



Bangalore

Global Business Cities 2025 report

August 2019

Global Business Cities 2025

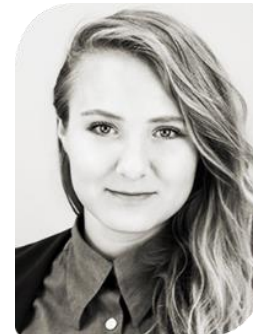
Dear Reader,

We hope that you will enjoy familiarizing yourself with this Global Business Cities 2025 report. We have carefully collected and analyzed data that provides you with a comprehensive and up-to-date impression of the city of your choice.

These reports cover 200 most important business cities from 73 countries and territories around the globe. The distribution of cities across the geographical regions and countries was based on their relative share of the global and regional economy. The individual cities included in this product were chosen based on their economic importance and geographical distribution.

Tytti Mälkki studied International Business and Politics in Copenhagen, São Paulo, and Beijing and has specialized in subnational econometric analysis. Tytti has been part of Statista since summer 2017 with prior experience in consulting and communications.

We wish you a valuable and insightful reading experience.



Tytti Mälkki

A handwritten signature of Tytti Mälkki in black ink, written in a cursive style.

Global cities for business 2025

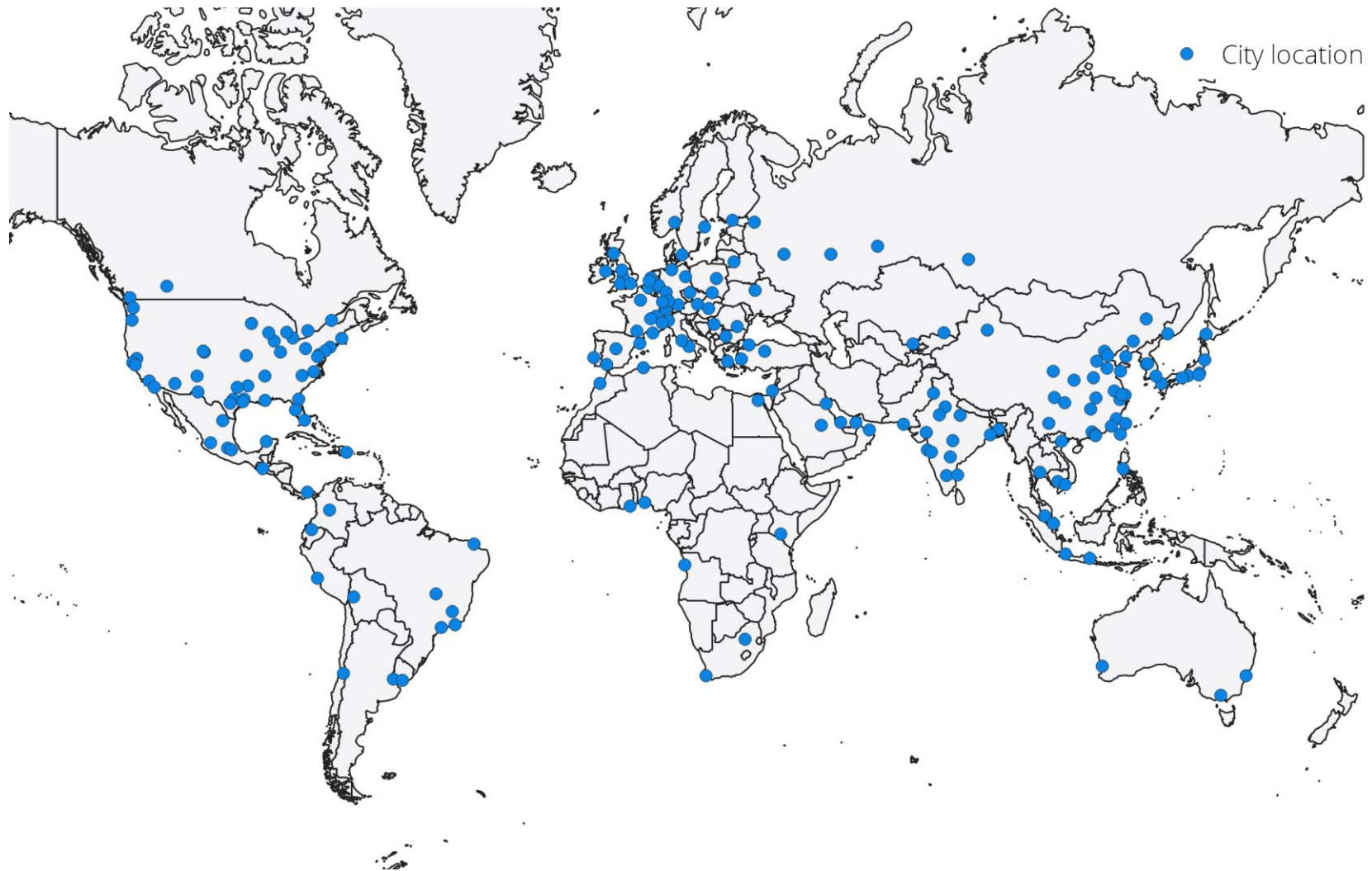
Urbanization has been identified as one of the megatrends shaping the economy and society globally. More than half of the world's population already lives in urban areas, and this proportion is expected to rise to over 65 percent by 2030. In addition, urban agglomerations are becoming larger in size. According to population projections there will be 49 cities with over 10 million inhabitants by 2025 and increasing number of these so-called megacities are in the South and East.

Not just people, but economic activities tend to concentrate in cities as more than 70 percent of world's Gross Domestic Product (GDP) is generated in cities. Cities are increasingly seen removed from their national context and considered more in relation to one another in a transnational network of central marketplaces and operational hubs. Both urbanization and the role of cities as economic powerhouses highlight the importance of taking a closer look at the aspects that are associated with cities that nurture businesses.

Environmental factors beyond just the population size and GDP measures determine how advantageous of a location a given city will be for business as companies cannot operate in a vacuum separated from the wider context of the economy and society. For this reason, these reports have identified, collected and analyzed a set of indicators connected to the attractiveness of a city from a global business perspective. This collection has been divided to conceptual chapters describing different sides of what makes a city into a good location choice from the perspective of business operations. The society chapter features information connected to institutional quality, the economy chapter emphasizes the economic strength and level of development, the operational environment focuses on infrastructure and logistics, while the charisma chapter highlights aspects reflecting cultural capital and social influence.

Based on the research conducted for the Global Business Cities 2025 ranking, these conceptual categories were mostly resonating with the results. Factors that were found most connected to the favorable business environment were quality of institutions supporting business activities, general quality of life in the city in terms of health and individual rights, soft power from connectedness and cultural capital, as well as importance of the market in terms of size of local economy and trade volume.

Global Business Cities 2025



Agenda

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INTRODUCTION



Bangalore ranked 191st out of 200 Global Business Cities 2025

Global Business City 2025 results

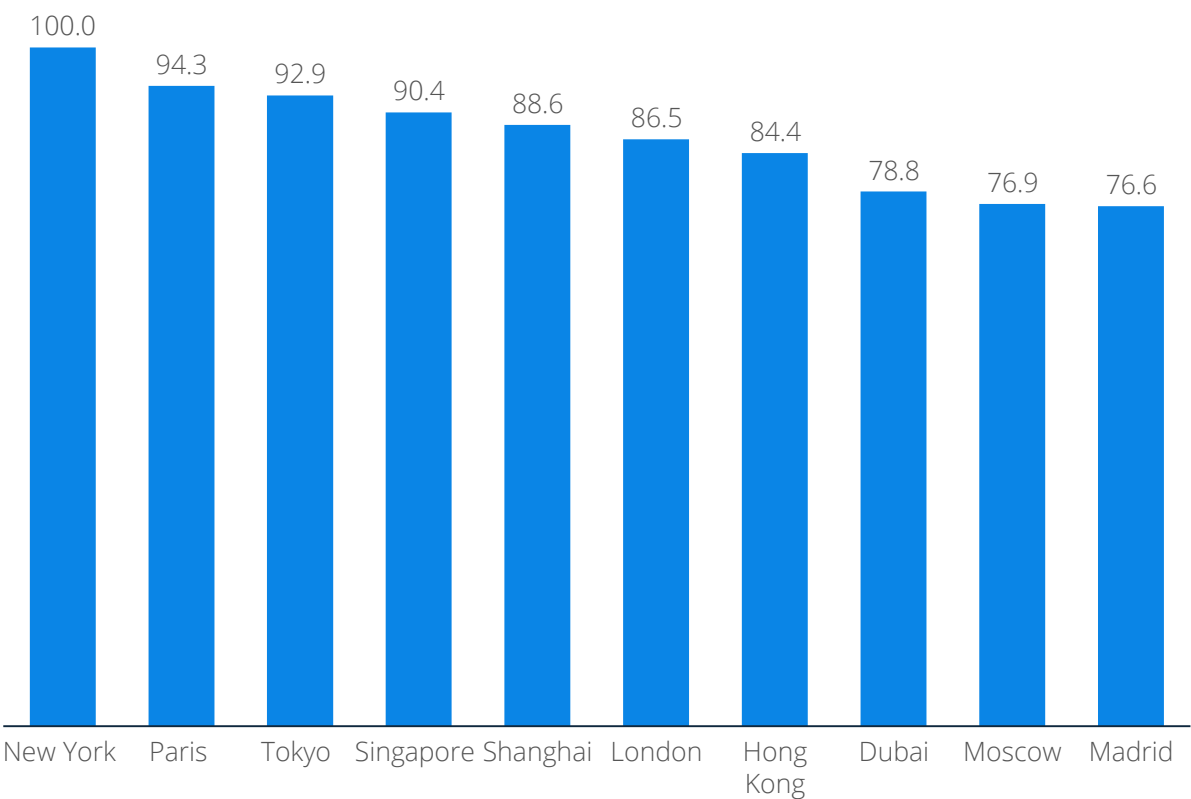

Total score
For this city


Total ranking
for this city

14.2

191st

Top 10 cities in Global Business Cities 2025 index



Global business Cities 2025 rankings (1/2)

#	City	Total score
1	New York	100.0
2	Paris	94.3
3	Tokyo	92.9
4	Singapore	90.4
5	Shanghai	88.6
6	London	86.5
7	Hong Kong	84.4
8	Dubai	78.8
9	Moscow	76.9
10	Madrid	76.6
11	Boston	76.4
12	Vienna	76.3
13	Oslo	75.9
14	Amsterdam	75.4
15	Athens	74.8
16	Shenzhen	74.2
17	Frankfurt	73.6
18	Chicago	73.3
19	Stockholm	72.3
20	Berlin	71.6
21	Brussels	71.3
22	Zürich	70.6
23	Helsinki	70.1
24	Munich	69.0
25	Lisbon	68.6

#	City	Total score
26	Sydney	68.4
27	Copenhagen	65.0
28	Hamburg	65.0
29	Barcelona	64.7
30	Toronto	63.9
31	Miami	61.1
32	Melbourne	60.4
33	Düsseldorf	60.4
34	Busan	60.4
35	Dublin	60.0
36	Istanbul	58.5
37	Taipei	58.4
38	Osaka	57.9
39	Budapest	57.7
40	Tel Aviv	57.1
41	São Paulo	57.0
42	Kuala Lumpur	56.1
43	Milan	55.9
44	Stuttgart	55.8
45	Jakarta	54.2
46	Sofia	54.0
47	Vilnius	53.2
48	Quito	53.2
49	Saint Petersburg	53.1
50	Seoul	52.4

#	City	Total score
51	Atlanta	52.3
52	Montréal	51.9
53	Perth	51.3
54	Bucharest	51.3
55	Buenos Aires	50.8
56	Calgary	50.5
57	Fukuoka	50.3
58	Dalian	50.2
59	Santiago	50.2
60	Warsaw	48.9
61	Prague	48.8
62	Mexico City	48.7
63	Guangzhou	48.2
64	Doha	48.2
65	Riyadh	47.8
66	Los Angeles	47.8
67	Muscat	47.5
68	Nagoya	47.3
69	Kuwait City	46.8
70	Tashkent	46.3
71	Belgrade	45.6
72	Kiev	45.4
73	Montevideo	45.1
74	Almaty	44.2
75	Santo Domingo	44.0

