

Digital FDI Ecosystem in CAREC Region (Phase II)





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Objective and Purpose of the Assignment

- Identification for implementation the most important policies, measures, and regulations such as tax administration (tax incentives/exemptions, and deferral) or FDI restrictiveness (foreign equity restrictions; screening or approval mechanisms; operational restrictions) that governments of CAREC countries can adopt to attract digital investment
- Designed digital investment policy framework (eco-system) considering demand-side factors (for digital investment opportunities), supply-side factors (regulatory requirements and measures that governments can adopt to create digital-friendly investment climates),
- Propose investment policy for the digital economy addresses all three aspects of the digital economy; Digital infrastructure (network operators, internet service providers), Digital firms (local and foreign), Wider digital adoption (Local businesses, public institutions, and governments).



Background and Motivation

- Attracting "digital FDI," or FDI into the digitalization is one of the optimal solution to address digital divide and ensure long term productivity
- Digital economy may require specific policies, regulations, and measures because digital firms have business models that vary from traditional brick-and-mortar businesses
- Digital FDI is more vulnerable to policies, regulations, investment climate, and coordination failures.
- A joint research project of CI and IsDB on Digital CAREC (Phase 1) indicates higher digital divide in Digital FDI, Digital Security, Regulations, Internet Cost, Digital infrastructure, and Internet Quality.



Background and Motivation

- Digital FDI is relatively new and one of the strongest pillars that derive other indicators of digital development. These factors are highly associated, which will derive and be driven by Digital FDI.
- The relevance of digital transformation has increased manifold during COVID-19 due to shifting from physical business operations to a virtual world.
- Microsoft CEO Satya Nadella's sentiment that, as a result of COVID-19, "We've seen two years' worth of digital transformation in two months."
- Integration, maintenance, and support issues in digital transformation.
- Capacity building requires huge capital investment from transmission lines to operating devices or other digital infrastructure along with investment in software's etc. to support business operations.



Conceptual Framework of Digital FDI

- We extend the framework set up in World Investment Report (2017) by UNCTAD, World Economic Forum Trade and Investment in the Digital Age Report (2020), and OECD's FDI Restrictiveness Index (Kaalnova et al. 2010), putting policies, regulations and measures to attract digital FDI into five pillars:
 1. New Digital Activities
 2. Digital Adoption
 3. Digital Infrastructure
 4. Digital FDI Restrictions
 5. Digital Promotion Tools
- Two approaches were adopted to collect the information. First, existing secondary sources, published reports, local/global evaluation indices, regulations, and policy documents.
- Second, interviewed different departments of respective ministries and experts to collect subjective information.
- Each country comprises one comprehensive questionnaire collected from expert interviews, prevailing laws/regulations documents, and other available resources.



Conceptual Framework of Digital FDI

Policies, regulations and measures to attract digital FDI can be divided into 5 categories:

- ***New digital activities, Digital adoption, Digital infrastructure, FDI Restrictions and Digital Promotion Tools***

New Digital Activities

Social / Print Media, Cloud Computing, data centers, etc. and Investors

Digital Adoption

Non-digital businesses into digital technology; telemedicine, mobile banking, e-commerce and Investors

Digital Infrastructure

Robust and reliable physical infrastructure, physical / regulatory aspects and Investors

Digital FDI restrictions


Sectoral restrictions, Restrictions on key foreign personnel, Foreign Equity Limits, Screening and approval of FDI

Digital promotion tools

IT Agreements, incentives, Promotion by government / Private Sector, venture capital



Methodology: Digital FDI Framework



Dimension	Sub-Indicator	Sub-Indicator
I. New Digital Activities	1.1 Data Privacy and Security	1) Data privacy regulations
		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 Consumers laws	1) Contract law to protect agreements
		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 Investors' rights	1) Protecting investors' rights
		2) Access to international arbitration
		3) Intellectual property and copyrights 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	
	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
		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
		2) Taxes on digital goods and services
		3) Prevalence of government services
		4) Tax deductions on ICT-related expenditures
	2.3 Independence of ICT regulations	1) Use of international standards
		2) Openness to foreign investment
		3) Strong competition policy and regulations
4) Independent ICT regulator		

