

GKI RANK 120 /141

35 SCORE WORLD 47.8 AVERAGE

COUNTRY PERFORMANCE SUMMARY

Pakistan is a weak performer in terms of its knowledge infrastructure. It ranks 120th out of 141 countries in the Global Knowledge Index 2024 and 6th out of the 23 countries with low human development.

PAKISTAN

KEY INDICATORS

GDP (US\$ billions): 1,346.557 Population: 247,504,496

HDI: 0.54

AREAS OF STRENGTH

- Researchers in higher education (%)
- Ecological footprint per capita
- Citations per document
- Completion rate in upper secondary education, gender parity
- Unemployment rate with vocational education

AREAS OF IMPROVEMENT

- Firms with products and services new to the market (%)
- ICT PCT patent applications (per 100 billion GDP)
- Firms offering formal training (%)
- Firms that spend on R&D (%)
- Trade (% GDP)

SECTORAL INDICES





GKI PILLARS





PAKISTAN

		(Valu
PRE-UNIVERSITY EDUCATION	114	44.7
Knowledge capital	116	42.1
Enrolment	118	51.6
Net enrolment rate in primary education	128	48.6
Net enrolment rate in lower secondary education	110	61.5
Net enrolment rate in upper secondary education	111	44.8
Completion	105	47.5
Years of compulsory education in primary and secondary	3	92.3
Completion rate in upper secondary education	91	22.8
Gross intake ratio to the last grade of lower secondary education	110	27.4
Outcomes	112	27.1
Assessment of 15-year-old students in math, science and reading	n/a	n/a
Learning-adjusted years of schooling	116	27.1
Educational enabling environment	107	47.2
Expenditure	112	19.3
Government expenditure on primary education (% GDP)	109	18.3
Government expenditure on secondary education (% GDP)	106	10.3
Government funding per primary student (% GDP per capita)	101	19.9
Government funding per secondary student (% GDP per capita)	73	28.6
Resources	106	63.6
Pupil-trained teacher ratio in primary education	90	54.8
Pupil-trained teacher ratio in secondary education	39	89.8
Schools with access to computers in primary education (%)	81	46.2
Schools with access to computers in secondary education (%)	n/a	n/a
Early learning	76	57.7
Gross enrolment ratio in early childhood education	37	57.7
Proportion of children who are developmentally on track	n/a	n/a
Proportion of children with stimulating home learning environments	n/a	n/a
Pupil-trained teacher ratio in pre-primary education	n/a	n/a
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness	n/a 83	n/a 48.4
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity	n/a 83 7	n/a 48.4 99
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity	n/a 83 7 78	n/a 48.4 99 2.5
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity	n/a 83 7	n/a 48.4 99
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING	n/a 83 7 78 81 113	n/a 48.4 99 2.5 43.8
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components	n/a 83 7 78 81 113	n/a 48.4 99 2.5 43.8 42.3 30.8
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling	n/a 83 7 78 81 113 126 139	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%)	n/a 83 7 78 81 113 126 139	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education	n/a 83 7 78 81 113 126 139 123 n/a	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training	n/a 83 7 78 81 113 126 139 123 n/a 122	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure	n/a 83 7 78 81 113 126 139 123 n/a 122 82	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 38.6
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%)	n/a 83 7 78 81 113 126 139 123 n/a 122 82	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 38.6 11.2
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes	n/a 83 7 78 81 113 126 139 123 n/a 122 69 107	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 38.6 11.2 4.7
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes	n/a 83 7 78 81 113 126 139 123 n/a 122 82 69 107 1	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 11.2 4.7 100
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications	n/a 83 7 78 81 113 126 139 123 n/a 122 82 69 107 1 33	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 38.6 11.2 4.7 100 47.6
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications Extent of staff training	n/a 83 7 78 81 113 126 139 123 n/a 122 82 69 107 1 33 59	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 38.6 11.2 4.7 100 47.6 59.6
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training	n/a 83 7 78 81 113 126 139 123 n/a 122 82 69 107 1 33 59 67	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 38.6 11.2 4.7 100 47.6 59.6 54.6
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage	n/a 83 7 78 81 113 126 139 123 n/a 122 82 69 107 1 33 59 67	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 38.6 11.2 4.7 100 47.6 59.6 54.6 37.4
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage	n/a 83 7 78 81 113 126 139 123 n/a 122 82 69 107 1 33 59 67 27	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 38.6 11.2 4.7 100 47.6 59.6 54.6 37.4 38.8
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage Ratio of medium-skill TVET occupations earnings to average wage	n/a 83 7 78 81 113 126 139 123 n/a 122 82 69 107 1 33 59 67	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 38.6 11.2 4.7 100 47.6 59.6 54.6 37.4