#	City	Total score
76	Ahmedabad	43.9
77	Algiers	41.9
78	Bogotá	41.6
79	San Francisco	41.0
80	Mumbai	40.9
81	Rome	40.9
82	La Paz	40.3
83	Luanda	40.2
84	Panama City	38.8
85	Minneapolis	38.6
86	Lima	38.3
87	Washington D.C.	37.2
88	Beijing	37.1
89	Denver	37.0
90	Cairo	36.6
91	Pittsburgh	36.0
92	Johannesburg	35.4
93	Seattle	35.3
94	Dallas	35.2
95	Karachi	34.4
96	Manchester	34.2
97	Ho Chi Minh City	34.1
98	Rotterdam	33.8
99	Portland	33.4
100	Accra	33.2

Global business Cities 2025 rankings (2/2)

#	City	Total score
101	Geneva	33.1
102	Manila	33.0
103	Qingdao	33.0
104	Hangzhou	32.8
105	Kaohsiung	32.6
106	Lagos	32.6
107	Lahore	32.0
108	Dhaka	31.1
109	Cologne	30.4
110	Tampa	30.2
111	Baltimore	30.1
112	Tianjin	29.9
113	Hanoi	29.7
114	Strasbourg	29.6
115	Guadalajara	29.5
116	Phoenix	29.4
117	Kolkata	29.2
118	Phnom Penh	29.1
119	Honolulu	28.3
120	Auckland	28.3
121	Vancouver	28.1
122	Cleveland	27.1
123	Casablanca	26.6
124	Chengdu	26.5
125	Nairobi	26.5

#	City	Total score
126	Xiamen	26.4
127	Changsa	26.3
128	Sevilla	26.1
129	St. Louis	25.9
130	Naples	25.8
131	Charlotte	25.4
132	Incheon	25.4
133	Marseille	24.9
134	Kunming	24.7
135	Turin	24.3
136	Sapporo	24.2
137	Birmingham	24.2
138	Lyon	24.1
139	Xi'an	23.8
140	Rio de Janeiro	23.7
141	Philadelphia	23.7
142	Toulouse	23.5
143	Surabaya	23.5
144	Guatemala City	23.5
145	San Jose	23.4
146	Houston	23.3
147	Glasgow	23.2
148	Suzhou	22.9
149	Chongqing	22.9
150	Detroit	22.9

#	City	Total score
151	Bangkok	22.8
152	Novosibirsk	22.8
153	Bristol	22.7
154	San Diego	22.7
155	Kazan	22.4
156	Sacramento	22.2
157	Albuquerque	22.1
158	Nanjing	21.9
159	Wuhan	21.8
160	Yekaterinburg	21.4
161	Vladivostok	20.9
162	Monterrey	20.3
163	Columbus	20.3
164	Brasília	20.3
165	El Paso	20.3
166	Indianapolis	20.2
167	Delhi	19.9
168	Kansas City	19.7
169	Ankara	19.0
170	New Orleans	19.0
171	Zhengzhou	18.3
172	Sendai	18.3
173	Pune	18.2
174	Jacksonville	18.2
175	Yokohama	17.8

#	City	Total score
176	Austin	17.8
177	Nashville	17.7
178	Belo Horizonte	17.6
179	Krakow	17.3
180	Urumqi	17.2
181	Puebla	17.1
182	Harbin	16.6
183	Fuzhou	16.5
184	Shenyang	16.0
185	Mérida	15.7
186	Louisville	15.3
187	Jinan	15.1
188	Izmir	14.8
189	San Antonio	14.7
190	Lanzhou	14.5
191	Bangalore	14.2
192	Shijiazhuang	13.4
193	Lucknow	11.3
194	Memphis	9.8
195	Nagpur	9.2
196	Jaipur	8.6
197	Fortaleza	7.1
198	Cape Town	6.8
199	Hyderabad	2.9
200	Chennai	0

India

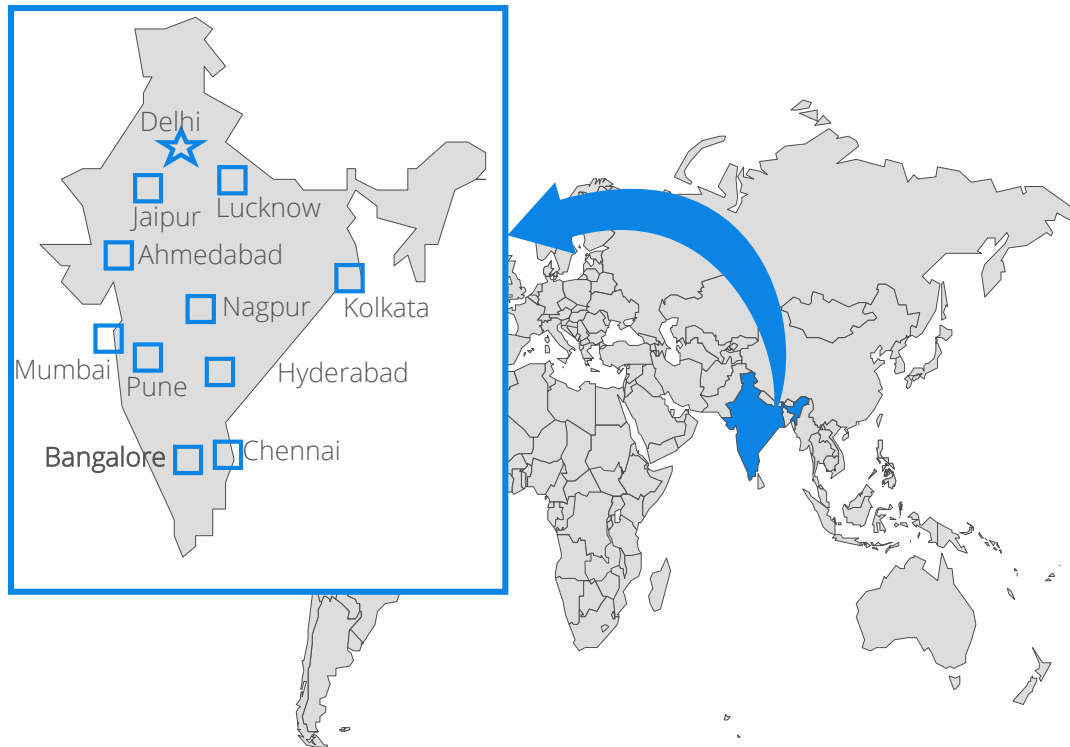


General information:

Capital:	New Delhi
Official language(s):	Hindi, English
Main religion:	Hindu
Main ethnic group:	Indo-Aryan
Population:	1,354,051,854
Area:	3,287,263 sq km
- Population density:	450.4 people per sq km
Total real GDP¹ in 2018:	US\$2,915.9bn
- GDP¹ per capita:	US\$2,185.50
Corporate tax:	23.5%
Currency:	Indian rupees (INR)
- Exchange rate:	USD/INR = 69.87
Time zone:	UTC+5.5
Calling code:	+91

Bangalore

★ Capital city □ Other city



General information

- Population in 2019: 11.9 million
- Total population growth 2019-2025: 21.1%

Economy

- City product: US\$ 69.0 billion PPP
- City product per capita: US\$ 8,971 PPP
- Number of tourists per year: 0.5 million
- Unemployment rate: 2.2%
- Poverty rate: 13.7%

Logistics

- International airport: Yes
- Harbour: No
- Airfreight: 348 thousand metric tons
- Shipping freight: n.a
- Air passengers: 26.9 million

Infrastructure

- Internet penetration: 67.0%
- Stock exchange: No

Quality of life

- Mean years of schooling¹: 6.8
- Life expectancy at birth: n.a.
- Air pollution: 96 PM10 µg/m3 (annual mean)

1: Average number of completed years of education of population aged 25 years and older, excluding years spent repeating individual grades
Note: World Health Organization (WHO) has set air quality guideline at 20.0 PM10 µg/m3 measured as annual mean. See appendix for definitions

Sources: [United Nations](#) 2018, Statista

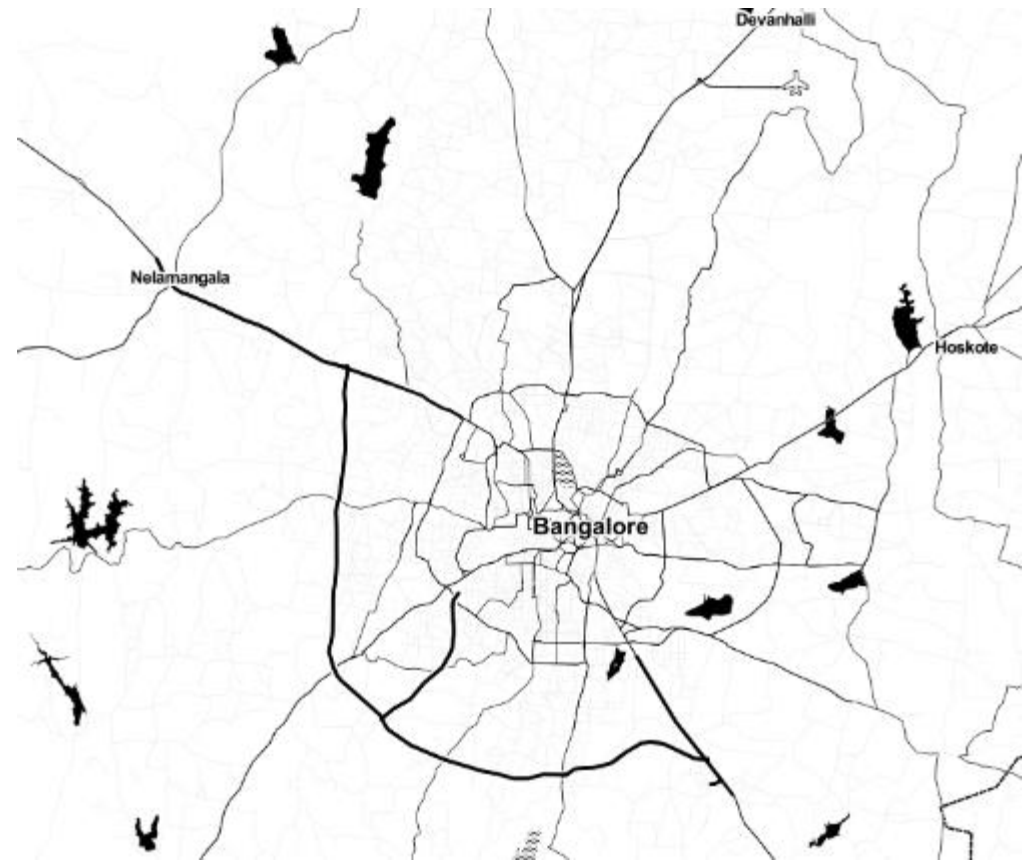
City orientation

Airport information

Kempegowda International Airport (BLR), Devanahalli, Bengaluru

- Distance to city center: 34 km
- Domestic connections: 51
- Total connections: 74

Other airports nearby¹: Mysore (MYQ), Salem District (SXV), Cuddapah (CDP)



India sports 5 major airports – flight time from the U.S. ca. 14-18 hours

Major airports in India¹

Indira Gandhi International Airport, New Delhi

- Airport code: DEL
- Distance to city center: 15 km

Chhatrapati Shivaji International Airport, Mumbai

- Airport code: BOM
- Distance to city center: 7 km

Kempegowda International Airport, Bengaluru

- Airport code: BLR
- Distance to city center: 34 km

Chennai International Airport, Chennai

- Airport code: MAA
- Distance to city center: 20 km

Netaji Subhash Chandra Bose International Airport, Kolkata

- Airport code: CCU
- Distance to city center: 14 km

Flight times from regional hubs in hours (no. of stops)²

Region	Hub	DEL	BOM	BLR	MAA	CCU
North America	New York City, the U.S. (JFK)	13:55 (0)	14:35 (0)	18:00 (1)	18:10 (1)	18:15 (1)
Latin America & Caribbean	São Paulo, Brazil (GRU)	21:15 (1)	21:50 (1)	22:40 (1)	22:30 (1)	22:20 (1)
Europe & Central Asia	London, the UK (LHR)	8:20 (0)	9:10 (0)	9:55 (0)	10:00 (0)	13:20 (1)
East Asia & Pacific	Hong Kong, Hong Kong (HKG)	5:40 (0)	6:15 (0)	5:40 (0)	5:20 (0)	6:15 (0)
South Asia	Delhi, India (DEL)	0:00 (0)	2:05 (0)	2:40 (0)	2:40 (0)	2:05 (0)
Middle East & North Africa	Dubai, the UAE (DXB)	3:10 (0)	3:00 (0)	3:50 (0)	3:55 (0)	4:30 (0)
Sub-Saharan Africa	Johannesburg, South Africa (JNB)	12:55 (1)	11:00 (1)	15:00 (2)	15:15 (1)	15:05 (1)

