Digital FDI Ecosystem in the CAREC Region (Phase II)

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The research was co-funded by the Islamic Development Bank.

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Abbreviations and Acronyms

CAREC	Central Asia Regional Economic Cooperation
EGDI	E-Government Development Index
FDI	foreign direct investment
ICT	information and communication technology
IPA	investment promotion agency
ITA	Information Technology Agreement
ITU	International Telecommunication Union
MDP	multidevelopment partner
MNC	multinational corporation
MSME	micro, small, and medium-size enterprise
NOC	No Objection Certificate
OECD	Organisation for Economic Cooperation and Development
SOE	State-owned enterprise
STZA	Special Technology Zones Authority
UNCTAD	United Nations Conference on Trade and Development

Abstract

In the digital era, corporate digital competitiveness tops the agenda of firms and policymakers globally. Luring foreign direct investment (FDI)—digital FDI—into the digital economy is a crucial tool. Literature suggests that FDI brings knowledge and technology in addition to capital, supporting firms and countries to improve their digital capabilities. The business models of digital firms differ from those of traditional brick-and-mortar firms, and attracting FDI in the digital economy may necessitate particular laws, rules, and initiatives. Digital FDI is more vulnerable to policies, regulations, investment climate, and coordination failures. Moreover, the Digital CAREC (Phase I) report records higher gaps in digital FDI; therefore, exploring the underlying reasons for lower digital FDI would help firms and countries to devise their investment strategy accordingly.

This study devises an inclusive digital FDI ecosystem where different deriving/inhibiting factors of digital FDI are evaluated in the CAREC region. It analyses five critical dimensions of digital FDI: (i) new digital activities, (ii) digital adoption, (iii) digital infrastructure, (iv) digital FDI restrictions, and (v) digital promotion tools. Using descriptive methods, the results are scaled between 0 (highest restrictions for digital FDI) and 100 (lowest restrictions for digital FDI). The findings of the digital FDI framework demonstrate that Georgia (74.9), Kazakhstan (74.3), and the People's Republic of China (PRC) (73) are leading CAREC countries with a conducive digital FDI environment. They represent lower restrictions on digital FDI in the CAREC region. Azerbaijan (67), Mongolia (64.7), Uzbekistan (64.3), Kyrgyz Republic (62.6), and Pakistan (60) report moderate scores. Tajikistan (58.4), Turkmenistan (45.5), and Afghanistan (45.4) display the lowest scores compared with the CAREC regional average (62.8). However, the results varied substantially in five key dimensions of the digital FDI framework.

The average score for the CAREC region indicates the lowest score in digital infrastructure (59.6), followed by new digital activities (61.6) and digital adoption (63), while the highest score is observed in digital promotion tools (65). The core lagging areas are digital security and privacy, data regulations, intellectual property rights, validity of e-agreements, higher tariffs and taxes, restrictions in acquiring land for business purposes, lack of regional integration and mutual investment/technology agreements, ineffective consumer laws, governance issues, lack of digital skills, lower connectivity of national and international infrastructure, higher approval turnaround time, lack of venture capital, privatization and competition policies, and sectoral and equity restrictions. Addressing these vulnerabilities would encourage FDI inflows into the CAREC region.

Keywords: digital FDI, new digital activities, digital adoption, digital infrastructure, digital FDI restrictions, digital promotion tools

1 Introduction

1.1 Background

Digitalization is fabricating new economic activities while expanding the scale, scope, and efficiency of existing economic activities. Attracting foreign direct investment (FDI) is one approach to expand the digital economy and boost digital competitiveness. Extant literature supports that FDI facilitates technology spillovers and promotes growth and employment. Like conventional firms, digital enterprises invest in overseas markets, adapt local knowledge, and establish new markets and customer proximity. Evidence suggests that digital FDI is crucial to the business models of e-commerce companies (internet retailers), digital content providers (digital media, information, games, and data), and telecom companies. These companies have an almost equal ratio of foreign assets to foreign revenue compared to traditional, non-digital multinational enterprises (MNEs). But, the business models of digital firms differ from those of traditional brick-and-mortar firms, and attracting FDI in the digital economy may necessitate particular laws, rules, and initiatives (Stephenson 2020).

Furthermore, as the world has rushed to employ digital methods and solutions to deal with COVID-related disruptions, this study has gained increased importance. As a result, attracting more FDI into the digital sector will be critical not only to economic recovery from the pandemic but also to the development of the digital infrastructure, digital entrepreneurship, and digital literacy that will be necessary for success in the new digital world and its accelerating, data-driven New Industrial Revolution. In this regard, the Asia-Pacific area is privileged; it is indeed the largest digital market in the world, a global center of digital innovation and activity, and a key source of international FDI. According to UNCTAD's World Investment Report 2022, FDI flows to developing countries in Asia climbed by 30 percent to USD837 billion in 2022, demonstrating resilience despite successive waves of COVID-19. Manifestly, FDI rose to an all-time high for a third consecutive year reaching USD619 billion in developing Asia (UNCTAD 2022). On the other hand, COVID-19 prompted supply and production chain lockdowns, demand slumps, and travel bans; multinational corporations (MNCs) with Asia-centric supply and production chains are being forced to transfer major portions of their supply and production chains closer to consumers in other areas of the world (Satyanand 2021).

There is widespread agreement that digital transformation has been accelerated over the years. Since the COVID-19 crisis, internet usage has increased by 70 percent, communication app usage has doubled, and everyday usage of some video streaming services has increased 20-fold (World Economic Forum 2020). Digitalization is slowly infiltrating all economic sectors and operations, which is critical to COVID-19's economic revival (McKinsey Digital 2020). Before COVID-19, the world was divided into 'digital natives' and 'digital laggards.' Firms in the first category started their digital transformation early, while those in the second category took longer to adjust to the new normal. This distinction is causing a rising digital divide, with digital natives generating twice as much money as digital laggards (Accenture 2019). Companies have realized that they must invest in digital capabilities or risk losing market share or perhaps going out of business (Srinivasan & Eden 2021).

Countries are also dividing into digital natives and digital laggards, with policymakers realizing that they must assist their economy in remaining digitally competitive or risk falling behind. Attracting FDI to build the digital economy (dubbed 'Digital FDI') is one way to boost capacity and competitiveness, particularly for small and medium-size businesses (SMEs) (Ciuriak & Ptashkinda 2019, Eden 2016, Stephenson 2020). While creating jobs and increasing productivity, digital FDI provides cash and embedded digital knowledge and technology (Echandi, Krajcovicova, & Qiang 2015; World Bank Group 2016). The technology sector is home to some of the world's fastest-growing and most valuable companies, providing a massive pool of wealth and investment opportunities that benefit both these companies and the economies they serve (PwC 2020). Despite

its greater relevance, advanced technologies are widening income gaps and unemployment owing to lower human development and intellectual capital in developing countries. MNCs in developing countries are failing to compete with foreign firms because of a lack of basic digital and financial infrastructure. However, these negative consequences will not persist for long; the creation, use, and upkeep of new technology requires additional labor and capital investment (Focacci 2021). In this regard, the CAREC region has great potential for digital FDI because of its higher digital infrastructure and service gaps. A recent study by the CAREC Institute and IsDB[1] estimates the multifaceted digital divide in the CAREC region and predicts higher gaps in digital FDI across the CAREC region. It offers the foundation for addressing core factors of the digital divide and paves the way for South–South cooperation among member countries. Manifestly, all CAREC countries are IsDB members except the PRC, Georgia, and Mongolia.

Attracting digital FDI necessitates specific policies, rules, and initiatives. These investments are based on different business models than those for typical brick-and-mortar operations. These operations rely significantly on data and expertise, frequently involve platform economies, and use non-traditional assets. Therefore, the overall objective of this research project Digital CAREC (Phase II) is to develop a policy framework to maximize FDI inflows in digital sectors of the CAREC region. A detailed list of objectives is provided as follows:

1.2 Research Objectives

1) The core objective of the project is to develop a policy framework to maximize FDI inflows in digital sectors of the CAREC countries.

2) Identification for implementation of the most important policies, measures, and regulations—such as tax administration or FDI restrictiveness—that governments of CAREC countries can adopt to attract investment in the digital economy and improve institutional and organizational aspects for financing to reduce the digital gap in the CAREC region.

3) Propose investment policy for the digital economy addresses all three aspects of the digital economy—digital infrastructure, digital firms, and wider digital adoption. Reviewing and comparing critical features of successful FDI framework in the CAREC region.

4) Design an inclusive digital investment policy framework considering demand- and supply-side factors and integrating both to facilitate win-win investment strategies.

1.3 Organization of Study

This report contains five sections. The first section gives a brief background of the study, while the second summarizes existing reports/literature and proposes the conceptual framework for examining the digital FDI framework in CAREC countries. The third section provides details of the methodologies employed. The fourth section offers key findings and a summary of the main results. The discussion and policy recommendations are in the final section of the report.

2 Conceptual Framework

A summary of existing reports and related studies is shown in **Table 1** for brevity. Moreover, the literature is further divided based on the five key dimensions of the digital FDI framework. The first suggestions on digital FDI understanding were founded on a framework proposed by the United Nations Conference on Trade and Development (UNCTAD) in its World Investment Report 2017: 'Investment and the Digital Economy,' which suggests that policies, regulations, and measures to attract digital FDI can be divided into three categories: new digital activities, digital adoption by

[1] https://www.carecinstitute.org/publications/digital-carec-analysis-of-the-regional-digital-gap/

traditionally non-digital firms, and digital infrastructure. Unique factors inside these three pillars influence and enable a potential investor's choice to commit capital and other resources (UNCTAD 2017).

2.1 Key Determinants of Digital FDI

2.1.1 New Digital Activities

According to Stephenson et al. (2021), relevant regulations, policies, and rules should be considered as components that enable investment in new digital activities. From social media and digital platforms to cloud computing and data centers, the digital economy has spawned a slew of new business models. Governments can actively encourage such investments by embracing innovative business models. Policies, rules, and measures in Southeast Asia, for instance, have aided investment in ridesharing apps, such as the billions invested in Gojek and Grab as they vie for the Southeast Asian ridesharing and delivery industry (Lunden 2019, Lee 2020).

The COVID-19 outbreak served as a catalyst for the digitalization of numerous businesses since it forced a global lockdown that compelled companies to move to digital platforms. Investors saw an opportunity to invest and make money owing to the digitalization of economies, which has resulted in significant growth for most of them. Thus, throughout the pandemic, there has been an increase in the use of communication services that rely on the internet and sizable cross-border data flows (CBDFs) (Chaisse 2022). Moreover, the digital economy is essential to maintaining global growth; however, it also has risks and traps that could slow down growth rates with loss of consumer confidence. New privacy rules force businesses and governments to prioritize privacy and security and alter their business practices. Consumer trust and legal compliance must come first to energize the digital economy and propel digital progress. Businesses must view cybersecurity and privacy as integral components of their offerings and the driving forces behind all future advancement and development in the ICT sector. For their part, regulators must comprehend the digital economy, technical advancement, and the difficulties faced by consumers and businesses (ITU 2018).

New digital activities necessitate digital content tailored to the local market, creating opportunities for SMEs to create such content and collaborate with international corporations, with all the benefits of digital collaboration.

2.1.2 Digital Adoption

Digital adoption is the process of learning how to use new technology to internalize its full potential. Aside from new company models, the digital economy can alter traditional business practices. Local businesses can leverage digital services to overcome physical boundaries, simplify supply and value chains, and quickly deliver goods and services. Specific laws, rules, and procedures—such as telemedicine, mobile banking, and online commerce—can facilitate the adoption of innovative digital approaches. For example, the Polish telemedicine firm MedApp invested in the Baltic Republics, enabling telemedicine-based cardiovascular diagnosis (Stephenson et al. 2021). Investors in digital adoption seek well-functioning fintech (payment) systems, support for digital startups, and the development of digital skills (Satyanand 2021).

Eventually, digital sector liberalization is essential to the adoption and expansion of the digital economy of any country. On the other hand, some countries allow 100 percent foreign ownership of ICT hardware and software, and most countries prohibit foreign ownership in telecommunications and media, both of which are essential to the digital economy (UNCTAD 2017). Likewise, the production of digital services requires human capital with technical capabilities, particularly those

for interacting with machines (Grigorescu et al. 2021). Developing new and pertinent competencies through increased education helps boost productivity in the digital services industry. Human capital continues to be supported primarily by educational attainment. Human capital and digital adoption are linked in a sizable body of study. Education level is a factor in determining the adoption of personal computers (Caselli & Coleman 2001). According to Chinn and Fairlie (2007), the difference in years of education between economies accounts for more than a tenth of the variation in digital literacy.

2.1.3 Digital Infrastructure

Elements that facilitate investment in digital infrastructure include physical and regulatory aspects. The creation and growth of the digital economy require a robust and reliable physical infrastructure. A suitable regulatory framework is required to attract investment in digital infrastructures, such as legislation and regulations that stimulate investment in payment processors. The availability or absence of existing infrastructure will also affect the ability to attract foreign investment in digital infrastructure. For example, Visa invested in Interswitch—a payment switch and processing company based in Nigeria—transforming Interswitch into a unicorn overnight. Hence, in each of the three pillars, what policies, rules, and measures must be evaluated, and which are the most crucial to investor decision-making? (Stephenson 2020).

Furthermore, the most crucial factors are high-quality internet connectivity and digital skills; a thriving tech and startup ecosystem; and living and working settings globally appealing to talented, forward-thinking young professionals and entrepreneurs. The targeted concerns of investors in digital infrastructure, business, and adoption should all be addressed in investor outreach. Investors in digital infrastructure are particularly concerned with licenses, rules, and the accessibility of qualified engineers and workers. Investors in digital businesses are concerned about intellectual property protection, data security, and privacy. Investors in the expansion of digital adoption seek functional e-payment systems, assistance for digital startups, and the development of digital skills (Satyanand 2021).

2.1.4 FDI Restrictions

The right of the government to regulate in the public interest to achieve stated policy goals is vital, but any policy that discriminates against one group of investors comes at a cost. For example, possible costs of foregone investment and efficiency advantages are common barriers to FDI. As a result, governments are frequently encouraged to explore whether nondiscriminatory measures will be sufficient to solve their particular concerns. Because nondiscrimination rules can manage specific hazards, there are frequently sensible alternatives to discriminatory FDI policies. When discriminatory policies are deemed necessary, they should be proportional, not more than required to address identified risks and concerns and set against measurable goals that are frequently examined (Mistura & Roulet 2019).

Governments rarely conduct regular assessments for two reasons: first, some restrictions have been in place for a long time, and governments take them for granted without considering the costs; and second, the remaining restrictions may be the most politically sensitive to eliminate, even if they no longer serve the public interest (Mistura & Roulet 2019).

Satyanand (2021) suggests that governments must loosen limits on foreign ownership and participation in established sectors, which are now being absorbed by the digital economy's emerging enterprises. For example, continuing prohibitions in the retail and transportation sectors are impeding potential local value creation in e-commerce and online taxi aggregation and causing

governments administrative difficulties. Foreign investment restrictions in MSMEs prohibit digital investors from cooperating with them, harming their interests in an increasingly digital environment. The FDI Regulatory Restrictiveness Index and the Digital Services Trade Restrictiveness Index are two OECD indices measuring regulatory barriers that may affect digital FDI. The former involves limits on enabling sectors (electric, electronics, and other instruments; communications; and business services), as discussed in subsection Target FDI in digital enablers (OECD, n.d., b), while restrictions on digital activity are included in the latter (OECD, n.d., a).

2.1.5 Digital Promotion Tools

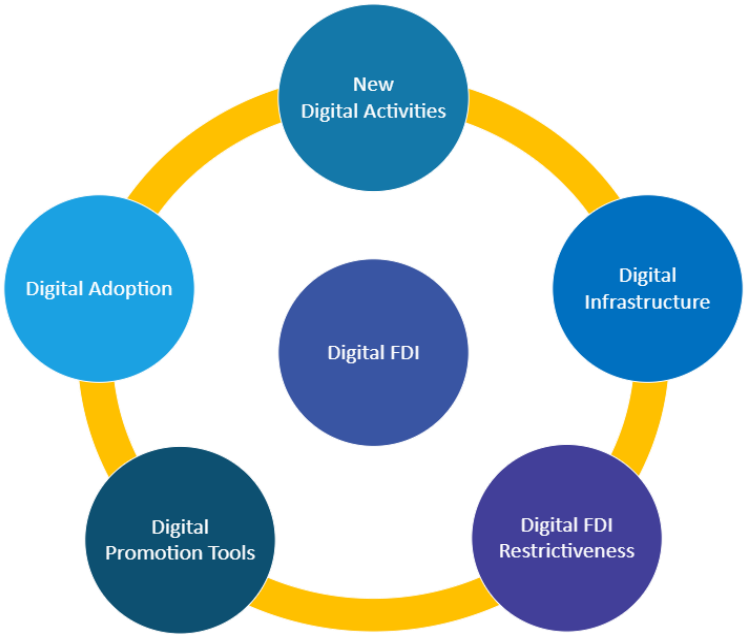
The digital economy has given rise to many new tools that may be used to encourage and ease investment across industries. At least one of these is used by all investment promotion agencies (IPAs) to discover, engage, and support foreign direct investors. Indeed, the digital economy will increasingly need the adoption of such instruments, as investors will assess an investment location's appropriateness based on the level of digital connection and competency of their first point of interaction which is usually the IPA (Satyanand 2021). Moreover, promotion, marketing, targeting; facilitation; servicing; one stop shop (OSS); and aftercare programs have typically been the focus of IPA efforts (Heilbron & Kronfol 2020).

A favorable business climate, the availability of digital talents, and a favorable ecosystem are the main assets cited by IPAs to draw in digital FDI. In contrast, the main hurdles include a lack of necessary skills, ineffective public institutions, and a weak legislative framework. Policies including digital clusters and incubators, as well as focused investor outreach, are more frequently implemented than broad supporting policies or fiscal and non-fiscal incentives (Crombrugghe & Moore 2021). Marketing communication is a critical component of the entire strategy for investment promotion. A significant portion of marketing efforts are related to marketing communications and are crucial to IPA activities. Through IPAs, nations use a variety of communication channels for promotion purposes. Among the most important promotion methods are brochures, events, public relations, personal selling, direct marketing, and advertising (Abamu 2019). On the other hand, while just a small percentage of IPAs actively contribute to creating national digital transformation policies, 56 percent very infrequently receive a consultation, and nearly a quarter never do (Crombrugghe & Moore 2021).

2.2 Proposed Digital FDI—Conceptual Framework

Existing reports (see Table 1) refer to many distinct drivers and enablers of general and digital FDI; however, this study integrates all possible dimensions in an inclusive digital FDI framework. Recently, Stephenson et al. (2021) proposed a comprehensive conceptual framework to analyze the determinants of digital FDI. It extends many new aspects of the former OECD FDI Restrictiveness Index. Moreover, Satyanand (2021) conducted a thorough analysis of the role of FDI in the digital economy, highlighting the role of the IPA in strategically identifying, targeting, and drawing in potential investors in the digital economy, while also creating or improving the digital channels through which they can connect with and successfully engage with international investors. Therefore, an integrated digital FDI conceptual framework is introduced to examine the enabling/inhibiting factors digital FDI flows into the CAREC region. Figure 1 shows that the digital FDI framework consists primarily of five pillars: new digital activities, digital adoption, digital infrastructure, digital FDI restrictions, and digital promotion tools.

Figure 1. Digital FDI Framework



Source: Elaborated from UNCTAD 2017, Stephenson 2020, Satyanand 2021

Table 1: Literature Review Summary

No.	Topic	Year	Author	Data	Analysis Method	Main Indicators	Summary
Reports and Working Papers							
1	World Investment, Report Investment, and the Digital Economy	2017	UNCTAD	Primary and secondary	-	General FDI determinants and trends around the globe; MNEs and international production in the digital economy; investment policy framework for the digital age	The World Investment Report 2017 provides a compelling case for a comprehensive digital economy investment policy framework. It highlights how, in the years ahead, linking investment policies with digital development goals will be critical to the successful integration of emerging nations into the global economy and more inclusive and sustainable globalization. This is a lasting contribution to the conversation about how to close the digital divide and tackle the massive investment challenges posed by the 2030 Agenda for Sustainable Development. This report is recommended to the SDG policy community.
2	Regulatory Assessment and FDI Review of the Digital Economy in Japan	2018	Hosuk Lee-Makiyama	Secondary	Desk review	Digitalization to support economic reforms; e-commerce; telecom and mobile markets; preparedness for 5G,	This study provides a comprehensive analysis of regulatory assessment and FDI review of the digital economy in Japan. The paper's research design and chosen determinants are helpful in understanding what kinds of factor play a vital role in attracting FDI to the digital

						IoT, and other emerging technologies; investor openness; trade agreements on the digital economy; innovation	economy.
No.	**Topic**	**Year**	**Author**	**Data**	**Analysis Method**	**Main Indicators**	**Summary**
3	Digital FDI Policies, Regulations, and Measures to Attract FDI in the Digital Economy	2020	Matthew Stephenson	Primary data	Survey	New digital activities; digital adoption; digital infrastructure	This white paper presents the results of a global survey on the essential laws, rules, and measures for enterprises' decision to invest in the digital economy, which aids the supply side of digital FDI.
4	E-Government Survey 2020: Digital Government in the Decade of Action for Sustainable Development	2020	UN DESA	Primary data	Survey	E-Government Development Index (EGDI), Online Service Index (OSI), Telecommunication Infrastructure Index (TII), Human Capital Index (HCI), E-Participation Index (EPI)	This study provides a unified approach to measuring the e-government development status of the member countries of the UN. Moreover, it analyzes the public digital services development, digital infrastructure, human capital, and e-participation-related matters of various economies.
5	Foreign Direct Investment and the Digital Economy	2021	Satyanand, Premila Nazareth	Secondary	Desktop review	Institutional framework, sector policy, and regulation;	This study examines how nations might strategically use FDI to grow and extend their digital economies. It emphasizes the need for investment promotion agencies

						sustainable investment policy; promoting linkages with MSMEs; special economic zones for the digital economy; digital tools for investment promotion and facilitation	(IPAs) to drive this effort in two ways. They'll need to strategically identify, target, and recruit promising digital economy investors and develop or upgrade the digital platforms they use to connect and engage with international investors. Furthermore, the study discusses three fronts on which policies to attract FDI in the digital economy should focus: digital infrastructure, digital business development, and wider digital adoption. IPAs and policymakers must collaborate closely.
No.	**Topic**	**Year**	**Author**	**Data**	**Analysis Method**	**Main Indicators**	**Summary**
6	Digital CAREC Analysis of the Regional Digital Gap PHASE I	2022	Razzaq et al.	Primary and secondary	Desk review and questionnaire	Digital infrastructure, digital payments, e-commerce, and internet access; cost and affordability, access and infrastructure, internet quality, digital security, regulations, digital FDI, and ICT output	According to this study, social and legislative issues and digital infrastructure contribute to the digital divide. Using unique indicators and incorporating time trends as opposed to questionnaire-based output led to variances in ranking and nation scores in the Cumulative Digital Divide Index (CDDI). These findings enable us to pinpoint both absolute and relative digital backwardness across several domains and the corresponding solutions and policy suggestions.
Articles							

1	Introducing Investment Promotion: A Marketing Approach to Attracting Foreign Direct Investment	2019	Abamu, BE	Conceptual paper	Theoretical and conceptual discussion	Investment promotion, marketing communication, decision-making process, segmentation, industrial marketing, FDI	This study presents the idea of investment promotion, a type of marketing employed by national governments to draw in foreign capital. Although it is not a novel idea, it hardly appears in scholarly literature. In order to spark interest in this area for future research and to advance the body of knowledge, the report emphasizes investment promotion. In addition to establishing a marketing research agenda on the subject, it tries to incorporate investment promotion activities into already well-established marketing models and frameworks.