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage Ratio of medium-skill TVET occupations earnings to average wage	n/a 83 7 78 81 113 126 139 123 n/a 122 82 69 107 1 33 59 67 27	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 38.6 11.2 4.7 100 47.6 59.6 54.6 37.4 38.8
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage Ratio of medium-skill TVET occupations earnings to average wage TVET labour market Efficiency of the labour market	n/a 83 7 78 81 113 126 139 123 n/a 122 82 69 107 1 33 59 67 27 20	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 38.6 11.2 4.7 100 47.6 59.6 37.4 38.8 53.9
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage Ratio of medium-skill TVET occupations earnings to average wage TVET labour market Efficiency of the labour market Firms constrained with inadequately educated workforce (%)	n/a 83 7 78 81 113 126 139 123 n/a 122 82 69 107 1 33 59 67 27 20 99	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 38.6 11.2 4.7 100 47.6 59.6 54.6 37.4 38.8 53.9 67.4
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage Ratio of medium-skill TVET occupations earnings to average wage TVET labour market Efficiency of the labour market Firms constrained with inadequately educated workforce (%) Employment educational mismatch (%)	n/a 83 7 78 81 113 126 139 123 n/a 122 69 107 1 33 59 67 27 20 99 77 53	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 11.2 4.7 100 47.6 59.6 37.4 38.8 53.9 67.4 75
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage Ratio of medium-skill TVET occupations earnings to average wage TVET labour market Efficiency of the labour market Efficiency of the labour market Efficiency of skilled production workers	n/a 83 7 78 81 113 126 139 123 n/a 122 89 107 1 33 59 67 27 20 99 77 53 103	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 11.2 4.7 100 47.6 59.6 54.6 37.4 38.8 53.9 67.4 75 36.4
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage Ratio of medium-skill TVET occupations earnings to average wage TVET labour market Efficiency of the labour market Firms constrained with inadequately educated workforce (%) Employment educational mismatch (%) Proportion of skilled production workers Unemployment rate with vocational education	n/a 83 7 78 81 113 126 139 123 n/a 122 82 69 107 1 33 59 67 27 20 99 77 53 103 58	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 38.6 11.2 4.7 100 47.6 59.6 54.6 37.4 38.8 53.9 67.4 75 36.4 66.9
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications Extent of staff training	n/a 83 7 78 81 113 126 139 123 n/a 122 82 69 107 1 33 59 67 27 20 99 77 53 103 58 17	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 38.6 11.2 4.7 100 47.6 59.6 54.6 37.4 38.8 53.9 67.4 75 36.4 66.9 91.3
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage Ratio of medium-skill TVET occupations earnings to average wage TVET labour market Efficiency of the labour market Firms constrained with inadequately educated workforce (%) Employment educational mismatch (%) Proportion of skilled production workers Unemployment rate with vocational education Post-TVET employment	n/a 83 7 78 81 113 126 139 123 n/a 122 82 69 107 1 33 59 67 27 20 99 77 53 103 58 17 66	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 38.6 11.2 4.7 100 47.6 59.6 54.6 37.4 38.8 53.9 67.4 75 36.4 66.9 91.3 45.3
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity Completion rate in upper secondary education, location parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes Share of students enrolled in post-secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage TVET labour market Efficiency of the labour market Firms constrained with inadequately educated workforce (%) Employment educational mismatch (%) Proportion of skilled production workers Unemployment rate with vocational education Post-TVET employment Share of TVET occupations Manufacturing employment (%)	n/a 83 7 78 81 113 126 139 123 n/a 122 82 69 107 1 33 59 67 27 20 99 77 53 103 58 17 66 101	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 38.6 11.2 4.7 100 47.6 59.6 54.6 37.4 38.8 53.9 67.4 75 36.4 66.9 91.3 45.3 40.9
Pupil-trained teacher ratio in pre-primary education Equity and inclusiveness Completion rate in upper secondary education, gender parity Completion rate in upper secondary education, wealth parity TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TVET components Continuous training and skilling Firms offering formal training (%) Labour force participation rate with short-cycle tertiary education Participation rate in formal and non-formal education and training TVET structure Government expenditure on vocational education (%) Share of students enrolled in secondary vocational programmes TVET quality and qualifications Extent of staff training Quality of vocational training Ratio of high-skill TVET occupations earnings to average wage Ratio of medium-skill TVET occupations earnings to average wage TVET labour market Efficiency of the labour market Firms constrained with inadequately educated workforce (%) Employment educational mismatch (%) Proportion of skilled production workers Unemployment rate with vocational education Post-TVET employment Share of TVET occupations	n/a 83 7 78 81 113 126 139 123 n/a 122 82 69 107 1 33 59 67 27 20 99 77 53 103 58 17 66 101 32	n/a 48.4 99 2.5 43.8 42.3 30.8 6.1 2.7 n/a 9.6 38.6 11.2 4.7 100 47.6 59.6 54.6 37.4 38.8 53.9 67.4 75 36.4 66.9 91.3 40.9 49.7