1: Busiest airports by number of Passengers-Airports Authority of India 2: Most direct and fastest routes are considered. Flight times for 17th

July 2019-Google Flights

Note: Distances to city center are based on the shortest route calculated by Google Maps and rounded to full kilometers

Sources: Google Flights, Google Maps

Executive summary (1/2)

Society

- This city is growing faster than the other cities in this region on average
- The level of English proficiency is moderate in this country
- Inhabitants in this city have 2.4 years less education than in the regional high performer
- In 'control on corruption' India is the regional high performer
- This city is considered safer than average for this region

Economy

- The total population was larger and the city GDP higher in this city compared to general region
- The city GDP per capita in this city was US\$8,985.0, while it was US\$11,718.0 in regional high-performer
- It takes 29.8 days to start a business in India compared to 5.6 days in the U.S.
- Cost of living was higher than in this region in general
- At US\$599, the average rent in this city was US\$989 lower than the highest for this region

Executive summary (2/2)

Operational Environment

- The internet penetration in this city is higher than in the general region
- This city does not have a stock exchange
- The regional average for shipping freight volume was 0.7 mTEU
- There are 0.8 physicians per 1,000 inhabitants in this city
- The density of universities in this city was higher than regional average

Charisma

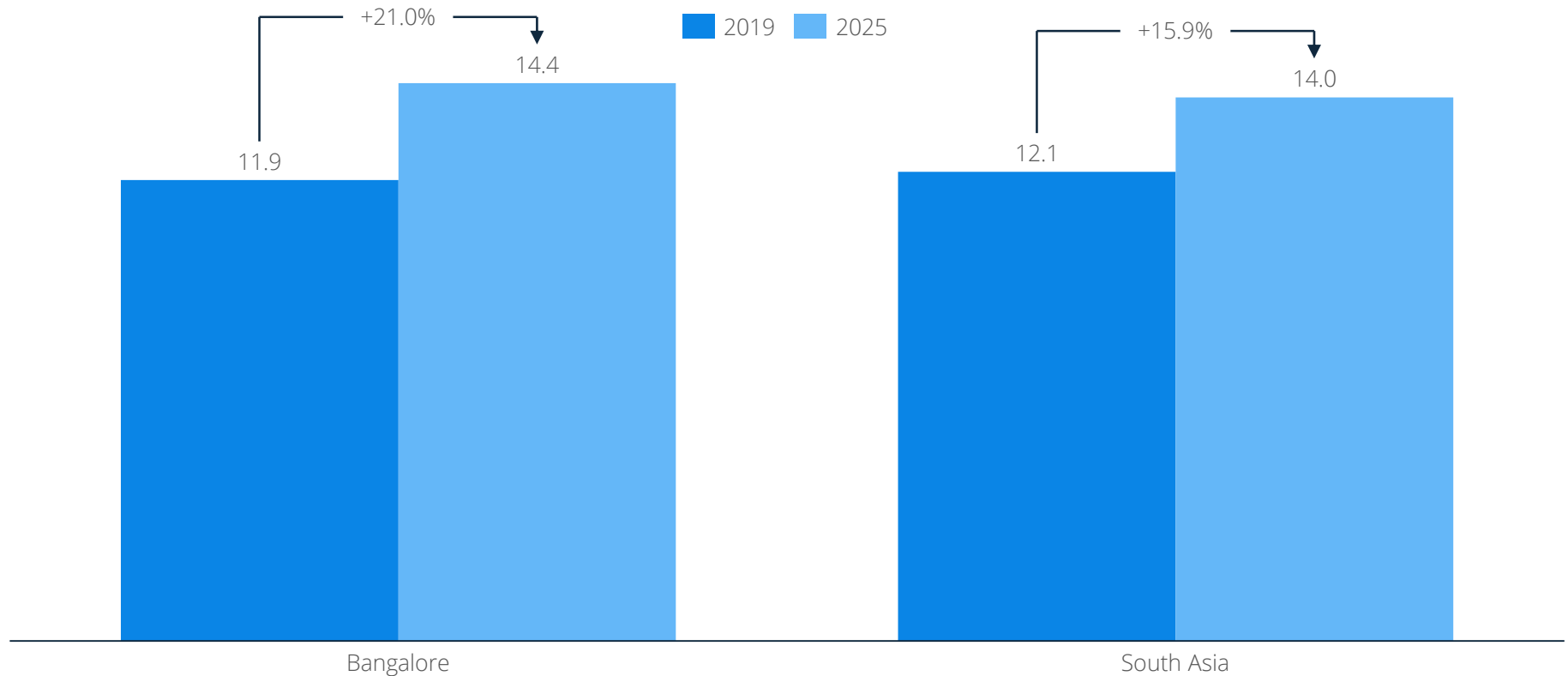
- Bangalore was more popular on Instagram than cities in this region
- This city had less museums than the regional average
- There are 7 embassies or consulates in this city
- In a year, there were 0 days under 0°C and 119 days above 30°C in this city
- At 96 µg/m³, the air pollution concentration was 380% higher than the WHO guideline

SOCIETY



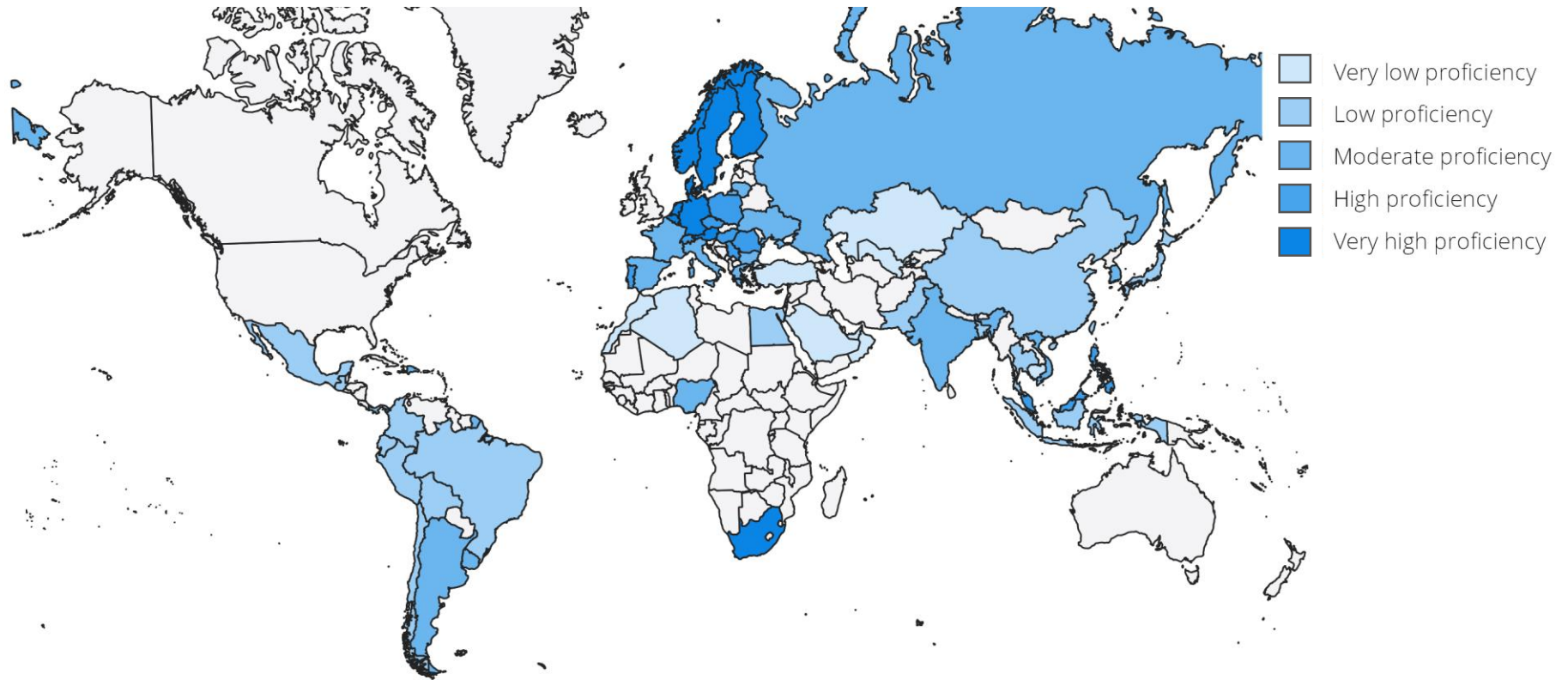
This city is growing faster than the other cities in this region on average

Population in millions in this city and on average for this region



The level of English proficiency is moderate in this country

Level of English language skills in 2018

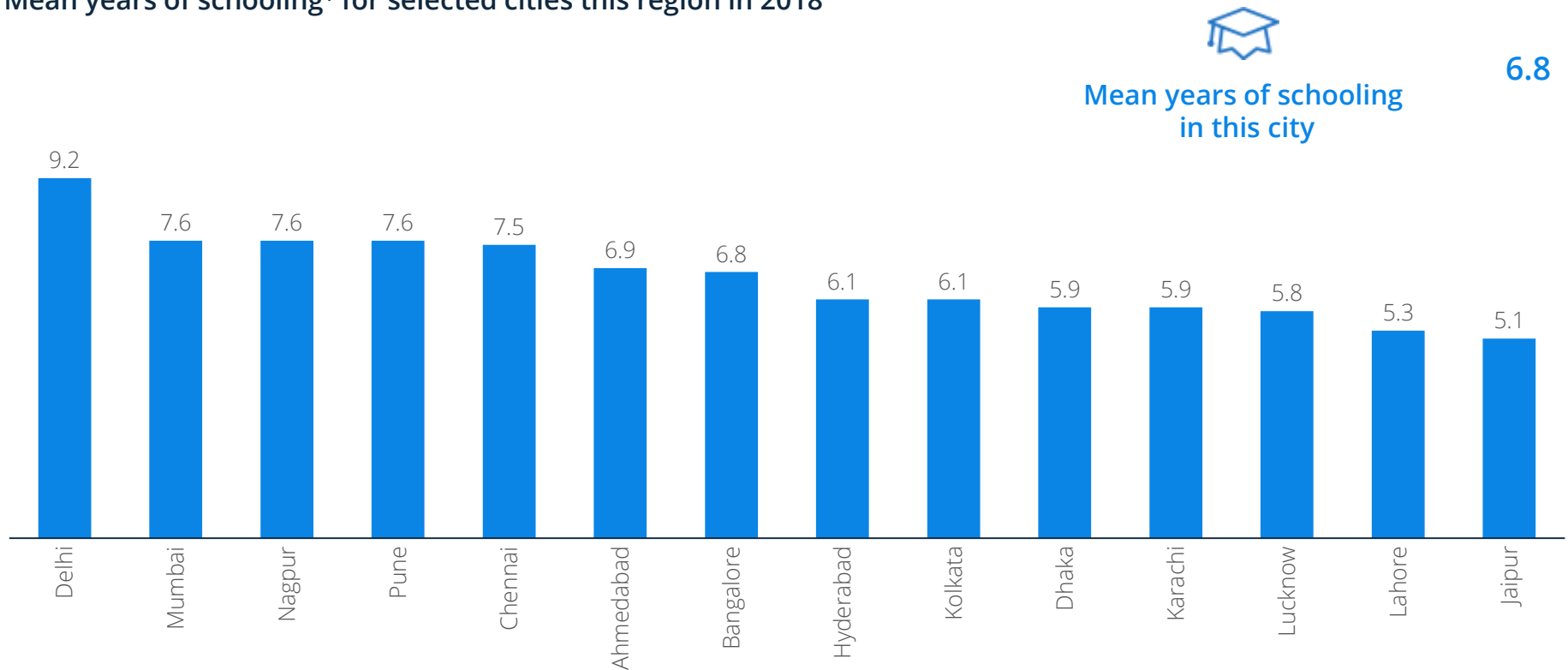


Note: The levels are based on index values divided between very low (39.6-48.4), low (48.5-52.4), moderate (52.5-57.4), high (57.5-62.9), and very high (63.0-71.0)

Sources: EF 2018

Inhabitants in this city have 2.4 years less education than in the regional high performer