No.	Topic	Year	Author	Data	Analysis Method	Main Indicators	Summary
2	The Determinants of Foreign Direct Investment: Do Statutory Restrictions Matter?	2019	Mistura F and Roulet C	Primary and secondary	Empirical approach	FDI restrictions, barriers to FDI, investment restrictions, investment liberalization, globalization	This study explores the possible costs of lost investments. It measures the elasticity of bilateral FDI positions and cross-border mergers and acquisitions activity to FDI restrictions as defined by the OECD FDI Regulatory Restrictiveness Index by applying an augmented gravity model to 60 advanced and emerging countries between 1997 and 2016. According to the findings, reforms that loosen FDI restrictions by around 10 percent, as determined by the index, could raise bilateral FDI in stocks by an average of 2.1 percent.
3	The Three Pillars of Institutional Theory and FDI in Latin America: An Institutionalization Process	2008	Trevino LJ, Thomas DE, and Cullen J	Secondary	Desk review and comparative analysis	FDI, bilateral investment treaties (BITs), privatization, political risk, tax reform, trade reform, and financial account liberalization	This paper discusses the process of institutionalization and legitimization in Latin American nations and how it affects decision-making inside organizations about incoming foreign direct investment (FDI).
4	Advancing Digital Tools For Investment	2022	Sarah Marion Dayan	Primary data	Survey	IPA, FDI promotion, digital tools	In the summer of 2021, IPAs from Egypt, Jordan, Morocco, Palestine, Libya, and Tunisia and IPAs from 36 OECD nations

	Promotion and Facilitation in the MENA Region						completed the survey online for comparative analysis. After the workshop, the brief was revised to include important information contributed by MENA and peer IPAs.

3 Methodological Framework

As a continuation of the Digital Divide (Phase I) project, this study complements and deepens the core findings of the previous study by involving all the CAREC countries and making an in-depth analysis of critical dimensions/determinants of digital FDI. The study's objective is the analysis of the main components of digital FDI, primarily including enablers and inhibitors of digital FDI in CAREC countries.

The methodology involved the following steps:

1) Review previous similar research reports prepared by the World Economic Forum, UN ESCAP, UNCTAD, OECD, and others to conduct a detailed and comprehensive literature review and analyze the factors of digital FDI.
2) Questionnaire to evaluate the core drivers of digital FDI.
3) Data collection and evaluation.

3.1 Development of Questionnaire

The questionnaire was designed following the conceptual framework of the World Investment Report (2017) by UNCTAD, World Economic Forum Trade, and Investment in the Digital Age Report (2020), and OECD's FDI Restrictiveness Index (Kaalinova et al. 2010), putting policies, regulations, and measures to attract digital FDI into five pillars (Stephenson et al. 2021, Satyanand 2021):

a) New digital activities
b) Digital adoption
c) Digital infrastructure
d) Digital FDI restrictions
e) Digital promotion tools

The questions cover the current state of play, legislation, business climate, benefits and guarantees for foreign investment, digital infrastructure, e-services and e-payments framework, any restrictions or limitations, digital adoption tools, and other relevant data that will be useful for digital FDI, regulations, and policies for CAREC countries. The opinion of field experts in the selected countries was also considered. As per Stephenson (2020), the top elements in each dimension have been shown by putting an asterisk sign on the relevant indicator. Investors care about these critical elements when investing abroad in digital sectors.

3.2 Assessment Approach

The questionnaire is divided into five sections representing five pillars of the digital FDI ecosystem. Each indicator consists of different subindicators divided (a maximum of 7). Details of these indicators and the scoring rationality is provided in **Table 2**. Primarily, two approaches were adopted to collect the information. First, existing secondary sources, published reports, local/global evaluation indices, regulations, and policy documents. Second, different departments of respective ministries[2] and experts were interviewed to collect subjective information. It is pertinent to mention that each country comprises one comprehensive

[2] Uzbekistan: Ministry of Economic Development and Poverty Reduction (two departments), Ministry for Development of Information Technologies and Communication. Azerbaijan: Ministry of Digital Development and Transport (four departments), Ministry of Economy (three departments), National Confederation of Entrepreneurs (employers) Organizations of the Republic of Azerbaijan (ASK), IT companies, experts. Georgia: Ministry of Economy and Sustainable Development of Georgia (Department of Telecommunications, Information and Modern Technologies). Likewise for other countries.

questionnaire collected from expert interviews, prevailing laws/regulations documents, and other available resources. For the standardization of subjective indices, a yardstick is defined for each indicator.

Table 2. Questionnaire Indicators

Core Indicators	Subindicator	Subindicator	Explanation
I. New Digital Activities	1.1 Data privacy and security	1) Data privacy regulations*	For data privacy regulations, the scale is constructed in the range of 0 (low rank) to 5 (high rank) on the Global Cybersecurity Index 2020. For data security regulations, data protection law for the country is used. Similarly, relevant state laws related to copyright and intellectual property are used for the rest of the indicators. The scale for the indicator ranges from 0 (if there is no law in the country for the indicator), while a score of 1 is assigned (if there is a law but it is not effectively implemented), and a score of 2 (indicates that there is a law with low implementation), a score of 3 (if there is a law with implementation at a reasonable level), a score of 4 (if there is a law with good implementation) and a score of 5 (if there is a law and it is being implemented in its true sense).
		2) Data security regulations*	
		3) Copyright laws to protect intellectual property*	
		4) Free flow of cross-border data	
		5) Requirements to monitor third-party content	
		6) Burdensome data localization requirements	
	1.2 Consumer laws	1) Contract law to protect agreements	The same criterion is used as for Section 1.1, considering a scale ranging from 0 to 5, where 0 means there is no law for a specific indicator and 5 means there is a law, and it is being implemented in its true spirit.
		2) Consumer protection laws	
		3) Laws making e-agreements legal	
		4) Ease of registering the company	
		5) Ease of receiving a license for digital activities	
		6) Ease of registering a property	
		7) Consumer law that permits new business models	
	1.3 Investor rights	1) Protecting investor rights	Same as above, section 1.2
		2) Access to international arbitration	
		3) Intellectual property and copyright protection	
		4) Availability of bilateral and multilateral	

		investment agreements on the mutual protection of investments	
		5) Availability of double taxation treaties	
	1.4 Firm-specific regulations	1) Competition policy and regulations	Same as above, section 1.2
		2) Burdensome ICT regulations	
		3) Requirement for source code disclosure	
		4) Regulatory stability and predictability	
		5) Regulatory framework (national and local)	
II. Digital Adoption	2.1 Support for digital adoption	1) Availability of e-payment services*	Same as above, section 1.2.
		2) Level of digital skills in the economy*	
		3) Support for starting digital businesses*	
		4) Support for local digital skills development	
		5) Support for partnerships with research centers	
	2.2 Tariffs and taxes	1) Tariffs on digital inputs	Tariff rates are considered for each country, and scores are assigned as per the following scale: 5 if zero tariffs; 4 if tariff rate is 5 percent or less; 3 if tariff rate is >5 percent but <=10 percent; 2 if tariff rate is >10 percent but <=15 percent; 1 if tariff rate is >15 percent but <=20 percent; 0 if tariff rate is >20 percent. The tax rates are considered, and the following criteria are used for assigning scores: 5 if zero tax rate; 4 if tax rate is 5 percent or less; 3 if tax rate is >5 percent but <=10 percent; 2 if tax rate is >10 percent but <=15 percent; 1 if tax rate is >15 percent but <=20 percent; 0 if tax rate is >20 percent. For the prevalence of government services, the UNPAN E-Government Development Index (2020) is used with the following scoring scheme: If a country ranks from 1 to 40, score it 5; if a
		2) Taxes on digital goods and services	
		3) Prevalence of government services	
		4) Tax deductions on ICT-related expenditure	

			country ranks from 41 to 80, score it 4; if a country ranks from 81 to 120, score it 3; if a country ranks from 121 to 160, score it 2; if a country ranks above 160, score it 1.
	2.3 Independence of ICT regulations	1) Use of international standards*	Same as above, section 1.2
		2) Openness to foreign investment	
		3) Strong competition policy and regulations	
		4) Independent ICT regulator	
III. Digital Infrastructure	3.1 Connectivity	1) Level of international connectivity	ITU database is used for the scales
		2) Level of national connectivity (backbone)	
		3) Level of connectivity of urban centers	
		4) Level of connectivity of rural areas	
	3.2 Availability of Networks	1) 4G mobile network	ITU database is used for 4G and 5G mobile network availability. For domestic data centers, the following scheme is used to assign scores: 0 for no data center; 1 for <5 data centers; 2 for >5 but <=10; 3 for >10 but <=20; 4 for >20 but <=40; 5 for >40.
		2) 5G mobile network	
		3) Domestic internet exchange points (IXPs)	
		4) Domestic data centers	
	3.3 Access to infrastructure, finance and manpower	1) Use of international standards*	Same as above, section 1.2
		2) Regional coordination for infrastructure investment*	
		3) Availability of skilled local engineers and other workers*	
		4) Access to infrastructure, including the ability to share infrastructure	
		5) Spectrum rules (such as availability, cost)	
		6) Access to local finance	
		7) Acquisition of land for business purposes	
		8) Land ownership is not permitted, but leases possible	
	3.4 Ease of receiving visas and licenses	1) Ease of receiving a license for digital infrastructure*	Same as above, section 1.2

		2) Ease of receiving visas and employing foreign personnel	
	3.5 Privatization and taxation	1) Taxes on technology devices and services	Same as above, section 1.2
		2) Privatization of telecom incumbent	
IV. Digital FDI Restrictions	4.1 Sectoral restrictions	1) Restriction on print media	Same as above, section 1.2
		2) Restriction on telecom media	
		3) Restriction on social media	
		4) Access to webpages	
		5) Freedom of expression	
	4.2 Restrictions on key foreign personnel/ directors	1) Foreign key personnel not permitted	Same as above, section 1.2
		2) Economic needs test for employment of foreign key personnel	
		3) Time-bound limit on employment of foreign key personnel	
		4) Nationality/residence requirements for board of directors	
	4.3 Other restrictions	1) Restrictions on establishment of branches/local incorporation required	Same as above, section 1.2
		2) Burdensome restrictions on online content	
		3) Prohibition on access to foreign websites	
	4.4 Foreign equity limits	1) No foreign equity allowed 2) Foreign equity <50 percent of total equity 3) Foreign equity >50 percent but <100 percent of total equity 4) No foreign equity restrictions	The following criterion is used to set up scale: 1) If no foreign equity is allowed, score is set at 0. 2) If foreign equity <50 percent of total equity is allowed, score is set at 1 and 2 depending upon the sectors where foreign investment is allowed. 3) If foreign equity >50 percent but <100 percent of total equity, the score is set from 3 to 4. 4) If there are no foreign equity restrictions, then a score of 5 is assigned.
	4.5 Screening and approval	1) Approval required for new FDI	The following scoring scheme is followed: 1) If approval is required for new FDI, score it

	of FDI	2) Notification with a discretionary element 3) No approval required for new FDI	from 0 to 1. 2) Notification with a discretionary element, score it from 2 to 3. 3) If no approval is required for new FDI, score it from 4 to 5.
V. Digital Promotion Tools	5.1 Incentives and promotions	1) Information technology agreement 2) Financial or fiscal incentives 3) Investment promotion agencies/promotion by government/private sector (other than incentives) 4) Availability of venture capital	For information technology agreement, the following scale is used: 1) For ITA only, the score is set at 3. 2) For bilateral information technology agreements (BITA) only, the score is set at 2. 3) For both ITA and BITA agreements, the score assigned ranges from 4 to 5. 4) If there is no ITA or BITA, then score is set at 0.

Note: * indicates the most important indicators for digital FDI (Stephenson 2020)

3.3 Analysis and Visualization of Results

The data was collected from different sources: by analysing the legislation, referring to Government officials, financial bodies, and relevant ministries and agencies, including (but not limited to) taxation, investment and chambers of commerce, and reports of international organizations.

The descriptive statistical method was used to evaluate the key findings from the survey and desk research. Each indicator was analyzed separately to calculate the average and total indicators of the overall and subindicators. The subindicators were then analyzed to form the group's general (average and total) indicator (determinant). The indicators of the five determinants were grouped to calculate the total score by country and the average of the 11 CAREC countries on the digital FDI framework.

The scoring is performed on a six point scale: 0, 1, 2, 3, 4, and 5, each of which is further divided into quarters (2, 2.25, 2.50, 2.75) to get the precise score and maintain variations. Scoring is done by selecting from the lowest (score of 0) to the highest (score of 5) for each indicator on a scale of 0 to 5. The scores for each indicator and the total scores are then transformed to a 0-100 (lowest to highest) scale to visualize the results. The scoring scheme is shown in **Table 3**.

Table 3. Evaluation Scale

Scores	**0**	**1**	**2**	**3**	**4**	**5**
	0	**1-20**	**21-40**	**41-60**	**61-80**	**81-100**
Indicators	Fully restricted	Major restrictions	Certain restrictions	Moderate restrictions	Minor limitations/ restrictions	No restrictions

At the same time, 5 or 100 is taken as the maximum level (baseline) of the indicator. Scores of all indicators are also calculated as a total and average indicator by subgroups and groups.

The analyzed results are grouped into several graphs, radars, and charts describing each country indicator on determinant, the average of each determinant by CAREC country, data for each determinant by country, and

the CAREC average on each determinant. The radars by country show the average rate for each country on each indicator and the CAREC average on each determinant. The charts of each determinant show the position of each country on the respective determinant of the digital FDI framework.

4 Key Findings and Explanations

This segment reports the key findings for the indicators/subindicators of digital FDI enablers/inhibitors in the CAREC region. The digital FDI framework is assessed based on five key dimensions: (i) new digital activities, (ii) digital adoption, (iii) digital infrastructure, (iv) digital FDI restrictions, and (v) digital promotion tools. The most important subindicators in each of the five segments were selected, and results were scaled between 0 to 100 (lowest to highest) to give a comparable outcome. The results of the five main pillars across the CAREC countries are described in bar/radar charts for comparison. The overall score of the digital FDI framework is estimated using the average score of these five pillars. The details by country, as well as by group and subgroup, along with the different indicators in each subgroup, are provided as an evaluation matrix in the Appendix. The main findings are summarized in Table 4, while an in-depth discussion of these results is provided in the following subsections. Each indicator score is shown by country and scaled over highest, medium, and lowest with respective color schemes green, yellow, and red.

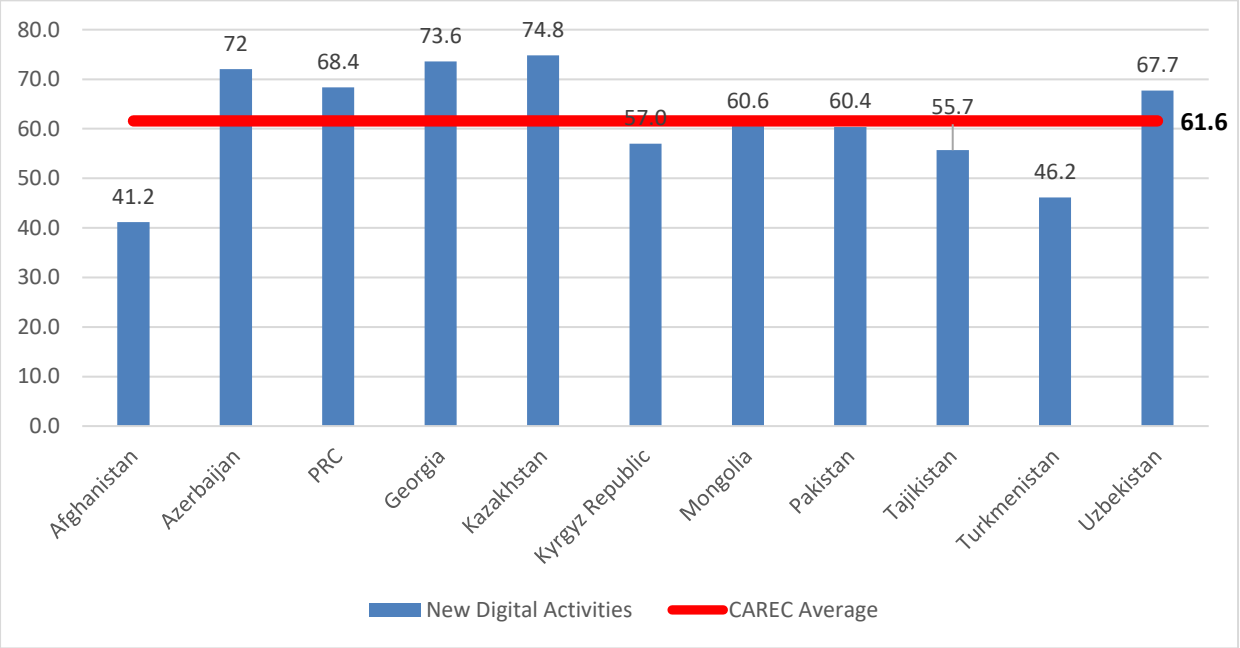
Table 4. Key Findings Based on Evaluation Matrix for All CAREC Countries

Average Indicators	New Digital Activities	Digital Adoption	Digital Infrastructure	Digital FDI Restrictions	Digital Promotion Tools	Digital FDI Framework
Afghanistan	41.2	46.2	44.0	44.7	51.0	45.4
Azerbaijan	72.1	68.3	64.8	76.3	55.0	67.3
PRC	68.4	77.5	73.5	60.6	85.0	73.0
Georgia	73.6	76.1	63.0	79.2	82.5	74.9
Kazakhstan	74.8	75.8	67.5	68.5	85.0	74.3
Kyrgyz Republic	57.0	62.4	53.8	67.1	72.5	62.6
Mongolia	60.6	65.2	62.9	68.9	66.0	64.7
Pakistan	60.4	60.3	61.5	67.7	50.0	60.0
Tajikistan	55.7	52.9	54.7	58.8	70.0	58.4
Turkmenistan	46.2	48.7	44.3	47.4	41.0	45.5
Uzbekistan	67.7	64.3	66.0	68.3	55.0	64.3
CAREC Average	**61.6**	**63.4**	**59.6**	**64.3**	**64.8**	**62.8**

4.1 New Digital Activities

The first dimension of digital FDI framework is new digital activities, comprising four subdimensions: data privacy and security, consumer laws, investors' rights, and firm-specific regulations. Figure 2 provides a comparison of new digital activities across all CAREC countries. Kazakhstan is the best-performing country in the CAREC region, while Afghanistan and Turkmenistan are the least well-performing countries. Among 11 CAREC countries, six score lower than the CAREC average, implying a greater potential for improvement. Moreover, Figure 3 presents the countrywide summary of all five dimensions compared to the CAREC regional averages.

Figure 2. New Digital Activities



Based on the evaluation matrix (subindicators of digital adoption) (see Appendix) of Kazakhstan, the best performance is observed in protecting investors' rights with a 78 score, and other subindicators vary around 70. The best score is obtained in ease of registering company and ease of registering property, also mentioned in the World Bank's 'Doing Business' report. The lowest score is in consumer protection laws, use of e-agreements, and regulatory frameworks, with an average score of 60. In **Georgia**, the highest indicators are in the investors' rights subgroup with a score of 72. The best indicators are the ease of registering a company and property (90-100). The lowest scores are observed in consumer laws and the use of e-agreements (60). In **Azerbaijan,** despite satisfactory conditions for new digital activities, further improvement in legislation is required. The highest indicator in this dimension is investors' rights (76), while others vary around 70. Weak sides are contract enforcement, consumer protection laws, competition policy and regulations, data security, and the use of e-agreements.

The **PRC** has great potential in new digital activities; however, firm-specific regulations such as competition policy, the requirement of source code disclosure, and burdensome ICT restrictions lead to lower scores on average (66), followed by data privacy and security, mainly data localization (60). The telecoms sector in the PRC is highly regulated, and data localization requirements are strict. For this reason, many well-known digital applications are not operational in the PRC. However, consumer law implementation and e-agreements are well enforced by law. The local business registration process is conducive, and the PRC ranks 31 among 190 economies in the ease of doing business in 2020; however, the registration and operationalization of digital firms have higher checks owing to their intrinsic nature and broader influence on

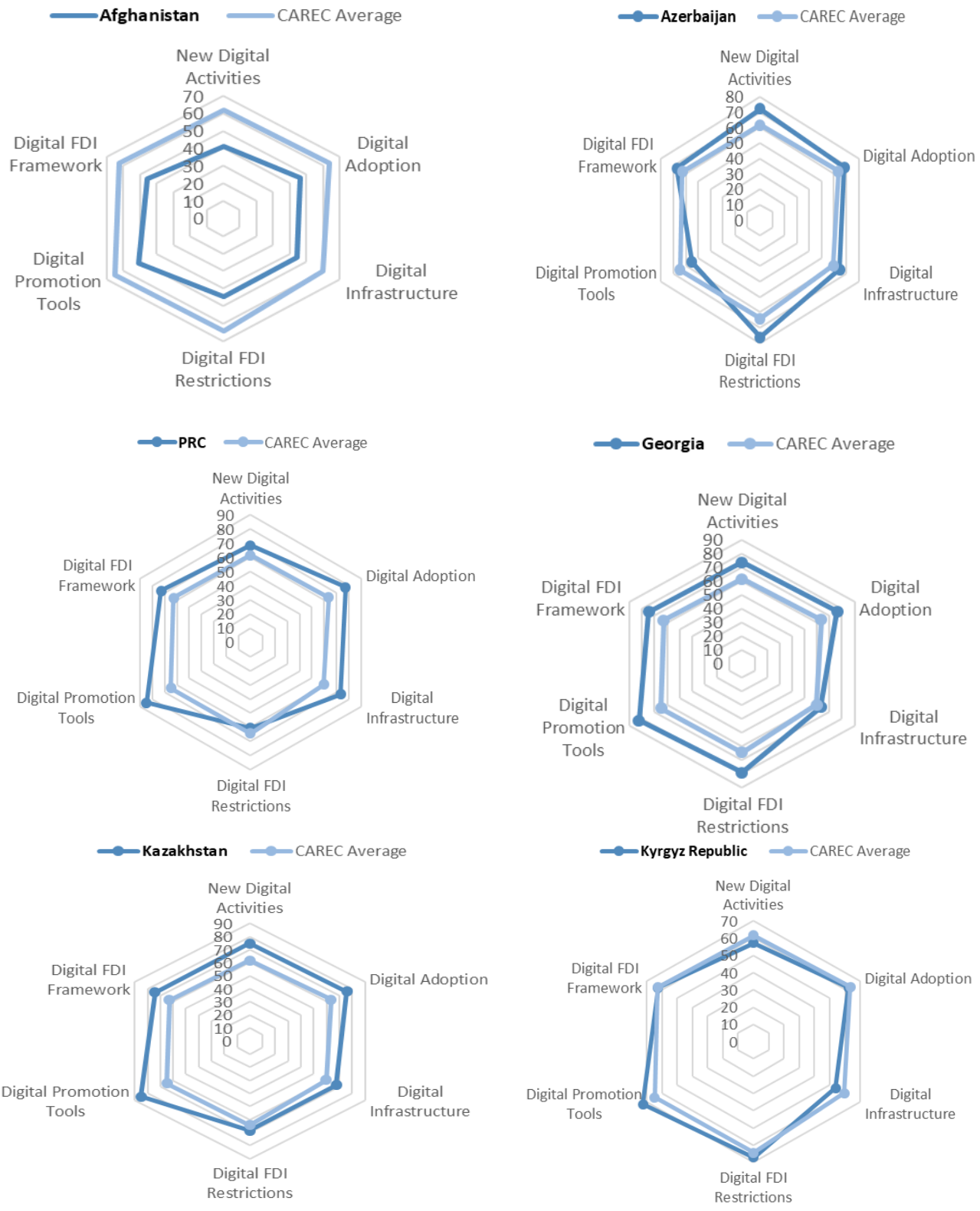
the socio-economic and political environment. **Uzbekistan** secures a higher score in consumer laws (77.1) and the lowest score in firm-specific regulations (64). Many studies highlight that Uzbekistan would improve the implementation of the laws and regulations that frame the new digital activities and increase the government's effectiveness in personal data and cybersecurity matters. For example, world governance indicators—specifically government effectiveness index (-0.51 in 2020) and freedom on the net in Uzbekistan—ranked as 'not free' placing the country 28 out of 100.

