoupling and to enhance regional competitiveness, regional ties need to be strengthened. Continued dependence on multinational corporations for trade and FDI is likely to undermine the strategies for developing indigenous capabilities and may result in the middle-income trap. It is expected that RVCs will create new dynamic comparative advantages to overcome the inherent constraints of GVCs, accelerating the strategic diversification and sophistication of developing economies.

**RVCs for leveraging both RTAs and SEZs.** As Kazakhstan is a member of the EAEU, it is important to understand the challenges and opportunities posed by the membership of regional trade agreements (RTAs) in regard to SEZs. The primary concern for members is the potential for trade triangulation. If a product processed under a preferential duty scheme of an SEZ is allowed to enter into the customs territory of an RTA member with little or no value added as an originating product, it opens the possibility that any product not originating in an RTA member country may enter the RTA member country duty-free through the SEZ, benefitting SEZ operators. This will put local producers who do not receive SEZ benefits

at a disadvantage against an SEZ operator and can pose a threat to the effectiveness of the RTA. At the same time, excluding SEZ investors from taking advantage of the RTA may prevent member RTA countries from realizing the full potential of these two trade and investment-generating instruments and achieving effective regional integration.

To fully leverage the two policy tools, RTAs have taken various approaches. Most have implemented a system to avoid duty-free entry of products processed within the region under SEZ schemes, but the degree of stringency varies. Most RTAs do so either by establishing a special rule on the treatment of products processed in SEZs of RTA member countries or by applying rules of origin that are generally applicable to products processed anywhere in the RTA area.

The EAEU treaty on SEZs stipulates that products produced in SEZs will be regarded as goods of the customs union, provided certain conditions are met: the HS code of the product differs at the four-digit level from the HS code of non-originating materials used in the manufacture of the goods; specific conditions are fulfilled under which manufacturing or technological operations are sufficient where they take place to be considered as a country of origin; or the percentage of the costs of the used non-originating materials or the added value reach the fixed share of the cost of goods. Thus, the agreement has not completely excluded SEZs from taking advantage of the union and has allowed member countries to realize the potential of the EAEU and SEZs. However, effectiveness depends on the restrictiveness of the percentage share of the foreign components.

This opportunity can be further leveraged by developing RVCs and using zones as hubs. By combining and coordinating efforts to strategically foster SEZ-based clusters that take advantage of complementary endowments of different member countries, Kazakhstan can leverage zone infrastructure and regional integration to overcome limitations of scale and specialization. This may facilitate improved backward linkages within the region in critical sectors. Such integration of RVCs within SEZs may also forge deeper regional economic integration.

It is important to establish a concrete strategy for the development of RVCs in the region through IZs and SEZs. Many lessons could be learned from other regional experiences on the continent or elsewhere in the world.

## 9.2 Facilitators for Developing Regional Value Chains

**Deep regional integration.** In the early and mid-1990s, preferential trade agreements were actively signed by former Commonwealth of Independent States countries to restore economic relations with the Russian Federation. These initiatives became precursors to economic integration initiatives in later years. Kazakhstan was one of the most active participants in these initiatives, and it is a member of several regional groupings with different levels of regional integration. The following regional agreements can be the building blocks in establishing RVCs in the region:

- (i) **Commonwealth of Independent States.** This is a loose confederation of nine member states (i.e., Azerbaijan, Armenia, Belarus, Kazakhstan, Kyrgyz Republic, Moldova, the Russian Federation, Tajikistan, and Uzbekistan) and two associate members (Turkmenistan and Ukraine) that are located in Eurasia. It has few supranational powers but aims to be more than a purely symbolic organization, nominally possessing coordinating powers in the realms of trade, finance, lawmaking, and security. It has also promoted cooperation on cross-border crime prevention.
- (ii) **Commonwealth of Independent Free Trade Area.** Of the nine Commonwealth of Independent members, eight have formed a free trade area, including Kazakhstan.
- (iii) **Eurasian Economic Union.** Of the eight members of the free trade area, five have launched the EAEU, with Kazakhstan as the founding member. It is an economic union of states located primarily in northern Eurasia. A treaty aiming for the establishment was signed on 29 May 2014 by the leaders of Belarus, Kazakhstan, and the Russian Federation and came into force on 1 January 2015. Subsequently, Armenia and the Kyrgyz

Republic also joined the union. Today, it is an RTA that introduces free movement of goods, capital, services, and people, and provides for common policies in the macroeconomic sphere, transport, industry and agriculture, energy, foreign trade and investment, customs, technical regulation, and competition and antitrust regulation. Provisions for a single currency and greater integration are envisioned in the future. The union operates through supranational and intergovernment institutions.

- (iv) **Free trade agreements.** In addition to being a part of the economic union, Kazakhstan has 11 RTAs in effect; all are with other regional countries (i.e., Armenia, Azerbaijan, Georgia, Kyrgyz Republic, the Russian Federation, Ukraine, and Uzbekistan). It is also a member of the Shanghai Cooperation Organisation and Central Asia Cooperation Organization.

**Regional connectivity.** It facilitates trade flows between countries by reducing transaction costs. From the perspective of the value chain, connectivity and a transport system without fragmentation and inefficiency makes it possible to establish regional supply chains and help link them to GVCs (Kang and Won 2017). As shown in Chapter 2, there are a number of trade and transport corridors in Kazakhstan that have transformed the country from a landlocked to a landlinked economy.

The emergence of transport corridors has been a highlight of the region. These corridors, along with the New Silk Road or Iron Silk Road, act as pivotal land bridges between the countries of Central Asia; Central Asia to Iran and Pakistan via Afghanistan; and the PRC to Europe via Central Asia and Kazakhstan. Over time, economic development efforts will need to shift from transport corridors to more integrated economic corridors that incorporate new trade and settlement patterns, including corridor town development and corridor value chains (ADB 2012). These corridors will be important building blocks in promoting RVCs.

**Economic diversity with the Russian Federation as a leading goose in the region.** The flying geese paradigm explains regional development through a regional hierarchy. The most developed country takes the role of the leading goose in the pattern, while other countries are benefitted by the lead goose in order of their development level under the conditions

of deep regional integration. For instance, in the 1970s and 1980s, Japan took the role of the leading goose in East Asia, while the newly industrializing economies of the Republic of Korea; Hong Kong, China; Singapore; and Taipei, China followed as tier-two countries; and Indonesia, Malaysia, the Philippines, and Thailand as tier-three countries; and the PRC formed the rear of the formation. The lead goose, Japan, formed RVCs and supplied capital, technology, and even developmental norms through these chains to second-tier geese, which then traded with third-tier geese.

Table 7 shows similar economic diversity among members of the EAEU. The Russian Federation has the largest economy in the region in terms of size, population, and GDP. It is the dominant economic power and has the potential of emerging as the lead goose. It is one of the leading host economies of FDI globally. In 2013, the Russian Federation was third in terms of FDI absorption globally; in 2014, it came in 16 despite the conflict with Ukraine and a mutual embargo by many Western countries (Czerewacz-Filipowicz 2017). Finally, it is also one of the largest investing countries in the world.

Further, the Russian Federation is the single most dominant trading partner for the majority of Commonwealth of Independent State countries both in terms of exports and imports (Table 9.3). At the same time, the import and export shares of these countries in the Russian Federation are insignificant (Czerewacz-Filipowicz 2017).

The turnover between other member states of the EAEU is not very significant, with the exception of trade relations between Kazakhstan and the Kyrgyz Republic. In merchandise trade within the EAEU, mineral products accounted for 30.7% of the mutual trade volume; machinery, equipment, and vehicles formed 21.5%; food products and agricultural raw materials made up 13.9%; and metals and metal products contributed 11.3%. The Russian Federation constituted a 70% share in mineral products and over a 62% share in machinery. Moreover, by the end of 2013, there were more than 10,000 joint ventures in the EAEU, in the field of nuclear science, automotives, space, machinery, and metal-based products. The Russian Federation dominated both the number of projects and amount of accumulated FDI (as reported in Ustyuzhanina 2016).



**Table 7: Level of Economic Development of Eurasian Economic Union Members: 2015**

Country	GDP (current prices, \$ billion)	Position in World Bank Ranking in GDP Based on Purchasing Power Parity	Population (million)
Russian Federation	1,861.00	5	143.800
Kazakhstan	212.26	42	17.290
Belarus	76.14	65	9.470
Armenia	10.88	130	3.006
Kyrgyz Republic	7.40	136	5.834

Source: Ustyuzhanina (2016).

Globally, the Russian Federation participates in GVCs in the fields of aircraft engineering, engine building, car manufacturing, and cattle breeding, predominantly at the stage of final production and distribution. The regional jet, SSJ, is built by 82 companies from 8 countries; all have production facilities in the Russian Federation. As a result, regional economies may target space in these value chains in which the Russian Federation's position is relatively advantageous. Some of the operations may be relocated to regional economies taking advantage of the EAEU.

#### **Harmonization of SEZ programs and other rules.**

In general, the formation of RVCs is facilitated by harmonized regulations governing investment, tax, land, labor and immigration, and customs as also the harmonized FEZ definitions and rules in the region. The EAEU RTA provides a platform for harmonizing rules and regulations of SEZs and other institutions. This process would set the stage for the formation of RVCs.

Milberg, Jiang, and Gereffi (2013) argued that even industrial policy across the region could be harmonized to anchor RVCs in a broader set of industries, ranging from minerals to agriculture to apparel to mobile phones. UNCTAD (2015) also argued for a deeply integrated regional policy framework centered around economic and social upgrading within regional supply chains. It called for a bolder regional integration agenda that includes an arrangement designed to maintain stable intraregional and effective exchange rates, macroeconomic policy coordination and financial regulation, and competition policy. Management of capital flows and intraregional lending and policy adjustment will be crucial if strong productive regional links are to emerge in support of shared industrial development.

### **9.3 Strategy for Zones to Promote Regional Value Chains**

To leverage zones to develop RVCs, EAEU member countries need to develop regional manufacturing or service linkages, using the zones as hubs. By combining and coordinating efforts to strategically foster SEZ-based clusters that take advantage of complementary endowments of different member countries, member countries can help sectors leverage SEZ infrastructure and RTA depth to promote regional production networks, regional specialization, and economy of scale. This would facilitate improved backward linkages in critical regional sectors and enable them to complement each other's resources and capacities and to cooperate to achieve shared goals (Figure 55).