	Rank	Valu
HIGHER EDUCATION	111	36.1
Inputs	101	30.6
Expenditure	103	5.7
Government expenditure per tertiary student	76	5.7
Teaching staff compensation (% tertiary expenditure)	n/a	n/a
Enrolment	110	5.1
Enrolment in bachelor's or equivalent level (%)	106	7.1
Enrolment in master's, doctoral or equivalent (%)	108	3.2
Resources	24	81
Pupil-teacher ratio in tertiary education	82	67.8
Researchers in higher education (%)	2	94.2
Learning environment	76	47.9
Diversity and academic freedom	69	52.4
Teachers in tertiary education, gender parity	n/a	n/a
Inbound mobility rate	n/a	n/a
Academic freedom	95	52.4
Equity and inclusiveness	40	43.4
Gross attendance ratio for tertiary education, gender parity	25	88.4
Gross attendance ratio for tertiary education, gentler parity	58	2.3
Gross attendance ratio for tertiary education, wealth parity	33	39.6
	131	29.9
Outputs		
Attainment	96	8.9
Educational attainment rate, bachelor's or equivalent	94	13.9
Educational attainment rate, master's or equivalent	59	12.3
Educational attainment rate, doctoral or equivalent	116	0.6
Employment	130	52.9
Labour force participation rate with advanced education	126	59.9
Unemployment rate with advanced education	132	45.8
Impact	112	28
University-industry collaboration in R&D	48	51.5
Citable documents per R&D personnel in higher education	92	4.5
Inputs	139	8.8
Inputs of R&D institutions	128	4.1
GERD (% GDP)	96	2.8
GERD per researcher	100	2
Researchers per thousand labour force	69	7.5
Tertiary graduates from STEM programmes (%)	n/a	n/a
Inputs of RDI in business enterprises		3.2
	132	
GERD performed by business enterprises (%)	132 n/a	n/a
GERD performed by business enterprises (%) GERD financed by business enterprises (%)		n/a n/a
	n/a	
GERD financed by business enterprises (%)	n/a n/a	n/a
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%)	n/a n/a n/a 115	n/a n/a 3.2
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation	n/a n/a n/a 115 106	n/a n/a 3.2 23.9
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%)	n/a n/a n/a 115 106	n/a n/a 3.2 23.9 13.5
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade)	n/a n/a n/a 115 106 104	n/a n/a 3.2 23.9 13.5 5.1
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development	n/a n/a n/a 115 106 104 88 43	n/a n/a 3.2 23.9 13.5 5.1 53.2
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of duster development Outputs	n/a n/a n/a n/a 115 106 104 88 43 74	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9
GERD financed by business enterprises (%) Researchers in business enterprises (%)	n/a n/a n/a 115 106 104 88 43	n/a n/a 3.2 23.9 13.5 5.1 53.2
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs of R&D institutions Average documents per researcher	n/a n/a n/a n/a 115 106 104 88 43 74 33 81	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs of R&D institutions Average documents per researcher Citations per document	n/a n/a n/a n/a 115 106 104 88 43 74	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs of R&D institutions Average documents per researcher Citations per document	n/a n/a n/a n/a 115 106 104 88 43 74 33 81	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP)	n/a n/a n/a n/a 115 106 104 88 43 74 33 81	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of R&D in business enterprises	n/a n/a n/a n/a 115 106 104 88 43 74 33 81 4	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs of R&D institutions	n/a n/a n/a n/a 115 106 104 88 43 74 33 81 4 88	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of RD in business enterprises Intellectual property receipts (% total trade) Industrial design applications (per 100 billion GDP)	n/a n/a n/a n/a 115 106 104 88 43 74 33 81 4 88 125	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7 14.1 7
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of RD in business enterprises Intellectual property receipts (% total trade)	n/a n/a n/a n/a 115 106 104 88 43 74 33 81 4 88 125 87	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7 14.1 7 45.3
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of RD in business enterprises Intellectual property receipts (% total trade) Industrial design applications (per 100 billion GDP) PCT applications (per 100 billion GDP) Firms producing new products and services (%)	n/a n/a n/a n/a 115 106 104 88 43 74 33 81 4 88 125 87 87	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7 14.1 7 45.3 0.1
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GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of RDI in business enterprises Intellectual property receipts (% total trade) Industrial design applications (per 100 billion GDP) PCT applications (per 100 billion GDP) Firms producing new products and services (%) Outputs of societal innovation Trademark applications (per 100 billion GDP)	n/a n/a n/a n/a n/a 115 106 104 88 43 74 33 81 4 88 125 87 129 115	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7 14.1 7 45.3 0.1 4.2 26.6