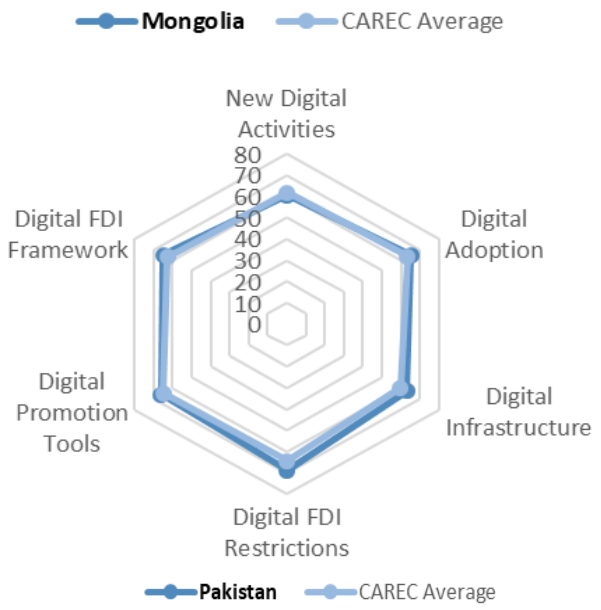
The average score for **Mongolia** is substantially varied across subindicators of new digital activities and falls within the range of 55 to 65. The advancement has been achieved in the fields of intellectual property and copyright protection (80), followed by ease of registering company (80), and burdensome data localization requirements (74). The weakest determinants among all indicators are availability of bilateral and multilateral investment agreements on the mutual protection of investments (60) and availability of double taxation treaties (40). The remaining indicators demonstrate more or less similar levels of new digital activities. In **Pakistan**, the average score for the subgroups varies from 56 (for firm-specific regulations) to 68 (for investors' rights), while data privacy and security also report a lower score of 57.5. The greatest development has been made in the areas of availability of bilateral and multilateral investment agreements on the mutual protection of investments and the availability of double taxation treaties with a score of 80 (highest among all indicators in this category); whereas, data security regulations and regulatory stability and predictability have the lowest score (40).

The average score for the **Kyrgyz Republic** across subindicators falls within the range of 50 to 64.3. The best progress has been achieved in the fields of ease of registering company (80) followed by contract law to protect agreements (70) and free flow of cross-border data (70). The weakest score among all indicators is observed in intellectual property and copyright protection, copyright laws to protect intellectual property, availability of double taxation treaties, and requirements to monitor third-party content. The remaining indicators demonstrate more or less similar levels of new digital activities. The average score of **Tajikistan** across subindicators (see Appendix) substantially varied and fall within the range of 47.8 (for data privacy and security) to 62.9 (for the consumer laws). The best performing indicator is ease of registering company with a score of 80, while the least well-performing indicators are data privacy regulations and burdensome ICT regulations with scores of 17 and 20 respectively. The remaining indicators demonstrate more or less similar levels of new digital activities.

In **Turkmenistan**, the highest average score is observed for consumer laws (52), while the lowest score is for the subgroup data privacy and security (40.7). Interestingly, the highest score for this dimension for Turkmenistan is just 52, which is the lowest for the same subgroup across all 11 CAREC countries. Turkmenistan receives the lowest score for the indicator data privacy regulations with a value of just 14. For the rest of the indicators, the score varies from 20 to 60. In **Afghanistan**, the average score varies significantly across the subindicators and ranges from 27.5 (for data privacy and security) to 57.1 (for consumer laws). Specifically, the individual score for the indicator data privacy regulations is the lowest among all the CAREC countries, followed by free flow of cross-border data, burdensome data localization requirements, intellectual property and copyright protection, availability of bilateral and multilateral investment agreements on the mutual protection of investments, and regulatory stability and predictability (each having a score of 20). The remaining indicators show comparable amounts of new digital activity.

Figure 3. Countrywide Indicators




Mongolia
CAREC Average
New Digital Activities
Digital Adoption
Digital Infrastructure
Digital FDI Restrictions
Digital Promotion Tools
Digital FDI Framework
80
70
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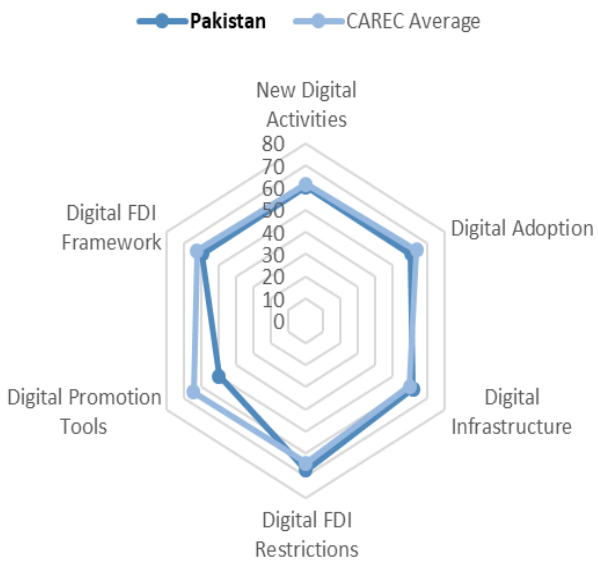
Pakistan
CAREC Average
New Digital Activities
Digital Adoption
Digital Infrastructure
Digital FDI Restrictions
Digital Promotion Tools
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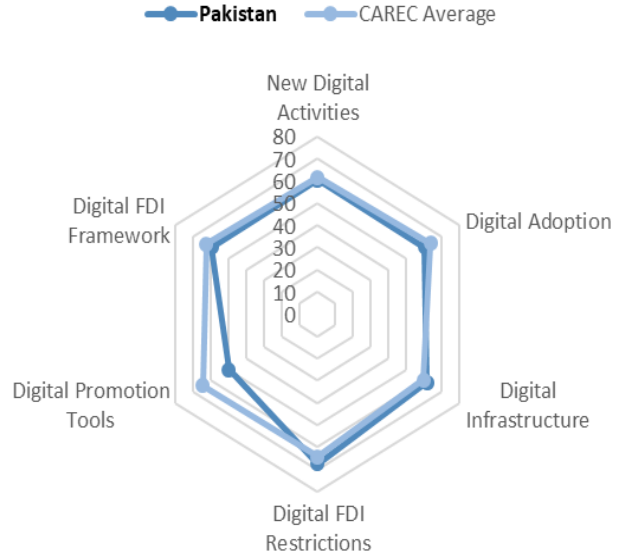
Pakistan
CAREC Average
New Digital Activities
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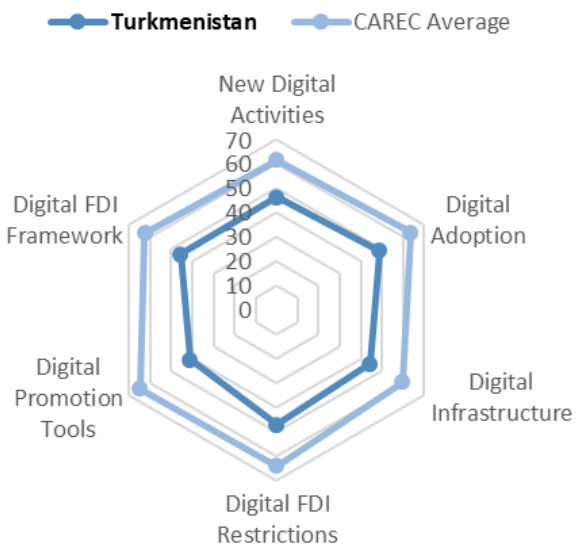
Turkmenistan
CAREC Average
New Digital Activities
Digital Adoption
Digital Infrastructure
Digital FDI Restrictions
Digital Promotion Tools
Digital FDI Framework
70
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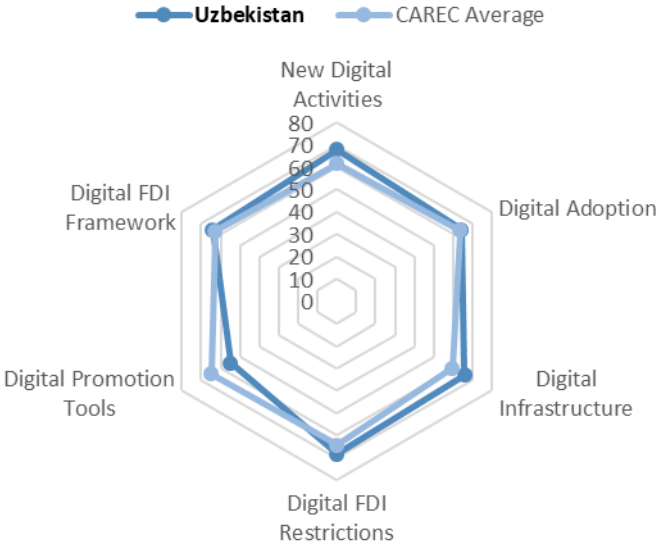
Uzbekistan
CAREC Average
New Digital Activities
Digital Adoption
Digital Infrastructure
Digital FDI Restrictions
Digital Promotion Tools
Digital FDI Framework
80
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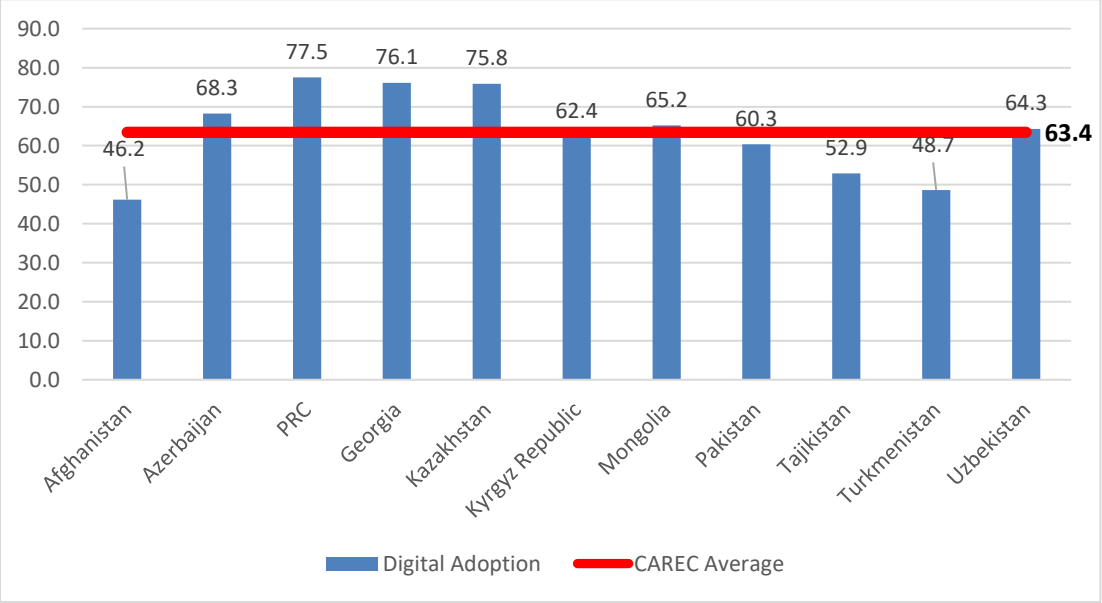
4.2 Digital Adoption

The second dimension of digital FDI framework is digital adoption, which comprises three subdimensions: support for digital adoption, tariffs and taxes, and independence of ICT regulations. **Figure 4** gives a comparison of digital adoption across all CAREC countries. It shows that the PRC (77.5), Georgia (76.1), and Kazakhstan (75.8) are the leading countries in digital adoption, while Azerbaijan (68.3), Mongolia (65.2), Uzbekistan (64.3), the Kyrgyz Republic (62.4), and Pakistan (60.3) are average performing countries. Tajikistan (52.9), Turkmenistan (48.7), and Afghanistan (46.2) report scores lower than the CAREC average (63.5).

Figure 4. Digital Adoption



Based on the evaluation matrix for the subindicators of digital adoption (see Appendix), the **PRC** is the leading country in two subdimensions: support for digital adoption with the highest score of 90, followed by tariffs and taxes with an average score of 80; however, it is lacking in independence of ICT regulations and secured only 62.5. The lowest scores are observed in strong competition policy and regulations and use of international standards. Since a substantial portion of the PRC's industry consists of state-owned enterprises (SOEs), private firms do not have a level playing field. There are only three telecom carriers in the PRC: China Mobile, China Unicom, and China Telecom, all of which are state-owned. China Mobile is the largest player, with a 60 percent share of connections.

Table 5 provides details of tariff rates for all CAREC countries. **Georgia** shows the highest score in tariffs and taxes (80), followed by independence of ICT regulations (76.3) and support for digital adoption (72). According to World Bank data, the weighted mean tariff percentage rate of all products is only 0.21 in Georgia—the lowest in the CAREC region—although the product-wise tariffs vary; however, it highlights the overall government policy stance on import management. **Kazakhstan** reports comparable results and indicates the highest score in tariffs and taxes (80), followed by independence of ICT regulations (77.5) and support for digital adoption (70). Among the subindicators, the weakest indicators are digital skills development and partnership with research centers (60). Similar results are observed in **Azerbaijan** except for the independent ICT regulators. So far, there is no independent ICT regulator, leading to a governance deficit in the digital economy. Moreover, support for partnerships with research centers, level of digital skills, and use of international standards are critical gray areas in digital adoption.

In **Mongolia,** tariffs on digital inputs and independent ICT regulator are among the best-scored indicators, while tax deductions on ICT-related expenditures is the weakest indicator (50). The rest of the indicators are close to each other, securing 60 scores. Overall, support for digital adoption (68) is the leading indicator, followed by independence of ICT regulations (65), and tariffs and taxes (62.5). Table 5 shows that Mongolia has the third-highest weighted mean tariff rate—5.3 percent. Likewise, **Uzbekistan** has the highest score in support for digital adoption (68) while independence of ICT regulations (60) reports the lowest score. Tariffs and taxes (65) report a moderate score but have greater potential for improvement. The main challenges in these areas are reducing the unmet demand for IT talents in the digital economy and improving the regulatory quality to support the inclusive adoption of information technologies.

Like Mongolia and Uzbekistan, the **Kyrgyz Republic** shows that support for starting digital businesses is among the best-performing indicators, while independent ICT regulator is the weakest. All the other indicators are relatively close to each other. The average score for the subindicators in **Pakistan** ranges between 56 and 72.5 for the support of digital adoption and independence of ICT regulations, respectively. The best performing indicators include openness to foreign investment and strong competition policy and regulations with an overall score of 80 in each indicator, while level of digital skills in the economy, tax deductions on ICT-related expenditures, and tariffs on digital inputs are the weakest indicators. The weighted mean tariff rate in Pakistan is about 8.67, highest in the CAREC region.

Table 5.Tariff Rate, Applied, Weighted Mean, All Products (Percent)

Country	2016	2017	2018	2019	2020
Pakistan	10.09	-	9.45	8.69	8.67
Azerbaijan	-	-	-	11.98	5.93
Mongolia	-	5.52	5.26	5.31	5.3
Tajikistan	5.7	4.98	-	-	3.93
Uzbekistan	-	-	-	-	2.63
China	3.54	3.83	3.39	2.53	2.47
Kyrgyz Republic	3.16	2.93	2.92	3.09	2.33
Kazakhstan	2.55	2.39	2.37	2.32	1.96
Georgia	0.67	-	-	-	0.21
Afghanistan	-	-	5.63	-	-
Turkmenistan	-	-	-	-	-
CAREC Average	**4.29**	**3.93**	**4.84**	**5.65**	**3.71**

Source: World Bank 2020

Manifestly, the prevalence of government services is measured via E-Government Development Index (EGDI) for 2020. **Table 6** provides details of this index along with the Online Service Index, Telecommunication Infrastructure Index, and Human Capital Index. Kazakhstan and the PRC top the list with scores of 0.84 and 0.79, while Afghanistan scored the lowest with 0.32. The average score of the CAREC region is 0.60—lower than the Asia average, but equal to the global average. E-government penetration is dominant for CAREC countries to smooth the approval processes and reduce approval turnaround time.

Table 6. E-Government Development Index for 2020

Rank	Country	EGDI Level	EGDI 2020	Online Service Index	Telecommunication Infrastructure Index	Human Capital Index
29	Kazakhstan	Very High EGDI	0.84	0.92	0.70	0.89
45	China	Very High EGDI	0.79	0.91	0.74	0.74
65	Georgia	High EGDI	0.72	0.59	0.69	0.87
70	Azerbaijan	High EGDI	0.71	0.71	0.65	0.77
83	Kyrgyz Rep.	High EGDI	0.67	0.65	0.59	0.79
87	Uzbekistan	High EGDI	0.67	0.78	0.47	0.74
92	Mongolia	High EGDI	0.65	0.53	0.61	0.81
133	Tajikistan	Middle EGDI	0.46	0.32	0.35	0.73
153	Pakistan	Middle EGDI	0.42	0.63	0.24	0.38
158	Turkmenistan	Middle EGDI	0.40	0.18	0.36	0.68
169	Afghanistan	Middle EGDI	0.32	0.41	0.18	0.37
CAREC Average			**0.60**	**0.57**	**0.55**	**0.69**
Region/Grouping		**EGDI Level**	**EGDI**	**Online Service Index**	**Telecomm. Infrastructure Index**	**Human Capital Index**
Africa		Low EGDI	0.39	0.37	0.32	0.49
Americas		High EGDI	0.63	0.58	0.58	0.75
Asia		High EGDI	0.64	0.62	0.59	0.70
Europe		Very High EGDI	0.82	0.77	0.82	0.87
Oceania		Middle EGDI	0.51	0.42	0.39	0.73
World			**0.60**	**0.56**	**0.55**	**0.69**

Source: Global E-Government Index 0-1 (lowest to highest)

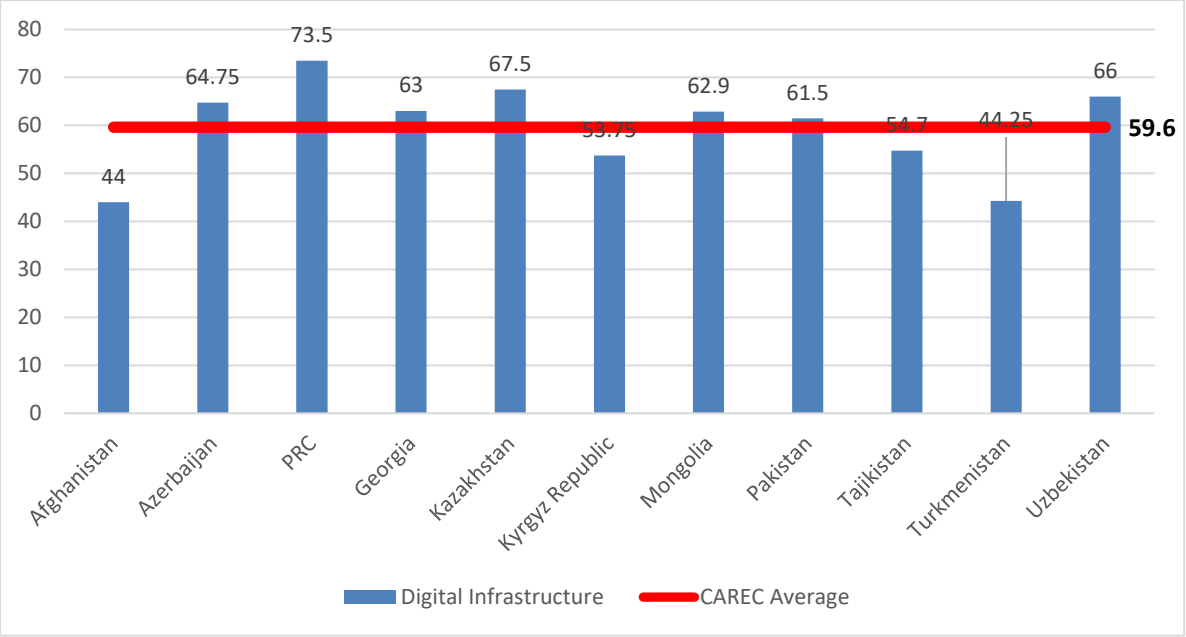
Based on the evaluation matrix for the digital adoption dimension (see Appendix), for **Tajikistan,** the average score is highest for the subindicator support for digital adoption (60), while it is lowest for tariffs and taxes (43.75). The score for the third subindicator, independence of ICT regulations is 55. The individual score for the indicator support for local digital skills development is highest (70), while it is lowest for each of the two indicators tariffs on digital inputs, and taxes on digital goods and services (40). The scores of the rest of the indicators are relatively close to each other. Similarly, the highest average score in **Turkmenistan** is noticed in support for digital adoption (56), while the average score is lowest for both the subgroups tariffs and taxes and independence of ICT regulations (45). The individual score for the indicator is lowest (20) for prevalence of government services and strong competition policy and regulations, making them the weakest indicators. Lastly, in **Afghanistan,** the average score for the subindicators varies from 36 (support for digital adoption) to 55 (independence of ICT regulations), while for the third subindicator (tariffs and taxes), it is 47.5. The indicator prevalence of government services takes a 20 (the lowest) score, while the indicator taxes on digital goods and services gets the highest score (70).

4.3 Digital Infrastructure

The third and most important dimension of the digital FDI framework is digital infrastructure, which comprises five subdimensions: connectivity; availability of networks; access to infrastructure, finance, and manpower; ease of receiving visas and licenses; and privatization and taxation. Figure 5 offers a comparison of digital infrastructure across all CAREC countries. It envisages that the PRC (73.5) is the top-performing country in digital infrastructure, followed by Kazakhstan (67.5), Uzbekistan (66), and Azerbaijan (64.8).