#### **9.3.1 Step 1: Identify Growth Sectors**

Within manufacturing, the biggest sector in terms of shares in gross output is food and beverages in Belarus; basic metals in Kazakhstan, the Russian Federation, and Ukraine; machinery and automotive in Belarus and the Russian Federation; chemicals in Belarus and Kazakhstan; mineral products in Kazakhstan and the Russian Federation; and apparel in the Kyrgyz Republic. The most promising RVCs that can be formed from the perspective of Kazakhstan are:

- (i) **Automotive industry.** The Russian Federation is already running joint projects with Belarus and Kazakhstan. In Kazakhstan, there are 18 Kazakh–Russian and 11 Kazakh–Belarusian joint manufacturing plants (Ustyuzhanina 2016). Half of all the materials and components imported by Belarusian automotive factories come from the Russian Federation, while Belarusian combines,

**Table 8: The Russian Federation’s Share in Exports and Imports of Its Eurasian Economic Union Partners: 2013 (%)**

	Armenia	Belarus	Kazakhstan	Kyrgyz Republic
Export	25.7	45.3	8.0	8.6
Import	24.3	53.2	33.4	33.2

Source: Ustyuzhanina (2016).

- dump trucks, tractors, and lift equipment are assembled in the Russian Federation. In 2015, there were 77 assembly plants for Belarusian products in the Russian Federation.
- (ii) **Machinery and equipment.** Resource-rich Kazakhstan has competitive advantages in metal-based industries. As noted above, the Russian Federation participates in GVCs in aircraft engineering and engine building.
  - (iii) **Chemical industries including petrochemicals.** Kazakhstan and the Russian Federation have already been cooperating in this area.
  - (iv) **Retail chains.** There are hundreds of brands and retail operators in the Russian Federation, including **DIXY Group, Lenta, Magnit, O’KEY Group, and X5 Retail Group.** Demonstrable increases in revenue and profits, plus expanding store networks, suggest a certain robustness in the Russian Federation food retail operations. **These offer a huge opportunity for food, apparel, and light industries to be inserted in these value chains.**

According to Forbes (RT 2015), 28 Russian companies are in the list of the top 200 companies. However, the Russian Federation’s GVC participation index remains rather low. The percentage of the total Russian Federation’s foreign value added in gross exports with other countries is also small. Even if the transport equipment industry—where the foreign content of the Russian Federation’s exports was the highest in 2008—amounted to 20%, this is considerably less than in other countries. This shows that formation of RVCs may hugely benefit the Russian Federation along with other regional economies.

### 9.3.2. Step 2: Create Linkages in Zones by Harmonizing Rules and Regulations

Having harmonized regulations helps a country promote intra-regional investment by lowering investors’ costs of search and compliance. In addition to regulations,

technical standards and safety requirements also need to be harmonized for the free flow of goods and services across the region to facilitate the formation of RVCs.

The same is also true for the SEZ-related regulations within an RTA. Having clear SEZ rules and consistent definitions of terminologies across member countries reduces the search costs for investors, allowing them to focus more on strategic factors, such as customer base, suppliers, and distribution network. A harmonized approach reduces competition for investment in SEZs of the regional economies. Intraregional competition for investment in SEZs may lead to the race to the bottom and is in direct contradiction with the principles of an RTA. Harmonization of the rules may also lead to specialization based on comparative advantage. Further, by binding together within an RTA, governments are less likely to change their regulations. This provides predictability to investors, which is critical to building a long-term, sustainable business base to promote RVCs across the region.

Milberg, Jiang, and Gereffi argued that even industrial policy across the region could be harmonized to anchor RVCs in a broader set of industries, ranging from minerals to agriculture to apparel to mobile phones (Milberg, Jiang, and Gereffi 2014). The UNCTAD also argued for a deeply integrated regional policy framework centered around economic and social upgrading within regional supply chains (UNCTAD 2015). It called for a bolder regional integration agenda that includes an arrangement designed to maintain stable intraregional and effective exchange rates, macroeconomic policy coordination, financial regulation, and competition policy. Management of capital flows, and intraregional lending and policy adjustment will be crucial if strong productive regional links are to emerge in support of shared industrial development.

Harmonizing regulations is, of course, more easily said than done. Each country is sovereign and has its own

national agenda. Also, each country has a different level of political and administrative capacity. Thus, it takes a long time for all parties to agree. One potential solution is to set a transitional period to allow each member to adjust their national policies.

Financial incentives are a crucial aspect of zones and need to be discussed separately. Different structures and levels of financial incentives among SEZs pose problems of incentive-based competition with little gain to a host country. One possible way is to address this issue is to offer performance-linked incentives based on investment amount or employment generation (e.g., Poland).

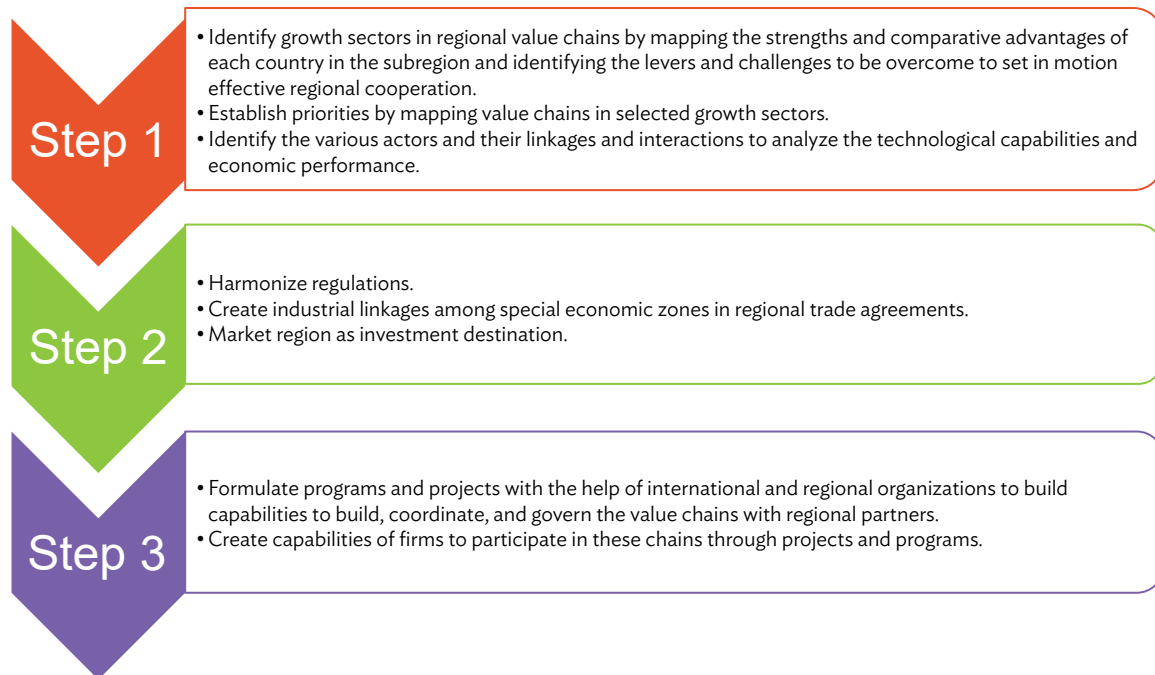
Cooperation on a strategic framework can also take the form of co-branding and co-marketing of SEZs of the region. In this context, it would be cost-effective, particularly for small countries with limited investment promotion budgets, to consider advertising the region's zones collectively as investment destinations. This will not only help foreign players but also regional players in making investment decisions from a regional perspective.

### 9.3.3 Step 3: Initiate Program and Projects for SME promotion

Finally, it is important to initiate programs and projects for SMEs and other firms to strengthen their capability and awareness regarding these possibilities. These programs should be sector-based and should focus on the capacity building of firms to help improve market access, sales, product and services offerings, quality controls, financial management, and productivity. They should also focus on improving access to working capital requirements and equipment financing. This requires programs on entrepreneurship and startups that are integrated with the zone framework to promote participation of firms in GVCs and RVCs as well as their capacity to build them by outsourcing and offshoring.

The upshot is that trade and investment creation, resulting from regional cooperation, are highly relevant to regional production networks. With reduced barriers to trade and investment within the region, lead firms are able to organize production in regionally

**Figure 56: Strategic Framework for Promoting Regional Value Chains**



Source: Author.

relevant industries according to the respective comparative advantages of member countries. They can then engage in fragmented trade along value chains, increasing regionalization. Regional firms upgrade themselves by engaging in these chains. Regional presence allows lead firms to minimize transport costs and benefit from lower trade costs within a regional cooperation framework. This regional cooperation framework, in turn, is an important gateway to greater multilateral liberalization and can lead to increased FDI inflows from within and outside of the region.

## 9.4 Managing Cross-Border Value Chains: Khorgos–East Gate Special Economic Zone

This section focuses on the Khorgos–East Gate SEZ in Kazakhstan and explores the economic potential of the SEZ in developing cross-border value chains.

### 9.4.1 Khorgos Eastern Gate SEZ: An overview

The Khorgos–East Gate SEZ is a megaproject done in cooperation with the PRC, with a total area of 6 square km. It was established until 2035 in accordance with Item 8 of Article 7 of the SEZ Act 2011. The SEZ aims to enhance the export transit potential of Kazakhstan in the Eurasian region for the development of competencies in global logistics, attraction of FDI, and accelerated development of manufacturing and innovative technologies to phase out imports. The area is located in the southeast in Panfilovskiy, Almaty region, 1 km away from Kazakhstan’s border with the PRC. The 600-hectare area of ready infrastructure is divided into three integrated and bonded areas:

- (i) **Dry port.** This contains several terminals for handling cargo from the narrow-gauge railway onto the broad-gauge one and through road transport and offers a variety of operations such as carriages and container operations, transshipment, terminal processing, and additional logistics services. It has now become

one of the primary dry ports of Kazakhstan for handling trans-Eurasian trains, which travel more than 9,000 km between cities in the PRC and cities in Europe. There are currently 39 such PRC–Europe routes in operation. Approximately 65 trains, amounting to 6,200 TEU per month, are currently being transshipped through Khorgos, and this port is still running under capacity.

- (ii) **Multimodal logistics zone.** This zone is located in the area adjacent to the dry port. It includes various warehouses; bases for distribution and storage are located in different areas to meet national, regional, and international needs. The area zone is 225 hectares.
- (iii) **Production zone.** This zone will include end-users of a number of industries including agriculture and food, apparel, leather and fur, fabricated metals, machines and equipment, chemicals, and nonmetallic mineral products.

In 2016, Kazakhstan announced its plans to build a city, Nurkent, which would cover 300 hectares in the Khorgos region, with an investment of T11.3 billion. The construction of the new city is expected to be completed by 2035. In 2017, Nurkent has already taken shape and is occupied by various styles of housing. Two thousand people now live there full time; there are shops and a school. The area also includes the Khorgos International Centre for Boundary Cooperation, centers for trade activities, and a negotiation platform including 3.43 square km on the PRC side and 1.85 square km on the Kazakhstan side.

### 9.4.2 Economic Relevance

**Specialization in transport and logistics.** Khorgos–East Gate is meant to become a one-stop shop where products can be assembled, packaged, warehoused, imported, exported, and transshipped with SEZ benefits. In 2015, the amount of goods transported via Khorgos totaled 25,790 million tons, a 12.6% increase compared to 2014. In January–November 2016, the amount of transit traffic increased by 18.87% to 23.881 million tons compared to the same period of 2015. From 2013 to April 2016, the amount of transit traffic of the rail cargo was recorded at

### Box 7: Harmonization of Sectors in the European Union

Many products on the European Union (EU) market are subject to harmonized rules that protect consumers, public health, and environment. Harmonized rules preclude the adoption of possibly divergent national rules and ensure the free circulation of products within the EU. The principle of free movement of goods ensures that these provisions do not lead to the creation of unjustified barriers to trade.