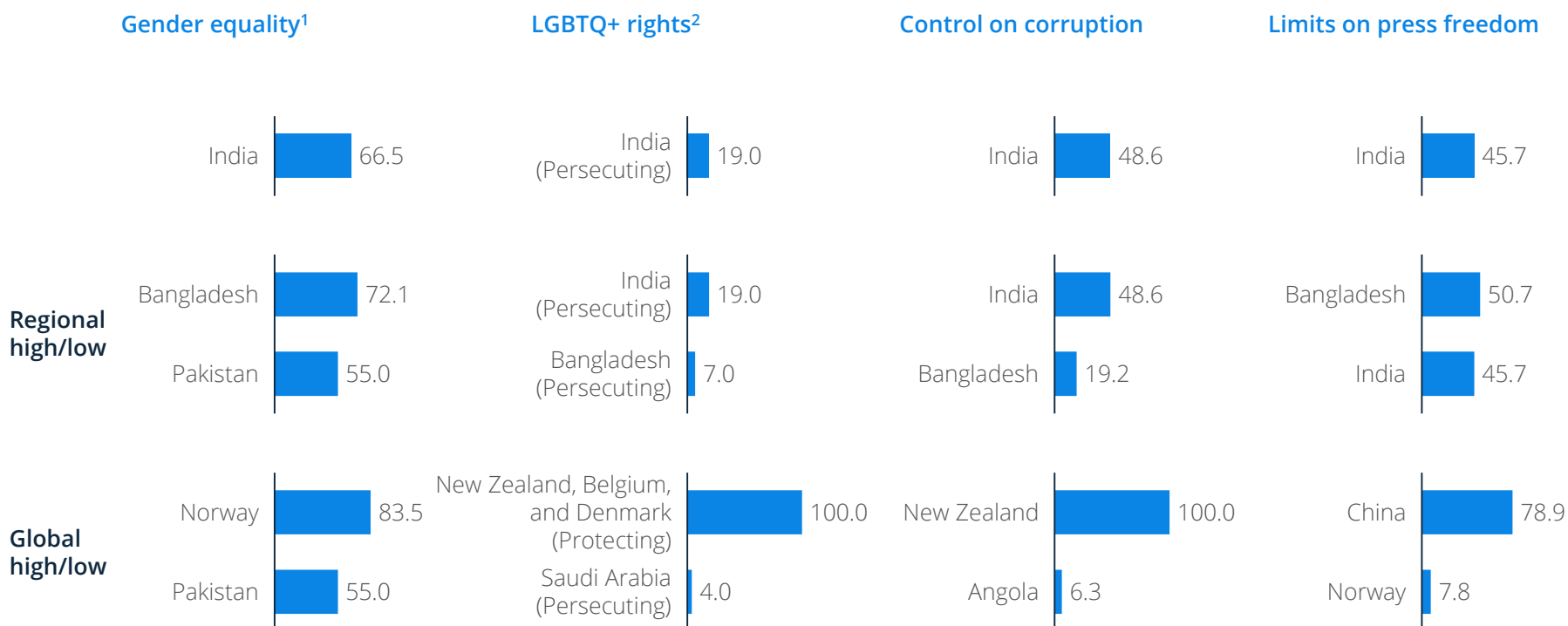
Mean years of schooling¹ for selected cities this region in 2018



1: Average number of completed years of education of population aged 25 years and older, excluding years spent repeating individual grades
Sources: Statista 2019

In 'control on corruption' India is the regional high performer

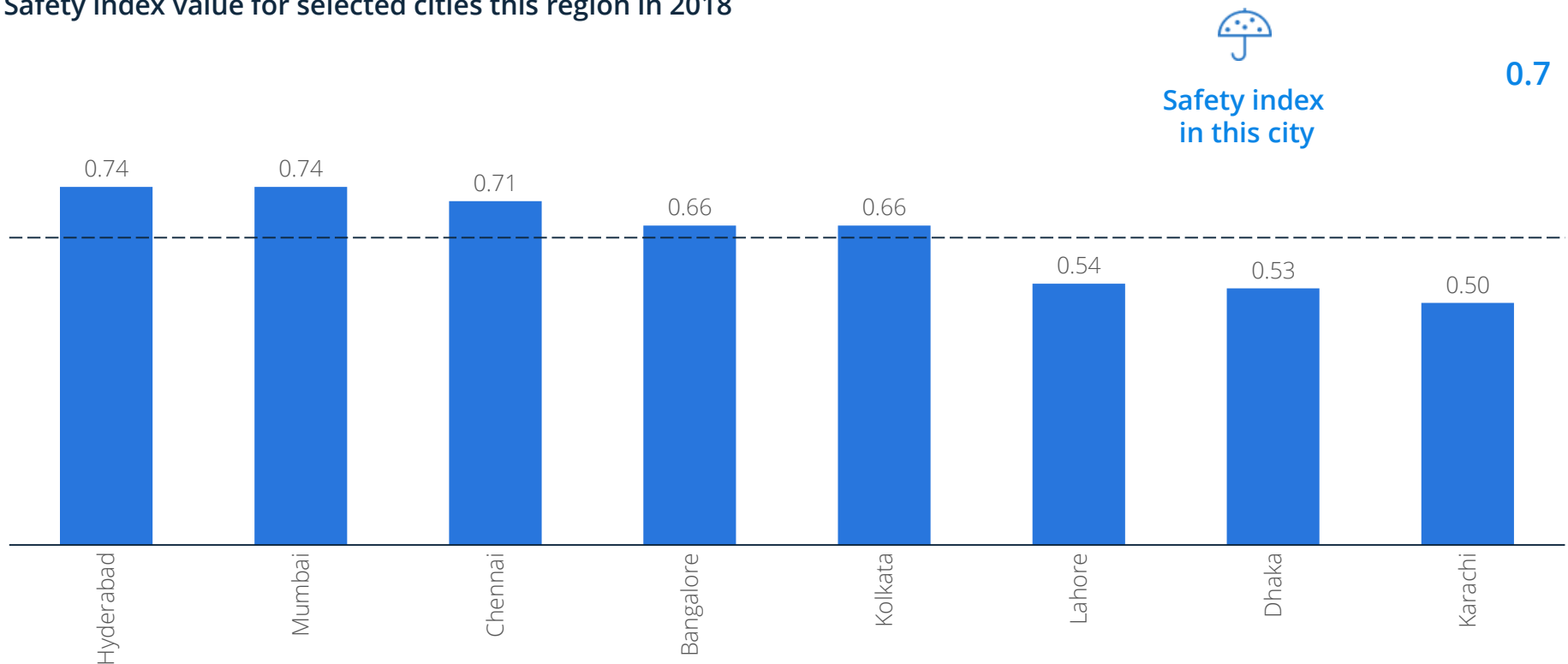
Comparison of country and territory scores to highest and lowest scores in the region and worldwide in 2019



1: Index values transformed from 0-1 scale to 0-100 2: Values in percentage. The categorization is grouped as follows: 0-59% for persecuting countries, 60-69% for intolerant countries, 70-79% resistant countries, 80-89% for tolerant countries, and 90-100% for protecting countries
Sources: [World Economic Forum](#) 2018, [Franklin&Marshall College](#) 2019, [World Bank](#) 2019, [Reporters without Borders](#) 2019

This city is considered safer than average for this region

Safety index value for selected cities this region in 2018



Life expectancy at birth (1/2)

#	City	Years
1	Hong Kong ¹	84.7
2	Seoul	84.1
3	Fukuoka ¹	84.1
4	Nagoya ¹	84.1
5	Sapporo ¹	84.1
6	Sendai ¹	84.1
7	Yokohama ¹	84.1
8	Madrid	84.0
9	Geneva ¹	83.6
10	Paris	83.6
11	Toulouse	83.6
12	Sevilla ¹	83.3
13	Naples ¹	83.2
14	Rome ¹	83.2
15	Turin ¹	83.2
16	Lyon	83.1
17	Tokyo	83.0
18	Milan	82.9
19	Zürich	82.9
20	Barcelona	82.7
21	Osaka	82.7
22	Tel Aviv ¹	82.6
23	Perth ¹	82.5
24	Calgary ¹	82.5
25	Vancouver ¹	82.5

#	City	Years
26	Incheon	82.4
27	Melbourne	82.4
28	Marseille	82.3
29	Stockholm	82.2
30	Singapore	82.1
31	Strasbourg	82.1
32	Sydney	82.0
33	Busan	81.9
34	Stuttgart	81.8
35	Toronto	81.8
36	Oslo	81.7
37	Auckland ¹	81.7
38	San Jose	81.6
39	Rotterdam ¹	81.6
40	Montreal	81.5
41	London	81.4
42	Munich	81.4
43	Frankfurt	81.2
44	Miami	81.2
45	Los Angeles	81.1
46	San Diego	81.1
47	Dublin	81.0
48	Helsinki	80.9
49	San Francisco	80.9
50	Amsterdam	80.8

#	City	Years
51	Berlin	80.8
52	Bristol	80.7
53	Lisbon	80.7
54	Hamburg	80.6
55	Athens	80.5
56	Boston	80.5
57	New York	80.5
58	Washington D.C.	80.5
59	Brussels	80.4
60	Düsseldorf	80.4
61	Cologne	80.4
62	Kaohsiung ¹	80.4
63	Taipei ¹	80.4
64	Portland	80.1
65	Atlanta	80.0
66	Vienna	80.0
67	Austin	80.0
68	Birmingham	79.8
69	Santiago ¹	79.7
70	Dallas	79.7
71	Denver	79.7
72	Seattle	79.7
73	Copenhagen	79.6
74	Minneapolis	79.6
75	Phoenix	79.6

#	City	Years
76	Lima	79.5
77	Sacramento	79.5
78	Prague ¹	79.5
79	Manchester	79.4
80	New Orleans	79.4
81	Charlotte	79.3
82	Houston	79.2
83	El Paso	79.1
84	Chicago	79.0
85	Cleveland	78.9
86	Pittsburgh	78.9
87	Tianjin	78.9
88	Tampa	78.8
89	Jacksonville	78.7
90	Philadelphia	78.7
91	Memphis	78.6
92	Panama City	78.6
93	Kansas City	78.4
94	Nashville	78.4
95	St. Louis	78.4
96	Doha ¹	78.3
97	Albuquerque	78.3
98	Columbus	78.2
99	Honolulu	78.2
100	Bogotá	78.0

Life expectancy at birth (2/2)

#	City	Years
101	San Antonio	78.0
102	Louisville	77.9
103	Krakow ¹	77.9
104	Detroit	77.7
105	Hangzhou	77.7
106	Montevideo ¹	77.6
107	Indianapolis	77.6
108	Dubai ¹	77.4
109	Mexico City ¹	77.3
110	Quito	77.3
111	Muscat ¹	77.3
112	Buenos Aires	77.2
113	Warsaw	77.2
114	Shijiazhuang	77.0
115	Moscow	76.8
116	Baltimore	76.6
117	Nanjing	76.6
118	Suzhou	76.6
119	Budapest	76.5
120	Guangzhou	76.5
121	Jinan	76.5
122	Qingdao	76.5
123	Shenzhen	76.5
124	Dalian	76.4
125	Shenyang	76.4

#	City	Years
126	São Paulo	76.3
127	Algiers ¹	76.3
128	Belgrade ¹	76.1
129	Ankara ¹	76.0
130	Istanbul ¹	76.0
131	Izmir ¹	76.0
132	Glasgow	76.0
133	Harbin	76.0
134	Fuzhou	75.8
135	Ho Chi Minh City	75.8
136	Xiamen	75.8
137	Belo Horizonte ¹	75.7
138	Brasília ¹	75.7
139	Rio de Janeiro ¹	75.7
140	Chongqing	75.7
141	Monterrey	75.6
142	Saint Petersburg	75.5
143	Kuala Lumpur ¹	75.5
144	Beijing	75.4
145	Shanghai	75.4
146	Bucharest ¹	75.3
147	Mérida	75.3
148	Guadalajara	75.2
149	Hanoi	74.9
150	Wuhan	74.9

#	City	Years
151	Sofia ¹	74.8
152	Kuwait City ¹	74.8
153	Chengdu	74.8
154	Riyadh ¹	74.7
155	Changsha	74.7
156	Xi'an	74.7
157	Vilnius ¹	74.7
158	Zhengzhou	74.6
159	Kazan	74.5
160	Puebla	74.5
161	Bangkok	74.4
162	Fortaleza	74.4
163	Santa Domingo ¹	74.0
164	Almaty ¹	73.0
165	Dhaka ¹	72.8
166	Urumqi	72.4
167	Lanzhou	72.2
168	Novosibirsk	72.2
169	Kiev ¹	71.8
170	Cairo ¹	71.7
171	Tashkent ¹	71.4
172	Yekaterinburg	71.4
173	Guatemala City	71.3
174	Vladivostok	71.0
175	Jakarta	70.8