Methodology: Digital FDI Framework

Dimension	Sub-Indicator	Sub-Indicator
III. Digital Infrastructure	3.1 Connectivity	1) Level of international connectivity
		2) Level of national connectivity (backbone)
	3.2 Availability of Networks	3) Level of connectivity of urban centers
		4) Level of connectivity of rural areas
		1) 4G mobile network
		2) 5G mobile network
	3.3 Access to infrastructure, finance and manpower	3) Domestic internet exchange points (IXP)
		4) Domestic data centers
		1) Use of international standards
		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		
3.4 Ease of receiving visas and licenses	5) Spectrum rules (e.g., availability, cost)	
	6) Access to local finance	
3.5 Privatization and taxation	7) Acquisition of land for business purposes	
	8) Land ownership is not permitted, but leases possible	
	1) Ease of receiving a license for digital infrastructure*	
IV. Digital FDI restrictions	4.1 Sectoral restrictions	2) Ease of receiving visas and employing foreign personnel
		1) Taxes on technology devices and services
		2) Privatization of telecom incumbent
		1) Restriction on print media
		2) Restriction on telecom media
	4.2 Restrictions on key foreign personnel / directors	3) Restriction on social media
		4) Access to webpages
		5) Freedom of expression
		1) Foreign key personnel not permitted
	4.3 Other restrictions	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		
4.4 Foreign Equity Limits	1) Restrictions on establishment of branches/local incorporation required	
	2) Burdensome restrictions on online content	
	3) Prohibition on access to foreign websites	
	1) No foreign equity allowed	
4.5 Screening and approval of FDI	2) Foreign equity < 50% of total equity	
	3) Foreign equity > 50% but < 100% of total equity	
	4) No foreign equity restrictions	
V. Digital promotion tools	5.1 Incentives and promotions	1) Approval required for new FDI
		2) Notification with a discretionary element
		3) No approval required for new FDI
		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





Methodology: Digital FDI Framework

The data collection and analysis was undertaken on the various aspects of digital FDI, regulations, policies and investments in digital economy in the CAREC countries. The list of interviewees included:

1. Tax/Fiscal Ministry or corresponding divisions of the Ministry of Finance;
2. Ministry of Economy (Trade);
3. National (Central) Bank;
4. Ministry of Information Technologies and (Tele) Communications;
5. State Frequency Authority / Media Regulatory Authority;
6. State Statistical Authority
7. ICT Regulator;
8. Chambers of Trade and Commerce;
9. Business associations and organisations;
10. Law/consulting firms.

The data was collected from Government officials, financial bodies and relevant ministries including taxation, investment and chambers of commerce.



Methodology: Digital FDI Framework

- A six point scale is used to evaluate the collected data (0-5 lower to highest), each of which is further divided into quarters (i.e., 2, 2.25, 2.50, 2.75) to get the precise score.
- The scores for each indicator and total scores are then transformed to a 0-100 (lowest to highest) scale and the results are visualized in graphs, radars, and charts.
- A comparison between all CAREC countries, within and across each element considered in each of the five key dimensions mentioned above.