Harmonized sectors are subject to common rules across the EU. They provide a clear and predictable legal framework for businesses. If manufacturers follow these rules, their products can be sold freely in the market.

In the majority of harmonized sectors (e.g., electronic and electric equipment, machinery, lifts, and medical devices), EU legislation is limited to essential health, safety, and environmental protection requirements with no restrictions on technical specifications. In other sectors (e.g., automotive and chemicals), legislation provides detailed requirements obliging certain types of products to have the same technical specifications.

The European Commission aims to remove barriers for companies to establish their subsidiaries or branches or offer cross-border services to make it easier for them to do business. There is alignment in the requirement of professional qualification for different professions to expand services across sectors.

Source: European Commission. Single Market for Services. [https://ec.europa.eu/growth/single-market/services\\_en](https://ec.europa.eu/growth/single-market/services_en)

2.584 million tons. It is estimated that this amount will reach 18.0 million tons by 2020 and 31.5 million tons by 2035. This is despite the fact that only one-sided route from the People's Republic of China to Europe is being effectively used with upwards of 90% of the containers making the return trip empty. Thanks to huge subsidies offered by provincial governments in the People's Republic of China to rail cargo companies<sup>29</sup> (Brinza 2017). While some are dismissive of this rail link, others are optimistic about European companies responding to this initiative with volumes rising rapidly in the future (Shepard 2017).

In 2014, a state-owned company, Kazakhstan Temir Zholy, carried out the Zhetigen–Khorghos and Zhezkazgan–Beineu railway projects, linking transport routes from the Khorghos border-crossing to the Aktau seaport in the west of Kazakhstan. Khorghos–East Gate will also be connected to the logistics centers of Uzbekistan and facilitate Kazakhstan's integration into GVCs in logistics activities.

Exports from Khorghos, the PRC city, to Europe through PRC–Europe train services can save 10 days

and one-third of costs on average per trip compared with shipping. Serving as the PRC's great gateway to the markets of Kazakhstan, Central Asia, and Europe, Khorghos is crucial in enhancing efficiency of major trade routes that originate in the PRC and pass through the Khorghos border-crossing and reach Central Asia and Europe via Kazakhstan. It aims to integrate the area between Europe and Asia in a single transport system.

**Promotion of cross-border bazaar trade.** The Khorghos Free Trade Zone located in this area and officially called the Khorghos International Centre for Boundary Cooperation, is promoting cross-border trade between the two countries. In 2012, the total number of people visiting the Khorghos free trade zone for commercial purposes totaled 240,000, increasing over 15-fold to 3.36 million people in 2015. In January–September 2016, the number increased by 44.73% to 3.810 million, compared to the same period in 2015. In 2015, the total trade volume amounted to about \$12.037 billion. In January–November 2016, the trade volume increased by 6.75% to \$11.87 billion, compared to the same period in 2015.

<sup>29</sup> The average subsidy per trip for a 20-foot container is between \$3,500 and \$4,000, depending on the local government (Brinza 2017).

Visitors enjoy a 30-day visa-free regime, and goods imported into Kazakhstan are not subject to customs duties if their value does not exceed €1,500 and weight is not more than 50 kilograms. This has generated huge employment opportunities in the region and added to its dynamism. The nearest town to Khorgos, a small city Zharkent of 30,000 people, which was an old Silk Road town, is hugely benefitted due to rapidly growing business.

The Khorgos-East Gate SEZ is crucial for the PRC's economic and commercial relations with other Eurasian countries, but Kazakhstan must leverage being the bridge between the two. Further, the proliferation of bazaar trade has generated employment possibilities, but there are fears that this will flood Central Asian markets with cheap PRC products.

The idea is to set up an industrial park with the expectation of attracting high-tech FDI which would also bring in technologies in import substituting industries. But there are no strategies in place as to how investment would be attracted and how it would lead to spillovers. It requires a strategic framework to exploit the opportunities arising from the infrastructure.

## 9.5 Proposed Strategic Framework

Borders are used as a means of internal control and defense from external threat (Sack 1986). They signify political territoriality, which means bounded space. They generally disrupt economic and political activity by splitting economic spatiality, and turn border areas into geographical peripheries. According to the regional economics theoretical framework, economic activity tends to concentrate near the geographic center because of the benefits of localization and agglomerations, reduced transport costs, a developed and shared labor force, and the concentration of facilities that serve different industries (Marshall 1890, Myrdal 1957, Krugman 1991).

Although border regions tend not to be relatively disadvantaged in terms of the availability of resources, they do not attract production activity, mainly

because of their distance from major metropolitan centers (Dimitrov et al. 2003). Viewed from this perspective, development of regional transport and logistics infrastructure is central to enhancing the effectiveness and impact of border areas. However, evidence indicates that the creation of transport or logistics facilities may not result in the development of production networks in the border region automatically due to institutional barriers, such as cultural, historical, or social differences, at the borders.

There is a need to develop fully integrated production networks at the border, which have a territorial basis to overcome these institutional barriers. Promotion of transport and logistics and improving the transit potential of Kazakhstan between Europe and the PRC are the main characteristics of the region. These features must be leveraged to form an industrial cluster that delivers opportunities for the development of international cooperation by promoting cross-border value chains in the following industries.

**High-technology equipment and machinery.** The PRC has made substantial progress on its side of the border. Since the construction of the infrastructure of the Khorgos Free Trade Zone in 2007, the PRC side has invested CNY23.45 billion (about \$3.7 billion) under 26 major projects. The PRC decided to establish the 'Horgos Economic Development Zone' (HEDZ) on 30 September 2011 on the PRC side of the SEZ. This zone, which is expected to support the Khorgos Free Trade Zone, covers an area of approximately 73 square km, including approximately 30 square km of the Horgos Industrial Park, approximately 35 square km of Gulca City Industrial Park, and approximately 8 square km of the Qingshuihe Industrial Park. Thus, the zone will be connected with other parks to draw on their strengths. The aim of the Horgos Economic Development Zone is to increase the economic potential of the Khorgos Free Trade Zone and to contribute to the continuous transport of PRC goods to the markets of Kazakhstan and other Central Asian states.

Horgos (city on the PRC side of border) was set up in 2014 and is a new city on the New Silk Road. It is now being positioned to become the Shenzhen of the Western PRC. It is being promoted as a prime robot

manufacturing and export hub. A company, Boshi Hao Electronics, has moved a part of its production from Shenzhen to manufacture service robots in addition to more standard ones that have industrial capabilities. The initial goal is to produce 10,000 robots per year in Horgos EDZ, which will be destined for export to Silk Road countries in Central Asia, the Russian Federation, and the Middle East. After the plant is complete, Boshi Hao plans to establish an electronic industrial park in Khorgos to attract supporting industries in electronic products. The industrial zone will bring in high-technology manufacturing operations from booming eastern cities like Shenzhen.

Similarly, Kazakhstan needs to promote its side of manufacturing zone to form cross-border value chains with its PRC counterpart. It is important to map the value chains in robotic and electronics industries; identify niche areas; and identify, train, and attract domestic SMEs to the region for contractual manufacturing. This will require high-level agreements and mutual cooperation.

**Agricultural and light industries.** The new city of Horgos<sup>30</sup> on the Chinese is expected to grow into into a 200,000-person city that could serve as a manufacturing, shipping, and commercial epicenter at the PRC's primary New Silk Road gateway. A big city is planned on the Kazakhstan side of the border as well. With the two cities emerging on both sides of the border, there will be growing demand for agricultural and light industries.

The Khorgos-East Gate SEZ is situated in Panfilov district, which is known for agricultural production. The proposed border economic zone on Kazakhstan side may attract investment that can exploit the benefits of economies that arise from exploiting these advantages. The exploitation of underutilized local resources in border areas could provide the basis for modern industries and export-oriented growth (Crush and Rogerson 2001). The proposed border zone will have access to new cross-border markets, thus creating new opportunities for companies to expand their activities beyond their national borders, as well as providing consumers with a wider range of products and services. Border industries represent important clients for small locally based suppliers and subcontractors, contributing to the transfer of

technology and management skills to domestic firms. For example, the links forged between Singapore and parts of Malaysia and Indonesia in IMS-GT have helped both regions to prosper (Ohmae 1995).

Success factors will include the following.

**Microclimate factors.** Microclimate factors involve investment-related conditions within the zone including quality infrastructure, fiscal incentives, exemptions and relaxation from industrial regulations, and effective governance. These benefits directly influence the performance of border economic zones .

**Mesoclimate factors.** Traditionally, the critical mesoclimate factors for the success of border economic zones are twofold: regional interconnectivity and trade facilitation at the border. The idea should be to increase interconnections between areas, which are located at neighboring borders by instituting regional institutions.

- (i) **Regional governance.** The development of border economic zones will involve the broader notion of transregional, territorial governance, which can mobilize resources from different sources to resolve common problems and realize common development goals (Amin 1999). In Europe, EUREGIO, independent institutions of governance, are being set up for the purposes of governing these areas. Regional and local authorities from both sides of the national border have joined to form them. They have been highly successful in stimulating economic development in border areas. Since this level of coordination may take some time, cooperation agreements between the local governments on both sides of the border may also be effective in addressing these issues.
- (ii) **Regional institutions.** The focus should be on creating an integrated regional market, necessitating harmonization of regulatory policies including technical and other standards, work permits, tax policies, movement of people, and related policies (Krätke 1999, DiGiovanna 1996).
- (iii) **Regional financial systems.** Agglomeration of production activity also places special requirements on financial markets and financial

<sup>30</sup> <http://www.vagabondjourney.com/horgos-the-new-silk-roads-first-new-city/>

institutions. In addition to providing financial services in the region, the arrangements can also serve as a basis of export of financial services.

- (iv) **Social capital.** Social capital refers to trust, norms, and networks that improve the efficiency of society by facilitating coordinated actions (Putnam 1993). An important characteristic of social capital is networks of interpersonal communication and exchange, both formal and informal, such as neighborhood associations, business associations, cooperatives, choral societies, sports clubs, and mass-based parties which can be created through mutual cooperation between the local governments of the two cities.

**Macro-level factors.** At the national level, the state's policies, attitude, and political histories are important in shaping economic development in a cross-border

context. The state must function in a complementary and supportive fashion on both sides of the border if mutual gains are to be realized. The lowering or eliminating of trade barriers, such as tariffs and other investment barriers, have positive impacts on economic activity in border areas (Emerson et al. 1992).