Georgia (63), Mongolia (62.9), and Pakistan (61.5) indicate a medium score slightly higher than the regional average. Moreover, Tajikistan (54.7), the Kyrgyz Republic (53.8), Turkmenistan (44.3), and Afghanistan (44) report scores lower than the CAREC average (59.6). Detailed explanations of subindicators based on the evaluation matrix (see Appendix) follow Figure 5.

Figure 5. Digital Infrastructure

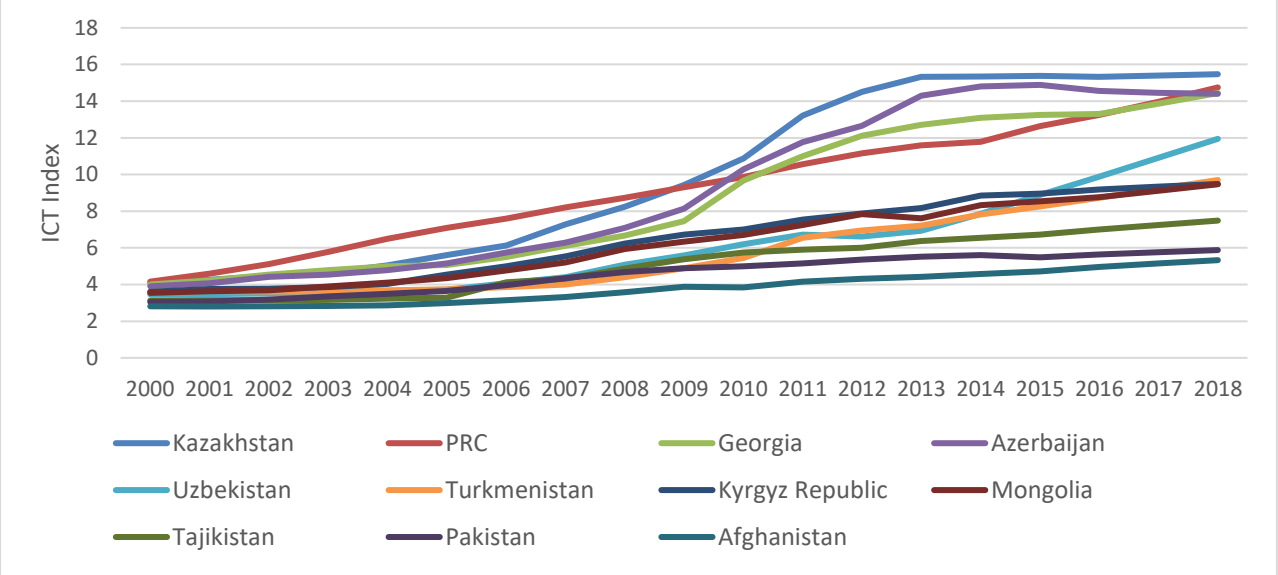


The **PRC** is the leading country in digital infrastructure, and the highest score is observed in the availability of networks (95) owing to the highest number of 4G and 5G adoption along with the higher number of domestic data exchange points. ICT Index by UNCTAD Productive Capacity Index estimates the accessibility and integration of communication systems within the population. The ICT index in Figure 6 includes fixed line and mobile phone users, internet accessibility, and server security and reports comparable results, where Kazakhstan and the PRC are top-performing countries. Although it generally supports the top-performing countries, the scores of the low-performing countries vary in our results owing to multiple dimensions of digital infrastructure, which differentiate intra/intercountry connectivity along with financial support for infrastructure development. Recent reports[3] suggest that the PRC has been at the vanguard of the race for 5G breakthroughs with 365 5G terminal connections, 961,000 5G base stations, and the shipment of 128 million 5G phones. There are more than 10,000 5G applications across various industries, including education, transportation, and healthcare.

In contrast, ease of receiving a license for digital infrastructure, land ownership, and privatization of telecom incumbent are the least-performing indicators of digital infrastructure. Since none of the telecom service providers in the PRC are private, foreign MNCs have substantial barriers to obtaining a license for digital infrastructure.

[3] https://www.viavisolutions.com/en-uk/news-releases/5g-service-now-reaches-1662-cities-worldwide-new-viavi-report-reveals

Figure 6. ICT Index



Source: UNCTAD ICT Index:
https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=199270

Again, from the evaluation matrix for the digital infrastructure dimension (see Appendix), the lowest indicator in **Kazakhstan** is availability of networks (50) owing to lower scores in internet exchange points and 5G networks. The connectivity level is also one of the weakest in Kazakhstan (62.5), which is diverse with a good position in big cities and lacking in rural areas. In **Azerbaijan**, digital infrastructure requires improvements in the basic quality of service delivery and broadband coverage in rural areas. Components requiring improvement and investments (weaknesses) are level of international connectivity, lack of skilled IT system managers, domestic internet exchange points (IXP), domestic data centers, access to local finance, and connectivity of rural areas where the investments would be directed. The average indicator is 55 for these dimensions. The lowest score is observed in availability of networks (45). In **Uzbekistan**, one of the core challenges is the urban–rural divide in digital infrastructure, required private land ownership reforms, demand for highly skilled engineers, and development of digital infrastructure (national connectivity, 4G connection in rural areas, data centers, and so on). The legislation contradictions and need for reform can be seen in this example. The privatization of land is still a new concept in Uzbekistan.

In **Georgia**, the digital infrastructure subindicators have a comparatively higher gap, with the lowest average score of 38 in availability of networks, and the best average score of 75 in ease of receiving visas and licenses. The lowest-performing indicators (20) are on the 5G mobile network (similar to other countries) and internet exchange points. Domestic data centers, level of connectivity of rural areas, regional coordination for infrastructure investment, land acquisition for business purposes (similar to some countries), and availability of skilled local engineers and other workers are also among the low scorers. In **Mongolia,** availability of networks (35) is the lowest among other subindicators of the digital infrastructure. The main hindrances are 5G mobile network, domestic internet exchange points (IXP), acquisition of land for business purposes, and level of connectivity of rural areas. Ease of receiving visas and employing foreign personnel, privatization of telecom incumbent, 4G mobile network, and land ownership show the highest score (about 80-90).

In **Pakistan,** the average score for the subgroups ranges between 55 and 70, with the highest score for the subindicator ease of receiving visas and licenses and the lowest score for the subgroup connectivity, while other subgroups vary around 60. The main reasons for the low scores include 5G mobile network (20) followed by level of connectivity of rural areas, access to infrastructure including the ability to share

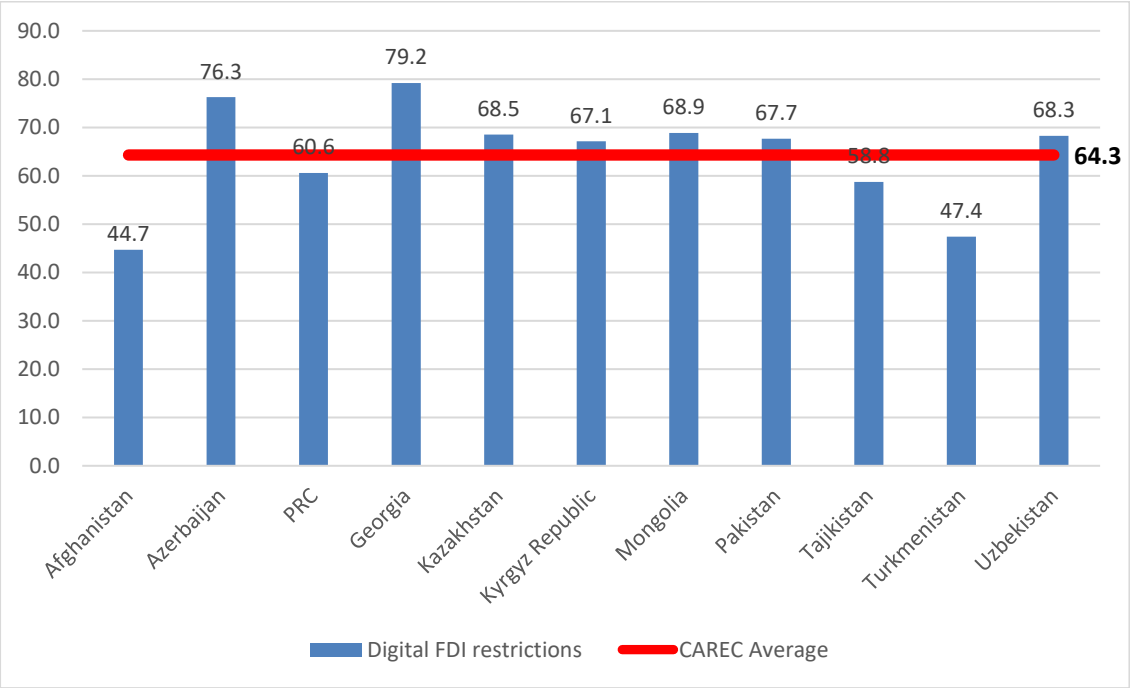
infrastructure, and land ownership not permitted but leases possible, each having a score of 40. The highest score is for domestic internet exchange points (100) followed by 4G mobile network, access to local finance, and ease of receiving visas and employing foreign personnel, each with a score of 80, while the rest of the indicators show values that are very near to each other and in the range of 40 to 60. In **Tajikistan,** the average score for digital infrastructure is lowest for the subindicator availability of networks (only 32.5). In contrast, the score is highest for ease of receiving visas and licenses (65). For an individual indicator, the score is zero for the 5G mobile network followed by domestic internet exchange points and domestic data centers, each having a score of 20. For the rest of the indicators, the score ranges between 40 and 70. It is important to note that this highest score is greater than the average for all 11 CAREC countries for this dimension (59.01).

In the **Kyrgyz Republic**, the availability of networks (37.5 percent) is the lowest among other subindicators of the digital infrastructure owing to no 5G network (0) and the lowest number of domestic data centers (20) and internet exchange points (50). Apart from that, the main hindrances are acquisition of land for business purposes, privatization of telecom incumbent, and rural–urban connectivity. Lastly, 4G mobile network and spectrum rules show the highest score (80), while the rest of the indicators demonstrate values that are relatively close to each other (40-70). For the digital infrastructure in **Turkmenistan**, the average score is highest for the subindicator access to infrastructure, finance, and manpower (56.3), while it is lowest for availability of networks (20). 5G mobile network and domestic internet exchange points (IXP) both score 0. Domestic data centers (20) is the lowest performing indicator. In **Afghanistan,** the average score is highest for access to infrastructure, finance, and manpower, and ease of receiving visas and licenses (both having an average score of 55), while it is lowest for availability of networks (25). The main gray areas include 5G mobile network (0), followed by domestic internet exchange points (IXP) and domestic data centers (scoring 20).

4.4 Digital FDI Restrictions

The fourth and second most important dimension of the digital FDI framework is digital restrictions, which comprises five subindicators: sectoral restrictions, restrictions on key foreign personnel/directors, other restrictions, foreign equity limits, and screening and approval of FDI. Figure 7 shows the score of digital FDI restrictions across all the CAREC countries. It shows that Georgia (79.2), Azerbaijan (76.3), Mongolia (68.9), Kazakhstan (68.5), Uzbekistan (68.3), and the Kyrgyz Republic (67.1) are leading countries with lower digital FDI restrictions, while Pakistan (67.7) falls within the average of the CAREC region (64.3). The PRC (60.6), Tajikistan (58.8), Turkmenistan (47.4), and Afghanistan (44.7) fall below the regional average. Detailed explanations of subindicators based on the evaluation matrix for the digital FDI restriction dimension follow after Figure 7 (see Appendix).

Figure 7. Digital FDI Restrictions



The subindicators of digital FDI restrictions in **Georgia** fall within the range of 70 to 90. The best indicators are restrictions on key foreign personnel/directors (85), foreign equity limits and other restrictions subgroups (80), while sectoral restrictions (76) and screening and approval (75) have lower scores. Principally, there are no strict FDI restrictions (except for cases stipulated in the law) in **Azerbaijan**; however, there are higher sectoral restrictions on print, telecoms, and social media, access to webpages, and freedom of expression. Improving legislation will reduce the negative impact of these factors. The average indicator of this dimension is around 75-80. In **Mongolia,** the highest scores in digital FDI restrictions were received in restrictions on key foreign personnel/directors (82.5), followed by sectoral restrictions (72). The lowest score is observed in foreign equity limits (40). **Kazakhstan** encourages foreign investment and has no restrictions on investment in most industries except for industries related to national security, such as banking, insurance, mineral, and land investment. The digital restrictions indicators have more or less average scores, with the lowest on sectoral restrictions (61) and the highest on restrictions on foreign key personnel (75). The sectoral restriction mainly includes the restriction on social and telecom media.

Like Kazakhstan, the higher performance indicator is restrictions on key foreign personnel/directors in **Uzbekistan** (90). In contrast, restrictions on print/social media and access to online content are higher, with an average score of 60. Foreign equity limits (40) are the least-performing indicator of digital FDI restrictions in Uzbekistan owing to the strict rule of <50 percent equity from MNCs. Moreover, the law prohibits the government from discriminating against foreign investors based on their nationality, place of residence, or country of origin. Foreign investors are welcome in all facets of Uzbekistan's economy. However, governmental control over essential industries—such as mining, telecommunications, transportation, and energy—has an adverse impact on international investors. In the **Kyrgyz Republic**, the highest score is observed in nationality/residence requirements for the board of directors (100), foreign key personnel not permitted (80), and time-bound limit on employment of foreign key personnel (70). On the contrary, the lowest score is observed in foreign equity >50 percent but <100 percent of total equity (40), implying that digital FDI restrictions are quite strong. Overall, the subindicator restrictions on key foreign personnel/directors demonstrated the highest score (80).

The highest score in **Pakistan** is observed in foreign equity limits (80) and restrictions on online content and foreign websites (73). Restrictions on key foreign personnel/directors (55) report the lowest score. The subindicators: restriction on social media, access to webpages, nationality/residence requirements for board of directors, burdensome restrictions on online content, and prohibiting access to foreign websites report a higher score (80). In contrast, the lowest score is observed in economic needs test for employment of foreign key personnel (with a score of 20) owing to lower economic growth and the fragile socio-economic and institutional situation in Pakistan.

In the **PRC**, sectoral restrictions are higher (48), followed by other restrictions (60), particularly restrictions on telecom/social media (50), branches/local incorporation (80), and prohibition on access to foreign websites (40). The PRC's tax system requires the registration of each new branch at the local administration and tax department. Moreover, many mainstream websites and social media applications are not operational in the PRC because of its data localization policy. Moreover, there are strict foreign equity limits (50), and screening and approval of FDI (70) are relatively swift; however, digital FDI faces higher scrutiny than other sectors. Despite higher FDI restrictions, the PRC continues to have enormous market growth potential owing to a skilled labor force, unmatched infrastructure, and a commitment to strengthening its position as a manufacturing hub for emerging sectors such as ICT. Investing in the PRC is not always easy, but there is no other country that can replace it. MOFCOM is progressively working to ease FDI registration and operationalization procedures. Recently, the number of restricted items for foreign MNCs to invest in was reduced from 33 to 31—the restriction of the joint venture with Chinese partners for automobiles has been removed, and the manufacturing of radio and television equipment and components is no longer regulated.

Table 7 reports the FDI regulator restrictiveness index for seven CAREC countries. It indicates that PRC has the highest restriction (0.214), followed by the Kyrgyz Republic (0.137) and Tajikistan (0.12), while Uzbekistan has the lowest (0.068) value among all countries considered. Notably, the ICT-related sectors (red highlighted) report the highest restrictiveness in the PRC, Azerbaijan, Kazakhstan, Tajikistan, and Uzbekistan.

Table 7. FDI Regulatory Restrictiveness Index 2019 for Selected CAREC Countries

Sector/Industry	Azerbaijan	PRC	Kazakhstan	Kyrgyz Republic	Mongolia	Russia	Tajikistan	Uzbekistan
FDI Regulatory Restrictiveness Index	**0.077**	**0.214**	**0.113**	**0.137**	**0.072**	**0.262**	**0.12**	**0.068**
Primary	0.043	0.342	0.215	0.215	0.093	0.212	0.228	0.04
Agriculture & Forestry	0.05	0.113	0.29	0.35	0.1	0.18	0.425	0.06
Agriculture	0.05	0.176	0.29	0.525	0.1	0.255	0.8	0.06
Forestry	0.05	0.05	0.29	0.175	0.1	0.105	0.05	0.06
Fisheries	0.06	1	0.04	0.055	0.06	0.155	0.03	0.02
Mining & Quarrying (incl. Oil extr.)	0.01	0.14	0.24	0.105	0.11	0.332	0.03	0.02
Secondary	0.017	0.077	0.04	0.059	0.064	0.15	0.03	0.029
Manufacturing	0.01	0.071	0.04	0.06	0.06	0.163	0.03	0.023
Food and other	0.01	0.064	0.04	0.08	0.06	0.155	0.03	0.033
Oil ref. & Chemicals	0.01	0.06	0.04	0.055	0.06	0.072	0.03	0.02
Metals, machinery and other minerals	0.01	0.05	0.04	0.055	0.06	0.155	0.03	0.02
Electric, Electronics and other instruments	0.01	0.06	0.04	0.055	0.06	0.168	0.03	0.02
Transport equipment	0.01	0.12	0.04	0.055	0.06	0.263	0.03	0.02
Electricity	0.01	0.085	0.04	0.055	0.06	0.085	0.03	0.07
Electricity generation	0.01	0.12	0.04	0.055	0.06	0.065	0.03	0.12
Electricity distribution	0.01	0.05	0.04	0.055	0.06	0.105	0.03	0.02
Construction	0.06	0.1	0.04	0.055	0.085	0.155	0.03	0.02
Tertiary	0.128	0.254	0.122	0.158	0.07	0.351	0.139	0.104
Distribution	0.01	0.075	0.04	0.08	0.06	0.155	0.03	0.024
Wholesale	0.01	0.075	0.04	0.08	0.06	0.155	0.03	0.02
Retail	0.01	0.075	0.04	0.08	0.06	0.155	0.03	0.028
Transport	0.079	0.395	0.09	0.188	0.171	0.455	0.18	0.041
Surface	0.035	0.05	0.04	0.08	0.06	0.455	0.03	0.02
Maritime	0.148	0.385	0.09	0.055	0.06	0.155	0.03	0.045
Air	0.054	0.75	0.14	0.43	0.393	0.755	0.48	0.058
Hotels & restaurants	0.01	0.05	0.04	0.055	0.06	0.205	0.055	0.028
Media	0.46	0.985	0.553	0.33	0.06	0.538	0.53	0.395
Radio & TV broadcasting	0.61	1	0.565	0.555	0.06	0.655	0.53	0.52
Other media	0.31	0.97	0.54	0.105	0.06	0.422	0.53	0.27
Communications	0.01	0.733	0.14	0.055	0.06	0.155	0.03	0.02
Fixed telecoms	0.01	0.75	0.24	0.055	0.06	0.155	0.03	0.02
Mobile telecoms	0.01	0.715	0.04	0.055	0.06	0.155	0.03	0.02
Financial services	0.207	0.05	0.118	0.087	0.06	0.495	0.127	0.095
Banking	0.285	0.05	0.14	0.1	0.06	0.48	0.163	0.195
Insurance	0.31	0.05	0.14	0.105	0.06	0.8	0.155	0.07
Other finance	0.027	0.05	0.075	0.055	0.06	0.205	0.063	0.02
Business services	0.16	0.225	0.04	0.298	0.06	0.28	0.273	0.265
Legal	0.51	0.75	0.04	1	0.06	0.655	1	1
Accounting & audit	0.01	0.05	0.04	0.08	0.06	0.155	0.03	0.02
Architectural	0.06	0.05	0.04	0.055	0.06	0.155	0.03	0.02
Engineering	0.06	0.05	0.04	0.055	0.06	0.155	0.03	0.02

Source: OECD Statistics (zero implies no restrictions, while one indicates entirely restricted)

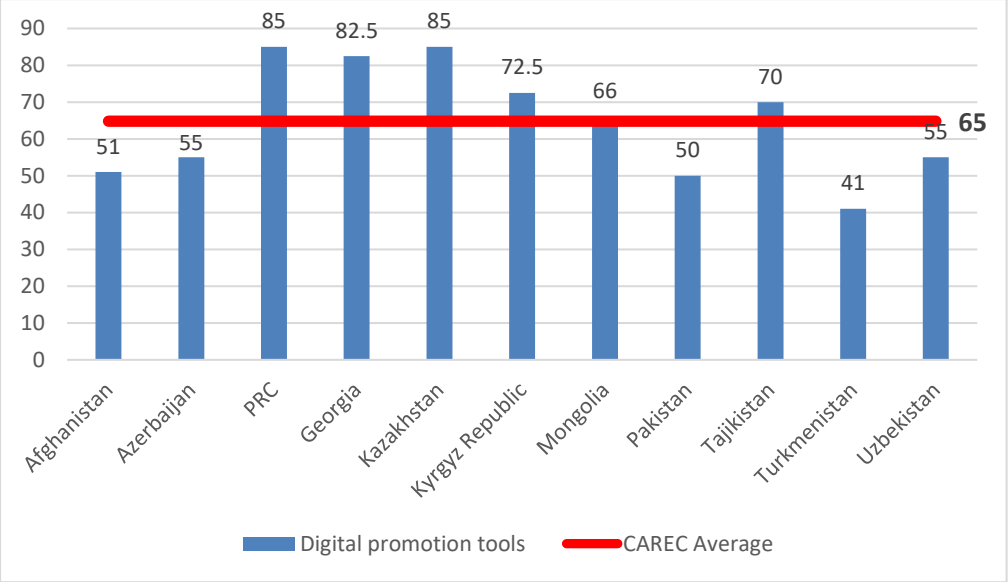
Again, from the evaluation matrix (see Appendix), the highest average score is observed in foreign equity limits (70), while restrictions on key foreign personnel/directors (52.5) is the lowest among other indicators in **Tajikistan**. Within this dimension, the lowest score is observed for prohibition on access to foreign websites (20) followed by economic needs test for employment of foreign key personnel and nationality/residence requirements for board of directors (each with a score of 40). The main barriers include the prohibition on access to foreign websites and laws related to residence requirements for the board of directors.

In FDI restrictions, the highest average score is observed for foreign equity limits (64) and the lowest score for screening and approval of FDI (40) in **Turkmenistan.** The average score varies between the two extremes for the rest of the subgroups. The main hindrances to digital FDI are the two indicators prohibition on access to foreign websites and residence requirements for board of directors, both with a score of 20. Lastly, **Afghanistan** lags behind its peer countries in all five dimensions of FDI restrictions. Foreign equity limits (60) shows the highest score while other restrictions (33.3) has the lowest score. Within subindicators, the lowest score is observed for prohibition on access to foreign websites and burdensome restrictions on online content (both achieving a score of 20). The main hindrance to digital FDI is the prohibition on access to foreign websites and burdensome restrictions on online content.