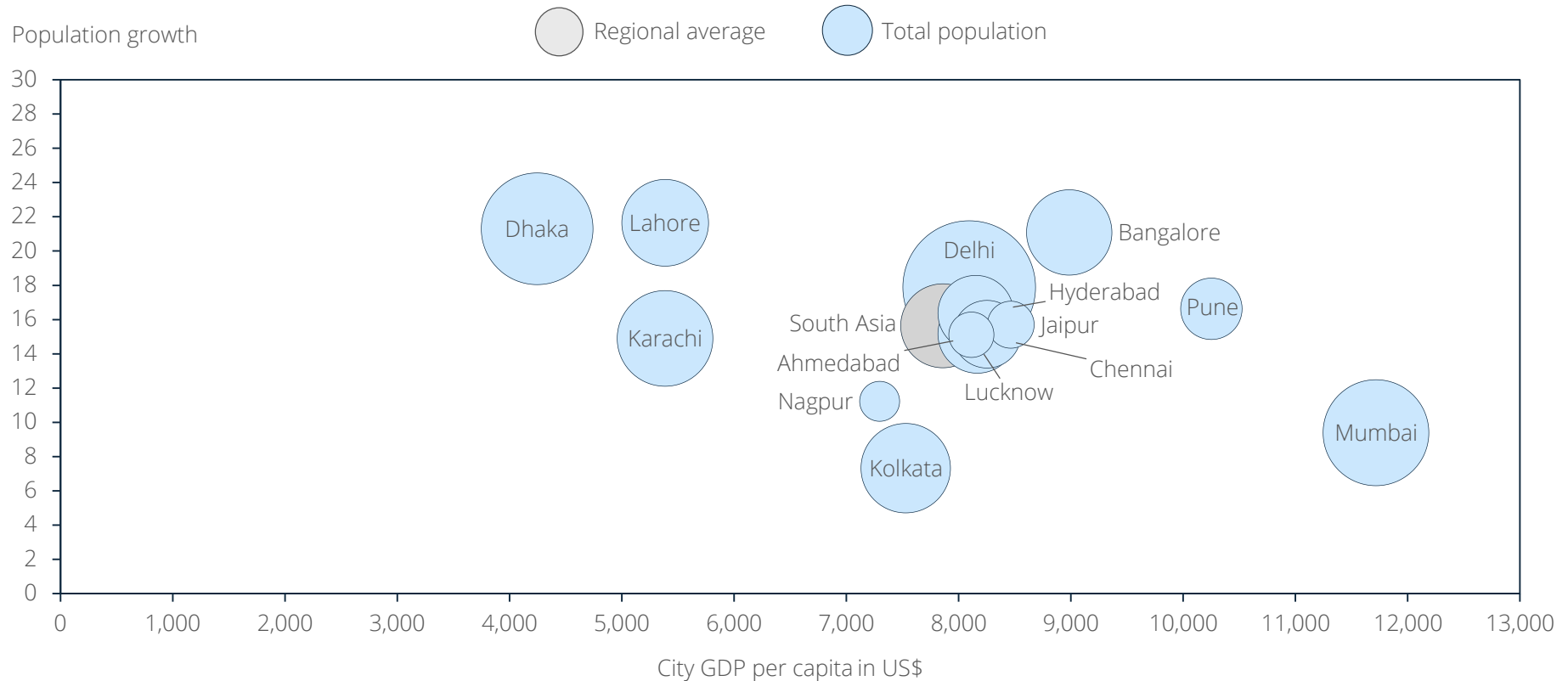
#	City	Years
176	Casablanca	70.2
177	Kunming	69.5
178	La Paz ¹	69.5
179	Surabaya ¹	69.4
180	Phnom Penh ¹	69.3
181	Manila ¹	69.2
182	Ahmedabad ¹	68.8
183	Bangalore ¹	68.8
184	Chennai ¹	68.8
185	Delhi ¹	68.8
186	Hyderabad ¹	68.8
187	Jaipur ¹	68.8
188	Kolkata ¹	68.8
189	Lucknow ¹	68.8
190	Mumbai ¹	68.8
191	Nagpur ¹	68.8
192	Pune ¹	68.8
193	Karachi ¹	66.6
194	Lahore ¹	66.6
195	Luanda ¹	61.8
196	Nairobi	61.7
197	Accra	61.6
198	Cape Town	56.7
199	Johannesburg	56.7
200	Lagos	51.0

ECONOMY



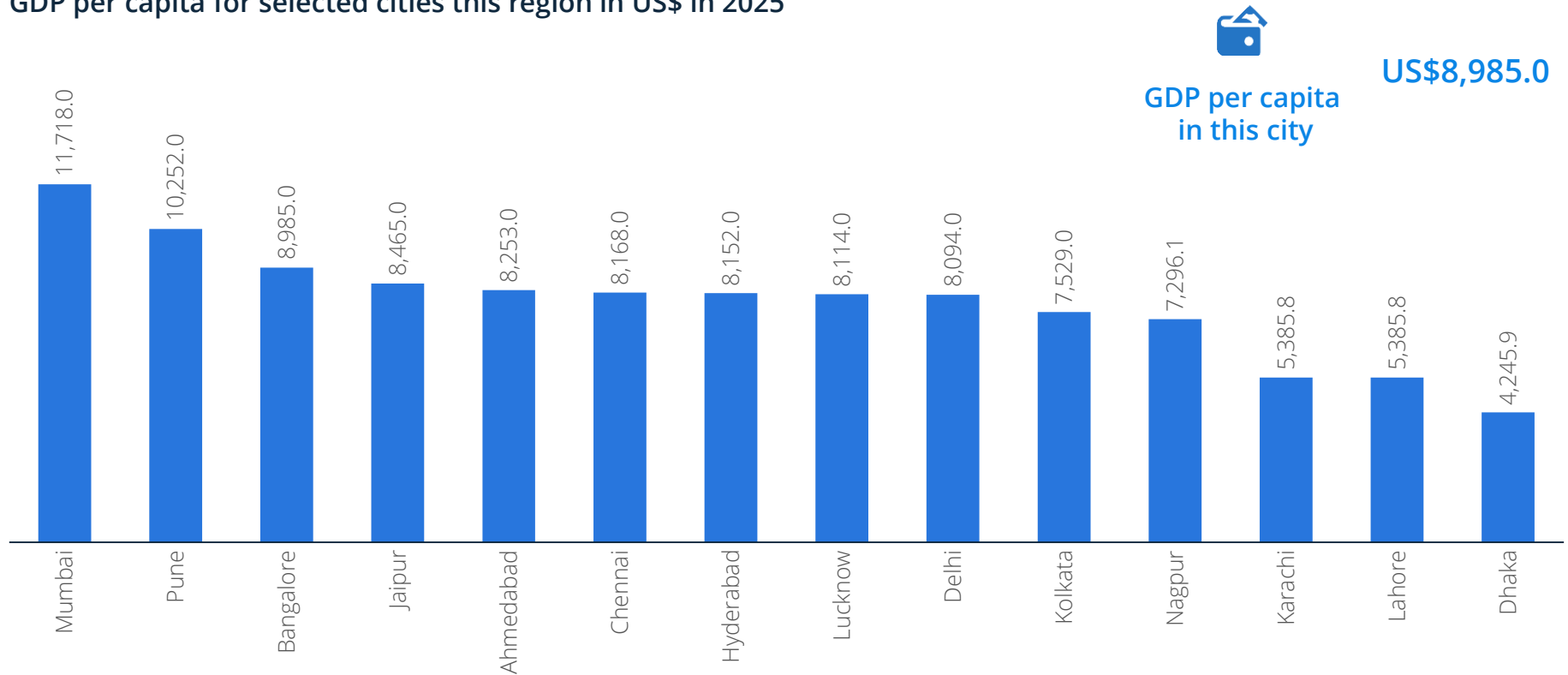
The total population was larger and the city GDP higher in this city compared to general region

Total population growth in percentage 2019-2025, total population in millions and City GDP in 2025 in the region



The city GDP per capita in this city was US\$8,985.0, while it was US\$11,718.0 in regional high-performer

GDP per capita for selected cities this region in US\$ in 2025



It takes 29.8 days to start a business in India compared to 5.6 days in the U.S.

Business administration



	Time needed to start a business ¹	Time needed to register property	Time needed to fulfill tax requirements	Time needed to resolve insolvency ¹
India	29.8 days	53 days	214 hours	4.3 years
The U.S.	5.6 days	15.2 days	175 hours	1.0 years





Delivery



	Time needed to export ¹	Time needed to import ¹	Efficiency of customs clearance ¹
India	17.1 days	21.1 days	2.7
The U.S.	6 days	5.4 days	3.7




International hotel chains are well represented in Bangalore

Presence of hotel restaurant chains

International hotel chains	Hotel presence	International hotel chains	Hotel presence
	✓		✗
	✓		✓
	✓		✓
	✓		✗
	✓		✗

In Bangalore, international restaurant chains have a strong presence

Presence of international restaurant chains

International restaurant chains	Restaurant presence	International restaurant chains	Restaurant presence
	✓	<i>Tim Hortons</i>	✗
	✓		✓
	✓	DUNKIN'	✓
	✓		✓
 Domino's	✓		✗

Cost of living was higher than in this region in general

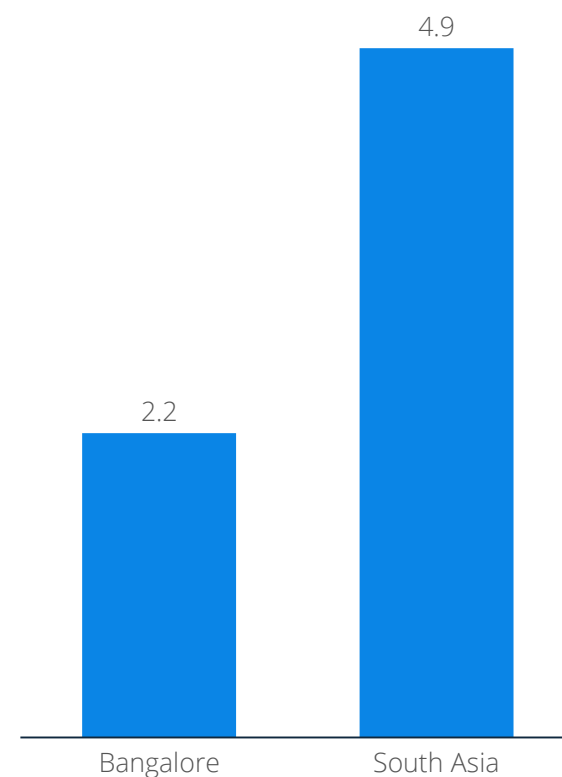
Cost of living¹ in US\$ in 2018



Poverty rate in percentage in 2018



Unemployment rate in 2018²



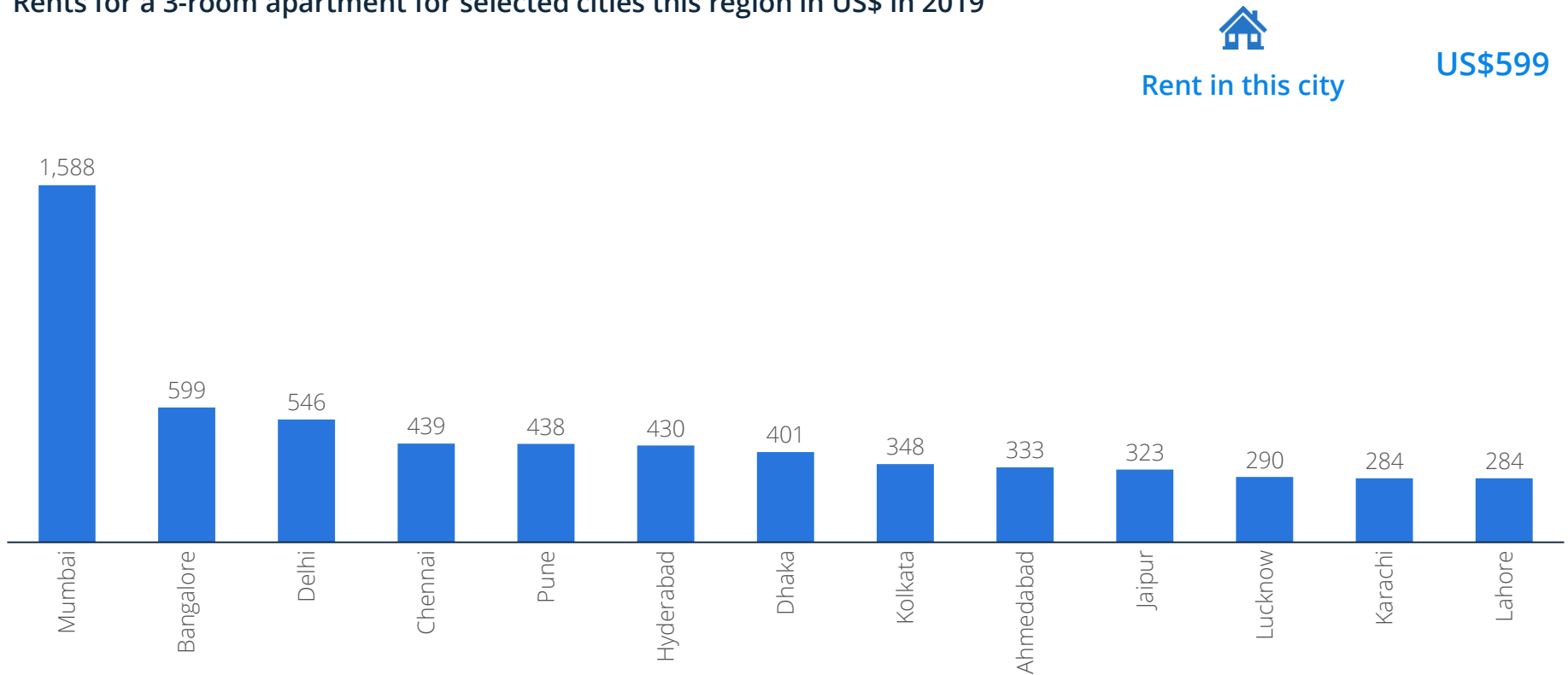
1: See glossary for definitions 2: In percentage