In sum, it is recommended to set the target of transforming the Khorgos-East Gate SEZ into a cross-border zone over a long period of time with a focus on machinery and equipment, electronics, and agriculture-related industries. The promotion of the cross-border zone will involve economic integration in the cross-border region and include intersector cooperation between a wide set of actors, the entire socioeconomic system, and administrative institutions.



## Chapter X: Pillar Five: Implementing the Zone Strategy

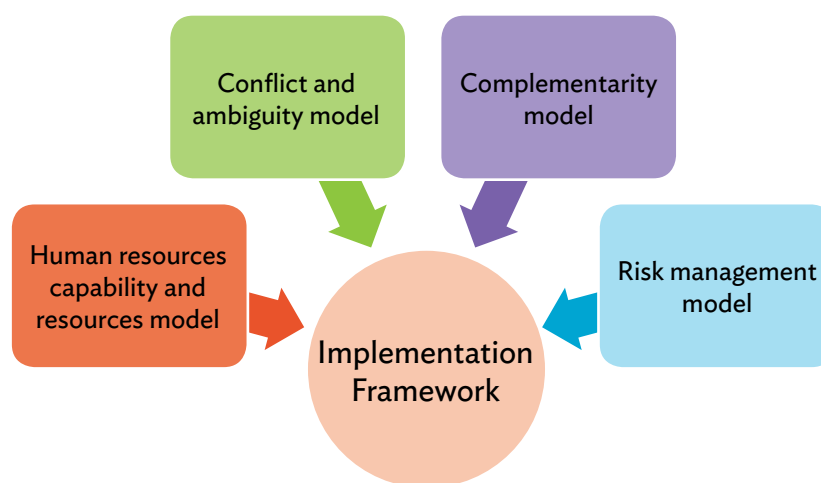
Implementation means moving a policy from concept to reality, and from design to enactment. Whether a given policy has been implemented successfully depends on a number of factors. How a policy needs to be implemented should be an integral part of the strategic framework (Government of the United Kingdom, 2001).

It is often assumed that policy making is a political process, while implementation is largely an administrative function. But this dichotomy may be used as an ‘escape hatch’ by policy makers to avoid responsibility for the policies that they make (Clay and Schaffer 1984). A formal framework needs to be set up for ensuring effective implementation, which is indicative of the importance that the government is attaching to implementing the policy. This chapter describes the principles for the effective implementation of the SEZ policy in Kazakhstan. The strategic framework provided here draws on four major theories of implementation of public policies to identify the relevant framework to present the factors that are likely to be critical in the implementation of this policy (Figure 57).

### 10.1 Conflict and Ambiguity Model: Stakeholder Management

Most public policies are implemented through various public and private organizations, which may have conflicting agendas, mandates, and concerns. These conflicts are often managed by introducing ambiguous and inconsistent goals, which then act as a rhetorical device to support a range of competing positions or to obscure the conflicting agendas and vested interests associated with the policy implementation (Matland 1995). Policy ambiguities can be in goals or in means to achieve them; ambiguities can be horizontal, with overlapping mandates and confused responsibilities among implementing agencies and other public bodies, or vertical, where policies do not have clear implementation plans or funding; or these may be introduced in policy drafts in such a way that different actors interpret them differently. Some policy ambiguity may be necessary; its presence facilitates clearance by the legislature.

**Figure 57: Framework for Implementation Strategy**



Source: Author.

But, the intensity of conflicts increases with the number of actors, incompatibility of concerns, and perceived stakes. While conflicts in some policies are manageable, other policies are inevitably conflicting and it is not possible to avoid conflicts in their implementation. These conflicts in turn affect their effective implementation. They must be managed by persuasion, bargaining, or coercion introducing ambiguity at all levels of the policy. .

These ambiguities may have high costs. These ambiguities can introduce inconsistencies in goals and means, making it difficult to achieve goals with the means specified in the policy design (Matland 1995). They affect the interpretation of the policy by different officials and agencies, capability of providing services to the directed group, and capability of superiors to monitor and evaluate the policy. Due to these ambiguities, implementation becomes vague and discretionary, leading to rent seeking and corruption. Most importantly, as actors acquire greater clarity while implementing the policy they become

aware of the threat to their turf and mandate. They try to limit the scope of the policy and to propose several changes to maintain their powers and current status.

From this perspective, the SEZ policy is one of the most contentious policies in the development literature. Few topics in development economics have generated such heated debate as SEZs. Academics, civil society, politicians, and activists across the ideological spectrum have united in their criticism of SEZs to protect their respective interests and ideologies. Liberals criticize them for causing distortions in the market forces and generating political rents; leftists view them as anti-social and a tool of labor exploitation; activists view them as land grabs; activists for women are concerned with the working conditions of female workers; environmentalists see them as a threat to environment; and financial departments fears colossal revenue loss to exchequers. In many countries, conflicts in the interest groups has been at the center of the failure of SEZ policy (Box 18).

### Box 8: Special Economic Zone Implementation in India

In India, the Special Economic Zones (SEZs) Act was passed by the Parliament in May 2005 without much opposition, and it received presidential assent within 1 month. It became operative in February 2006 when the SEZ rules were also finalized. Not many believed that the enactment of the SEZ Act would evoke interest among investors to establish SEZs. It was only the Ministry of Commerce which owned the program, that claimed that SEZs would attract investment worth INR 1 trillion, including foreign direct investment of \$5 billion–\$6 billion by the end of December 2007. This, it was estimated, would generate 500,000 direct jobs.

February 2006 initiated a wave of SEZ proposals and approvals. The number of notified SEZs zoomed from 19 in 2005 to 50 by December 2006, and formal approvals went up to 236 during the same period of time. This unprecedented rush to set up SEZs triggered a fierce nationwide debate among different interest groups over the usefulness of SEZs. Anti-SEZ protests were staged, which turned violent and shook the government. Early in 2007, violent protests in a place called Nandigram forced the government to cancel the project, reduce the maximum allowed size of SEZs, enforce a temporary moratorium in SEZ projects, and make several changes in the policy before the moratorium could be lifted.

The debate on the merits of SEZs is not new. However, anti-SEZ debate assumed unprecedented dimensions in India. Several projects were stalled, delayed, or even cancelled due to protests across the country. Opponents challenged not just the implementation but also the logic of SEZs, in particular private SEZs. SEZs were perceived as a tool used by big industrialists and real estate developers to grab land from farmers. Concerns were also expressed about the possibility of large-scale resources diversion from other areas to SEZs, their misuse for real estate development, a colossal government revenue loss, rise of corporate colonial rule, regional inequities, and labor and environment exploitation. Initially, marginally changes were introduced but finally, in 2011, major tax benefits were withdrawn, dealing a major blow to the policy. Since then, the number of SEZs in India has declined drastically.

From the perspective of conflict-ambiguity model, stakeholder management is the key to successful implementation of the SEZ policy. Some argue that policies with high-intensity conflict can be implemented using a top-down approach. This is because implementation plans of such policies requires the compliance of groups who are opposing the policy and its goals. This compliance may not come automatically, and requires the use of effective power by the top authority. The higher the power of the authority, the more compliance there will be.

There is evidence in the existing literature that this policy has been successfully implemented in the countries where SEZs are directly regulated by the top authority (e.g., Bangladesh, the PRC, and Jordan) or the state has assumed a strong development role (e.g., the PRC; Republic of Korea; Mauritius; and Taipei, China). In such top-down cases, the prerequisite for successful implementation is “effective communication between the policy makers and implementing authority”, which, in turn, requires the following rules for effective implementation of the policy:

- (i) keep the policy goals clear and consistent;
- (ii) communicate the policy clearly to the implementing agencies, as too much ambiguity in the policy imposes both discretion and confusion in agencies that administer policies, leading to different interpretations by different officials, and also corruption and rent seeking;
- (iii) elaborate the tools and processes;
- (iv) limit the extent of change; and
- (v) provide explicit outcome criteria.

A pure top-down approach may however have major weaknesses. Owners may fail to consider broader issues surrounding the policy, be influenced by a particular ideology or line of thinking, or be motivated by considerations that are not connected to the policy. Local officials or implementing officials who have better knowledge and information of ground-level realities, hence, are in a better position to give inputs in policy design are marginalized. Besides, the top-down approach may involve the problem of personalization or personal interests. This will place an individual or a group at the center at the cost of the wider population and affect implementation adversely. In Kazakhstan, for instance, the earlier SEZ policies had to be scrapped due to ‘bad locations’ which might possibly be the result of extra-policy factors.

Notwithstanding this, a pure bottom-up approach also cannot work in SEZ policy. As discussed above, the SEZ policy is highly conflict-prone. It may raise an enormous amount of attention among interest groups as well as the public. Conflict management in this case becomes difficult. However, stakeholders should have some participatory influence over relevant government policies and actions to provide a public voice. Legitimation is required both at the policy making and implementation stages. Legitimacy includes four key dimensions: legal conformity, shared beliefs, evidence of consent, and good performance. It generates public opinion in favor of the policy. Stakeholders should have some participatory influence over relevant government policies and actions to provide a public voice. The extent to which agencies’ missions reflect the interests of the local environment and are based on public engagement determines the likelihood of success, so it is important to identify stakeholders; assess their roles, responsibilities, commitment, and resistance; plan a communications strategy and dialogue for feedback and inputs; and engage them in decision making. These stakeholders may be distinguished on the basis the type of relationship i.e. vertical or horizontal and the position of stakeholders: internal or external (Table 9).

A streamlined approach to stakeholder management can reduce the ambiguities through better management of stakeholders and can ensure compliance by different groups.

## 10.2 Human Resource Capability Model: Human Resources Management

Assuming that an SEZ policy is characterized by a high degree of consensus and is defined clearly, the implementation process becomes dominated by the technocratic questions of the human capability of implementing the policy and incentive structure for compliance. Success, in large part, depends on the skills, capacity, and commitment of the officials in the implementation structure.

It is generally difficult to implement any new and radical policy, because once a country is set on a certain policy path, actors become institutionalized. They are trained and shaped by a particular belief system—a set of basic values, causal assumptions, and problem perceptions—and exemplify a significant degree of coordinated activity over time (Sabatier

### Box 9: India's Self-Examination System in Special Economic Zones

Under the 2005 Special Economic Zones (SEZs) Act, all trading activities of the SEZ unit, unless otherwise specified, operate on the basis of self-certification. This means that goods are assessed on the basis of the information provided by the tenants. There is no physical examination of goods, and the goods are allowed to move after verifying marks and numbers on the packages only. The system is a major move toward trade facilitation.

While the system of self-certification is a major shift in the regulatory approach, customs officials who are trained to monitor and regulate the activities of business units are not comfortable with the system. They are on deputation from the Department of Revenue, generally for 3 years where they are trained in a very different way. Many of them are in peculiar positions while dealing with custom clearances of SEZ tenants and have a sense of insecurity. This sometimes results in confrontation and disputes in the implementation of customs rules.

Source: Aggarwal (2012).

Table 9: Type of Stakeholders

	Horizontal	Vertical
Internal	Relevant ministries, agencies or policy sectors at the Centre	Implementers, subordinate agencies and bodies
External	Coordination with private sector, civil society organization, public	Local governments, International agencies

Source: Author based on the existing literature.