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of RD in business enterprises Intellectual property receipts (% total trade) Industrial design applications (per 100 billion GDP) PCT applications (per 100 billion GDP) Firms producing new products and services (%) Outputs of societal innovation Trademark applications (per 100 billion GDP) Cultural goods exports (% exports)	n/a n/a n/a n/a n/a 115 106 104 88 43 74 33 81 4 88 125 87 129 115 107 65	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7 14.1 7 45.3 0.1 4.2 26.6 14.2
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of R&D institutions (per 100 billion GDP) For applications (per 100 billion GDP) PCT applications (per 100 billion GDP) Firms producing new products and services (%) Outputs of societal innovation Trademark applications (per 100 billion GDP) Cultural goods exports (% exports) Printing and publishing output (% manufactured output)	n/a n/a n/a n/a n/a n/a 115 106 104 88 43 74 33 81 4 88 125 87 87 129 115 107 65	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7 14.1 7 45.3 0.1 4.2 26.6 14.2 56.2
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of RDI in business enterprises Intellectual property receipts (% total trade) Industrial design applications (per 100 billion GDP) PCT applications (per 100 billion GDP) Firms producing new products and services (%) Outputs of societal innovation Trademark applications (per 100 billion GDP) Cultural goods exports (% exports) Printing and publishing output (% manufactured output)	n/a n/a n/a n/a n/a n/a 115 106 104 88 43 74 33 81 4 88 125 87 87 129 115 107 65 90 85	n/a n/a 3.2 23.9 13.5 5.1 55.2 87.8 42.7 14.1 7 45.3 0.1 4.2 26.6 14.2 56.2 9.3 13.6
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GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of RDI in business enterprises Intellectual property receipts (% total trade) Industrial design applications (per 100 billion GDP) PCT applications (per 100 billion GDP) Firms producing new products and services (%) Outputs of societal innovation Trademark applications (per 100 billion GDP) Cultural goods exports (% exports) Printing and publishing output (% manufactured output) Impact Ouality Research institutions prominence	n/a	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7 14.1 7 45.3 0.1 4.2 26.6 14.2 56.2 9.3 13.6 22.4 24.3
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of duster development Outputs Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of RDI in business enterprises Intellectual property receipts (% total trade) Industrial design applications (per 100 billion GDP) PCT applications (per 100 billion GDP) Firms producing new products and services (%) Outputs of societal innovation Trademark applications (per 100 billion GDP) Cultural goods exports (% exports) Printing and publishing output (% manufactured output) Impact Ouality Research institutions prominence Growth of innovative companies	n/a	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7 14.1 7 45.3 0.1 4.2 26.6 14.2 56.2 9.3 13.6 22.4 24.3 54.1
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs Outputs Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of RDI in business enterprises Intellectual property receipts (% total trade) Industrial design applications (per 100 billion GDP) PCT applications (per 100 billion GDP) Firms producing new products and services (%) Outputs of societal innovation Trademark applications (per 100 billion GDP) Cultural goods exports (% exports) Printing and publishing output (% manufactured output) Impact Ouality Research institutions prominence Growth of innovative companies ISO 9001 quality certificates (per billion GDP)	n/a	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7 14.1 7 45.3 0.1 4.2 26.6 14.2 9.3 13.6 22.4 24.3 54.1 6.2
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of RDI in business enterprises Intellectual property receipts (% total trade) Industrial design applications (per 100 billion GDP) PCT applications (per 100 billion GDP) Firms producing new products and services (%) Outputs of societal innovation Trademark applications (per 100 billion GDP) Cultural goods exports (% exports) Printing and publishing output (% manufactured output) Impact Ouality Research institutions prominence Growth of innovative companies ISO 9001 quality certificates (per billion GDP)	n/a	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7 14.1 7 45.3 0.1 4.2 26.6 14.2 9.3 13.6 22.4 24.3 54.1 6.2 5.1