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

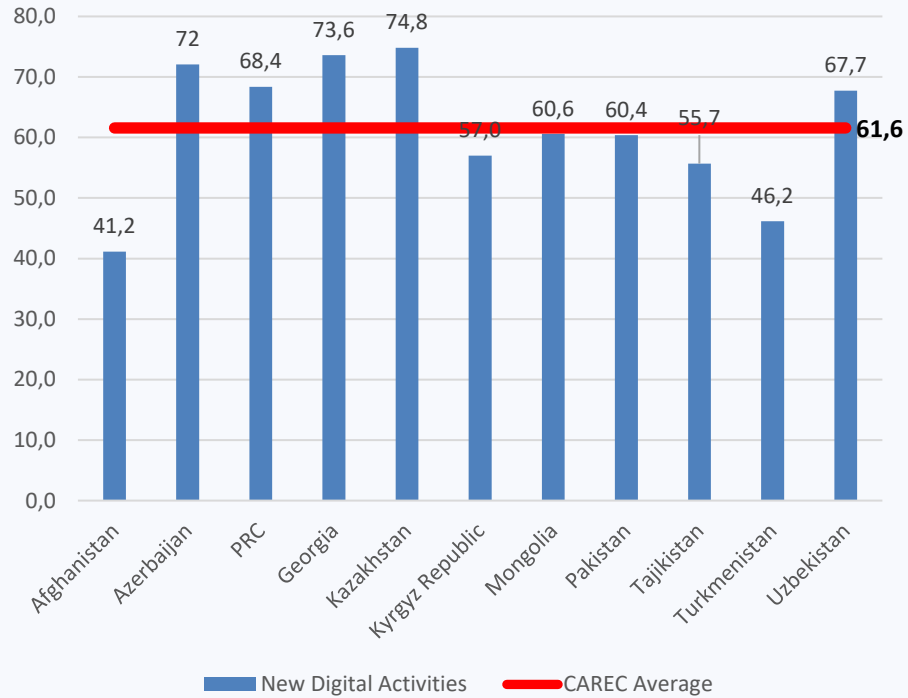
Key Findings

The most important sub-indicators in each of the 5 segments were selected, and results were scaled between 0 to 100 (lowest to highest) for a comparable outcome. The overall score of the Digital FDI Framework is estimated using the average score of these 5 pillars.

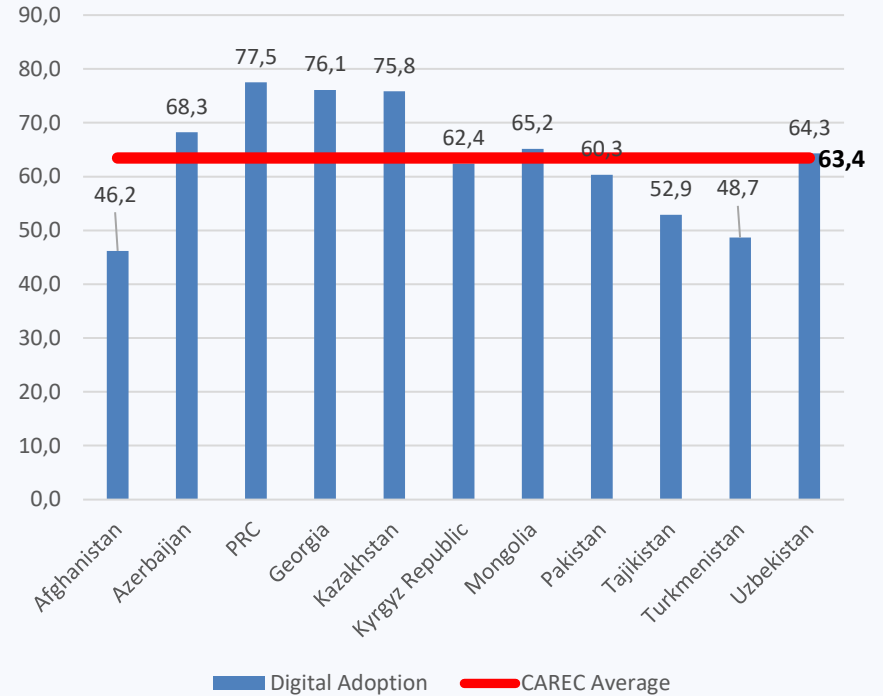
Average Indicators	New Digital Activities	Digital Adoption	Digital Infrastructure	Digital FDI Restrictions	Digital Promotion Tools	Digital FDI Framework
Afghanistan	41.2	46.2	44.0	44.7	51.0	45.4
Azerbaijan	72.1	68.3	64.8	76.3	55.0	67.3
PRC	68.4	77.5	73.5	60.6	85.0	73.0
Georgia	73.6	76.1	63.0	79.2	82.5	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