4.5 Digital Promotion Tools

The fifth dimension of the digital FDI framework is digital promotion tools, which primarily includes incentives and promotions for FDI. Figure 8 shows a comparison of digital promotion tools across all CAREC countries. It visualizes that the PRC (85), Kazakhstan (85), and Georgia (82.5) are leading countries in digital promotion tools, followed by the Kyrgyz Republic (72.5), Tajikistan (70), and Mongolia (66). The remaining countries—Uzbekistan (55), Azerbaijan (55), Afghanistan (51), Pakistan (50), and Turkmenistan (41) are falling lower than CAREC's average score (65) in digital promotions. Detailed explanations of subindicators follow Figure 8.

Figure 8. Digital Promotion Tools



Apart from market-based incentives, the **PRC** has an IPA under the umbrella of MOFCOM, which took effective promotion steps for inward and outward FDI. It arranged many physical and virtual events to promote its local industry potential. Investment promotion events are occasionally arranged in the PRC's high-tech/industrial hubs: Shenzhen, Shanghai, Yiwu, and Guangzhou. Since Western PRC is relatively underdeveloped compared to Central and Eastern PRC, the 'Go West' policy is gaining momentum; IPAs are playing an effective role in realizing higher capital investment and growth. Among subindicators of digital promotion tools, the PRC secured the highest score in ITA and multiple bilateral agreements (90) with global economies. An identical score is observed in fiscal incentives to foreign firms (90). **Kazakhstan and Georgia** are the second and third leading countries in terms of digital promotion tools. The governments take various steps to promote FDI inflows, such as PPP projects, export promotion through reimbursement of part of the costs, and state support for industrial and innovative activities. The highest score is observed in ITA and bilateral agreements (100), followed by availability of venture capital (80) and IPA events.

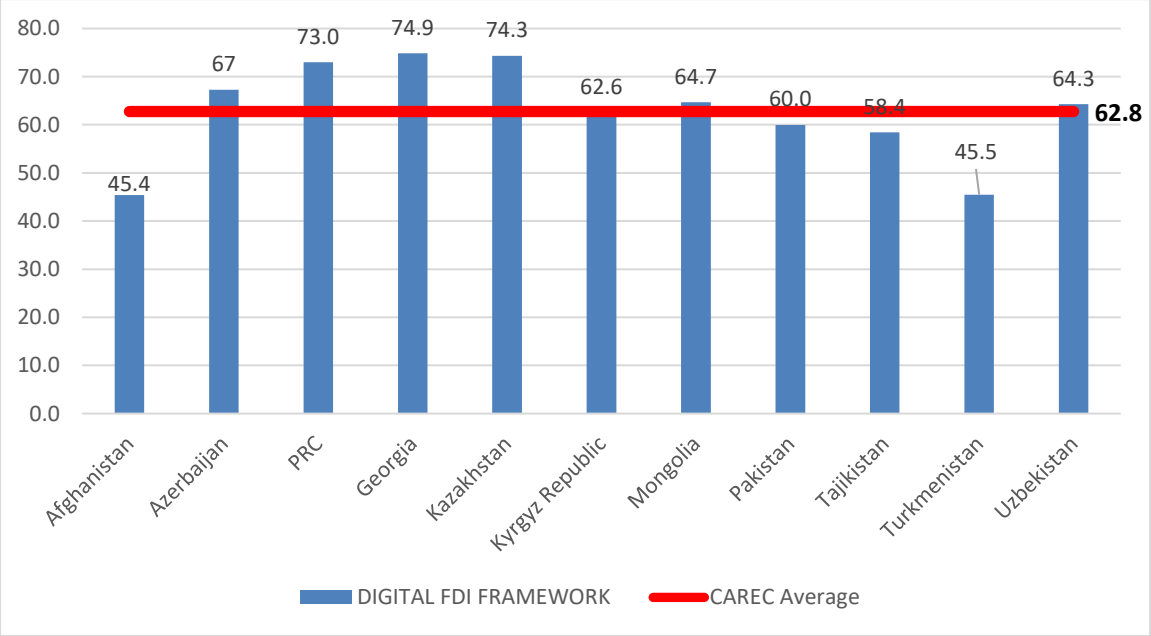
The **Kyrgyz Republic** is a member of ITA and other bilateral agreements, thus securing the highest score (100), followed by financial or fiscal incentives (80). In contrast, IPA events (60) and availability of venture capital (50) are the least performing indicators of digital promotion tools. Similar results are echoed in **Tajikistan**, where ITA secured the highest score while venture capital is the lowest. Since **Mongolia** is not a member of the ITA, it has a smaller number of bilateral trade agreements (40). However, financial or fiscal incentives (80), investment promotion agencies/promotion by government/private sector (other than incentives) (74), and availability of venture capital (70) are the highest-performing indicators in digital promotion tools. Consistent results are found in **Uzbekistan** and **Azerbaijan,** which secured the highest scores in financial incentives (80 and 70) and IPA (60 and 80), while scoring the lowest in ITA (40).

In **Pakistan**, the findings based on the evaluation matrix (see Appendix) depict that the average score for this dimension is 50, with financial or fiscal incentives and investment promotion agencies having a score of 60, while the remaining two indicators information technology agreements and availability of venture capital both score 40. Lastly, **Afghanistan** shows that all indicators of digital promotion have a lower score (40), except for ITA, which is the highest (84). In **Turkmenistan**, the lowest score is observed for ITA (0), while the score varies from 50 to 60 for the other three indicators.

4.6 Overall Digital FDI Framework

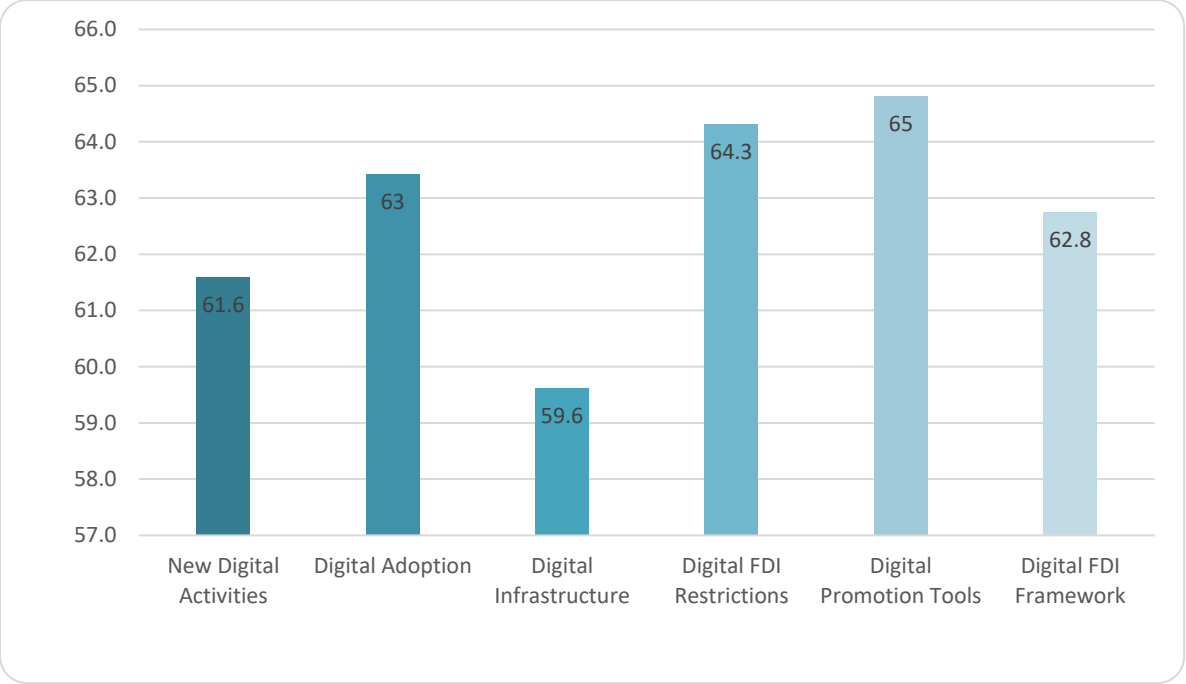
The score for digital FDI framework is measured using the average score of the five key dimensions: (i) new digital activities, (ii) digital adoption, (iii) digital infrastructure, (iv) digital FDI restrictions, and (v) digital promotion tools. Figure 9 compares the digital FDI framework for all CAREC countries, demonstrating that Georgia (74.9), Kazakhstan (74.3), and the PRC are leading CAREC counties in terms of a conducive digital FDI framework. Azerbaijan (67), Mongolia (64.7), Uzbekistan (64.3), the Kyrgyz Republic (62.6), and Pakistan (60) have moderate digital FDI frameworks. Tajikistan (58.4), Turkmenistan (45.5), and Afghanistan (45.4) display lower scores than the CAREC regional average (62.8). Although the subindicator scores of digital FDI substantially varied across the countries, the average score of the digital FDI indicators guides and ranks CAREC countries in an inclusive framework.

Figure 9. Digital FDI Framework



The CAREC average for five dimensions (pillars) is provided in Figure 10. It can be seen that the average score for all CAREC countries ranges from 59.6 (digital infrastructure) to 65 (digital promotion tools). The overall average score for the digital FDI framework for all CAREC countries is found to be 62.8, indicating that the CAREC countries need to improve their performance.

Figure 10. Digital FDI Framework, CAREC Region



5 Conclusion and Recommendations

This study reviews the core pillars of the digital FDI ecosystem in the CAREC region. In doing so, five critical dimensions of digital FDI are evaluated: (i) new digital activities, (ii) digital adoption, (iii) digital infrastructure, (iv) digital FDI restrictions, and (v) digital promotion tools. Using descriptive methods, the results are scaled between 0 (highest restrictions on digital FDI) and 100 (lowest restrictions on digital FDI). The findings of the digital FDI framework demonstrate that Georgia (74.9), Kazakhstan (74.3), and the PRC are leading the CAREC countries in terms of a conducive digital FDI environment. They represent lower restrictions on digital FDI in the CAREC region. Azerbaijan (67), Mongolia (64.7), Uzbekistan (64.3), the Kyrgyz Republic (62.6), and Pakistan (60) report moderate scores in digital FDI frameworks. Tajikistan (58.4), Turkmenistan (45.5), and Afghanistan (45.4) display the lowest scores, which are lower than the CAREC regional average (62.8). However, the results varied substantially in the five key dimensions of the digital FDI framework (see Table 4). Brief discussions and policy recommendations follow for each CAREC country.

5.1 Georgia

The outcome of **digital FDI framework** (score 74.9/100) implies that Georgia is the most open and favorable country for FDI in the CAREC region. According to the World Investment Report of 2022, net FDI inflows in Georgia were worth USD1.153 billion in 2021; however, it ranked seventh in the CAREC region. From 2013 to 2018, the average FDI percentage of GDP was 10.2 percent; however, this figure has been reducing since 2018. A sudden dip in 2020 is mainly attributed to COVID-19. Overall, it is essential to improve the efficiency of the judicial system, to improve inefficient municipal decision-making processes and weaknesses in the protection of intellectual property rights, to address the lack of effective anti-trust policies and the selective application of laws and regulations—including commercial laws—as well as difficulties in resolving disputes. The following suggestions are derived from the key findings of this study:

- Increase the level of consumer protection laws and the use of e-agreements.
- Accelerate the introduction of the 5G mobile network.
- Develop internet exchange points and domestic data centers to support reliable data transmissions and security.
- Increase bilateral and multilateral investment agreements on the mutual protection of investments.
- Facilitate procedures for infrastructure financing and land acquisition for business purposes.
- Develop backbone networks (to increase connectivity levels in rural areas).
- Increase the level of cooperation for regional coordination for infrastructure investment.
- Accelerate the improvement of the e-skills level of local human resources/engineers.

One of the essential digital investment priorities for Georgia and other CAREC countries, such as Azerbaijan and Kazakhstan, is the creation of national digital logistics centers. Owing to recent geopolitical changes in the region, the role and volume of transportation have increased freight dramatically along the East–West and North–South Transport Corridors. All three CAREC countries mentioned are essential participants in these transport corridors. Digital FDI is essential to attract internet exchange points and 5G networks backbone connectivity to these areas, as well as the creation of national digital logistics centers.

5.2 Kazakhstan

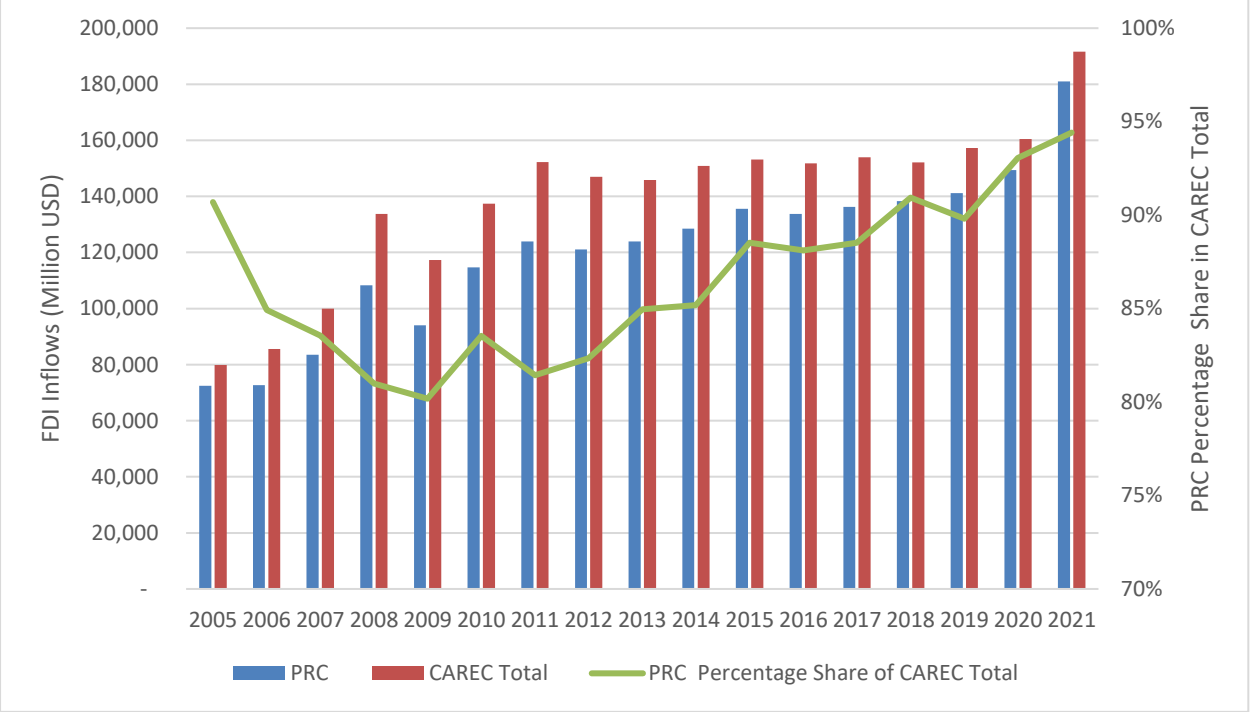
In 2021, net FDI inflows in Kazakhstan were worth USD3.172 billion and ranked second in the CAREC region. The highest FDI percentage of GDP (12.5 percent) was observed in 2016, but this figure was reduced afterward. The country has a strong digital FDI framework with an average score of 74.3; however, the following suggestions could increase FDI inflows:

- Improve legislation in the spheres of consumer protection, competition, and investors' rights.
- Diversify and further develop the connectivity level of the country, especially in rural areas.
- Take effective steps for 100 percent 4G network coverage and launch 5G in mainstream cities and industrial hubs.
- Implement measures to train specialists in application development, back-end data science, and cybersecurity. Increase the number of internet exchange points and domestic data centers to accommodate the higher data traffic in the digital platform economy.
- Improve the digital skills of the population by introducing unique promotion campaigns.
- Review and reduce restrictions on media and online content.
- Encourage the use of e-signatures for local and foreign transactions.
- Continue privatization to attract more digital investments and offer foreign MNCs equal opportunities.
- Improve regional coordination for infrastructure investment and technology transfer from digitally advanced countries.
- Facilitate the land acquisition/lease policy for foreign enterprises.

5.3 PRC

The PRC has been a critical player in the economic globalization era and is effectively integrating with the global economy through FDI, exhibiting three phases of development—restricted (1978-1999), relaxed (2000-2016), and regulated (2017 onwards)—where the paradigm shift at each stage is based on major policy shifts. In 2001, the PRC embarked on a relaxed FDI regime by proposing the 'going out' strategy to attain World Trade Organization (WTO) accession. As part of this strategy, the PRC kept relaxing FDI regulations and earned a prominent position in the global overseas investment market. In 2021, the PRC's net FDI inflow was worth USD180.95 billion and ranked first in the CAREC region and second globally. About 92 percent of the FDI inflows in the CAREC region are attributed to the PRC, as shown in Figure 11.

Figure 11. FDI in the PRC and the CAREC Region



Source: World Investment Report 2022 (UNCATD 2022)

The PRC has a robust digital FDI framework with a 73/100 score and receives a substantial amount of FDI. It continuously harmonizes its policies to attract foreign talent and capital inflows. However, a few areas are identified for which the following policy recommendations are proposed:

- Implement copyright laws to protect intellectual property. Recent regulation proposed strict copyright laws to retain foreign high-tech firms; however, the effective implementation of procedures is costly in terms of time and effort.
- Review data localization policy to benefit from massive amount of data for sales, marketing, and economic analysis. The data could be used to improve regional coordination and economic integration.
- Relax property leasing and registration procedures to help MNCs establish and expand their business operations in PRC.
- Relax the requirements for source code disclosure and the restrictions on ICT expansion. Integrating with international standards is important for the consistent sharing of ideas.
- Strong competition policies/regulations and a level playing field for foreign MNCs are essential because of the increased number of SOEs in the PRC. In addition, the MNCs would get the same opportunities to bid on government contracts, as well as financial incentives.
- Facilitate digital infrastructure licensing and review restrictions for MNCs. Equity limits for foreign MNCs should be relaxed to allow maximum inflows from MNCs.
- Review and reduce telecom restrictions and allow foreign applications to expand market depth and width.

5.4 Azerbaijan

Despite the favorable investment climate in Azerbaijan, the volume of FDI in the digital arena has been meager. The reason is that in the 1990s (the first years after independence), the main focus was on implementing infrastructure projects. To this end, FDI was attracted to the construction of ICT communication networks and mobile operators. The public and private sectors implemented projects to

cover the country with transmission channels such as fiber optic communications. The country currently has sufficient financial resources for expansions in telecommunications, broadband connection, internet, and so on to be done primarily by internal resources. Despite this, Azerbaijan undoubtedly needs foreign FDI in high-tech areas of the digital economy, such as IoT, AI, big data, and 5G. According to the findings of this report, Azerbaijan secured a score of 67 in the digital FDI framework; many indicators of the digital economy require policy intervention to encourage FDI inflows:

- Simplification of licensing procedures for digital activities.
- Improve consumer protection legislation and the inception of the independent regulator. So far, there is no independent regulatory body in Azerbaijan. Regulatory support is imperative to facilitate regular digital FDI.
- Develop backbone networks (to increase connectivity levels in rural areas), particularly the launch of the 5G network.
- Develop internet exchange points, data centers, and the cloud infrastructure.
- Review and reduce the cost of internet connection.
- Widen the use of e-signatures for cross-border transactions.
- Establish venture capital funds to support startups and small businesses primarily engaged in digital activity.
- Implement measures to improve the level of digital skills.
- Reform the land acquisition act for business purposes and coordinate regional financing for digital infrastructure.
- Relax social media and telecom restrictions, increasing internet penetration, and motivating FAANG companies to invest.
- Improve regional integration by mutual trade/investment agreements, and submit a proposal for joining ITA membership to ensure zero tax on digitally traded goods.
- In the CAREC region, Azerbaijan has the second highest tariff rate—5.93 in 2020 (weighted mean tariff percentage rate of all products)—although it reduced from 11.98 percent to 5.93 percent between 2020 and 2019. However, further efforts are required to minimize tariffs.

5.5 Mongolia

Mongolia's frontier market and enormous mineral reserves present potentially lucrative opportunities for investors, but caution is advised owing to the undercapitalized banking industry and lack of stakeholder participation during rulemaking. Few investment limits are placed on Mongolia's investors, who have largely unrestricted access to the market. Franchises—including fast food, convenience stores, and gyms—have succeeded better than expected, indicating that investors may be able to introduce successful international business models to Mongolia's services industry. Agriculture and the cashmere garment industry in Mongolia are also quite promising. The risks are greater when investing in politically sensitive areas of the Mongolian economy, such as mining.

The young and flexible population has embraced IT products for both personal and professional use during the past five years, which has resulted in a rise in demand for IT goods and services in Mongolia. The Communications Regulatory Commission (CRC) claims that internet service users increased from 200,000 subscribers in 2010 to 2.6 million by December 2016, bringing internet penetration to 86 percent in its most recent examination of Mongolia's IT sector. Additionally, the Communications and Information Technology Authority (CITA) promotes Mongolia as a potential site for data centers for cloud computing and covert business activities. Although Mongolia lacks the startup finances and experience necessary to establish these facilities from the bottom up, Mongolian IT specialists have the talents and skills to staff and operate such facilities. Lastly, compared to its neighbors, Mongolia is considered 'free' regarding restrictions on media, social media, the press, and other relevant sectors of the digital economy.

In 2021, net FDI inflows in Mongolia were worth 2.140 billion (BoP, current USD) and ranked third in the CAREC region. From 2017 to 2020, it maintained the highest FDI percentage of GDP (about 15 percent) compared to CAREC regional growth (3.6 percent) in the same period. Mongolia has shown a medium score in the digital FDI framework (64.7) and lacks various dimensions of the digital economy. The following observations/recommendations are derived from this study:

- Mongolia made significant progress in reforming its telecommunications sector and started various programs that support startup businesses. Primarily, it requires bridging the gap between the digital infrastructure of urban and rural areas and improving the work of municipal and provincial levels of government.
- Increase global cooperation and improve regional integration.
- Took effective measures to improve data privacy and security by approving legislative reforms and capacity building of regulatory bodies.
- Legal provisions for e-agreements and acceptability require intense efforts.
- Relax the procedure for licensing digital activities.
- Establish investor dispute settlement courts locally and integrate with global dispute settlement agencies, adding provisions for investors' rights.
- Sign double taxation treaties with global partners and bilateral agreements on mutual protection of investment.
- Support the development of digital skills locally and capacity building to offer equipped workforce to MNCs.
- A reduction in tariffs and taxes on digital goods is essential. Currently, a 5.3 percent weighted mean tariff rate (percentage of all products) is applied in Mongolia, which is higher than the CAREC regional average (3.71).
- Introduce inclusive investment policy based on international standards by ensuring intense competition.
- Improve international and national connectivity (rural and urban) and launch 5G network in major cities as pilot projects.
- Develop internet exchange points and domestic data centers to ensure data security and uninterrupted flow.
- Relax foreign equity limits for MNCs and reduce the restrictions/requirements.
- Take effective measures to join ITA and ensure zero tax rate on ICT traded goods.

5.6 Uzbekistan

Uzbekistan's leadership continues to undertake reform initiatives in 2020 to foster economic growth and enhance public welfare by encouraging private and foreign direct investment and lowering the proportion of the state sector in the economy. It established an anti-corruption agency to investigate government organizations and legal entities, including state-owned banks, and to prevent and combat corruption in public procurement based on the ISO 37001 standard to improve anti-corruption measures further. A law forbidding the construction and operation of SOEs in commodities markets—where they might compete with private businesses or have conflicts of interest—was signed by President Mirziyoyev as part of his effort to reduce governmental participation in the economy.