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of RDI in business enterprises Intellectual property receipts (% total trade) Industrial design applications (per 100 billion GDP) PCT applications (per 100 billion GDP) Firms producing new products and services (%) Outputs of societal innovation Trademark applications (per 100 billion GDP) Cultural goods exports (% exports) Printing and publishing output (% manufactured output) Impact Quality Research institutions prominence Growth of innovative companies ISO 9001 quality certificates (per billion GDP) Linkages	n/a	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7 14.1 7 45.3 0.1 4.2 26.6 14.2 56.2 9.3 13.6 22.4 24.3 54.1 6.2 5.1 18.2
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of RDI in business enterprises Intellectual property receipts (% total trade) Industrial design applications (per 100 billion GDP) PCT applications (per 100 billion GDP) Firms producing new products and services (%) Outputs of societal innovation Trademark applications (per 100 billion GDP) Cultural goods exports (% exports) Printing and publishing output (% manufactured output) Impact Quality Research institutions prominence Growth of innovative companies ISO 9001 quality certificates (per billion GDP) Linkages	n/a n/a n/a n/a n/a n/a n/a n/a 115 106 104 88 43 74 33 81 4 88 125 87 87 129 115 107 65 90 85 130 67 35 38 85 83	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7 14.1 7 45.3 0.1 4.2 26.6 14.2 9.3 13.6 22.4 24.3 54.1 6.2 5.1
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of RDI in business enterprises Intellectual property receipts (% total trade) Industrial design applications (per 100 billion GDP) PCT applications (per 100 billion GDP) FT applications (per 100 billion GDP) Trademark applications (per 100 billion GDP) Cultural goods exports (% exports) Printing and publishing output (% manufactured output) Impact Cuality Research institutions prominence Growth of innovative companies ISO 9001 quality certificates (per billion GDP) Linkages GERD financed from abroad (%)	n/a	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7 14.1 7 45.3 0.1 4.2 26.6 14.2 56.2 9.3 13.6 22.4 24.3 54.1 6.2 5.1 18.2
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of RD in business enterprises Intellectual property receipts (% total trade) Industrial design applications (per 100 billion GDP) PCT applications (per 100 billion GDP)	n/a	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7 14.1 7 45.3 0.1 4.2 25.6 22.4 24.3 54.1 6.2 5.1 18.2 2.5
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of RDI in business enterprises Intellectual property receipts (% total trade) Industrial design applications (per 100 billion GDP) PCT applications (per 100 billion GDP) PCT applications (per 100 billion GDP) Firms producing new products and services (%) Outputs of societal innovation Trademark applications (per 100 billion GDP) Cultural goods exports (% exports) Printing and publishing output (% manufactured output) Impact Ouality Research institutions prominence Growth of innovative companies ISO 9001 quality certificates (per billion GDP) Linkages GERD financed from abroad (%) Joint ventures per strategic alliance deals (per billion GDP) Computer software spending (% GDP)	n/a n/a n/a n/a n/a n/a 115 106 104 88 43 74 33 81 4 88 125 87 129 115 107 65 90 85 130 67 35 38 85 83 59 86 40	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7 14.1 7 45.3 0.1 4.2 26.6 14.2 56.2 9.3 13.6 6.2 5.1 18.2 2.5 11.2
GERD financed by business enterprises (%) Researchers in business enterprises (%) Firms that spend on R&D (%) Inputs of societal innovation High-skilled employment (%) Intellectual property payments (% total trade) State of cluster development Outputs Outputs Outputs Outputs of R&D institutions Average documents per researcher Citations per document Resident patent applications (per 100 billion GDP) Outputs of RDI in business enterprises Intellectual property receipts (% total trade) Industrial design applications (per 100 billion GDP) PCT applications (per 100 billion GDP) PCT applications (per 100 billion GDP) Trademark applications (per 100 billion GDP) Cultural goods exports (% exports) Printing and publishing output (% manufactured output) Impact Quality Research institutions prominence Growth of innovative companies ISO 9001 quality certificates (per billion GDP) Linkages GERD financed from abroad (%) Joint ventures per strategic alliance deals (per billion GDP)	n/a n/a n/a n/a n/a n/a n/a n/a 115 106 104 88 43 74 33 81 4 88 125 87 129 115 107 65 90 85 130 67 35 38 85 83 59 86 40 23	n/a n/a 3.2 23.9 13.5 5.1 53.2 33.9 47.5 12 87.8 42.7 14.1 7 45.3 0.1 4.2 26.6 22.4 24.3 54.1 6.2 5.1 18.2 2.5 11.2 40.7