1988). These actors tend to protect the existing system because of the lack of understanding of the new systems and sometimes even capability (Box 9). It does not mean that all actors try to maximize their self-interest; rather, it is assumed that actors have only limited capacity to understand the philosophy and prerequisites behind the new policy. The human resources capability model expects actors to perceive the world through a wider set of beliefs, necessitating great effort and costs by those who desire change. This brings the concept of learning, training, and incentive structures to the center of implementation.

Under this model, the success factors are as under.

**Training.** According to this model, policy learning is an important aspect of policy implementation. Policy learning refers to “relatively enduring alterations of thought or behavioural intentions which result from experience and which are concerned with the attainment (or revision) of policy objectives” (Hecló 1974: 306). It alters the belief system and offers new insights on the saliency of problems, the

factors affecting them, and consequences for policy alternatives (Sabatier 1988). This requires training programs for capacity building. Bennett and Howlett (1992) pointed out that policy learning includes three complex processes: learning about organizations, learning about programs, and learning about policies. For SEZs, training programs require learning about the broader macro context, alternative policy tools, rationale of the SEZ policy, designs of the policy and best practices, success factors, and outcomes.

**Accountability.** The concept of accountability is associated with honesty and integrity. It makes public officials answerable for their behavior and performance. Accountability also means establishing criteria to measure the performance of public officials, as well as oversight mechanisms to ensure that standards are met.

All participants in the implementation process should have a clear understanding of their roles and relationships, meaning that these must be clearly defined. Participants can discharge their

accountability functions effectively only if they know to whom they are accountable and for what. Likewise, they can hold others accountable only if they understand who is accountable to them and for what. They should know the key activities that must be undertaken, and how they should be organized.

Further, implementing agencies, to achieve the specified objectives, must be given the means, including the necessary authority, autonomy, and resources. Further, all participants in the implementing agencies must know how their performance will be evaluated.

Finally, all participants in the implementing agencies must know how their performance will be evaluated. There are two relevant variants of accountability: accountability as honesty and accountability as performance (Ackerman 2005). The first variant is associated with rule-following bureaucrats, and the second variant with proactive public decision makers who are expected to perform efficiently and effectively. Ackerman (2005) indicated that the honesty version is process-oriented, while the performance is results-driven where accountability is seen as the ability to produce effective policy outcomes. While the former is the ability to answer to superiors, the latter is a broader concept covering the community. The state's policy towards these attitudes needs to be clarified to the officials in the strategic framework.

**Incentives:** An incentive is a tool that is used to trigger a motivational reaction, that is, a change in human behavior. There are three types of mechanisms for gaining compliance from an implementing actor: normative, motivating a person by a superior authority to deliver; coercive, referring punishment in the case of failure to deliver the goal; and remunerative through financial and nonfinancial incentives to do the job. Financial incentives comprise salaries and other monetary benefits, while nonfinancial incentives cover career development, technical upgrading through training, and paid leave. There are also choices between individual and group-based incentive systems. It is believed that “individually driven incentive systems may lead team members to focus on their own personal outcomes, detracting from teamwork, helping behavior, coordination, and team performance as a whole” (Barnes et al 2011). A well designed mixed incentives system is critical to ensure high levels of compliance

### 10.3 Institutional Complementarity Model: Complementary Institutional Support

This model assumes that there is complementarity in institutions. From the perspective of implementation, this means that a policy needs to be supported by a set of complementary policies. In other words, surrounding institutions need to be aligned with the new policy to implement it; any inconsistency in the system affects the policy adversely. A comprehensive implementation strategy thus seeks to create a policy environment that is necessary for SEZs to flourish.

Since the primary objective of SEZs is to promote trade and investment, the macro management of the economy is essential for creating an environment in which trade and investment can grow exponentially. The investment policies cover not only FDI but also domestic private sector concerns for the country to remain competitive. This requires a set of support policies directed at trade and investment, including membership in multilateral trade agreements and RTAs, bilateral agreements on FDI, and multilateral investment guarantee agencies; regulation of monetary, fiscal, and exchange rate policies to keep the economy competitive for attracting GVC-linked trade and FDI; infrastructure for standards and technical regulations for ensuring the safety and quality of products in the market as well as competent authorities in place to undertake standardization, testing, and certification; physical property rights as well intellectual property rights; efficient legal systems; land acquisition policies; and economic diplomacy in general. Strengthened economic diplomacy will involve strategic and value-adding initiatives abroad to create better political environments for the benefit of trade and investment.

Further, SEZ policy also needs to be integrated with export promotion and investment promotion policy frameworks. It is generally seen that SEZ promotion is the responsibility of the SEZ-related promotion infrastructure, while export promotion is under the purview of export promotion councils (e.g., India) or any other export promotion infrastructure (Kazakh Exports), and investment is placed under the boards of investment (e.g. the Philippines). Since trade and investment are intertwined and SEZs serve as the key instrument to promote both, their promotion should be an integral part of the overall strategy of trade and investment promotion.

Finally, the SEZ policy itself needs to have an institutional provision for an appeal and dispute settlement mechanism. If SEZ developers and tenants have any complaint against the approval decision or any other matter pertaining to their operations in SEZ, a single-window mechanism should be available to address these matters. Tenants and developers should not feel stranded when they hit a bottleneck. To make the redress mechanism more meaningful and effective, a structured system needs to be established to ensure that the redress sought is just and fair and within the given framework of the rules and regulations.

## 10.4 Risk Management Model

Effective implementation of an SEZ strategy requires risk management, which pertains to the ability or use of tools that assess risks and their sources and respond and control or prevent situations that may have an adverse impact on the policy's implementation. Risk management is a process consisting of well-defined steps that, when taken in sequence, support better decision making by contributing to greater insight into risks and their impact on business. These risks may be classified into two categories: market-related risks, which can affect the trade and investment environment in a country and, in turn, SEZs; and SEZ-specific risks.

International trade is affected by, but not limited to, a range of market risks including

- (i) **Global business cycles.** Business cycles, alternating periods of recession and recovery, are integral to all free market economies. They do not occur at regular intervals, but every peak is followed by contraction due to overheating of the economy. In this era of globalization, business downturn in one part of the world leads to contagion, causing crashes in other parts. During this period, exports and investments slow down, affecting SEZs as well.
- (ii) **Country political risks.** These risks arise out of major political instability, war, or civil disorder, which could result in defaults on payments, exchange transfer blockages, nationalization, or confiscation of property.

- (iii) **Macroeconomic mismanagement.** This relates to unsound monetary or fiscal policies and occurs when a country opts for expanding monetary supply or bloating fiscal deficit to boost demand. This may lead to Inflation, which can affect the producer in terms of higher local costs, difficulty in planning, and currency depreciation.

These risks can have far-reaching effects on the performance of SEZs. Some of them can be managed by: one, diversifying economic activities, export destinations, and FDI source countries within SEZs; two, promoting the clustering of both domestic and foreign firms within SEZs; three, introducing flexibility in the rules regarding domestic market sales during crises to provide support to SEZ tenants; four, focusing on improving the business climate in SEZs during this period; and five, promoting the marketing of SEZs rigorously.

SEZ-specific risks include the following.

- (i) **Fraud, tax avoidance, and money laundering.** While boosting economic opportunity, SEZs offer substantive relaxations in finance and trade controls and enforcement, creating opportunities for money laundering, tax avoidance, trafficking of counterfeit products, and financing of terrorism. These risks arise due to inadequate anti-money laundering (AML) and 'combating the financing of terrorism' (CFT) safeguards; relaxed oversight by competent domestic authorities; weak procedures to inspect goods and register legal entities, including inadequate record keeping and ICT systems; and the lack of adequate coordination and cooperation between zone and customs authorities. The most commonly identified predicates are participation in an organized criminal group and racketeering, illicit trafficking in narcotics, fraud, counterfeiting and piracy of products, and smuggling (FATF 2010). Awareness should thus be created in the private sector and relevant competent authorities, namely SEZ administrators, customs authorities, and bank regulators to better identify the cases of SEZs misused by criminals. A stronger focus in training programs on these issues is essential to raise awareness about the potential misuse of SEZs. There is also a clear need to improve cooperation between competent authorities

at the national and international level, as the exchange of information is a key element to identify illicit activities (e.g., fraud schemes) using SEZs. Finally, several organizations have developed reference tools for addressing some of these issues, including Caribbean Financial Action Task Force guidelines (2001) and the World Customs Organization instruments and standards. These may be used as guide for building measures to counter these risks.

- (ii) **Noncompliance.** In addition to frauds, there may be serious issues of noncompliance by SEZ tenants. To address them, certain civil penalties should be set for failures to follow SEZ rules and to pay duties. Goods of persons subject to such penalties may be seized and sold by the administration. In addition, criminal penalties may apply for certain offenses. In addition, SEZs cannot be used as an excuse for noncompliance with international standards in environment and labor issues (e.g., as in Bangladesh, Cambodia,

and Myanmar). The regulator, in cooperation with international agencies and national governments, may tackle these issues.

- (iii) **Changes in government policies and attitude.**

As discussed above, public policy decisions have the potential to involve conflicts with varying degrees of intensity. SEZ policy is normally associated with a high intensity of conflict. In such cases, policy actors engage in one or more political strategies or tactics to generate a favorable environment for the policy. However, this equilibrium depends on the feedback on outputs and outcomes and can be disturbed over time. Once this equilibrium is disturbed, and the government finds that the political returns on the policy are eroding, it can backtrack and withdraw its support to SEZs. SEZ implements should be aware of this possibility and adapt to new realities without hurting existing tenants and contracts with them.

## Chapter XI: Pillar Six: Monitoring and Evaluation

M&E is an important policy tool to track the progress of SEZs and to facilitate decision making. Monitoring can be defined as a continuing function of overseeing progress in the achievement of results, involving a regular collection of information to assist timely decision making, ensure accountability, and provide the basis for evaluation and learning. Monitoring gives information on where the program is at any given time (or over time) relative to respective targets and outcomes.

Evaluation is a systematic and objective assessment of the SEZ program or policy, and its design, implementation, outcomes and Impacts. It is assessing or estimating the value, worth, or impact of an intervention and is typically done periodically, perhaps annually or at the end of a phase of a project or program. The aim is to determine efficiency, effectiveness, impact, and sustainability. Evaluation is a comparison between what is observed and expected.

A clear M&E framework is essential to guide policy makers, which reflects

- (i) the specific questions that need to be answered to gauge the impact and success of the program;
- (ii) information needed to determine if the expected objectives and outcomes were accomplished;
- (iii) performance indicators to be used for the evaluation; and
- (iv) methodologies used to process the information.