The directive also demanded that nine significant SOEs—including the national airline, automakers, and energy corporations—comply with anti-monopoly laws. The government plans to privatize 548 SOEs in October, including strategic assets in the oil and gas, mining, chemical, transportation, banking, and manufacturing industries, which had been excluded from previous privatization rounds. Moreover, the government introduced several internal corporate governance reforms in 39 SOEs. The COVID-19 epidemic impeded further capital market liberalization and development in Uzbekistan and the SOE privatization and reorganization process. Foreign companies continued to report opaque public procurement procedures

throughout the reporting period and instances in which SOEs and government organizations failed to adhere to official policy directives and rules consistently. Additionally, there is still a lack of enforcement of laws protecting intellectual property rights.

In Uzbekistan, e-commerce earned USD481.3 million in income in 2020, or 68 percent of all national digital revenue. Digital media, e-services, and e-travel made up the remaining 32 percent. Compared to the average of 3.1 percent in Asia, digital consumption in Uzbekistan is low, accounting for only 1.2 percent of consumer spending per person in 2020. By 2025, e-commerce sales are anticipated to increase by 6.3 percent yearly. Online purchases of fashion items (32 percent) and electronics (31 percent) were the most popular; followed by purchases of food and personal care (14 percent); toys, and hobby and DIY supplies (11.5 percent), and furniture and appliances (11 percent). Moreover, FAANG companies—Meta (META, formerly known as Facebook), Amazon, Apple, Netflix, and Alphabet (formerly known as Google)—have not yet entered the digital market sector. On the other hand, several studies reported that the digital sector is experiencing major challenges: a lack of IT professionals, high demand for IT talent, and relatively lower financial inclusion in rural areas.

In 2021, net FDI inflows in Uzbekistan were worth 2.044 billion (BoP, current USD) and ranked fifth in the CAREC region. From 2015 to 2020, it shows a lower FDI percentage of GDP (about 2.3 percent) compared to the average CAREC regional growth (3.6 percent) in the same period. Uzbekistan has the potential to develop into one of the most prosperous nations in Central Asia, but to do so, it must ensure that market reforms are ingrained in the country's laws and that they are effectively enforced. It shows an upper-medium score (64.3) in the digital FDI framework. The following policy suggestions would help to increase digital FDI:

- Improve the capacity of government agencies and officials to engage with foreign investors; the approval processes of FDI agreements are critical factors to address. This requires public administration reforms and investment in government officials' human capital and skills development.
- Relax social media restrictions and offer new opportunities in the digital market economy. It is also vital to improve inbound tourism and global integration.
- The Law on Personal Data was amended in January 2021, and as a result, international businesses are now required to store citizens' personal data on Uzbekistan's territory. The changes took effect in April 2021, and the communications authority UzKomNazorat warned foreign social media companies that were breaking the law and blocked access to their networks. Data localization requirements restrict the entrance of FAANG companies into the market. The policy may be viewed, and customized data can be shared for market research.
- Update data security regulations to improve people's/firm's trust in digital transactions, fintech, and other business operations. Intellectual property and copyright protection require enforcement and investor protection through dedicated platforms or settlement courts. Moreover, the number of domestic data centers is deficient in Uzbekistan, which is not enough to support a virtual economy, particularly big data and 5G networks.
- Taxation treaties with trading/investment partners would encourage MNCs to set up foreign operations.
- Ensure a level playing field for MNCs and local SOEs. Effective competition policy and regulations are prerequisites for foreign-induced businesses to flourish.
- Digital skills and capacity building of labor dominate the offering of efficient human resources to MNCs. Integration with local and foreign research centers is necessary to replicate knowledge and skills. Digital FDI is highly contingent on the available technical resources in the host country.
- Reduce tariffs and taxes on digital goods. Currently, a 2.63 percent weighted mean tariff rate (percentage of all products) is applied in Uzbekistan, which can be reduced to a minimum for digital trade and investment facilitation.

- The government should establish independent ICT regulators to monitor, regularize, and promote the digital economy. So far, there is no dedicated ministry for the ICT/digital sector.
- Improve international and national connectivity, particularly rural connectivity, and launch a 5G network in mainstream cities.
- Ease the procedure for land acquiring/leasing and ensure regional coordination for policy alignment and infrastructure investment
- Reduce the restriction of foreign equity limits, join ITA, and facilitate IPA—three critical factors of FDI attractiveness in Uzbekistan.

5.7 Kyrgyz Republic

The declines in construction, tourism, and non-gold exports were the leading causes of the 8.6 percent GDP shrinkage in the Kyrgyz economy in 2020 owing to decreased inflows across the board from the nation's major investors—Canada, the PRC, the United Kingdom, and Russia. *In 2020, net FDI inflows turned negative with -5.2 percent of GDP worth -402 million (BoP, current USD) and ranked the lowest FDI-receiving country in the CAREC region. The highest amount of FDI inflows was observed in 2015, worth 1.144 billion (BoP, current USD), accounting for 17.1 percent of GDP. In 2021, net FDI inflows were the lowest, worth 248 million (BoP, current USD) and ranked one of the lowest FDI-receiving countries in the CAREC region.*

The Kyrgyz Republic continues to be a frontier market, catering to higher-risk investors looking to take advantage of the country's low barriers to market entry, lax foreign ownership regulations, and export-focused tax incentives to gain a foothold in Central Asia. FDI has historically focused on industries related to mining, finance, and the production of petroleum products, but the new government's stated intention to advance regional trade integration and develop the nation's digital economy opens up a wide range of long-term investment opportunities in industries like agribusiness and food processing, ICT infrastructure, energy, transit, and customs.

The developing ICT industry in the Kyrgyz Republic has the potential to be a critical economic engine for modernization and regional growth, providing significant investment and trade opportunities along the 'Virtual Silk Road.' Although the country has lagged behind its neighbors in the region regarding ICT access and digital infrastructure development, its IT sector is growing rapidly. The Kyrgyz Republic outperformed Uzbekistan, Tajikistan, and Turkmenistan in innovative digital adoption activities, moving up the Global Innovation Index ranks from 117th (2013) to 94th (2021) among 129 nations.

Since February 2022, the new administration has reorganized ministries and state agencies—including the State Committee for ICT, the Investment Promotion and Protection Agency, and the financial police—as well as overseeing law enforcement by dissolving the financial police. The findings of this report indicate that the Kyrgyz Republic falls under the mid level of digital FDI attractiveness with an average score of 62.6; the following recommendations would help to reduce FDI restrictiveness:

- Intellectual property and copyright protection require reform and strengthening of investors' rights, as most FAANG companies emphasize in this sector.
- Data security/privacy requires a robust regulatory framework with strong implementation. Intellectual property and copyright protection require enforcement and investor protection through dedicated platforms or settlement courts.
- Adequate efforts are required to increase the capacity and efficiency of the government agencies and officials to work with foreign investors and approve processes of FDI agreements. Therefore, reforms are needed in public administration and investment in the human capital and skills development of government officials.
- Increase the domestic data centers and exchange points to improve internet quality and data storage/processing capacity. The launch of 5G networks is imperative to sustain long-term FDI into

the digital sector along with 100 percent coverage of 4G networks, particularly in rural centers. Digitalizing government services is vital to improve governance structure and minimize delays in processing and approval.

- Privatize telecom operations and provide a level playing field for MNCs and local SOEs. Effective competition policy and regulations are prerequisite to ensure that foreign-induced businesses flourish.
- The weighted mean tariff rate (percentage of all products) reduced from 3.09 to 2.33 from 2019 to 2020; however, further efforts are required to achieve minimal tariffs on ICT products.
- The number of double taxation treaties with global partners and bilateral agreements on mutual investment protection is lower in the Kyrgyz Republic. These global agreements attract MNCs owing to intended tax benefits and investment protections.
- Acquiring land for business purposes has burdensome restrictions, leading to restricted FDI in the digital sector, where most transmission lines and installation centers require land.
- Easing restrictions on licenses/visas for digital infrastructure/foreign personnel would help to embrace higher FDI. Reduction in the restriction of foreign equity limits, facilitating IPA, and offering venture capital for new digital firms would help to expand the digital economic foundations.
- Regional coordination for infrastructure investment and compatibility with international investment standards can be achieved by establishing an independent ICT regulator.

5.8 Pakistan

Pakistan's economy witnessed cycles of boom and bust. Owing to the widening of both the current account deficit and the fiscal deficit, a growth rate of 6 percent is outpaced. A quick rise in the fuel and commodities prices coupled with the poor political scenario of the country and increasing trade gap has set the foreign reserves under extreme pressure, leading to a high inflation rate owing to the devaluation of the local currency against the US dollar. The uncertainty is further increased because of the delay in releasing the IMF funds to the country, leading the international rating agencies to rank Pakistan low and even negative, affecting investor sentiments and decisions for upcoming FDI placement. Moreover, the fragile institutional governance amplifies the current situation that restricts FDI inflows in the country. *In 2020, net FDI inflows in Pakistan were 0.8 percent of GDP, worth 2.105 billion (BoP, current USD). In 2021, net FDI inflows in Pakistan were worth 2.102 billion (BoP, current USD) and ranked fourth in the CAREC region. Since 2011, the average growth rate of FDI percentage of GDP has been about 0.7 percent, far lower than the CAREC region average (4.6 percent) in the same periods.*

Recently, Pakistan's government launched the Digital Banking and Licensing Framework 2022 for digital financial inclusion. In addition, the Special Technology Zones Authority (STZA) has been set up to promote and enhance a knowledge-based economy to encourage foreign investors. Further, RAAST—a digital payment system for businesses, individuals, and the government—was recently launched by the country's federal bank. A significant step has been taken to increase the women-friendly business practices ratio. In this regard, Pakistan sets a target of 20 million women's bank accounts under its national financial inclusion strategy (NFIS) program by 2023. Overall, Pakistan is growing in the digital sector and has the potential to attract more FDI. The average score of the digital FDI framework is 60/100 for Pakistan; the report findings give rise to the following recommendations:

- Data security/privacy regulations would be improved by following international data security laws and regulations.
- Protection and implementation of consumer laws and intellectual property rights require urgent intervention. Legislation is also required to enforce e-agreement, reduce restrictions in licensing of digital activities, and free flow of cross-border data.

- Rural connectivity is low, and 100 percent penetration of 4G is also not achieved. Moreover, a dedicated digital policy is required to attract FDI for 5G mobile network construction across the country. So far, Pakistan is in the test phase of the 5G network by PTCL.
- The laws and regulations related to land ownership and access to infrastructure need substantial improvement.
- The authorities should revise the regulations related to restrictions on the key foreign personnel working in the country and ease the process of business registration and licensing for digital infrastructure.
- Fragile institutions and a slow registration/clearance process are the main concerns for MNCs in Pakistan. Institutional reforms are vital to offer a conducive environment to local and MNCs. Since digital FDI is more vulnerable to regulations, an adequate governance structure is therefore a prerequisite to maximizing FDI.
- Tariffs and taxes are too high relative to per capita income in Pakistan. In the CAREC region, Pakistan has the highest tariff rate—8.68 in 2020 (weighted mean tariff rate percentage of all products). Similarly, higher taxes on ICT equipment and devices hinder local infrastructure and discourage digital FDI. Necessary steps are required to reduce tariffs and taxes to less than 1 percent.
- Despite a sizeable workforce, digitally skilled labor is scant in Pakistan; most skilled labor either worked freelance for leading digital firms or migrated. Thus, a retention policy for existing HR and improvement in the digital skills of existing young talent is necessary to provide an equipped labor force for local and foreign firms.
- Necessary steps would be taken to join ITA and other mutual agreements with developed digital economies to ensure zero tax on digitally traded goods. It enables MNCs to set up their business operations through FDI.

5.9 Tajikistan

Tajikistan is a fragile economy regarding the business environment; however, it attracts foreign investors by providing a potentially high gain with high-risk opportunities. In addition, it provides a suitable environment for making long-term investments in the country. Tajikistan's government is very keen on attracting FDI. In this regard, the authorities hosted an October 2021 investment forum to portray a positive investment climate for foreign investors.

Tajikistan demonstrated one of the lowest volumes of net FDI inflow in 2021 by reaching USD84 million and ranked ninth in the CAREC region. Article 7 of investment regulations in Tajikistan ensures equal rights for foreign and local investors. By law, foreign investors can invest by jointly owning shares in existing Tajik companies or setting up a wholly foreign-owned company. However, the average score of the digital FDI framework in Tajikistan is 58/100, which shows untapped potential in many aspects of the digital economy and can be improved as follows:

- Data security/privacy and copyright regulations require substantial improvements. Firm's/consumers' trust in digital transactions is essential to expand the depth and width of digital adoption. The protection and implementation of e-signatures across business contracts and dealings would help reduce clearance processes.
- E-government development is necessary to ensure smooth government services, clearances, and endorsement. ICT regulations should be relaxed in line with international standards. Moreover, improving regional integration is necessary to ensure bilateral and multilateral investment agreements on the mutual protection of investments.
- Reducing taxes and tariffs on digital goods and services will affect the location choice of FDI. Tajikistan is fourth in the CAREC region regarding higher tariffs—3.93 percent in 2020 (weighted mean tariff rate percentage of all products). Similarly, taxes on digital goods need to be minimized.

- A concerted effort is required to improve network availability and quality, and establish new domestic data centers and internet exchange points. So far, no noticeable initiative has been taken to launch 5G.
- There is an urgent need for data localization, and many foreign websites have restricted access. Since FAANG companies are core digital FDI platforms, restrictions on these companies may also restrict associated FDI. Thus, a data sharing policy should be considered by integrating consumer security features.
- The procedure for land ownership/lease and licensing for MNCs should be simplified and effective measures taken to reduce burdensome restrictions for MNCs starting new digital businesses.
- Screening and approval of FDI, foreign equity limits, and residence requirements for the board of directors should be relaxed to motivate foreign enterprises.

5.10 Turkmenistan

Public investment and gas exports are key drivers to boost Turkmenistan's economy. From 2015 to 2019, Turkmenistan witnessed an average economic growth of around 6 percent. However, a decline in the growth rate was observed in 2020 for numerous reasons, including a drop in demand and the deteriorating prices for energy products owing to the COVID-19 pandemic. Later in 2021, Turkmenistan's economy recovered thanks to an increase in exports and hydrocarbon output and achieved a growth rate of 6 percent in 2022. In 2020, net FDI inflows in Turkmenistan were 4.8 percent of GDP worth 1.169 billion (BoP, current USD) and ranked sixth in the CAREC region. FDI to GDP growth percentage gradually decreased from 3.6 percent in 2014 to 2.6 percent in 2019. A sudden decline with 1.3 percent growth was observed owing to the COVID-19 spread in 2020. Our findings mark Turkmenistan at the second lowest level of the digital FDI framework with a score of 45.5 and we propose the following recommendations:

- There is an urgent need for data localization, and many social and print media websites are restricted. Because of this, FAANG companies failed to invest. Notably, a major portion of digital FDI is positioned in software development and associated with equipped human capital. An integrated effort is required to reduce the restriction of foreign web pages, use international standards, and integrate with other countries in physical and virtual infrastructure development with global frontiers.
- Intellectual property rights, data privacy, and security regulations are lagging behind in the digital economy in Turkmenistan. Data security and content rights in digital business operations are essential for MNCs. The protection and implementation of e-signatures across business contracts and dealings would help to reduce clearance processes.
- Effective measures are vital to protect investors' rights. Platforms for international arbitration (investment dispute settlement), agreement on mutual protection of investment, and double taxation policies may protect investors' rights and encourage higher FDI into respective sectors.
- Obtaining visas and licenses for digital infrastructure is complex and time-consuming. Relaxing these limits would encourage FDI inflows, while one window operation is required to apply and obtain approval from a single desk. This would also reduce approval turnaround time.
- E-government development is necessary to ensure smooth government services, clearances, and endorsement. ICT regulations should be relaxed in line with international standards. Moreover, improving regional integration is necessary to ensure bilateral and multilateral investment agreements on the mutual protection of investments.
- Substantial efforts are required to improve network (particularly 100 percent 4G penetration and the launch of 5G) availability/quality and establish new domestic data centers and internet exchange points.
- The procedure for land ownership/lease and licensing for MNCs should be simplified and effective measures taken to reduce burdensome restrictions for MNCs starting new digital businesses.

- Effective measures are required to join ITA and multiple agreements with countries exporting digital goods. The role of IPA needs to be expanded to explore the potential for digital FDI in Turkmenistan. Several other tools help to retain and attract MNCs, such as tax rebates, venture capital for MNCs, and lowering tariffs on imported goods.
- Minimizing or removing foreign equity limits motivates MNCs to invest. Moreover, the FDI approval mechanism is slow owing to many formal and informal restrictions that must be overhauled and transformed in line with global standards. Also, the national requirement of directors should be relaxed in ventures.

5.11 Afghanistan

Afghanistan is facing an unusual situation with a unique disaster, whereby the whole economic system is at very high risk of collapse. The economy is teetering on the brink of universal poverty, with more than half the population dependent on life-saving and essential humanitarian assistance. In addition, owing to the collapse of the health system, there is a risk of children becoming malnourished; these numbers are increasing at an alarming rate. Violence, fear, and deprivation continue to drive people out of their homes. About 3.4 million people have been displaced within Afghanistan—a tenth of the population. Many live in makeshift settlements in difficult conditions with no access to services.

The net FDI inflows in Afghanistan were worth only 23 million (BoP, current USD) in 2021, which is the lowest in the CAREC region (UNCTAD 2022). Since 2003, this has been the lowest FDI and ranked as the least-performing country in the digital FDI ecosystem of the CAREC region. The core reason for lower growth and FDI is attributed mainly to the fragile situation because of war and conflict. It is lagging behind all five pillars of the digital FDI framework. Therefore, an inclusive policy is essential to improve data privacy, consumer/firm laws, and digital adoption, as well as lower tariffs and taxes, improve connectivity, and establish data centers. Apart from that, a stable political ambiance is a prerequisite to attracting foreign investors.

- Data privacy regulations need substantial improvement. Regulations related to the free flow of cross-border data should be enhanced.
- Laws and regulations should be amended to protect copyright, intellectual copyright, and investors' rights.
- The prevalence of government services should be increased to ensure remote access and approval mechanisms. This is particularly important owing to safety issues in Afghanistan.
- Improve 4G connectivity, launch 5G network in mainstream cities, and increase domestic internet exchange points and data centers
- Social media, telecom, and other applications restrict FAANG firms' potential. Thus, a lenient policy would provide space for digital FDI.

5.12 Regional Integration and Policy Relevance

The effectiveness of regional integration/investment agreements is based on several factors. Company location, local competitiveness, and investment motives are conventional factors, while digital regulation, data privacy and security, digital freedom, and digital adoption are new drivers of digital FDI. Aligning digital regulation and policies across countries is of the utmost importance to provide a conducive environment for foreign tech firms. Many tech firms originate from developed countries and face higher barriers while making investment decisions in developing economies. Likewise, the CAREC region is distinct owing to its unique sociopolitical structure; thus, it requires a broad framework of north–south and south–south cooperation in socio-economic, political, and technical domains. Political and technical cooperation among governments and firms (particularly FAANG) helps to align ICT regulations related to data localization/privacy

policies, digital security, and intellectual property rights.

Political and technological integration are key for settling investment disputes, reducing FDI sectoral restrictions, enforcing ICT trade agreements, reducing tariffs and taxes, and implementing a dual taxation system. Social and cultural integration can help reduce restrictions on FAANG to reinforce further opportunities for the digital platform economy. Most CAREC countries have higher restrictions on social media and web-based social and e-commerce services that can be lessened by offering regional digital broadcasting and commerce policies. *Moreover, a regional IPA could be established to identify business opportunities across the CAREC countries and offer a one-window platform for mutual investment and business expansion in neighboring countries. Regional integration efforts of multidevelopment partners (MDPs)—such as the Asian Development Bank and the CAREC Program—support member countries in capacity building and complementing existing policies at national level*.

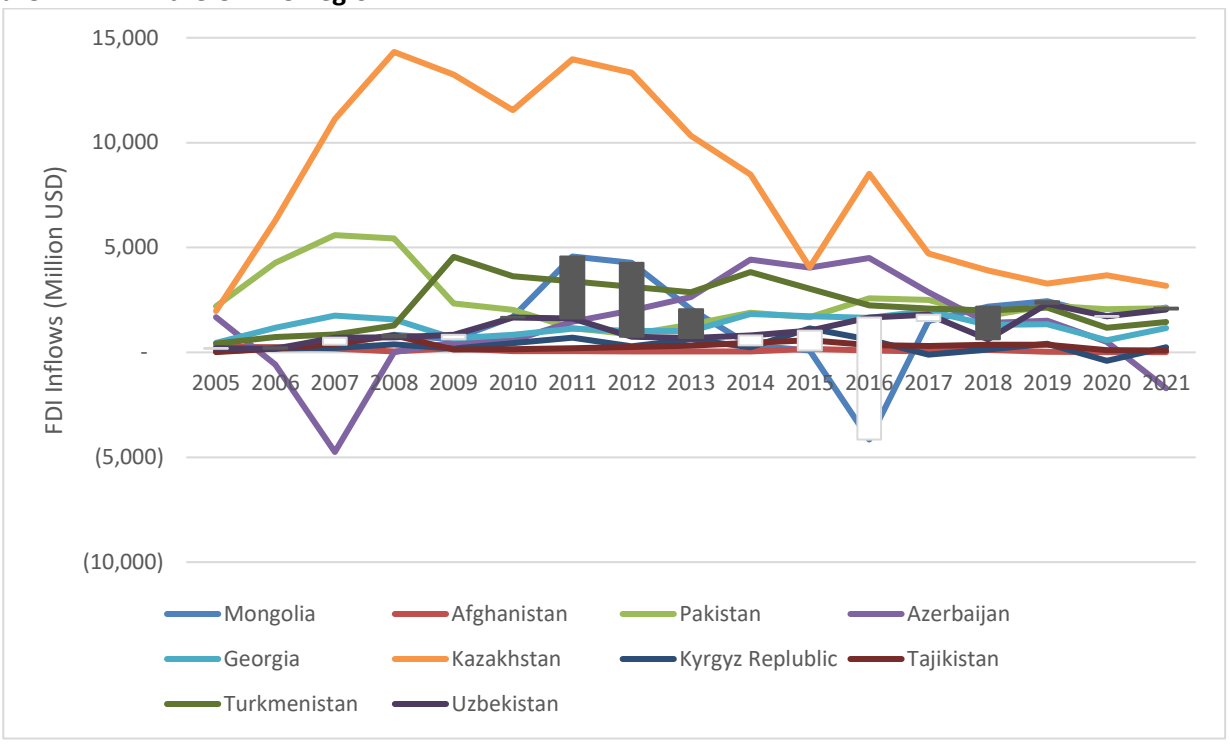
Under the CAREC Integrated Trade Agenda 2030, e-commerce and digital transformation have long been top priorities. Regional cooperation and integration are juridically established via international agreements and conventions. For instance, Azerbaijan and the PRC are both signatories to the United Nations (UN) Framework Agreement on Facilitating Cross-Border Paperless Trade in Asia and the Pacific since February 2021. Additionally, in July 2021, Mongolia became the second country after Azerbaijan to ratify the UN Convention on the Use of Electronic Communications in International Contracts. To aid in these endeavors, ADB and the CAREC Institute completed two studies that examined the infrastructure and regulatory frameworks related to the growth of e-commerce ecosystems. They also created knowledge-sharing modules on the regional improvement of border services and digital SPS certification (ADB 2022). Moreover, CAREC countries have digital startup support programs and initiatives, as well as established technoparks and IT parks. Each member country has digital startups leading the market in their sector (finance, tourism, health, transport, and other services). Therefore, the regional integration support with additional access to funds to scale up and enter the CAREC regional markets is another significant opportunity to foster trade and economic growth. Moreover, this initiative will fortify the state support of digital startups in each CAREC member country.