Note: Cost of living based on a fairly affluent family of three with two adults and one child studying at a university. Regional average based on cities in this region covered by Global Business Cities 2025 reports

Sources: [STC](#) 2018, Statista 2019

At US\$599, the average rent in this city was US\$989 lower than the highest for this region

Rents for a 3-room apartment for selected cities this region in US\$ in 2019

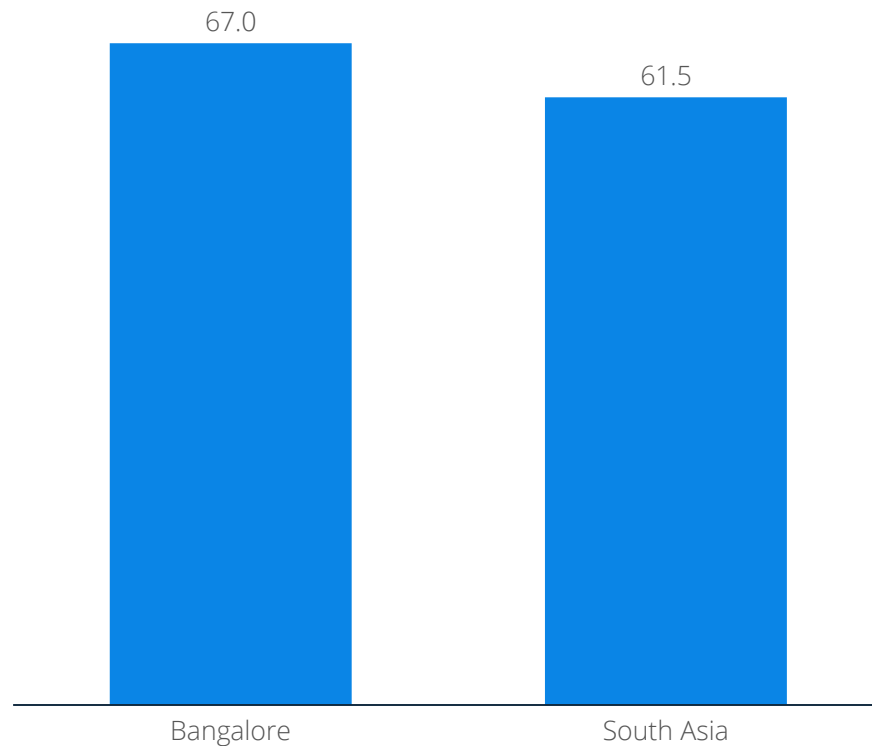


OPERATIONAL ENVIRONMENT

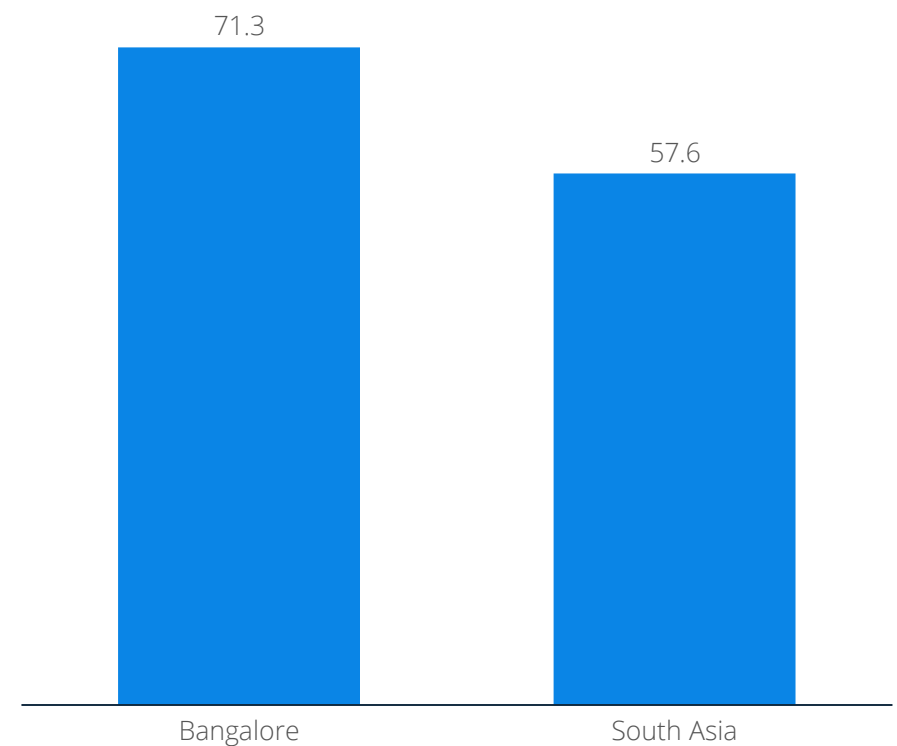


The internet penetration in this city is higher than in the general region

Internet penetration in percentage in 2015



Smartphone penetration in percentage in 2025¹



1: Country level data

Note: Regional average based on cities in this region covered by Global Business Cities 2025 reports