PAKISTAN

INFORMATION AND COMMUNICATIONS TECHNOLOGY	115	k Valu
Infrastructure	110	40.8
Coverage	119	38.6
3G/4G mobile network coverage (% population)	119	69.4 32.8
Secure Internet servers per 1 million population		
nvestment in telecommunication services (% GDP)	109	13.4 3.2
Mobile upload and download speeds	132	4.1
ixed-broadband upload and download speeds	133	3.4
ixed-broadband subscriptions by speed per hundred people	108	1.9
Affordability	80	80.7
Fixed broadband basket (% GNI per capita)	112	48.7
Mobile broadband basket (% GNI per capita)	75	93.4
nternet and telephony competition	1	100
Access	126	21.2
Subscriptions	116	39.5
Active mobile-broadband subscriptions per hundred inhabitants	119	24.4
International Internet bandwidth per user	72	56
Households with Internet access at home (%)	120	38.2
Skills and employment	130	2.9
Individuals with standard ICT skills (%)	86	0.4
Fertiary graduates from ICT programmes (%)	n/a	n/a
ICT employment (%)	91	5.5
Usage	106	33.3
Services	100	37.8
Government online services	73	70.4
Fixed broadband Internet traffic per subscription	34	38.7
Mobile broadband Internet traffic per subscription	72	16.5
Internet users (%)	126	25.5
Outcomes	113	28.9
CT PCT patent applications (per 100 billion GDP)	119	0
E-participation	84	49.3
Internet activities by individuals (%)	n/a	n/a
Trade in digitally deliverable services (% total trade)	59	37.4
ECONOMY		
ECONOMY	103	45.3
	103 92	45.3 47.3
Economic competitiveness		
Economic competitiveness Infrastructure investment	92	47.3
Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP)	92 115	47.3 41.7
Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance	92 115 127	47.3 41.7 20
Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity	92 115 127 114	47.3 41.7 20 35.5
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control	92 115 127 114 107	47.3 41.7 20 35.5 24.8
Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility	92 115 127 114 107 44	47.3 41.7 20 35.5 24.8 86.5
Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business	92 115 127 114 107 44 77	47.3 41.7 20 35.5 24.8 86.5 52.8
ECONOMY Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate	92 115 127 114 107 44 77 61	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3
Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate	92 115 127 114 107 44 77 61	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6
Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate	92 115 127 114 107 44 77 61 51	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6
Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness	92 115 127 114 107 44 77 61 51	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4
Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification	92 115 127 114 107 44 77 61 51 80 51	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5
Economic competitiveness Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP)	92 115 127 114 107 44 77 61 51 80 51 111	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade)	92 115 127 114 107 44 77 61 51 80 51 111 79	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5 48.8 2.3
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency	92 115 127 114 107 44 77 61 51 80 51 111 79	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5 48.8 2.3 19.1
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration	92 115 127 114 107 44 77 61 51 80 51 111 79 132 63 55	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5 48.8 2.3 19.1 80.3
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration	92 115 127 114 107 44 77 61 51 80 51 111 79 132 63 55 35	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5 48.8 2.3 19.1 80.3 93.4
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Peroduct concentration Market concentration Financial openness Chinn-Ito financial openness Chinn-Ito financial openness	92 115 127 114 107 44 77 61 51 80 51 111 79 132 63 55 35 123	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5 48.8 2.3 19.1 80.3 93.4 30.3
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Financial openness Chinn-Ito financial openness Foreign direct investment, net inflows (% GDP)	92 115 127 114 107 44 77 61 51 80 51 111 79 132 63 55 35 123 88	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5 48.8 2.3 19.1 80.3 93.4 30.3 16.3
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Financial openness Chinn-Ito financial openness Foreign direct investment, net inflows (% GDP) Debt dynamics	92 115 127 114 107 44 77 61 51 80 51 111 79 132 63 55 35 123 88 121	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5 48.8 2.3 19.1 80.3 93.4 30.3 16.3 35
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Market concentration Financial openness Crorigin direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added	92 115 127 114 107 44 77 61 51 80 51 111 79 132 63 55 35 123 88 121 105 85	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5 48.8 2.3 19.1 80.3 93.4 30.3 16.3 35 49.5