### 11.1 Objectives of Monitoring and Evaluation

The objective of M&E is to track SEZ strategies to help align them with changing realities and ensure transparency and public accountability for evidence-based policy making. As discussed in this report, an SEZ strategy consists of several elements: the mission, objectives, SEZ benefits, costs, designs, governance, and implementation. The whole policy cycle needs to be accompanied by evaluation tools. The first task is to define what is to be evaluated. It could be for instance the design of the program; objectives, mission, implementation, outcomes, impacts or any specific part thereof. The objective

of M&E is to improve the quality of program designs by requiring the specification of clear objectives, use of performance indicators, and assessment of risks. Some of the relevant questions that need to be addressed for instance are:

- (i) Is the SEZ policy serving its purpose?
- (ii) Should the government continue with the SEZ initiative in its present form?
- (iii) How is the SEZ policy performing versus other policies?
- (iv) What elements of the policy are performing better?
- (v) What challenges are being faced by the policy?
- (vi) How are the benefits weighed against the costs?
- (vii) How can the design and management of future activities be improved?
- (viii) How does the effectiveness of alternative interventions compare?

Note that not all the questions are asked at the same time. Different questions may be asked at different points in time depending on the strategic requirement. When used dynamically, M&E is an effective management tool to guide the policy design and implementation. If it is managed rigidly, inefficiently, or with conflicts of interest, then it can stifle creativity and dynamism.

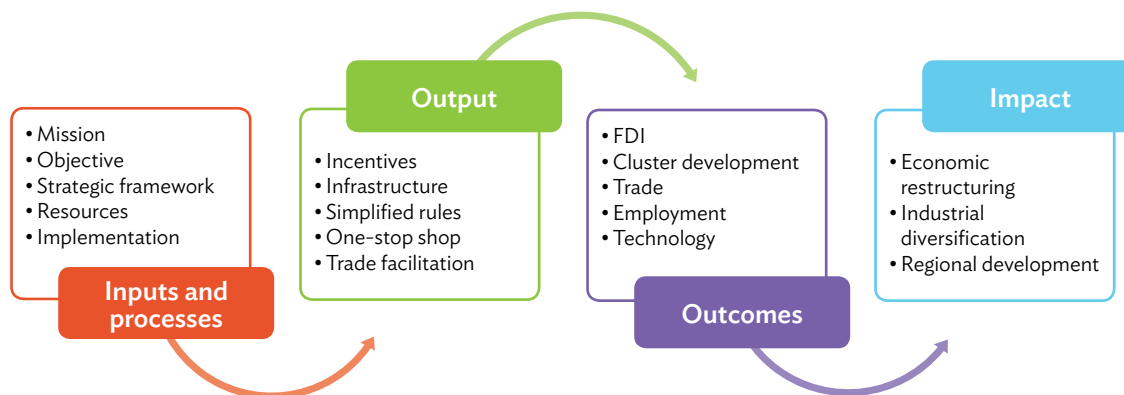
The process requires data collection and data analysis. It necessitates preparation of detailed operational plans; adequate training to develop skills in data collection, data interpretation, and analysis and reporting; management information system skills to implement performance monitoring systems; and stakeholder engagement in the M&E process. This provides a broader perspective and legitimacy to the exercise and addresses the conflict-ambiguity issue in the implementation of this policy (World Bank 2004).

### 11.2 Performance Indicators

Performance indicators include the measures of inputs, processes, outputs, outcomes, and impacts of the policy. While inputs and processes represent the policy, outputs are the direct result of these inputs. Outcomes represent the performance of SEZs, whereas impact is on the wider economy



Figure 58: Types of Indicators for a Monitoring and Evaluation Framework



FDI = foreign direct investment.

Source: Author.

and society. Policy involves three basic processes: transformation of policy inputs and processes into output, transformation of output into outcomes, and transformation of outcomes into impact. For each level, indicators are identified and progress is assessed toward achieving them (Figure 58).

Depending upon the basic processes, three types of evaluation processes are defined:

- (i) **Formative.** This analyzes how policy elements convert inputs into activities and outputs. Its conclusions are used to improve the administration of the policy.
- (ii) **Outcome.** This focuses on how the implementation of the policy design leads to the achievement of objectives. It evaluates the design of the policy and focuses on the direct beneficiaries (i.e., SEZ tenants) of the program.
- (iii) **Summative.** This measures whether the policy actions had a significant effect on the wider economy (i.e., impacts). This deals with spillover effects and the wider economy and society. It is also known as impact assessment and covers intended and unintended effects.

The output, outcome, and impact indicators are context-specific and are related to the policy design.

They need to be further elaborated depending on the policy inputs.

- (i) **Output indicator (Formative evaluation).** Output evaluation includes examining the infrastructure, administrative processes, type of facilities, trade facilitation, and incentives. The investment climate in SEZs must be analyzed, as well as how attractive the SEZs are compared to the rest of the economy. Whether they overcome the institutional constraints of the wider economy must be examined, as well as the gaps of the SEZ investment climate and if the country has adopted best practices in the policy design.
- (ii) **Outcome indicator (Outcome evaluation).** Outcome measures include the magnitude of trade and FDI, type of investment attracted, source countries, type of employment generated, female employment, labor conditions, type of companies, composition of exports, motive of companies investing, taxes foregone, tax receipts, and export destinations. Output measures also cover the indicators for backward and forward linkages, including sourcing from domestic firms, outsourcing of production outside of SEZs, value added, and SEZ sales in domestic markets. Policy

makers must ask if the SEZ policy succeeded in generating agglomeration effects, if the actors operating in the cluster are interlinked, if investors have long-term investment plans, and why they were attracted to SEZs. Further, they must analyze if the companies attracted to zones have a pull effect, what kind of activities are they involved in and where their exports are directed, how the SEZ affected export performance and productivity of companies, how much tax revenue was foregone, the cost of the SEZ program, and evidence of linkages between SEZs and the outside economy.

(iii) **Impact indicators (Summative evaluation).**

Impacts are a multidimensional vector, which cover technological, economic, social, and environmental effects based on multidimensional inputs.

Most studies on SEZs focus on outcome indicators such as FDI, employment, exports, and foreign exchange earnings. There are a few analyses on backward and forward linkages, tax receipts and tax revenue foregone, and spillover effects, but a shift has occurred in the focus from outcome evaluation to summative evaluation. Studies are emerging on

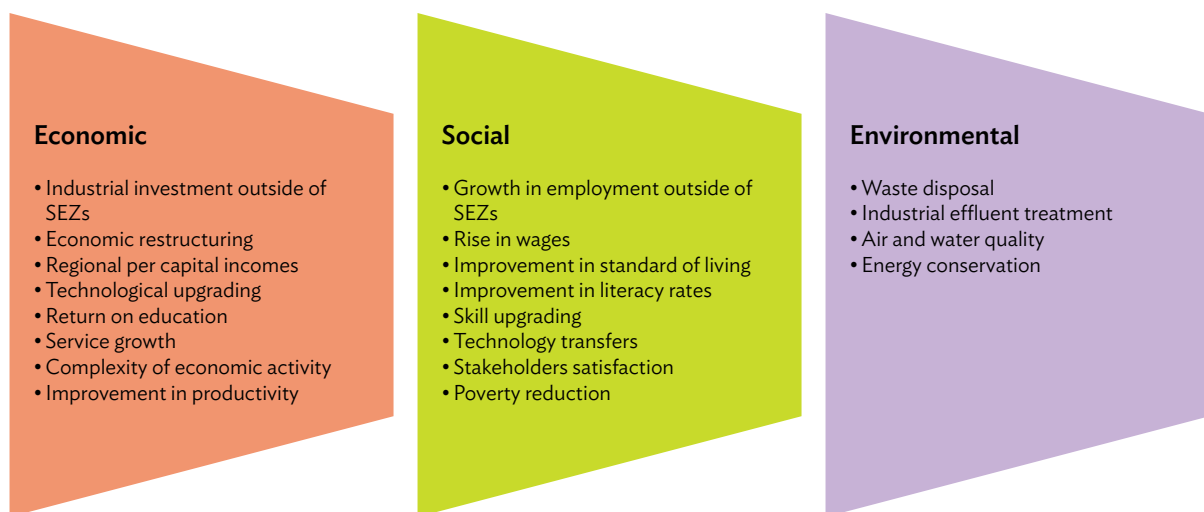
the poverty impacts of SEZs, labor effects, knowledge creation, or regional structural change. However, an exhaustive analysis of impacts along the functional chain of effects and spin-off activities would be doomed to fail, as any impact analysis needs to focus on selected impact dimensions.

Overall, authorities must avoid defining too many indicators or those without accessible data. This makes the system costly, impractical, and likely to be underutilized. It must also be noted that the indicators should be consistent with each other, as well. If too many indicators are selected, there is a chance that there is inconsistency between some of them. Also, there is a trade-off between picking the desired indicators and having to accept those available. This trade-off must be taken into account in the analysis of the results.

### 11.3 Conducting Monitoring and Evaluation

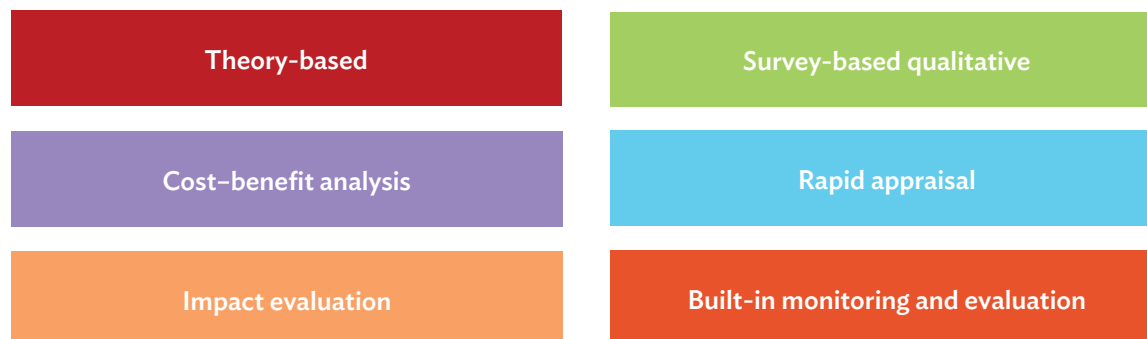
There is a range of methodologies for M&E (Figure 60). However, there is no best model of what the M&E

**Figure 59: Social, Economic, and Environmental Indicators for Summative Evaluation**



Source: Author.

Figure 60: Methods for Monitoring and Evaluation



Source: World Bank (2004).

system for SEZ policy should look like. Much depends on the availability of information and the potential use of the system.

**Theory-based approach.** The theory-based evaluation approach attempts to analyze why policy produces intended or unintended effects by mapping out the determining or causal factors important for success and analyzing how they interact. It also develops an understanding of power relationships, influence, and interest groups as well as their complex interrelationships. It then shows if the objectives or outcomes are less or more likely to be achieved. Steps can be monitored as the program develops, allowing CSFs to be identified.