Key Findings

New Digital Activities

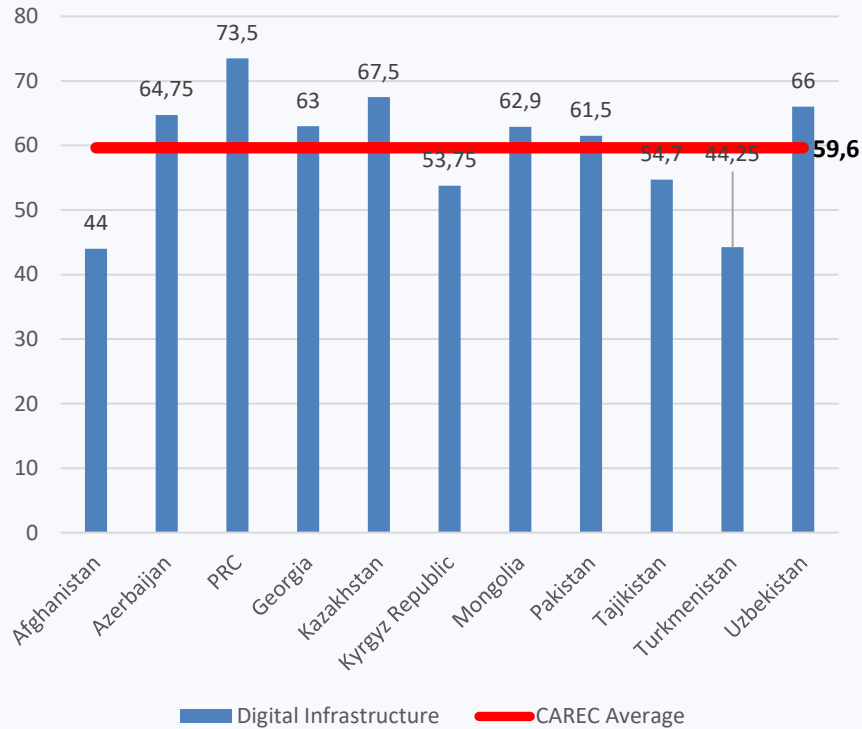


Digital Adoption

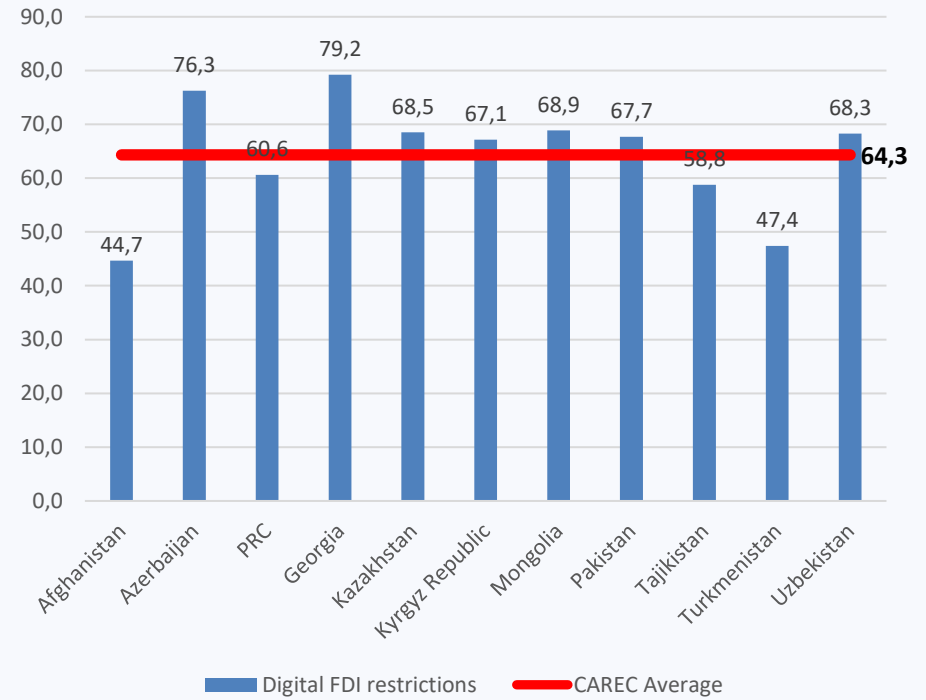


Key Findings

Digital Infrastructure

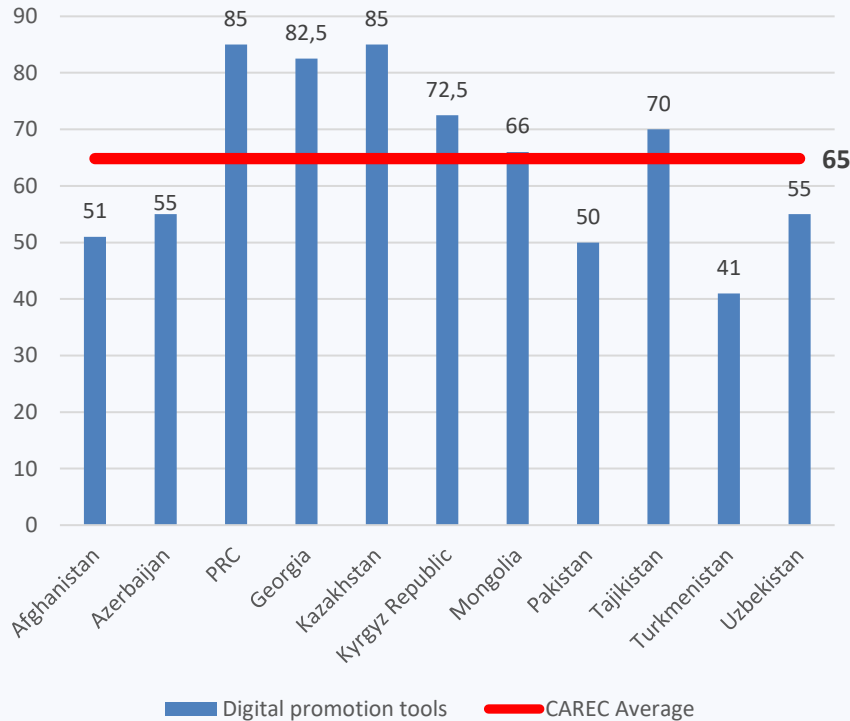


FDI Restrictions

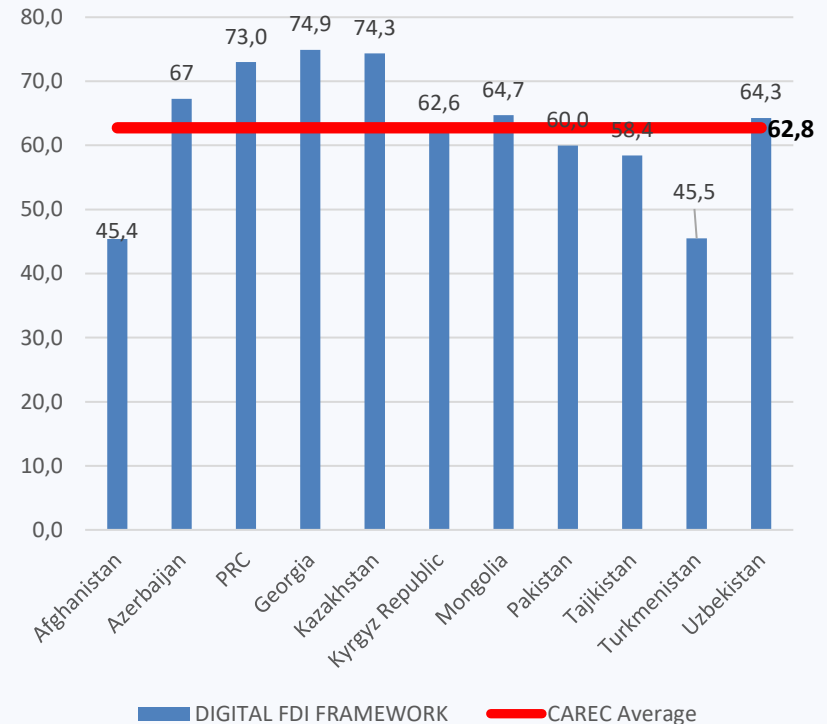


Key Findings

Digital Promotion Tools



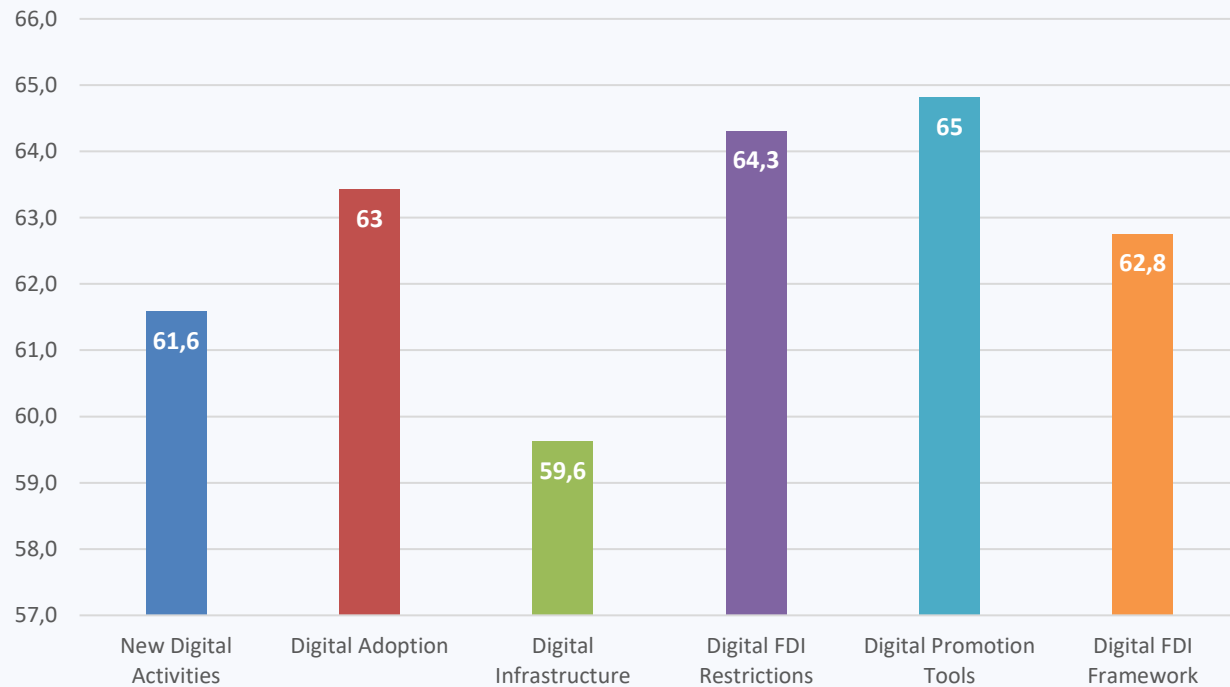
Digital FDI Ecosystem (Avg.)



- Georgia (74.9), Kazakhstan (74.3), and PRC are leading CAREC countries in terms of a conducive Digital FDI environment.
- Azerbaijan (67), Mongolia (64.7), Uzbekistan (64.3), Kyrgyz Republic (62.6), and Pakistan (60) report moderate scores in Digital FDI Eco-system.
- Tajikistan (58.4), Turkmenistan (45.5), and Afghanistan (45.4) display the lowest scores than CAREC regional average (62.8).

Key Findings

Digital FDI Eco-System CAREC Region



- **Digital infrastructure** has the lowest score due to lower rural connectivity, lack of 5G networks, domestic data centers, and exchange points, Access to infrastructure, finance and manpower, and privatization policies
- **Digital Adoption** is lower due to issues in data privacy and security, firm-specific regulations, and consumer laws



Recommendations