Sources: Statista 2019, [Statista Digital Market Outlook](#) 2019

This city does not have a stock exchange

Stock exchange locations



Uber, Ola, and Meru Cabs are ride-hailing apps used in Bangalore

Ride-hailing apps in this city

Uber



OLA



MERU



Public transportation options available



Bus



Ferry



Train



Tram / Metro

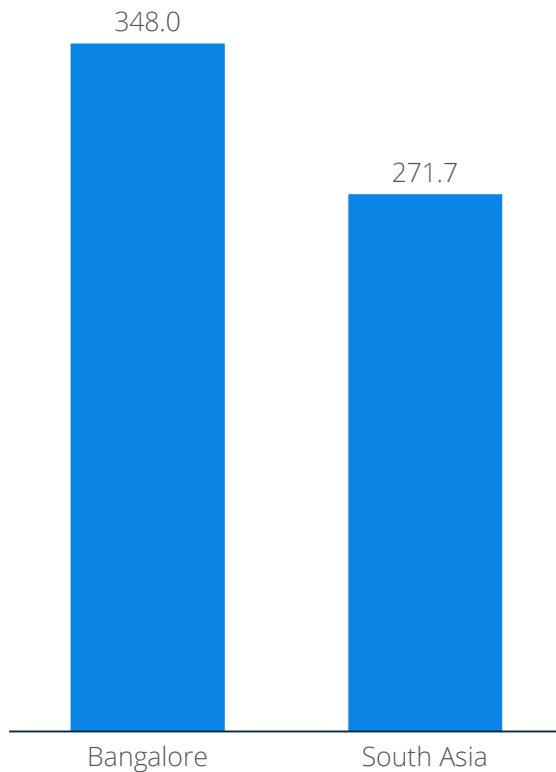


Bike-sharing

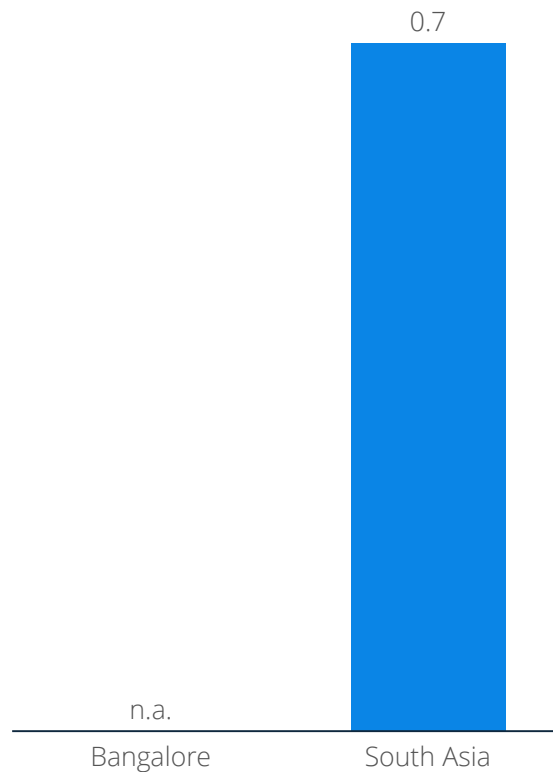


The regional average for shipping freight volume was 0.7 mTEU

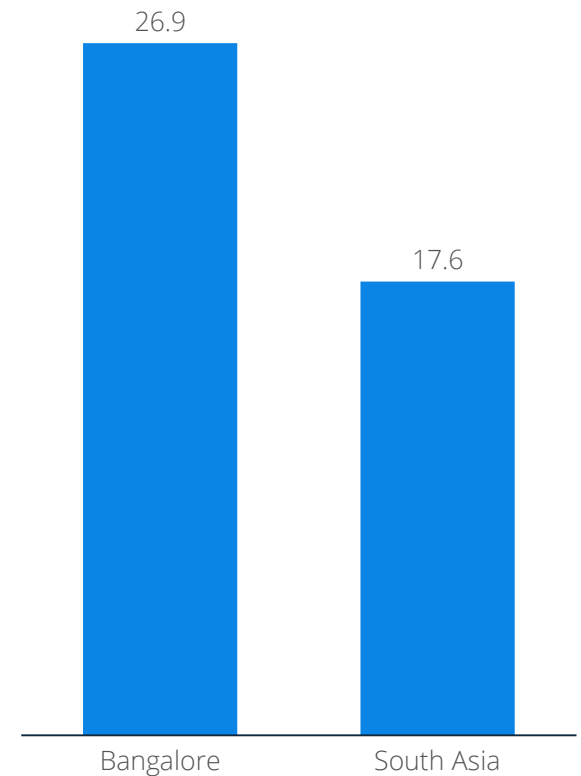
Air freight in kt¹ in 2018



Shipping freight in mTEU² in 2019



Air passengers in million in 2018



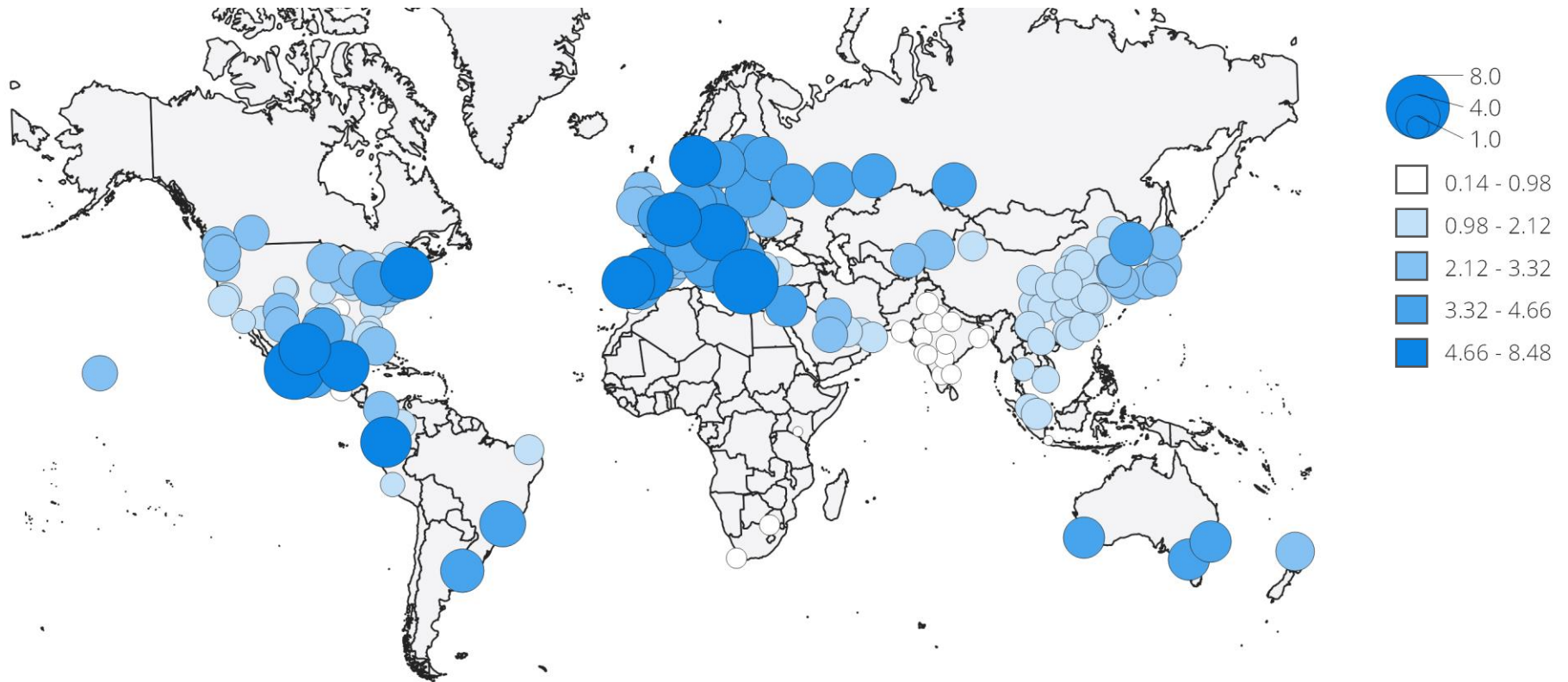
1: Thousand metric tons 2: million TEU

Note: Regional average based on latest available data and on cities in this region covered by Global Business Cities 2025 reports

Sources: Statista 2019

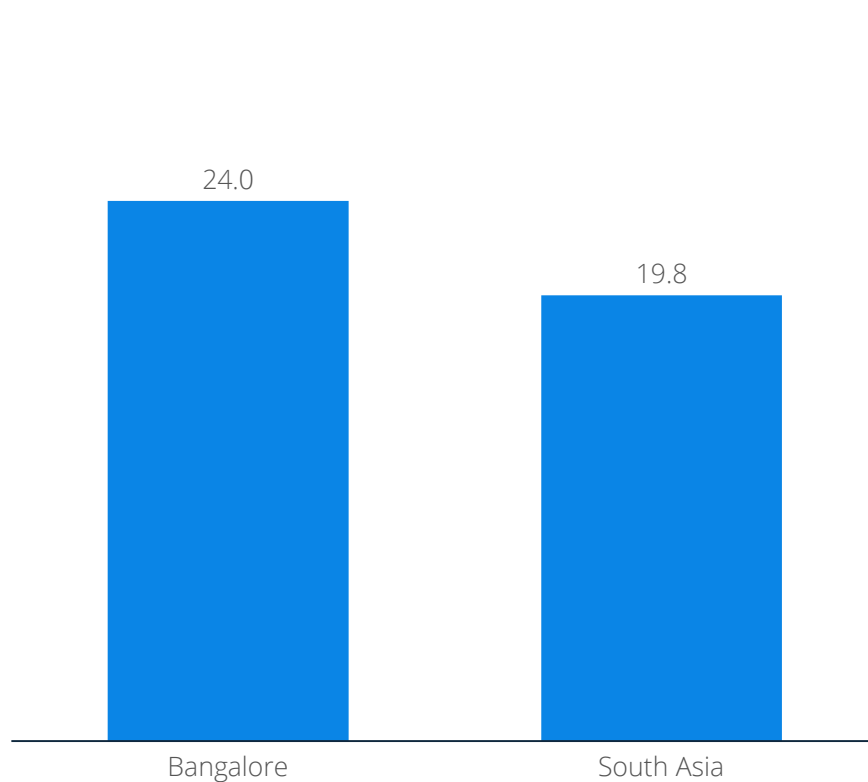
There are 0.8 physicians per 1,000 inhabitants in this city

Number of physicians per 1,000 inhabitants

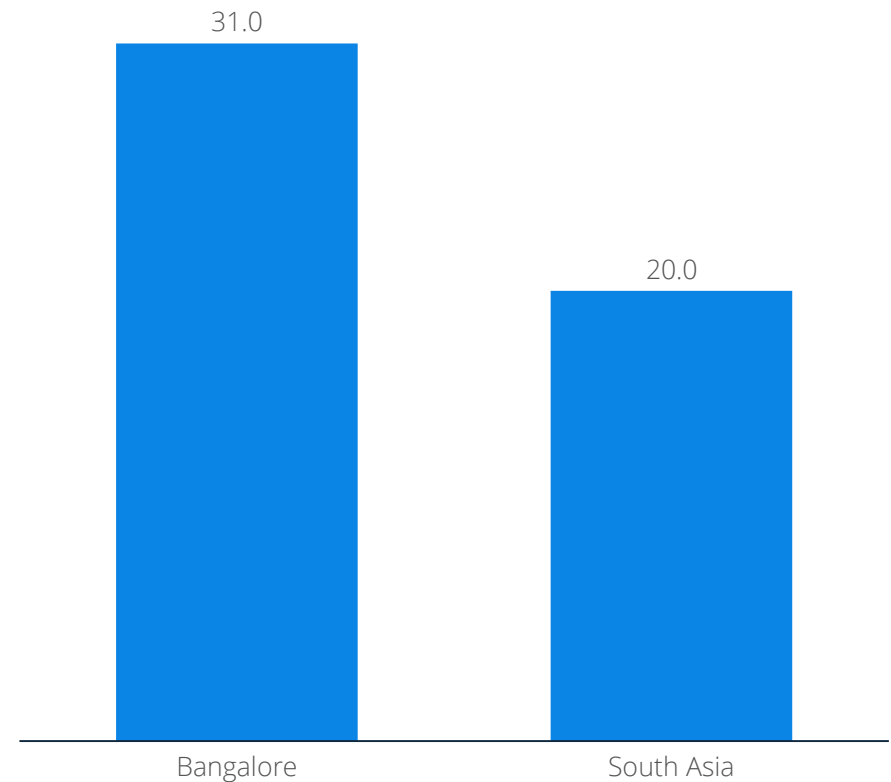


The density of universities in this city was higher than regional average

Number of universities¹ in this city in 2019



Number of international schools in this city in 2019



1: The regional averages of the universities are only representative within the region and not for a worldwide comparison because of different educational standards and classification of qualifications

Note: Regional average based on cities in this region covered by Global Business Cities 2025 reports

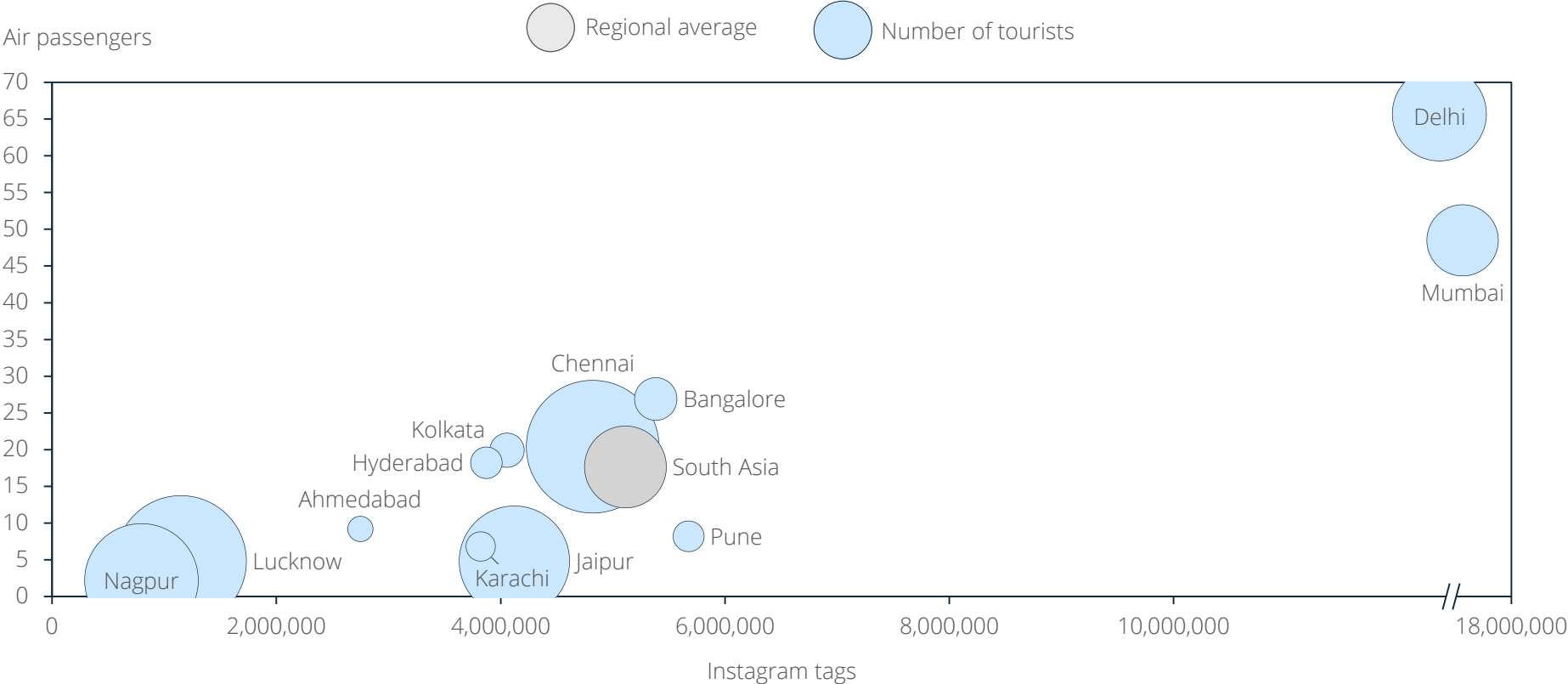
Sources: Statista 2019

CHARISMA



Bangalore was more popular on Instagram than cities in this region

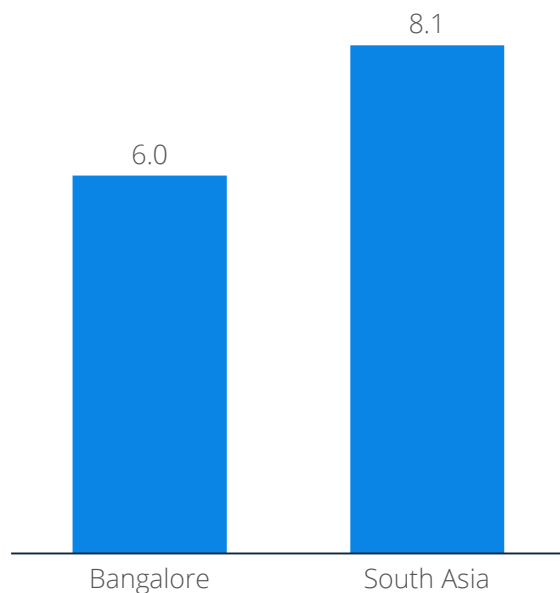
Number of Instagram tags, air passengers¹ and number of tourists² in this region in million in 2018



1: In million 2: Number of international tourists
Note: Regional average based on cities in this region covered by Global Business Cities 2025 reports; the scale has been adjusted for clarity
Sources: Statista 2019