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Financial openness Chinn-Ito financial openness Foreign direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added Financing and daxes	92 115 127 114 107 44 77 61 51 80 51 111 79 132 63 55 35 123 88 121 105 85	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5 48.8 2.3 19.1 80.3 93.4 30.3 35 39.5 49.1
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Market concentration Financial openness Chinn-Ito financial openness Foreign direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added Financing and taxes Domestic credit to private sector (% GDP)	92 115 127 114 107 44 77 61 51 80 51 111 79 132 63 55 35 123 88 121 105 85 83 129	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5 48.8 2.3 19.1 80.3 93.4 30.3 35 39.5 49.1
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Fransport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Frade and diversification Frade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Market concentration Francial openness Chinn-Ito financial openness Foreign direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added Financing and taxes Domestic credit to private sector (% GDP) MSME financing gap (% GDP)	92 115 127 114 107 44 77 61 51 80 51 111 79 132 63 55 35 123 88 121 105 85 83 129 45	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5 48.8 2.3 19.1 80.3 39.4 40.3 39.5 49.1 55.7 4.8 80.3
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Market concentration Financial openness Chinn-Ito financial openness Foreign direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added Financing and taxes Domestic credit to private sector (% GDP) MSME financing gap (% GDP) Tax and contribution rate (% profit)	92 115 127 114 107 44 77 61 51 80 51 111 79 132 63 55 35 123 88 121 105 85 83 129 45 44	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5 48.8 2.3 19.1 80.3 39.4 40.3 39.5 49.1 55.7 4.8 80.3 69.2
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Transport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Trade and diversification Trade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Market concentration Financial openness Chinn-Ito financial openness Foreign direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added Financing and taxes Domestic credit to private sector (% GDP) MSME financing gap (% GDP) Tax and contribution rate (% profit) Bank non-performing loans (%)	92 115 127 114 107 44 77 61 51 80 51 111 79 132 63 55 35 123 88 121 105 85 83 129 45 44 99	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5 48.8 2.3 19.1 80.3 93.4 30.3 16.3 35 39.5 49.1 48.8 69.2 68.6
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Fransport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Frade and diversification Frade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Financial openness Chinn-Ito financial openness Coreign direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added Financing and taxes Domestic credit to private sector (% GDP) MSME financing gap (% GDP) Fax and contribution rate (% profit) Bank non-performing loans (%) Domestic value added	92 115 127 114 107 44 77 61 51 80 51 111 79 132 63 55 35 123 88 121 105 85 83 129 45 44 99 86	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5 48.8 2.3 19.1 80.3 35.3 35.5 49.1 48.8 40.3 46.6 40.3 40.3 40.3 40.3 40.3 40.3 40.3 40.3
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Fransport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Frade and diversification Frade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Financial openness Chinn-Ito financial openness Coreign direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added Financing and taxes Domestic credit to private sector (% GDP) MSME financing gap (% GDP) Fax and contribution rate (% profit) Bank non-performing loans (%) Domestic value added Medium- and high-tech activities value added	92 115 127 114 107 44 77 61 51 80 51 111 79 132 63 55 35 123 88 121 105 85 83 129 45 44 99 86 68	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5 48.8 2.3 19.1 80.3 35.3 39.5 49.1 48.8 60.3 60.3 60.2 66.6 64.8 60.3 60.3 60.3 60.3 60.3 60.3 60.3 60.3
Infrastructure investment Gross fixed capital formation (% GDP) Logistics performance Fransport productive capacity Building quality control Business agility Ease of starting a business Insolvency recovery rate Entrepreneurial employee activity rate Extent of corporate transparency Economic openness Frade and diversification Frade (% GDP) High-technology trade (% total trade) Product concentration Market concentration Market concentration Francial openness Chinn-Ito financial openness Foreign direct investment, net inflows (% GDP) Debt dynamics Financing and domestic value added Financing and taxes Domestic credit to private sector (% GDP) MSME financing gap (% GDP) Fax and contribution rate (% profit)	92 115 127 114 107 44 77 61 51 80 51 111 79 132 63 55 35 123 88 121 105 85 83 129 45 44 99 86	47.3 41.7 20 35.5 24.8 86.5 52.8 89.3 46.6 4 71.4 39.5 48.8 2.3 19.1 80.3 35.3 35.5 49.1 48.8 40.3 46.6 40.3 40.3 40.3 40.3 40.3 40.3 40.3 40.3