Theoretical frameworks adopted for this approach of evaluation are useful, as they can help policy makers position SEZs within a broader framework and prioritize indicators. They also facilitate the selection of indicators that can be critical for SEZs in a given host country. There are distinct theoretical perspectives on SEZs highlighting different dimensions, benefits, costs and impacts of SEZs (Box 9). These may be grouped into two categories: pessimistic and optimistic. While the classical (i.e., rightist) and Marxist (i.e., leftist) approaches are

pessimistic, institutional approaches are optimistic. The theoretical approach is particularly useful as it provides a platform for impact assessment through other qualitative and quantitative methods.

**Built-in M&E approach.** In the built-in M&E method, the M&E system is integrated into the SEZ program. It is fully and functionally interfaced in terms of aspects and indicators to be used to monitor and evaluate those aspects. The built-in M&E system makes the implementing agency also the agent responsible for evaluation; information is used immediately at the level where it is produced and then sent upward (i.e., bottom-up) for collation, analysis, interpretation, and utilization at each level. It is a two-way flow of information, as feedback from above is then fed back (i.e., top-down) to each level below. Such a system creates intelligent institutions and cultures of information within which informed decisions are made to plan policy (Bhola 1998).

**Survey-based qualitative.** Formal surveys can be used to collect standardized information from a sample of firms and/or other sections of the community affected by the SEZs, depending upon the objective of the M&E. These surveys can be used

### Box 10: Theoretical Perspectives on the Usefulness of Special Economic Zones

**Neoclassical (Orthodox).** SEZs are cheap locations offering tariff exemptions and other tax benefits to promote trade in tariff distorted economies. This approach is heavily concerned with trade and trade-generated benefits of special economic zones (SEZs): employment and income effects, and foreign exchange earnings. These gains are, however, found to be ambiguous. Employment generation leads to positive income effects, but there are no indirect effects of SEZs because they have no backward or forward linkages with the rest of the economy. This approach does not associate SEZs with foreign direct investment (FDI)-generated benefits. International capital inflows promoted by SEZs can divert resources against a country's comparative advantage, reducing the country's welfare. In specific terms, it focuses on outcome indicators—exports, foreign exchange earnings, employment, and gross domestic product.

**Political economy approach.** This approach draws on public choice theory, which has a close affinity with neoliberalism. According to this approach, SEZs are an outcome of the politics of interest groups. They are established to generate rents to a few capitalist and multinational corporations by offering them tax incentives and other benefits at the cost of the rest of the population. These groups would make investments anyway, but due to the large stakes involved, they incentivize government officials to influence policy in their favor. SEZs are thus tax shelters, which induce relocation or diversion of economic activity from domestic areas, invoking huge costs to the state exchequer with no net addition to investment and economic activity. This results in massive revenue forgone in tax incentives with no additional benefits. The focus here is on forgone taxes and received and additionality of investment.

**Marxist dependency theory.** The basic tenet of this theory is that the primary rationale of setting up SEZs is to offer cheap labor to augment global value chains (GVCs). According to this theory, SEZs are a tool to facilitate the production systems (i.e., GVCs) largely driven by multinational corporations to exploit differences in location costs. The research and management activities are controlled by core or developed countries, while assembly line work is relegated to periphery countries. Industrialization and technical progress in the periphery is insufficient to break the dependency ties with the center. The system benefits only the core countries at the expense of the periphery or satellites and is a tool of labor exploitation. This approach focuses on labor conditions and wages.

**Heterodox theory.** SEZs are a strategic tool to attract FDI to fill gaps in technical, marketing, and managerial know-how that developing countries' firms face. A potentially important indirect effect of SEZs is the export spillover effect. Foreign affiliates attracted to SEZs can stimulate local firms to begin to export by showing them how to produce, market, sell, and distribute manufactured goods to the world market. This approach thus deals with outcome indicators such as FDI, technology transfers, and backward linkages, and impact indicators such as technological upgrading and export acceleration.

**Dynamic classical approach.** Following success of SEZs in the People's Republic of China, this approach recognizes that SEZs may be set up as testing laboratories for facilitating the process of economic transition and liberalization. In such a case, SEZs are considered a stepping stone to test trade and investment liberalization measures before implementing them in the general domestic environment. Thus, this approach looks at economic reforms as an outcome of the SEZ policy.

**Lifecycle approach.** Under this approach, the benefits of SEZs are not uniform across countries and zones; they are conditioned upon the type of activity that they attract and their evolution. Thus, the composition of SEZs becomes an important aspect in determining their effects.

**Newer international division of labor perspective.** According to this approach, SEZs provide the platform to become attached to GVCs; upgrading along these value chains is the way developing countries can industrialize in this era of rapid technological changes.

**Agglomeration approach.** This approach highlights the importance of SEZs in promoting agglomeration economies, which is instrumental in promoting competitiveness, research and development, and innovation.

to collect data on a wide set of output, outcome, and impact indicators. For output and outcome indicators, the target group is SEZ tenants, while for impact assessments, it is the wider economy and community outside of the SEZs. These surveys can be used to provide baseline data against which the performance of the program is compared, comparing firms from different industries at a given point in time, comparing changes over time in the same group, comparing actual achievements with targets set in the program, describing the effects of the program on a particular community or group, and providing key input to a formal evaluation of program impact. This methodology requires sound technical and analytical skills for sample and questionnaire designs, data analysis, and processing. Findings from these surveys can be applied to wider target groups. There are some disadvantages of this M&E method; these surveys do not provide longitudinal data, which can provide a clearer picture of the changes taking place over time; the sample can be biased or too small to present a true picture; sometimes information is difficult to obtain through formal interviews; and it may not provide fine details.

**Rapid appraisal method.** Rapid appraisal methods are quick, low-cost ways to gather the views and feedback of beneficiaries and other stakeholders to respond to decision makers' need for information. These views provide rapid information for management decision making, especially at the activity or program level. They can also provide qualitative understanding of complex macroeconomic changes; highly interactive social situations; and values, motivations, and reactions to policy. However, findings usually relate to specific firms or communities; thus, it is difficult to generalize from findings. Some rapid appraisal methods are

- (i) **Key informant interviews.** A series of open-ended questions are posed to implementing authorities, firms, or individuals selected for their knowledge and experience related to the policy. Interviews are qualitative, in-depth, and semi-structured.
- (ii) **Community group interviews.** A series of questions and facilitated discussions occur in meetings open to all firms or community members depending upon the objective of the appraisal. The interviewers follow carefully prepared questionnaires.

- (iii) **Mini-surveys.** A structured questionnaire with a limited number of close-ended questions is administered to a selected sample group, who may be random or purposive.

**Cost-benefit analyses.** Warr (1983) proposed a cost-benefit framework to assess SEZ policy. A cost-benefit analysis is a tool for assessing whether the costs of an activity can be justified by the outcomes and impacts. It measures both inputs and outputs of SEZs in monetary terms. SEZs benefit the economy by making payments for the input use (i.e., wages, electricity tariffs, taxes, and payments for local inputs) and by generating profits that are channeled to domestic shareholders. The cost of SEZs is measured by the expenses involved in establishing and administering SEZs, nonfiscal incentives, and taxes foregone. If the excess of actual payments at the market price over the opportunity cost of the resources (i.e., shadow price) exceeds the costs of setting up and maintaining zones, then their contribution to the economy is considered positive. Forward and backward linkages are assumed to be insignificant in this exercise. This method is, however, fairly technical and is based on several assumptions due to nonavailability of requisite data. The results are essentially projected results, which may be highly dependent on assumptions made. It considers only direct benefits; all indirect and spillover benefits to the wider economy are ignored and is therefore of little value.

**Impact evaluation.** Impact evaluation is the systematic identification of SEZ effects on the wider economy and community. Impact evaluations can range from large-scale sample surveys in which SEZ beneficiaries and control groups are compared before and after, and possibly at several points during program intervention, to small-scale rapid assessments and participatory appraisals where estimates of impact are obtained from combining group interviews, key informants, case studies, and available secondary data. While rapid evaluation methods can be used to estimate impact, more sophisticated methods of impact evaluation can provide more reliable findings. Such methods entail the comparison of SEZ-related and -affected target groups with non-SEZ-related- and -affected (i.e., control) groups at two or more points in time. This type of evaluation is highly demanding in terms of statistical sophistication. There are two broad techniques for the analysis:

- (i) **Randomized evaluation design (i.e., experimental design).** This involves the collection of information on SEZ-affected and control groups at two or more points in time, and provides the most rigorous statistical analysis of project impacts and the contribution of other factors. In practice, it is rarely possible to use this design for reasons of cost, time, methodological, or ethical constraints. Most impact evaluations use less expensive and rigorous evaluation designs.
- (ii) **Quasi-experimental design.** In this design, a nonequivalent control group is selected to match the characteristics of the SEZ beneficiaries; the latter is compared with the former at a point of time. This model sacrifices methodological rigor in return for significant reductions in cost and time requirements.

Impact evaluation explains the extent to which SEZs can benefit the region and the community outside of SEZs. The results can be used to inform decisions on whether to expand, modify, or eliminate the program. It is highly data-intensive, requiring data not only on SEZs or the regions affected by SEZs but on the groups that are not under the purview of SEZs.

## 11.4 Conclusion

In regard to SEZ policy, M&E provides government officials and stakeholders with means to learn from past experiences; improve the design, implementation, planning, and allocation of resources; and demonstrate results as part of accountability to key stakeholders. It is therefore crucial to develop a Monitoring and Evaluation framework, including a schedule for evaluations.

There is no best practice model for M&E; it is contextual. Different methods may be adopted depending on the objective of M&E, indicators identified for evaluation, data availability, and human resources. For each evaluation, an initial evaluation plan needs to be prepared which may follow identification of the indicators; and training of a team to conduct the evaluation. There is a danger of over engineering an M&E system, particularly through multiple monitoring systems with an excessive number of performance indicators (Mackay 2007). This can kill creativity and the spirit of experimentation. Most importantly, however, M&E is worthwhile only to the extent that it is actually used to improve the government performance.

This requires an action plan for follow-up.

## Chapter XII: Conclusion

Kazakhstan has had a long experience of developing SEZs. Despite much efforts and highly ambitious goals of promoting industrial diversification, competitiveness, and productivity in the economy, assigned to them, SEZs in Kazakhstan have made a limited contribution to investment and growth. This raises two pertinent questions: One, Should Kazakhstan focus on regional economies? Two, if yes, what should be the strategic framework?

While addressing the first question, this report offers strong arguments in favor of developing economic zones and thus focusing on regional economies as a development strategy. One, a major development challenge of natural resources-rich Kazakhstan is diversifying an economy that shows clear signs of Dutch disease. The government has aggressively implemented an industrial development strategy based on horizontal and vertical tools since 1997, but the country does not seem to have escaped the resources curse to get on the path of sustained economic development. This reality is reflected in highly volatile growth rates, which are associated with commodity prices, low competitiveness, low and diminishing productivity rates, and sector retrogression, with low and declining shares of manufacturing. Economic specialization in the commodity sector has affected the competitiveness of the industrial sector, while high wages in the mineral sector have driven up the average wage rate and consumption levels, resulting in cost disease. This, in turn, has affected Kazakhstan's export competitiveness and attractiveness to foreign investors.