- The effectiveness of regional integration/investment agreements is based on several factors. Firm 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 utmost importance to provide a conducive environment for foreign tech firms.
- Promote the development and consolidation of venture capital and private equity sector through building favorable investment climate, creating a venture capital legislative framework. It supports investors, combines resources of different players in this field, and connects international partners. It encouraged local business entrepreneurship and paved the way for foreign tech firms with a lucrative market.
- Many tech firms originate from developed countries and face higher barriers while making investment decisions in developing economies. Likewise, the CAREC region is distinct due to its unique socio-political 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; Facebook, Amazon, Apple, Netflix, Google) helps to align ICT regulations related to data localization/privacy policies, digital security, and intellectual property rights.



Recommendations

- Political and technological integration is imperious to offer platforms for settlement of investment disputes, reducing FDI sectoral restrictions, enforcing ICT trade agreements, reducing tariffs and taxes/corporate income tax, and implementing a dual taxation system.
- Social and cultural integration would help to reduce restrictions on FAANG that 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, which can be lessened by offering regional digital broadcasting and commerce policies.
- Regional investment promotion agency would be established to identify business opportunities across CAREC countries and offer a one-window platform for mutual investment and business expansion in neighboring countries
- Implementation of policies and regulation are primarily based on the governance quality, which defines the enforcement and execution of these policies. Without adequate regularity quality, a country is impeded to develop a conducive investment climate. Higher corruption at the governmental level and rent-seeking behavior discourage potential investors.
- Investment approvals, mainly digital FDI projects, require licenses and NOCs from various ministries and departments. Bureaucratic hurdles, corruption, and deceptive behaviors not only lead to delays in approvals/execution of projects but also leads to a troubled transaction.



Recommendations

E-Government Development Index (EGDI) 2020

Rank	Country	EGDI Level	EGDI 2020	Online Service Index	Telecomm. 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



Recommendations

Tariff rate, applied, weighted mean, all products (%)

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