From 2001 to 2021, about USD42.1 billion has been invested in CAREC projects, mainly in regional transport corridors (75 percent), which greatly influence regional connectivity, trade, and cooperation. Likewise, CAREC regional capacity-building plans and a series of studies—including the digital divide, e-commerce, trade, and investment—offer evidence-based policies and shared experiences to set up a win-win situation across countries. These steps direct the location choices of digital FDI, bring capital into digital sectors, and transfer production technologies under north–south cooperation. Figure 12 shows the FDI inflows in CAREC countries, suggesting a significant recovery in 2021. About 19 percent growth is observed in FDI inflows of CAREC region, and highest growth is observed in Georgia (102 percent), Afghanistan (59 percent), Mongolia and Turkmenistan (24 percent), the PRC (21 percent), and Uzbekistan (18 percent). Notably, Azerbaijan recorded negative FDI inflows (USD1.708 billion), while Kazakhstan's (14 percent) FDI inflow remained lower in 2021 than in 2020.

The implementation of policies and regulation are based primarily on governance quality, which defines the enforcement and execution of these policies. Without adequate regularity quality, a country cannot develop a conducive investment climate. Investment approvals—mainly digital FDI projects—require licenses and NOCs from various ministries and departments. Bureaucratic hurdles and corruption lead not only to delays in the approval/execution of a project but also to troubled transactions. According to World Governance Indicators (WGI) 2021, the CAREC countries secured the lowest score in governance indicators, especially in the Corruption Perceptions Index. Therefore, institutional reforms are crucial for CAREC countries. During the past ten years, USAID/Georgia has prioritized programs encouraging and supporting institutional and procedural reforms, significantly boosting government efficiency. Georgia's public administration institutions continue to serve as role models for other CAREC countries. As part of the 2020-2025 CDCS (Country

Development Cooperation Strategy), USAID/Georgia will shift its emphasis from supporting broad structural and procedural reforms to promoting citizen-responsive governance, ensuring that all levels of government are accountable to and responsive to the people they serve. A similar model and support from MDPs are vital to ensure governance reforms in the other CAREC countries.

Figure 12. FDI in the CAREC Region



Source: UNCTAD 2022

5.13 Implementation and Illustration

Against this backdrop, an inclusive digital FDI ecosystem can be summarized in five broad areas where short-, medium-, and long-term adjustments may be made and ought to be made. The first is the country's investment environment (regulatory and non-regulatory measures); the second is ICT infrastructure and connectivity (network, fiber optics, spectrum, and so on); the third is digital economy strategies (talent, standardization and innovation); the fourth is the revitalization of the existing STZA model (fiscal and legislative powers of STZA operators), the fifth is trailing digital economy trends (serviceability, product, and legislative upgradation). Although technology investment policy and reforms are long-term in nature, all these pillars are well integrated and complement each other. Thus, aligning priorities and incentives with coherent architecture is key to developing participatory and agile policy design to connect the public and private actors. Thus, specific implications would be corroborated by illustrating the firms/countries that have embraced higher digital development; the PRC lies on top in the CAREC region owing to its high digital connectivity, infrastructure, FDI environment, skilled labor, and much more. The implementation levels may vary owing to the distinct legislative frameworks in the CAREC region, but the PRC's digital development story has many experiences to learn and replicate (see Table 8).

Table 8. Implementation and Illustration

Key Points	Implementation and Illustration
Blanket Policy for Inclusive Digital Development *Investment Climate*	A digital development plan is imperative to offer strong policy leadership and support for innovative development and bring new opportunities for developing the digital economy in the CAREC region. Without an integrated policy framework, the investment climate cannot grow. The 'Global Digital Economy White Paper' released by the PRC Communications Institute compares the current development of the digital economy in the world's major economies; the results show that the scale of the digital economy's added value in 47 countries around the world reached USD32.6 trillion. The United States is the number one digital economy powerhouse, reaching USD13.6 trillion in 2020 alone, with the PRC in second place at USD5.4 trillion, Germany's digital economy at USD2.54 trillion, Japan at USD2.48 trillion, and the United Kingdom at USD1.79 trillion. Among the CAREC countries, the PRC is the leading country in terms of long-term policy initiatives implemented at various levels of government and dedicated regions. The PRC has made a series of breakthroughs in key core technologies such as big data, cloud computing, blockchain, and smart manufacturing. The country's industrial robots grew by 30.8 percent year-on-year, 3D printing equipment grew by 27.7 percent year-on-year, there are more than 150 influential industrial internet platforms, and more than 2,000 '5G + industrial internet' projects are under construction. These outcomes are primarily attributed to the following policy interventions by the PRC and can be replicated in other countries: • The implementation of the innovation strategy led to the growth of the PRC's digital economy from 11 trillion yuan to over 45 trillion yuan from 2012 to 2021, and the digital economy's share in GDP rose from 21.6 percent to 39.8 percent. The booming digital economy has become a new economic growth point and a necessary support and key engine for promoting high-quality economic and social development. • All provinces and cities in the PRC have launched their digital economy development goals for the 14th Five-Year Plan (2021-2025) and introduced special policies for the digital economy, including action plans for digital economy development, industrial planning, subsidy policies, and so on. • Many digital economy industrial parks or industrial clusters have been established in different regions of the PRC, and more than 10,000 smart factories or digital workshops have been set up nationwide under this policy. • Cloud computing, cloud platforms, big data, the Internet of Things, digital economy industrial parks, digital trade pilot zones, and so on, have become critical industries established by provinces and cities. • Many provinces and cities also target quantum information, integrated circuits, brain science, air and space technology, 6G technology, deep earth and deep sea, and other major science and technology projects that are forward-looking and strategic to break through. • National Big Data Comprehensive Pilot Area Policy: As the country's first big data comprehensive experimental zone, Guizhou's digital economy growth rate has ranked first for seven consecutive years. • Beijing's digital economy reached 55 percent of GDP this year, Shanghai is promoting the construction of international digital capital, Guangdong's digital economy is about to exceed 7 trillion yuan, and Zhejiang's digital economy will exceed 4 trillion yuan in 2022. Shandong Province is building a national digital economy demonstration zone with global influence and an industrial internet demonstration zone on the Shandong Peninsula.

	• The Investment Promotion Agency and IT agreements with regional and global economies are helping to improve the investment climate by offering a one-window portal and introductory events and visits. The PRC's IPA governed by the Ministry of Commerce has more than 14 regional subsidiaries promoting two-way investment and collaborating with foreign investment promotion groups, chambers of commerce, and business associations while adhering to the PRC's economic strategies. Other CAREC countries benefit from regional-level IPAs and improved integration with global stakeholders. *Thus a blanket policy is indispensable for digital transformation; however, higher levels of fiscal and legislative decentralization optimize digitalization benefits owing to adjustments in local dynamics*. PRC digitalization policies are highly decentralized and distinct considering the regional heterogeneity; thus, other CAREC countries should strengthen their subnational governments to foster innovation-driven growth.
Digital Infrastructure *Fiber Optics, 4G/5G Coverage, Spectrum Data Centers*	The relevant parties (governments, investors, telecom firms, and MDPs) need to promote the construction of a domestic fiber optic access network gradually. Establishing a high-speed, shared, and mass broadband network is a prerequisite to providing material and technical support for the strategic development of the domestic digital economy. So far, the internet quality and digital infrastructure show the lowest score in the CAREC region in all ICT indicators, creating a bottleneck for information sharing and knowledge dissemination, and hurdles for virtual business (social, economic, financial) models. Over time, increasing investment will be needed to achieve ideal fiber coverage for revamping and expanding 4G/5G network penetration. This cannot be accomplished without a supportive framework that balances the incentives and interests of the business community, financial service providers, and the government. Additionally, more extensive connections like taxation must be harmonized to properly influence the investment and return equation. Policies that directly or indirectly affect financing would be developed with a long-term perspective that balances return, affordability, and government ability to collect taxes and levies without sacrificing results. • The digital infrastructure strategy may include legislative actions to solve structural flaws and enhance the broadband environment. It includes removing licensing obstacles to make it easier for service providers who have already invested and speeding up the licensing process. Extending or redefining regulatory/tax holidays to promote infrastructure-based competition and new fixed broadband entry by considering a new set of licenses concentrating on fiber networks. Ensuring network security, cybersecurity, and consumer data protection streamlines the processes for safelists, virtual private network (VPN) access, and corporate connectivity. • Access to long-haul fiber capacity would be enhanced to enable service providers to roll out fiber and fixed broadband services to tier 2 and 3 cities, laying fiber in densely populated yet underserved areas to lower overall service costs. Local fiber manufacturing can also be supported to cut costs, lessen the burden of import levies, and boost the local economy. The benefits granted to telecom operators under the Public and Private Right of Way Policy Directive will be guaranteed by service corridors with fixed pricing and enforcement of QoS requirements, which will also increase overall connectivity. • Unassigned spectrum has a detrimental economic value by depriving the public of effective broadband services. The spectrum distribution must be liberalized to help network operators advance their rollout strategies for better service quality and coverage. For example, most developing nations primarily access the internet via mobile devices, which are entirely based on spectrum. (That is, out of the 104 million broadband subscriptions in Pakistan, 102 million are mobile users, and digital

	adoption is almost impossible without quality mobile internet.) Despite that, Pakistan is among the nations with the lowest spectrum coverage. It has the lowest regional spectrum release rates—even lower than Afghanistan—although the government has a sizable amount of underutilized spectrum floating around and waiting to be released. However, low demand failed the auctions owing to socio-economic conditions, security situation, size, terrain, and ARPU (Average Revenue Per User). For instance, Pakistan has one of the world's lowest ARPUs (about USD1.23) and the 18th lowest consumer tariff compared to Bangladesh (rated 45th with an ARPU of roughly USD1.71). For instance, although Pakistani MNOs are paid in Pakistani rupees, the cost of spectrum is fixed in US dollars. If the rupee had been steadier, that might not have been a significant deal (like BD Taka). The spectrum price has grown by more than 50 percent owing to the rupee's depreciation in the last few years. • Establishing the status of broadband as critical infrastructure and developing a national broadband strategy for all CAREC countries. • To promote the healthy development of the digital economy, the relevant national ministries and commissions launched the Implementation Plan for the Arithmetic Hub of the National Integrated Big Data Center Collaborative Innovation System and the Three-Year Action Plan for the Development of New Data Center (2021-2023) last year in the PRC. It launched the construction of national arithmetic hub nodes in Beijing, Tianjin and Hebei, Yangtze River Delta, Guangdong, Hong Kong, and Macao Bay Area, Chengdu and Chongqing, Inner Mongolia, Guizhou, Gansu and Ningxia, and is planning ten national data center clusters. This heart infrastructure initiative will become an important support to take the PRC's digital economy to a new level. So far, the overall layout design of the national integrated big data center system has been completed, and the 'East Data and West Computing' project has been officially launched. • According to the provincial government's plan, by the end of this year, Shandong will build more than 30 new data centers; by the end of 2025, Shandong will create more than 50 new data centers.
Digital Economy Strategies *Talent* *Standardization* *Innovation*	• Strengthening the digital economy ***talent mechanism*** is the foundation of digital development. The development and competition in the 21st century are still the development and competition of talent. Under the development trend of digital economy, the demand and requirements for high-quality human resources are higher. Therefore, stakeholders need to pay attention to cultivating talent by promoting digital economy talent programs to support different national digital economy development strategies. This is of great relevance and value to the sustainable development of the digital economy, and domestic government departments also need to pay great attention to it in the CAREC region. • For example, Pakistan is experiencing a dearth of human resources, the core input for IT exports. Pakistan requires 40,000 software engineers for every USD1 billion increase in software exports, but the number of employable IT graduates available currently is only around a sixth of that. Many policies have been implemented to raise the IT workforce and supplement local and international demand. Implementing IT policy in late 2000, developing independent IT boards in Punjab and KPK provinces, and establishing the National Freelancing Policy (2021) was a breakthrough that aided the framework through fiscal incentives, infrastructure support, and government assistance in capacity building to raise the number of IT workforce/freelancers in Pakistan and their average wages. With a 47 percent increase in freelancer earnings over the previous year, Pakistan set the pace in Asia. Over the past year, the number of freelancers in Pakistan increased from 4 percent in 2018 to 42 percent in 2019

	and 48 percent in 2020-2021. Pakistan has cemented its position as the fourth-largest country for freelancers globally, slightly behind Brazil, the United Kingdom, and the United States as of 2021. • Likewise, the PRC has 170 million skilled workers, and among them, only 7 percent (48 million) are highly skilled, which is insufficient to meet the higher demand for digital sectors of economy. Recent efforts by the Chinese Ministry of Education to increase the proportion of high schools with vocational education programs have been emphasized. Boosting vocational training has had significant positive consequences. To meet the rising demand for democratized learning and reskilling, it is crucial to encourage people to engage in lifelong learning of the skills required by the 'new economy,' notably digital skills, through online learning and short-course credentials. To close the skills gap in the near future, an autonomous software exports board would collaborate with IT firms to design a plan to entice international remote IT workers to expand IT exports, cultivate fresh talent to increase productivity, and reskill current employees to better meet global demand. The commissioning of training programs closely matched with the value-add is necessary to increase the pool of skills available for tech businesses to draw from and diagnostics to identify local and global demand patterns. Graduates of higher education and vocational training programs will need to be retrained and skilled to accomplish in partnership with industry. • The CAREC countries may also learn from leading digital economies. For example, Singapore secured a top-ranking 'smart city' in the world, embodied with efficient technology infrastructure, higher digital skills, and adoption among businesses and people. These developments are mainly attributed to 'Smart Nation and Digital Government Office' which initiated numerous smart cities and IoT-based applications in areas like energy, transportation services, waste management, and healthcare along with top-level support from Prime Minster office for collaboration and coordination between stakeholders. • With a high concentration of high-tech exports in its overall export, Malaysia is emerging as a technological giant in the ASEAN area. The government's 'Industry4WRD' initiative (2018-2025) converts businesses that provide services and manufacturing into high-tech organizations. Investment-friendly policies promote foreign investment in required fields, including cybersecurity, cloud computing, AI, big data, IoT, and so on, and stimulate hardware exports. Moreover, owing to the US–PRC trade conflict, Malaysia attracted significant amounts of FDI in the digital economy during the epidemic, particularly in fields like biotech, computing technology, building smart cities, e-government, and electronics. The government has developed initiatives to improve workforce digital literacy to climb the export ladder for technology hardware. Additionally, it is lowering prices and opening up more broadband access nationwide. • Strengthening the construction of digital economy ***standardization***: In the process of digital economy construction and development, a systematic, coordinated and open urban digital transformation standard system is crucial, which implies consolidation of the standardization construction, focuses on the need to strengthen the establishment of data resources, property rights, transaction circulation, cross-border transmission, and security protection and other standard specifications, promote the platform economy, sharing economy standardization construction, and support the development of the digital economy. • One of the most obvious features of the digital economy compared with the previous economic development model is ***innovation,*** which is indisputable. Therefore, the overall digital innovation of enterprises and markets is key. For this reason, local government departments need to attach great importance to the digital economy and take the initiative to meet this

	development trend, increase the enterprise in digital construction, as well as the innovation level of investment. In order to play an essential role in guaranteeing the continuous promotion of digital innovation in enterprises and markets, the relevant parties also need to pay attention to the digital economy legislation, making enterprises and economic market competition in a standardized state.
Strengthen the STZA Model	As part of developing the CAREC region, the STZA model needs to be improved to embrace technological investments. Legislation protects the fiscal incentives within the zones; however, the NOCs and approvals from different regulatory bodies led to delays, since STZA continues to rely on internal procedures and bureaucracy with government entities despite developing a one-window solution. For technology investors to have a unified interface with the government in a secure and welcoming environment and experience efficiency in easy and quick processes and high-quality interactions, STZA needs to be empowered along the lines of Dubai's DIFC and other such progressive bodies. Within the CAREC region, Xiamen Torch Hi-tech Zone is one of the greatest success stories of the unified STZA model, where exceptional powers of STZA management and integrated approval mechanism facilitated business establishment, promotion, integration, and upgradation translated into massive investment inflows in the last three decades. **Xiamen Torch Hi-tech Zone 1992** Three decades ago, Xiamen Torch Hi-tech Zone started up with less than 1 square kilometer as part of an opening-up policy, and it now extends to nine sub-areas around the city. Despite having less than 3 percent of the city's total area, Xiamen's industrial output has increased by 43 percent, the software and information services sector has generated approximately 70 percent of the city's revenue, and the industrial fixed asset investment has decreased by over 50 percent. More than 300 billion yuan worth of industrial production was produced annually, up from 146 million yuan (USD22.92 million). The core lesson to be adopted from this initiative is as follows: **Encourage the transformation and upgrading of enterprises** • Application demonstration rewards up to 1 million yuan for selected national, provincial, and municipal big data, AI, cloud computing, 5G, intelligent network, IT application innovation, new infrastructure, open source chips, and other related demonstration projects in the field of new generation IT enterprises. • Construction incentives for R&D institutions: For the first time, approved provincial or municipal 'new R&D institutions' recognized enterprises to give a one-time reward of 500,000 yuan. • Encourage the incubation of high-growth enterprises by rewarding 10 percent of their total profit for the current year, and a single enterprise can enjoy no more than 1 million yuan per year. **Support enterprises to increase production and efficiency** • Support the construction of inclusive public/private delivery: For intelligent police, intelligent marine, competent courts, rail transportation, and intelligent medical field, it gives independence to enterprises, with clear independent intellectual property rights of software products or IT services sales incentives, the amount of the current year through the acceptance of software products or IT services to the actual amount of 5 percent. It leads to higher penetration of digital adoption at the PRC's firm, government, and consumer levels.

	• Support high-quality development in the field of culture and technology: Encourage enterprises to strengthen further the creation and development of online games, animation, film and television works, and operation management, and support the development of basic tools and software and the construction of public technical service platforms reward 1 percent of the business income • To encourage participation in public procurement projects by allowing 3 percent to 4 percent of incentives • Equity Transfer Incentive: To invest in the digital economy of enterprises or their individual shareholders to obtain the net income from the transfer of equity, offer 1 percent to 1.2 percent incentives for their equity transfer income • Expand the scale of digital services exports through a dedicated export board and incentives to export contract winning firms
Trail Digital Economy Trends Serviceability Product Upgradation Legislative Upgradation	The rapid development and extensive use of digital technology have given rise to the digital economy, which is quite different from the previous climate of economic development and investment. Since digital economy is a brand new economy and business model, it maintains an important strategic significance in domestic socio-economic development. At the technical level, big data, cloud computing, IoT, blockchain, AI, 5G communication, and other emerging technologies, need to be adopted by all services and manufacturing industries to increase digital adoption. At the specific application level, 'new retail' and 'new manufacturing' are the main representatives of the digital economy. However, the CAREC region must match emerging digital economy trends and align business models accordingly. ***Two major trends in the development of the digital economy*** are: • Digital economy serviceability needs to be expanded in the CAREC region. With the increasing depth of digital development, the corresponding digital economy products continue to iterate and update. Therefore, in the process of digital economy development, different enterprises in the CAREC region need to respond faster to market changes and audience group user needs while improving their services. Firms specializing in digital economy services can make good progress in this way and create substantial domestic and foreign investment space. • Many CAREC countries lack the rigorous rule of law and governance structure, and the fast-changing digital economy has put forward stricter requirements for the corresponding regulation and supervision. Likewise, the distinct sociocultural status of the CAREC countries translates to higher restrictions (most FAANG companies are not operational in the region), along with higher restrictions on digital media. This not only influences direct investment opportunities and financial inclusion, but the opportunity cost is much more owing to potential (mis)investment in integrating software and hardware firms. Thus, domestic digital economy legislation requires continuous upgrading, which can accelerate and gradually become an essential part of supporting and promoting the development of the digital economy in the region.

