I: Country/Economy Profiles

Brazil

THE GLOBAL INNOVATION INDEX 2016

Kovin	dicators				4.2	Investment	35.5	68
			207.0		4.2.1	Ease of protecting minority investors*		28
Population (millions)				4.2.2	Market capitalization, % GDP		46	
GDP per capita, PPP\$					4.2.3	Total value of stocks traded, % GDP		23
					4.2.4	Venture capital deals/bn PPP\$ GDP		47
Income group								
Region	Laun America	and the Can	ibbeaii		4.3	Trade, competition, & market scale		28 •
	S	Score 0–100			4.3.1	Applied tariff rate, weighted mean, % [©]		103 O
		(hard data)	Rank		4.3.2	Intensity of local competition [†]		40
Global Innovation Index (out of 128) 33.2			69		4.3.3	Domestic market scale, bn PPP\$	3,2/5.8	7 🛑
Innovation Output Sub-Index23.7			79		-	Description of the best of the second	27.0	20
Innovati	on Input Sub-Index	42.7	58		5	Business sophistication		39
Innovati	on Efficiency Ratio	0.6	100	0	5.1	Knowledge workers		52
	novation Index 2015 (out of 141)		70		5.1.1	Knowledge-intensive employment, % Firms offering formal training, % firms [©]		63
					5.1.2 5.1.3	GERD performed by business, % of GDP		34 n/a
1	Institutions		78		5.1.4	GERD financed by business, % ^a		35
1.1	Political environment		70		5.1.5	Females employed w/advanced degrees, % total		67
1.1.1	Political stability & safety*		68		3.1.3			
1.1.2	Government effectiveness*	34.8	79		5.2	Innovation linkages		61
1.2	Regulatory environment	64.6	73		5.2.1	University/industry research collaboration [†]		53
1.2.1	Regulatory quality*		75		5.2.2	State of cluster development [†]		35
1.2.2	Rule of law*		64		5.2.3	GERD financed by abroad, %		n/a
1.2.3	Cost of redundancy dismissal, salary weeks		65		5.2.4	JV-strategic alliance deals/bn PPP\$ GDP		66 O
				_	5.2.5	Patent families 2+ offices/bn PPP\$ GDP	0.1	58
1.3	Business environment		123		5.3	Knowledge absorption	38.0	28 •
1.3.1	Ease of starting a business*		123	O	5.3.1	Intellectual property payments, % total trade	2.0	8 •
1.3.2	Ease of resolving insolvency*		58	_	5.3.2	High-tech imports less re-imports, % total trade		22 🛑
1.3.3	Ease of paying taxes*	40.9	121	O	5.3.3	ICT services imports, % total trade	1.3	43
2	Human capital 9 receases	22.5	60		5.3.4	FDI net inflows, % GDP	4.1	39
2	Human capital & research		60		5.3.5	Research talent, % in business enterprise [®]	25.9	50
2.1			75					
2.1.1	Expenditure on education, % GDPGov't expenditure/pupil, secondary, % GDP/cap		28	•	6	Knowledge & technology outputs	23.7	67
2.1.2	School life expectancy, years		46		6.1	Knowledge creation	15.5	53
2.1.3	PISA scales in reading, maths, & science		n/a 53	0	6.1.1	Patents by origin/bn PPP\$ GDP	1.4	56
2.1.4	Pupil-teacher ratio, secondary ^a		74	0	6.1.2	PCT patent applications/bn PPP\$ GDP	0.2	52
2.1.3			/4		6.1.3	Utility models by origin/bn PPP\$ GDP	8.0	29
2.2	Tertiary education		111	0	6.1.4	Scientific & technical articles/bn PPP\$ GDP	12.2	59
2.2.1	Tertiary enrolment, % gross		n/a		6.1.5	Citable documents H index	379.0	23 🛑
2.2.2	Graduates in science & engineering, %		96		6.2	Knowledge impact	34.2	75
2.2.3	Tertiary inbound mobility, %	0.2	98	0	6.2.1	Growth rate of PPP\$ GDP/worker, %		85 0
2.3	Research & development (R&D)	39.9	30	•	6.2.2	New businesses/th pop. 15–64		39
2.3.1	Researchers, FTE/mn pop.@		52		6.2.3	Computer software spending, % GDP		55
2.3.2	Gross expenditure on R&D, % GDP [©]		29		6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP		58
2.3.3	Global R&D companies, avg. expend. top 3, mn \$US		17	•	6.2.5	High- & medium-high-tech manufactures, %		23 •
2.3.4	QS university ranking, average score top 3*	52.3	26	•				
					6.3	Knowledge diffusion		85
3	Infrastructure	44.9	59		6.3.1	Intellectual property receipts, % total trade		44
3.1	Information & communication technologies (ICTs)	61.2	42		6.3.2	High-tech exports less re-exports, % total trade		42
3.1.1	ICT access*	62.8	61		6.3.3	ICT services exports, % total trade		95
3.1.2	ICT use*		46		6.3.4	FDI net outflows, % GDP	1.1	46
3.1.3	Government's online service*	59.8	49		7	Creative outputs	23.6	90
3.1.4	E-participation*	70.6	24		7.1	Intangible assets		90
3.2	General infrastructure	28.1	91		7.1.1	Trademarks by origin/bn PPP\$ GDP		59
3.2.1	Electricity output, kWh/cap		65		7.1.2	Industrial designs by origin/bn PPP\$ GDP		63
3.2.2	Logistics performance*		63		7.1.2	ICTs & business model creation †		74
3.2.3	Gross capital formation, % GDP		98	0	7.1.4	ICTs & organizational model creation [†]		77
	•					_		
3.3	Ecological sustainability		52		7.2	Creative goods & services		97
3.3.1	GDP/unit of energy use, 2005 PPP\$/kg oil eq		45		7.2.1	Cultural & creative services exports, % of total trade		46
3.3.2	Environmental performance*		45		7.2.2	National feature films/mn pop. 15–69		78
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP	1.0	63		7.2.3	Global ent. & media market/th pop. 15–69		39
4	Market conhictication	42.0	E 7		7.2.4	Printing & publishing manufactures, %		74 0
4	Market sophistication		57		7.2.5	Creative goods exports, % total trade	0.2	78
4.1	Credit		95		7.3	Online creativity	11.7	58
4.1.1	Ease of getting credit*		81		7.3.1	Generic top-level domains (TLDs)/th pop. 15–69		89
4.1.2	Domestic credit to private sector, % GDP		45		7.3.2	Country-code TLDs/th pop. 15–69		43
4.1.3	Microfinance gross loans, % GDP	U. I	59		7.3.3	Wikipedia edits/mn pop. 15–69	971.2	73
					7.3.4	Video uploads on YouTube/pop. 15–69	28.8	42

① indicates that the country's data are older than the base year; see Appendix II for details, including the year of the data.

Square brackets indicate a top 10 or 100 or below sub-pillar ranking in the presence of a relevant number of missing variables; see page 172 of this appendix for details.