The vicious circle of low competitiveness -> low investment levels -> low scales -> low competition in the markets -> high costs -> low productivity must be broken and substituted by virtuous circles of competitiveness and productivity by triggering these competitiveness drivers. The remedy lies in pushing the economy to higher levels of private investment, both local and foreign. Today, two major tools that can serve as a big push are: SEZs and industrial zones. Both are tracts of land developed by the government for industrial activity and share commonalities. Second, in late industrialized countries, rapid development or application of technological change becomes necessary to catch up with the early industrializers to bridge the technological gap. One

important advantage of late industrializers is the availability of not only foreign technology but also other foreign resources, skills, and capital in the form of FDI. The proliferation of GVCs has opened enormous possibilities of tapping into these resources. In this era of globalization when it is becoming increasingly difficult to build industrial capabilities and across the full range of activity, countries can insert themselves in GVCs and specialize in a single stage of production, depending upon competitive advantage, and then upgrade themselves. SEZs and IZs serve as the platform for hosting these GVCs. Third, economic realities have changed over the last decade with the creation of the Eurasian Economic Union (EAEU), accession to World Trade Organization (WTO), a high rate of economic growth, macroeconomic stability, an upcoming multimodal corridor network across the region, and the proposed Silk Road Strategy. SEZs and IZs can leverage these trade drivers. Fourth, 'cluster development is one of the major cornerstones of the industrial diversification strategy of Kazakhstan. From this perspective, SEZs are highly geographically concentrated government-promoted agglomerations of 'internationally competitive enterprises. SEZs and IZs which bear clear commonalities with clusters can be powerful instruments of promoting clusters.

Finally, SEZs and industrial zones can also serve as the centerpiece of smart industrialization. Instead of creating expertise across a number of industries, governments can start by identifying value chains and increase participation in them through these zones. This may offer firms access to a global pool of new technologies, skills, capital, and markets. As a consequence of learning by exporting, firms in Kazakhstan can upgrade themselves and eventually target more sophisticated market segments such as design, marketing, and branding.

However, there are costs and risks associated with SEZs and IZs (Chapter 4). As highlighted by ADB (2017), these include, colossal revenue forgone in tax incentives without attracting additional activity, large government expenditures on infrastructure, allocative inefficiency, and lowering of labor and environment standards. In view of these costs, experts around the world are deeply divided over the usefulness of economic zones in attracting investment and promoting development. Many of the arguments against SEZs however are offered in

'static classical equilibrium contexts'. This report uses dynamic contexts to underline the potential of this tool and draws on the success of many developing countries in driving investment, exports and economic development using zones as the platform. A classic example of successful zone program is the 'enterprise zones' in the USA, which have been promoted to rejuvenate regional economies. In developing countries also, zones have also evolved over time. They are growing larger, open, comprehensive and hybrid with greater integration with regional economies and are directed to regional rejuvenation. From the dynamic perspective, the most serious risk perhaps is that if a country fails to upgrade, it is locked in low value added operations where it starts losing competitive advantage due to rise in wages and other costs, and hence investment.

Much depends on the effectiveness with which the potential of this tool is used. There is a need to focus attention on how to design and use them within the broader development strategy. The limited success of economic zones in Kazakhstan can be attributed to the fact that policy makers have not yet recognized the potential of SEZs and IZs in the development strategy. They have adopted a static enclave approach where the potential of SEZs and IZs has been severely underutilized.

Widespread weaknesses in the general business environment have affected the growth of SEZs and industrial zones, and the investment climate in these zones cannot be separated from the rest of the economy. There is a disconnect between the policy approach adopted toward SEZs and the objectives assigned to them. There is also a disconnect between the key elements of the development strategy and the development of zones. Thus, a new strategic framework proposed here with an action plan founded on six pillars:

- (i) integrating SEZs and industrial zones with the cluster development policy,
- (ii) improving the attractiveness of SEZs and industrial zones to attract GVC-linked investment,
- (iii) promoting spillovers from GVC-linked investment,
- (iv) promoting RVCs and cross-value chains,
- (v) developing a sound implementation strategy, and
- (vi) establishing a sound M&E framework.

**Pillar 1: Integrate SEZs and industrial zones with the cluster development policy and transition from EPZ type SEZs to hybrid economic zone.** There is a strong case for transforming existing satellite SEZs into nodes of dynamic clusters, with industrial zones and single-enterprise SEZs around them within well-defined regions called 'economic zones' to increase not only the competitiveness of firms in international markets but to ensure larger gains from effective trade and spatial (regional) transformation. These clusters should be reinforced by setting up industrial zones and single-factory SEZs within them. For creating a critical mass of activity in SEZs, a nondiscrimination approach may be adopted for SEZ tenants. The nature of the activity attracted by them will be determined by market forces. If it is not possible to discard the priority-industry approach, it should at least be made broad-based. On the other hand, industrial zones may focus on priority industries. To attract investment, Kazakhstan may target selected value chains depending on its competitive advantages. These GVCs must be mapped to identify the range of the activities where the country has competitive advantages. Investment by target investors in these value chains may be facilitated, with a particular focus on group investors. Kazakhstan has shown interest in attracting Japanese investors, so it could plan a Japanese park in cooperation with Japan. This will offer the country a learning experience in developing such parks.

**Pillar 2: Improve the attractiveness of SEZs and industrial zones to attract GVC-linked investment.** Policies and operational practices in the zones need to be in line with the needs of private investors. SEZs are set up to attract GVC-linked investors who face stringent requirements related to cost, time, quality, and flexibility to be successful. They require hassle-free and low-cost locations to be successful. The business environment within SEZs thus must be insulated from that outside to make them attractive, and policies should be transparent and stable. Many zone programs undermine investor confidence by failing to deliver a conducive and predictable policy environment. The three strategic pillars for a good business climate are a sound legal framework with an overriding or grandfather clause for stability; a sound administrative framework for offering single-window clearances; and rules and regulations covering provisions pertaining to infrastructure, incentives, administrative services, labor, and environment, based



on best practices. Some of the best practice countries and areas are Dubai, Jordan, Bangladesh, and the Philippines.

**Pillar 3: Promote spillovers from GVC-linked investment.** There is a need for concerted efforts by the government to build and strengthen strong domestic capabilities to reap the benefits of technology and knowledge transfers. SEZ effectiveness as an instrument for achieving long-term industrial development is conditional upon the linkages created with the domestic economy. The creation of backward linkages is largely conditional on the type of SEZ activity, government policies, and domestic capabilities. Based on these factors, three strategies are proposed to promote these linkages: the minimalist approach, requiring the government to lower transaction barriers between SEZs and domestic firms; proactive approach, which creates favorable domestic conditions and strengthens domestic capabilities; and focused approach, which places zones at the center of the process of industrialization through vertically specialized industrialization. A comprehensive approach combining all three approaches is the way forward for Kazakhstan.

**Pillar 4: Promote RVCs and cross-border value chains.** RVCs can be a path for Kazakhstan to integrate into GVCs. They can also reduce dependence on the strategies of multinational corporations, decouple growth with that of developed countries, and forge deeper regional economic integration. The sectors in which RVCs can flourish, based on regional comparative advantages, are automotive, machinery and equipment, chemical and petrochemicals, agriculture-related, and light industries through retail chains. An appropriate strategy—involving harmonization of standards and regulations in selected sectors, harmonization of SEZ definition and regulations, and fiscal incentives, as well as programs and projects integrated with entrepreneurship development programs for enhancing capabilities of firms in participating and managing the chains—will be the way forward in promoting these chains. It is also recommended to set the target of transforming the Khorgos-East Gate SEZ into a cross-border zone over a long period of time with a focus on machinery and equipment, electronics, and agriculture-related industries to complement the growth of Horgos Economic

Development Zone on the PRC side of the border. The promotion of a cross-border zone will involve economic integration in the cross-border region and include intersector cooperation among a wide set of actors, including the entire socioeconomic system and administrative institutions.

**Pillar 5: Develop a sound implementation strategy.** Implementation means moving a policy from concept to reality, from design to its enactment. Four main models of implementation identify the factors critical for successful implementation of the SEZ strategy: conflict-ambiguity model, human resources capability model, institutional complementarity model, and risk management model. Their recommendations can be distilled as follows:

- (i) Stakeholder management. Identify stakeholders, assess their roles and responsibilities, commitment, and resistance. Plan a communication strategy and dialogue for feedback and input, engage them in decision making and prosperity sharing, and limit the extent of change. It is also important that the policy goals are kept clear and consistent, and are communicated to the implementing agencies. Too much ambiguity in the policy imposes both discretion and confusion in agencies that administer policies, leading to different interpretations by different officials, and also corruption and rent seeking.
- (ii) Human resource management
- (iii) Train implementing personnel, set up mechanisms to ensure accountability, and offer incentives.
- (iv) Management of complementary institutions. Conduct macro-management of the economy to create an environment in which trade and investment can grow exponentially and integrate SEZs with export promotion and investment promotion policy frameworks.
- (v) Risk management: Anticipate, assess, and manage risks in implementing the policy effectively;
- (vi) diversify economic activities, export destinations, and FDI source countries within SEZs; promote the clustering of both domestic and foreign firms within SEZs; develop flexibility in the rules regarding domestic market sales during crises to provide support to SEZ tenants;

promote rigorous marketing of SEZs to help manage market risks; and adopt best practices regarding SEZ-related risks, such as fraud and money laundering, noncompliance, and change in the government attitude toward SEZs.

**Pillar 6: Establish a sound M&E framework.** A clear framework is essential to guide M&E to gauge the impact and success of the program in terms of the expected objectives and outcomes, and to identify methodologies to process the information. Different

methods may be adopted depending on the objective of M&E, indicators identified for evaluation, data availability, and human resources availability. M&E is worthwhile only to the extent that it is actually used to improve government performance; hence, prepare an action plan for a follow up and dissemination of results. There is a danger of overengineering an M&E system, particularly through multiple monitoring systems with an excessive number of performance indicators. This can kill the spirit of experimentation.

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## **Strategic Framework for Special Economic Zones and Industrial Zones in Kazakhstan**

Special economic zones and industrial zones in Kazakhstan have met with limited success. Previous studies have revealed gaps in their planning and development. This strategic framework therefore places the zones at the center as drivers of industrialization, while viewing the role of private entrepreneurship as fundamental to the zone-induced growth process.

The framework involves six pillars for integrating special economic zones and industrial zones: (i) using a cluster development program with a mix of bottom-up and top-down approaches; (ii) improving their attractiveness to increase investment linked to global value chains; (iii) promoting spillovers from investment linked to global value chains; (iv) forming regional value chains and cross-border value chains; (v) developing a sound implementation strategy; and (vi) establishing a sound monitoring and evaluation framework.

## **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.

## **About the Asian Development Bank**

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



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