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Appendix: Evaluation Matrix—Comparison of CAREC Countries and Dimensions of Digital FDI

Group (Determinant)	Subgroup	Indicators	Afghanistan		Azerbaijan		PRC		Georgia		Kazakhstan		Kyrgyz Republic		Mongolia		Pakistan		Tajikistan		Turkmenistan		Uzbekistan		Total by indicator		Average by indicator		Average by sub-group		Average by group	
			score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%
I. New Digital Activities	1.1 Data Privacy and Security	1) Data privacy regulations	0.25	5	4.45	89	4	80	4.45	89	4.65	93	2.5	50	1.3	26	3.25	65	0.85	17	0.7	14	3.55	71	30	599	2.7	54.5	2.87	57.36	3.08	61.59
		2) Data security regulations	2	40	4	80	4.5	90	4	80	4.65	93	2.5	50	2	40	2	40	2.5	50	2	40	3	60	33	663	3.0	60.3				
		3) Copyright laws to protect intellectual property	2	40	4	80	3	60	4	80	4	80	2	40	3.5	70	3	60	3	60	3	60	3	60	35	690	3.1	62.7				
		4) Free flow of cross-border data	1	20	3	60	2	40	4	80	4	80	3.5	70	3	60	3	60	3	60	3	60	3	60	33	650	3.0	59.1				
		5) Requirements to monitor third-party content	2	40	3	60	2.5	50	3.5	70	3	60	2	40	3	60	3	60	3	60	2.5	50	3	60	31	610	2.8	55.5				
		6) Burdensome data localization requirements	1	20	3	60	2	40	4	80	3	60	3	60	3.7	74	3	60	2	40	1	20	3	60	29	574	2.6	52.2				
	Average on sub-group by country		1.4	27.5	3.6	71.5	3.0	60.0	4.0	79.8	3.9	77.7	2.6	51.7	2.8	55.0	2.9	57.5	2.4	47.8	2.0	40.7	3.1	61.8								
	Total on sub-group by country		8.25	165	21.5	429	18	360	23.95	479	23.3	466	15.5	310	16.5	330	17.25	345	14.35	287	12.2	244	18.55	371								
	1.2 Consumer laws	1) Contract law to protect agreements	3	60	3	60	4	80	3	60	3	60	3.5	70	3.5	70	3	60	3	60	2.5	50	4	80	36	710	3.2	64.5	3.29	65.77		
		2) Consumer protection laws	3	60	3.25	65	4	80	3	60	3.25	65	3	60	3.5	70	3	60	3.5	70	2.5	50	3	60	35	700	3.2	63.6				
		3) Laws making e-agreements legal	3	60	3	60	4.5	90	3	60	3	60	3	60	3	60	3	60	3	60	2.5	50	4	80	35	700	3.2	63.6				
		4) Ease of registering company	3	60	5	100	4	80	5	100	5	100	4	80	4	80	3	60	4	80	3	60	5	100	45	900	4.1	81.8				
		5) Ease of receiving license for digital activities	3	60	3.5	70	3	60	3.5	70	4	80	3	60	2	40	3	60	2	40	2.5	50	4	80	34	670	3.0	60.9				
		6) Ease of registering a property	2	40	4	80	2	40	4.5	90	4.5	90	3	60	3	60	3	60	3.5	70	2.5	50	4	80	36	720	3.3	65.5				
		7) Consumer law that permits new business models	3	60	3	60	3.5	70	3	60	3	60	3	60	3	60	3	60	3	60	2.7	54	3	60	33	664	3.0	60.4				
	Average on sub-group by country		2.9	57.1	3.5	70.7	3.6	71.4	3.6	71.4	3.7	73.6	3.2	64.3	3.1	62.9	3.0	60.0	3.1	62.9	2.6	52.0	3.9	77.1								
	Total on sub-group by country		20	400	24.8	495	25	500	25	500	25.75	515	22.5	450	22	440	21	420	22	440	18.2	364	27	540								
	1.3 Investors' rights	1) Protecting investors' rights	2	40	3.5	70	3.5	70	4	80	4	80	3	60	3	60	3	60	3.5	70	2.5	50	3	60	35	700	3.2	63.6	3.16	63.27		
		2) Access to international arbitration	3	60	4	80	4	80	4	80	4	80	3	60	3	60	3	60	3	60	2.5	50	4	80	38	750	3.4	68.2				
		3) Intellectual property and copyrights protection	1	20	3.5	70	3	60	3.5	70	3.5	70	2	40	4	80	3	60	3	60	2.5	50	3	60	32	640	2.9	58.2				
		4) Availability of Bilateral and multilateral investment agreements on the mutual protection of investments	1	20	4	80	4.5	90	2.5	50	4	80	2.5	50	3	60	4	80	2.5	50	2	40	4	80	34	680	3.1	61.8				
		5) Availability of Double taxation treaties	3	60	4	80	4	80	4	80	4	80	2	40	2	40	4	80	3	60	2.5	50	3	60	36	710	3.2	64.5				
	Average on sub-group by country		2.0	40.0	3.8	76.0	3.8	76.0	3.6	72.0	3.9	78.0	2.5	50.0	3.0	60.0	3.4	68.0	3.0	60.0	2.4	48.0	3.4	68.0								
	Total on sub-group by country		10	200	19	380	19	380	18	360	19.5	390	12.5	250	15	300	17	340	15	300	12	240	17	340								
	1.4 Firm-specific regulations	1) Competition policy and regulations	3	60	3	60	3	60	3.5	70	4	80	3	60	3	60	3	60	3.5	70	1	20	3	60	33	660	3.0	60.0	3.00	59.95		
		2) Burdensome ICT regulations	2	40	3.5	70	3	60	3.75	75	3.5	70	3.5	70	3.5	70	3	60	1	20	2.5	50	4	80	33	665	3.0	60.5				
		3) Requirement for source code disclosure	2	40	3.5	70	3	60	3.5	70	3.5	70	3	60	3.3	66	3	60	2.5	50	2.5	50	3	60	33	656	3.0	59.6				
		4) Regulatory stability and predictability	1	20	4	80	3.5	70	3.5	70	3.5	70	3	60	3.3	66	2	40	2.5	50	2	40	3	60	31	626	2.8	56.9				
		5) Regulatory framework (national and local)	2	40	3.5	70	4	80	3.5	70	3	60	3	60	3	60	3	60	3.5	70	3	60	3	60	35	690	3.1	62.7				
	Average on sub-group by country		2	40	3.5	70	3.3	66	3.55	71	3.5	70	3.1	62	3.22	64.4	2.8	56	2.6	52	2.2	44	3.2	64								
	Total on sub-group by country		10	200	17.5	350	16.5	330	17.75	355	17.5	350	15.5	310	16.1	322	14	280	13	260	11	220	16	320								
Average on determinant by country			2.1	41.2	3.6	72.1	3.4	68.4	3.7	73.6	3.7	74.8	2.8	57.0	3.0	60.6	3.0	60.4	2.8	55.7	2.3	46.2	3.4	67.7								
Total on determinant by country			48.3	965	82.7	1654	78.5	1570	84.7	1694	86.05	1721	66	1320	69.6	1392	69.25	1385	64.35	1287	53.4	1068	78.55	1571								
II. Digital Adoption	2.1. Support for digital adoption	1) Availability of e-payment services	2	40	3.5	70	4.5	90	4	80	4	80	3	60	3.6	72	3	60	3	60	3	60	4	80	38	752	3.4	68.4	3.22	64.36	3.17	63.42
		2) Level of digital skills in the economy	2	40	3	60	4.5	90	3.5	70	4	80	3	60	3.2	64	2	40	2.5	50	2	40	3	60	33	654	3.0	59.5				
		3) Support for starting digital businesses	2	40	3.5	70	4.5	90	3.5	70	3.5	70	4	80	3.5	70	3	60	3	60	3	60	4	80	38	750	3.4	68.2				
		4) Support for local digital skills development	1	20	3.5	70	4.5	90	3.5	70	3	60	3	60	3	60	3	60	3.5	70	3	60	3	60	34	680	3.1	61.8				
		5) Support for partnerships with research centers	2	40	3	60	4.5	90	3.5	70	3	60	3.5	70	3.7	74	3	60	3	60	3	60	3	60	35	704	3.2	64.0				
	Average on sub-group by country		1.8	36	3.3	66	4.5	90	3.6	72	3.5	70	3.3	66	3.4	68	2.8	56	3	60	2.8	56	3.4	68								
	Total on sub-group by country		9	180	16.5	330	22.5	450	18	360	17.5	350	16.5	330	17	340	14	280	15	300	14	280	17	340								
	2.2 Tariffs and taxes	1) Tariffs on digital inputs	3	60	3.5	70	3.5	70	4	80	3.75	75	3	60	4	80	2	40	2	40	4	80	3	60	36	715	3.3	65.0	3.16	63.30		
		2) Taxes on digital goods and services	3.5	70	3.25	65	4	80	4	80	3.75	75	3.75	75	3	60	4	80	2	40	2	40	3	60	36	725	3.3	65.9				
		3) Prevalence of government services	1	20	4	80	4.5	90	4	80	4.5	90	3	60	3	60	2.5	50	2.75	55	1	20	3	60	33	665	3.0	60.5				
		4) Tax deductions on ICT-related expenditures	2	40	4	80	4	80	4	80	4	80	3.5	70	2.5	50	2	40	2	40	2	40	4	80	34	680	3.1	61.8				
	Average on sub-group by country		2.4	47.5	3.7	73.8	4	80	4	80	4	80	3.313	66.25	3.13	62.5	2.625	52.5	2.2	43.75	2.3	45	3.25	65								
	Total on sub-group by country		9.5	190	14.8	295	16	320	16	320	16	320	13.25	265	12.5	250	10.5	210	8.75	175	9	180	13	260								
	2.3 Independence of ICT regulations	1) Use of international standards	2	40	3.5	70	2.5	50	3.5	70	3.5	70	3	60	3	60	3	60	3	60	3	60	3	60	33	660	3.0	60.0	3.13	62.61		
		2) Openness to foreign investment	3	60	4	80	3.5	70	4.25	85	4.25	85	3	60	3	60	4	80	3	60	3	60	4	80	39	780	3.5	70.9				
		3) Strong competition policy and regulations	3	60	3.5	70	2.5	50	3.75	75	4	80	3	60	3	60	4	80	3	60	1	20	3	60	34	675	3.1	61.4				
		4) Independent ICT regulator	3	60	2	40	4	80	3.75	75	3.75	75	2	40	4	80	3.5	70	2	40	2	40	2	40	32	640	2.9	58.2				
	Average on sub-group by country		2.75	55	3.25	65	3.1	62.5	3.8125	76.25	3.875	77.5	2.75	55	3.25	65	3.625	72.5	2.75	55	2.25	45	3	60								
	Total on sub-group by country		11	220	13	260	12.5	250	15.25	305	15.5	310	11	220	13	260	14.5	290	11	220	9	180	12	240								
Average on determinant by country			2.3	46.2	3.4	68.3	3.9	77.5	3.8	76.1	3.8	75.8	3.1	62.4	3.3	65.2	3.0	60.3	2.6	52.9	2.4	48.7	3.2	64.3								
Total on determinant by country			29.5	590	44.3	885	51	1020	49.25	985	49	980	40.75	815	42.5	850	39	780	34.75	695	32	640	42	840								

Group (Determinant)	Subgroup	Indicators	Afghanistan		Azerbaijan		PRC		Georgia		Kazakhstan		Kyrgyz Republic		Mongolia		Pakistan		Tajikistan		Turkmenistan		Uzbekistan		Total by indicator		Average by indicator		Average by sub-group		Average by group	
			score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%
III. Digital Infrastructure	3.1 Connectivity	1) Level of international connectivity	2	40	3.25	65	4	80	3.5	70	3	60	3	60	3.5	70	3	60	3	60	2	40	3	60	33	665	3.0	60.5	3.04	60.80	2.98	**59.62**
		2) Level of national connectivity (backbone)	2	40	3.75	75	4	80	3.5	70	3.5	70	3	60	3	60	3	60	3	60	3	60	3	60	35	695	3.2	63.2				
		3) Level of connectivity of urban centers	3	60	4.25	85	5	100	3.5	70	3.5	70	2.5	50	3	60	3	60	3	60	3	60	4	80	38	755	3.4	68.6				
		4) Level of connectivity of rural areas	2	40	3	60	3.5	70	3	60	2.5	50	2	40	2.5	50	2	40	2.5	50	2	40	3	60	28	560	2.5	50.9				
	Average on sub-group by country		2.3	45.0	3.6	71.3	4.1	82.5	3.4	67.5	3.1	62.5	2.6	52.5	3.0	60.0	2.8	55.0	2.9	57.5	2.5	50.0	3.3	65.0								
	Total on sub-group by country		9	180	14.3	285	16.5	330	13.5	270	12.5	250	10.5	210	12	240	11	220	11.5	230	10	200	13	260								
	3.2 Availability of Networks	1) 4G mobile network	3	60	4	80	5	100	4.5	90	3.5	70	4	80	4	80	4	80	4.5	90	3	60	4	80	44	870	4.0	79.1	2.24	44.77		
		2) 5G mobile network	0	0	1	20	4	80	1	20	1.5	30	0	0	0	0	1	20	0	0	0	0	1	20	10	190	0.9	17.3				
		3) Domestic internet exchange points (IXP)	1	20	2	40	5	100	1	20	2	40	2.5	50	2	40	5	100	1	20	0	0	4	80	26	510	2.3	46.4				
		4) Domestic data centers; **scale: 0 for no data center; 1 for <5 data centers; 2 for >5 but <=10; 3 for >10 but <= 20; 4 for >20 but <=40; 5 for >40**	1	20	2	40	5	100	1	20	3	60	1	20	1	20	3	60	1	20	1	20	1	20	20	400	1.8	36.4				
	Average on sub-group by country		1.3	25.0	2.3	45.0	4.8	95.0	1.9	37.5	2.5	50.0	1.9	37.5	1.8	35.0	3.3	65.0	1.6	32.5	1.0	20.0	2.5	50.0								
	Total on sub-group by country		5	100	9	180	19	380	7.5	150	10	200	7.5	150	7	140	13	260	6.5	130	4	80	10	200								
	3.3 Access to infrastructure, finance and manpower	1) Use of international standards	3	60	3.25	65	2.5	50	3.5	70	3.5	70	3	60	3.3	66	3	60	3.4	68	3.2	64	2	40	34	673	3.1	61.2	3.10	62.09		
		2) Regional coordination for infrastructure investment	3	60	3	60	4	80	3	60	3	60	3	60	3.5	70	3	60	2.5	50	2.5	50	3	60	34	670	3.0	60.9				
		3) Availability of skilled local engineers and other workers	2	40	3	60	4.5	90	3	60	3	60	3	60	3	60	3	60	3.5	70	2	40	2	40	32	640	2.9	58.2				
		4) Access to infrastructure, including ability to share infrastructure	2	40	4	80	4	80	3.5	70	4	80	3.5	70	3.5	70	2	40	3	60	2	40	4	80	36	710	3.2	64.5				
		5) Spectrum rules (e.g., availability, cost)	3	60	3.75	75	4	80	4	80	4	80	4	80	3.5	70	3	60	3.5	70	2.8	56	4	80	40	791	3.6	71.9				
		6) Access to local finance	3	60	3	60	4	80	3.5	70	3.5	70	3	60	3	60	4	80	3.5	70	3	60	3	60	37	730	3.3	66.4				
		7) Acquisition of land for business purposes	3	60	1	20	2	40	1.5	30	3	60	2	40	2	40	3	60	3	60	3.5	70	2	40	26	520	2.4	47.3				
		8) Land ownership not permitted but leases possible	3	60	4	80	3	60	4	80	4	80	4	80	4	80	2	40	1	20	3.5	70	4	80	37	730	3.3	66.4				
	Average on sub-group by country		2.8	55.0	3.1	62.5	3.5	70.0	3.3	65.0	3.5	70.0	3.2	63.8	3.2	64.5	2.9	57.5	2.9	58.5	2.8	56.3	3.0	60.0								
	Total on sub-group by country		22	440	25	500	28	560	26	520	28	560	25.5	510	25.8	516	23	460	23.4	468	22.5	450	24	480								
	3.4 Ease of receiving visas and licenses	1) Ease of receiving license for digital infrastructure	2.5	50	3.5	70	2.5	50	3.5	70	4	80	3	60	4	80	3	60	3	60	2.5	50	4	80	36	710	3.2	64.5	3.53	70.68		
		2) Ease of receiving visas and employing foreign personnel	3	60	4.75	95	4	80	4	80	4	80	3	60	4.5	90	4	80	3.5	70	2.5	50	5	100	42	845	3.8	76.8				
	Average on sub-group by country		2.75	55	4.13	82.5	3.25	65	3.75	75	4	80	3	60	4.25	85	3.5	70	3.25	65	2.5	50	4.5	90								
	Total on sub-group by country		5.5	110	8.25	165	6.5	130	7.5	150	8	160	6	120	8.5	170	7	140	6.5	130	5	100	9	180								
	3.5 Privatization and taxation	1) Taxes on technology devices and services	2	40	3	60	3.5	70	3.5	70	3.5	70	3.5	70	3	60	3	60	3	60	2.5	50	3.5	70	34	680	3.1	61.8	2.99	59.77		
		2) Privatization of telecom incumbent	2	40	3.25	65	2	40	3.5	70	4	80	2	40	4	80	3	60	3	60	2	40	3	60	32	635	2.9	57.7				
	Average on sub-group by country		2	40	3.13	62.5	2.75	55	3.5	70	3.75	75	2.75	55	3.5	70	3	60	3	60	2.25	45	3.25	65								
	Total on sub-group by country		4	80	6.25	125	5.5	110	7	140	7.5	150	5.5	110	7	140	6	120	6	120	4.5	90	6.5	130								
Average on determinant by country			2.2	44.0	3.2	64.8	3.7	73.5	3.2	63.0	3.4	67.5	2.7	53.8	3.1	62.9	3.1	61.5	2.7	54.7	2.2	44.3	3.3	66.0								
Total on determinant by country			45.5	910	62.8	1255	75.5	1510	61.5	1230	66	1320	55	1100	60.3	1206	60	1200	53.9	1078	46	920	62.5	1250								

Group (Determinant)	Subgroup	Indicators	Afghanistan		Azerbaijan		PRC		Georgia		Kazakhstan		Kyrgyz Republic		Mongolia		Pakistan		Tajikistan		Turkmenistan		Uzbekistan		Total by indicator		Average by indicator		Average by sub-group		Average by group	
			score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%	score	%
IV. Digital FDI restrictions	4.1 Sectoral restrictions	1) Restriction on print media	2	40	3	60	2	40	3.5	70	3	60	3.5	70	3.5	70	3	60	2.5	50	2	40	3	60	31	620	2.8	56.4	2.97	59.45	3.22	**64.50**
		2) Restriction on telecom media	2	40	3	60	2.5	50	3.5	70	3	60	3.5	70	3.5	70	3.5	70	2.5	50	2	40	3	60	32	640	2.9	58.2				
		3) Restriction on social media	2	40	3	60	2.5	50	3.5	70	3	60	3.5	70	4	80	4	80	3.5	70	2.5	50	3	60	35	690	3.1	62.7				
		4) Accesss to webpages	2	40	4	80	2.5	50	4	80	3.5	70	3	60	3	60	4	80	3	60	2	40	3	60	34	680	3.1	61.8				
		5) Freedom of expression	3.25	65	2.75	55	2.5	50	4.5	90	2.75	55	3.75	75	4	80	3	60	2	40	1	20	2.5	50	32	640	2.9	58.2				
	Average on sub-group by country		2.25	45	3.15	63	2.4	48	3.8	76	3.05	61	3.45	69	3.6	72	3.5	70	2.7	54	1.9	38	2.9	58								
	Total on sub-group by country		11.3	225	15.8	315	12	240	19	380	15.25	305	17.25	345	18	360	17.5	350	13.5	270	9.5	190	14.5	290								
	4.2 Restrictions on key foreign personnel / directors	1) Foreign key personnel not permitted	3	60	4	80	3.5	70	4	80	3	60	4	80	4	80	3	60	3	60	3	60	5	100	40	790	3.6	71.8	3.45	69.09		
		2) Economic needs test for employment of foreign key personnel	1	20	4	80	4	80	4	80	4	80	3.5	70	3.5	70	1	20	2	40	2	40	4	80	33	660	3.0	60.0				
		3) Time bound limit on employment of foreign key personnel	2	40	4	80	3.5	70	4	80	4	80	3.5	70	4	80	3	60	3.5	70	3	60	4	80	39	770	3.5	70.0				
		4) Nationality/residence requirements for board of directors	1	20	5	100	4	80	5	100	4	80	5	100	5	100	4	80	2	40	1	20	5	100	41	820	3.7	74.5				
	Average on sub-group by country		1.8	35	4.25	85	3.75	75	4.25	85	3.8	75	4.0	80	4.13	82.5	2.8	55	2.625	52.5	2.25	45	4.5	90								
	Total on sub-group by country		7	140	17	340	15	300	17	340	15	300	16	320	16.5	330	11	220	10.5	210	9	180	18	360								
	4.3 Other restrictions	1) Restrictions on establishment of branches/local incorporation required	3	60	3.5	70	4	80	4	80	4	80	4	80	4	80	3	60	3.5	70	3.5	70	5	100	42	830	3.8	75.5	3.18	63.64		
		2) Burdensome restrictions on online content	1	20	3.5	70	3	60	4	80	3	60	3	60	3.5	70	4	80	3.5	70	3	60	3	60	35	690	3.1	62.7				
		3) Prohibition on access to foreign websites	1	20	4	80	2	40	4	80	3	60	3	60	3	60	4	80	1	20	1	20	3	60	29	580	2.6	52.7				
	Average on sub-group by country		1.7	33.3	3.7	73.3	3.0	60.0	4.0	80.0	3.3	66.7	3.3	66.7	3.5	70.0	3.7	73.3	2.7	53.3	2.5	50.0	3.7	73.3								
	Total on sub-group by country		5	100	11	220	9	180	12	240	10	200	10	200	10.5	210	11	220	8	160	7.5	150	11	220								
	4.4 Foreign Equity Limits	1) No foreign equity allowed - **0** 2) Foreign equity < 50% of total equity - **1~2** 3) Foreign equity > 50% but < 100% of total equity - **3~4**	3	60	4	80	2.5	50	4	80	3.5	70	2	40	2	40	4	80	3.5	70	3.2	64	2	40	31	624	3.12	62.4	3.12	62.40		
	Average on sub-group by country		3	60	4	80	2.5	50	4	80	3.5	70	2	40	2	40	4	80	3.5	70	3.2	64	2	40								
	Total on sub-group by country		3	60	4	80	2.5	50	4	80	3.5	70	2	40	2	40	4	80	3.5	70	3.2	64	2	40								
	4.5 Screening and approval of FDI	1) Approval required for new FDI - **0~1** 2) Notification with a discretionary element - **2~3** 3) No approval required for new FDI - **4~5**	2.5	50	4	80	3.5	70	3.75	75	3.5	70	4	80	4	80	3	60	3.2	64	2	40	4	80	34	679	3.4	67.9	3.40	67.90		
	Average on sub-group by country		2.5	50	4	80	3.5	70	3.75	75	3.5	70	4	80	4	80	3	60	3.2	64	2	40	4	80								
	Total on sub-group by country		2.5	50	4	80	3.5	70	3.75	75	3.5	70	4	80	4	80	3	60	3.2	64	2	40	4	80								
Average on determinant by country			2.2	44.7	3.8	76.3	3.0	60.6	4.0	79.2	3.4	68.5	3.4	67.1	3.4	68.9	3.4	67.7	2.9	58.8	2.4	47.4	3.4	68.3								
Total on determinant by country			28.8	575	51.8	1035	42	840	55.75	1115	47.25	945	49.25	985	51	1020	46.5	930	38.7	774	31.2	624	49.5	990								
V. Digital promotion tools	5.1 Incentives and promotions	1) Information Technology Agreement **Scale:** 1) ITA only **- 3** 2) Bilateral Information Technology Agreements (BITA) only **- 2** 3) Both ITA and BITA - **4~5** **4) None of them - 0**	4.2	84	2	40	4.5	90	5	100	5	100	5	100	2	40	2	40	5	100	0	0	2	40	37	734	3.3	66.7	3.24	64.82	3.24	**64.82**
		2) Financial or fiscal incentives	2	40	3.5	70	4.5	90	3.5	70	4	80	4	80	4	80	3	60	3.5	70	2.7	54	4	80	39	774	3.5	70.4				
		3) Investment Promotion Agencies/Promotion by government/Private Sector (other than incentives)	2	40	4	80	4	80	4	80	4	80	3	60	3.7	74	3	60	3	60	3	60	3	60	37	734	3.3	66.7				
		4) Availability of venture capital	2	40	1.5	30	4	80	4	80	4	80	2.5	50	3.5	70	2	40	2.5	50	2.5	50	2	40	31	610	2.8	55.5				
	Average on determinant by country		2.55	51	2.75	55	4.25	85	4.125	82.5	4.25	85	3.625	72.5	3.3	66	2.5	50	3.5	70	2.05	41	2.75	55								
	Total on determinant by country		10.2	204	11	220	17	340	16.5	330	17	340	14.5	290	13.2	264	10	200	14	280	8.2	164	11	220								
AVERAGE SCORE BY COUNTRY ON DIGITAL FDI FRAMEWORK			2.3	45.4	3.4	67.3	3.6	73.0	3.7	74.9	3.7	74.3	3.1	62.6	3.2	64.7	3.0	60.0	2.9	58.4	2.3	45.5	3.2	64.3								
TOTAL SCORE BY COUNTRY ON DIGITAL FDI FRAMEWORK			**162**	**3244**	**252**	**5049**	**264**	**5280**	**267.7**	**5354**	**265.3**	5306	**225.5**	**4510**	**237**	**4732**	**224.8**	4495	**205.7**	**4114**	**170.8**	**3416**	**243.6**	**4871**								

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