	Rank	Rank Value	
ENABLING ENVIRONMENT	137	34.8	
Governance	125	20.7	
Political environment	128	15.9	
Peace and stability	136	6.6	
Voice and accountability	112	25.1	
Quality of institutions	112	25.6	
Rule of law	112	25	
Control of corruption	113	22.6	
Government effectiveness	105	29.2	
Socio-economic	132	32.8	
Gender equity	139	35.4	
Female-to-male ratio in parliament	114	19.3	
Female-to-male labour force participation	135	30.2	
Female-to-male ratio in Internet usage	107	56.6	
Social inclusion	135	28.1	
Social protection coverage (% population)	104	18.2	
Adult literacy rate	102	42.2	
Youth not in employment, education or training (%)	132	23.9	
Standard of living	87	34.9	
Poverty headcount ratio (% population)	63	66.3	
GDP per capita	114	3.6	
Health and environment	137	50.9	
Health	122	45.4	
Universal health coverage	119	45.2	
Healthy life expectancy (years)	114	42.2	
Under-five mortality rate	124	48.8	
Environmental performance	59	56.4	
Renewable energy consumption (%)	45	43.2	
Ecological footprint per capita	3	99.1	
Natural hazard exposure	134	27	

^{*} All values are normalized to a scale from 0 (worst) to 100 (best).