This city had less museums than the regional average

Number of sister cities in 2019



Number of UNESCO heritage sites¹



Number of museums in 2019



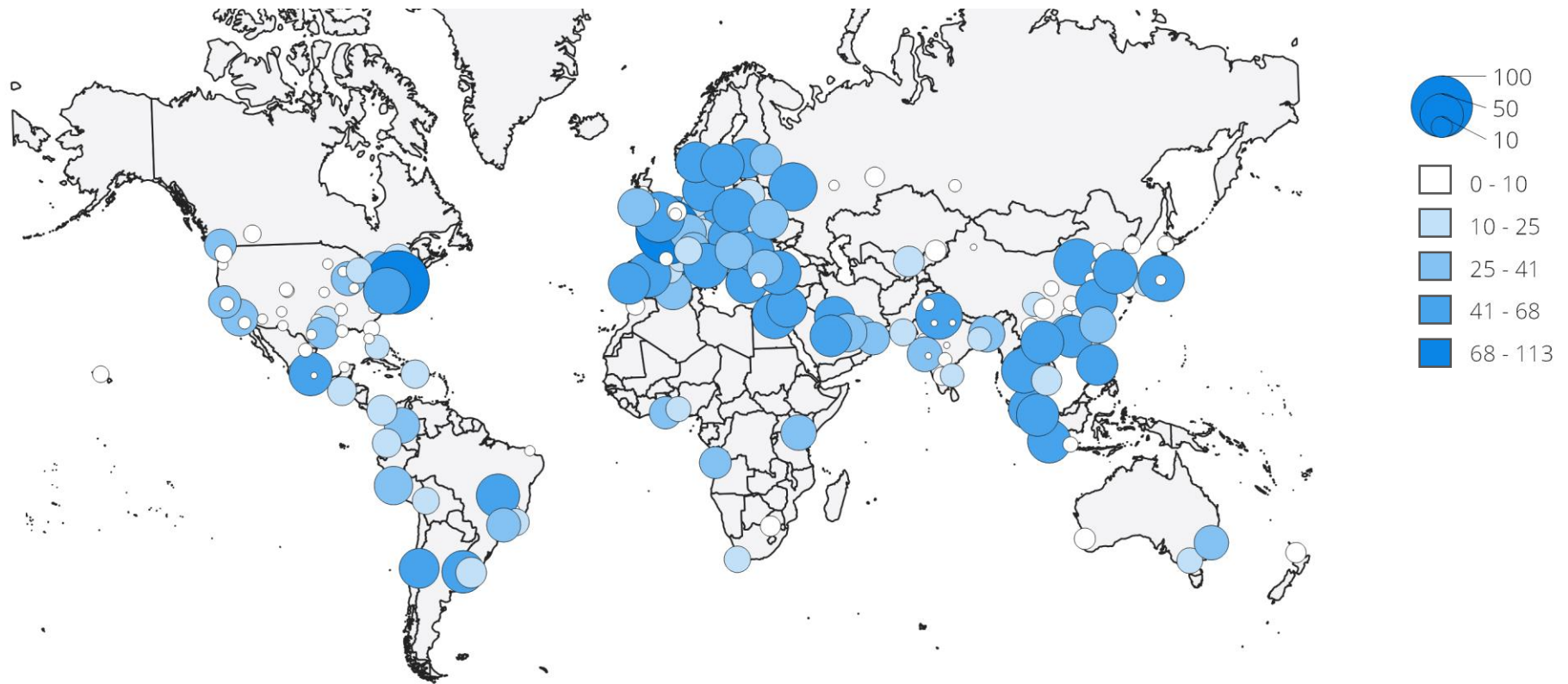
1: in 2019

Note: Regional average based on cities in this region covered by Global Business Cities 2025 reports

Sources: [UNESCO](#) 2019, Statista 2019

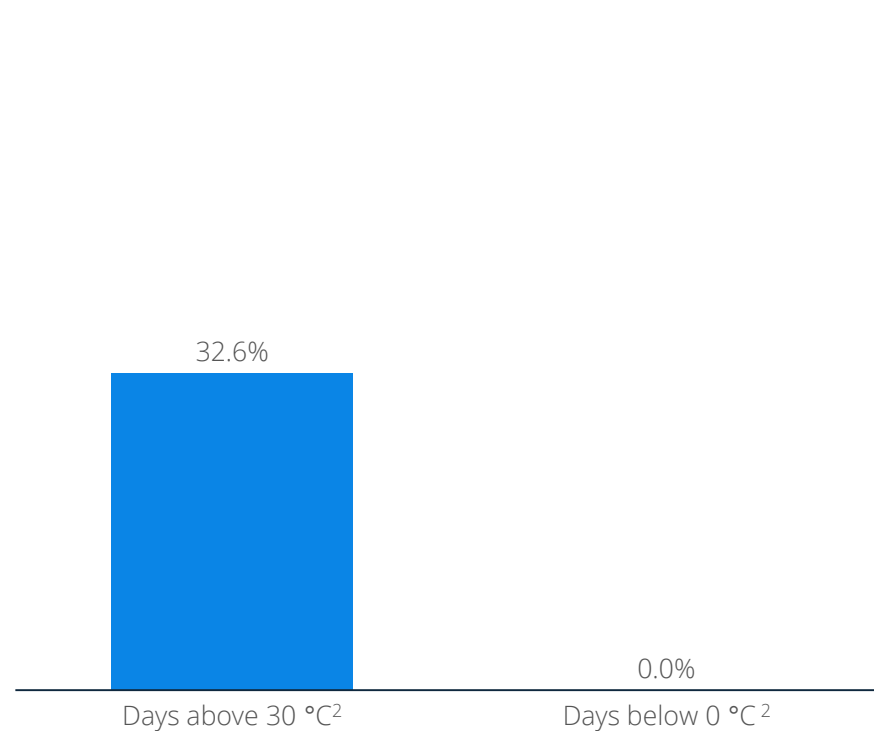
There are 7 embassies or consulates in this city

Number of embassies or consulates in 2019

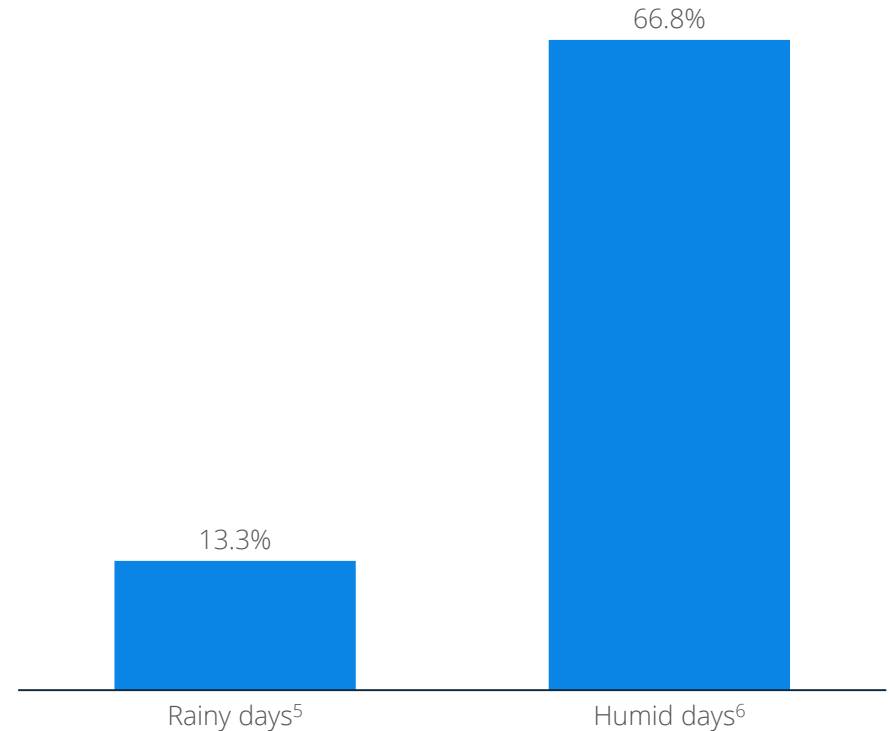


In a year, there were 0 days under 0°C and 119 days above 30°C in this city

Shares of days with extreme temperatures yearly¹



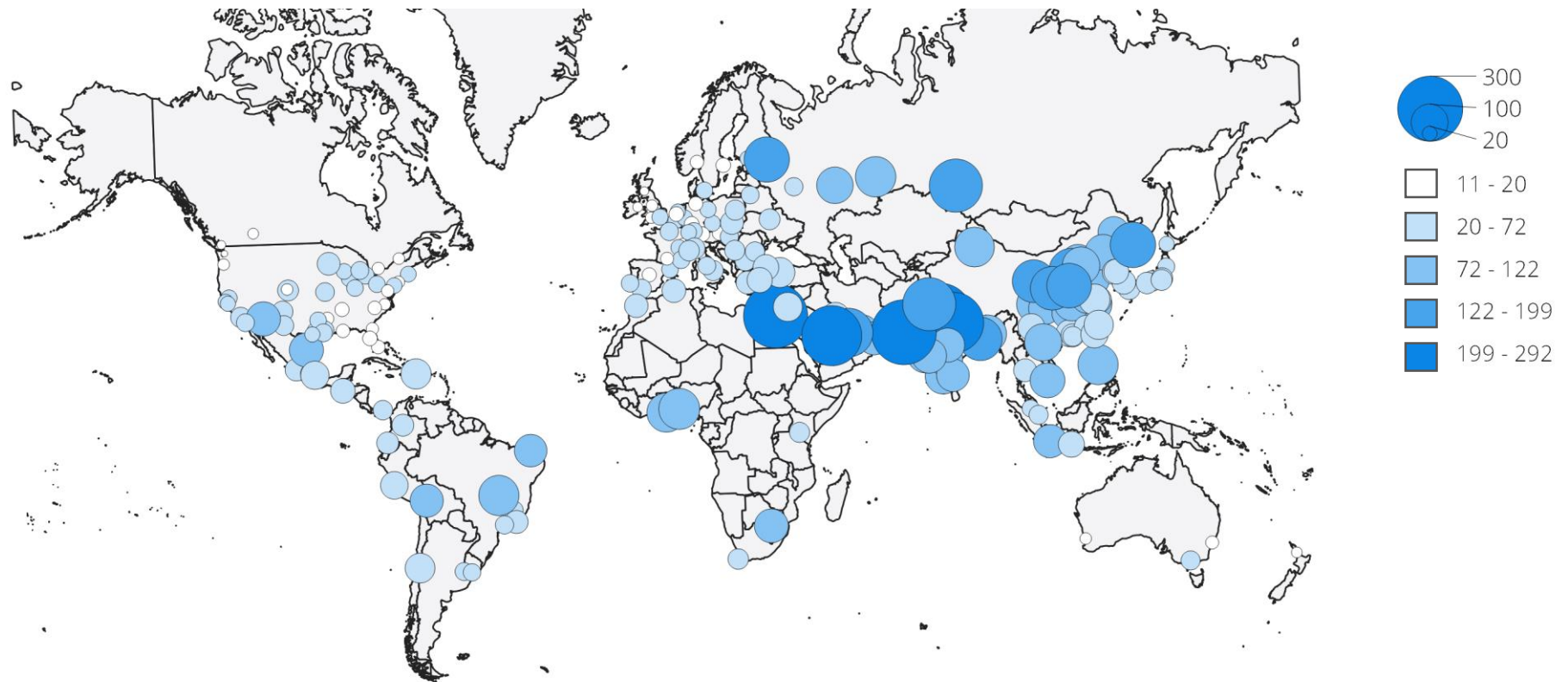
Shares of days with rain³ and humid conditions yearly^{1,4}



1: In 2018 2: Celsius 3: Minimum of 1mm of rain in a day 4: Based on dew point above 15 degrees 5: Average number of precipitation days
6: Based on number of humid months multiplied by 30.42 for average days in a month
Sources: [STC](#) 2019, [weatherbase](#) 2019, Statista 2019

At 96 $\mu\text{g}/\text{m}^3$, the air pollution concentration was 380% higher than the WHO guideline

Air pollution in PM10 $\mu\text{g}/\text{m}^3$ as annual mean in 2018



Note: The data displayed in this graphic can be found in the associated data file. World Health Organization (WHO) has set air quality guideline at 20.0 PM10 $\mu\text{g}/\text{m}^3$ measured as annual mean. See appendix for definitions

Sources: Statista 2019



APPENDIX

Global Business Cities 2025

Algeria	Belo Horizonte	Kunming	Ecuador	Greece	Ireland
Algiers		Lanzhou	Quito	Athens	Dublin
Angola	Bulgaria	Nanjing	Egypt	Guatemala	Israel
Luanda	Sofia	Qingdao	Cairo	Guatemala City	Tel Aviv
Argentina	Cambodia	Shanghai	Finland	Hong Kong (SAR)¹	Italy
Buenos Aires	Phnom Penh	Shenyang	Helsinki	Hong Kong	Milan
Australia	Canada	Shenzhen	France	Hungary	Naples
Perth	Toronto	Shijiazhuang	Lyon	Budapest	Rome
Sydney	Montréal	Suzhou	Marseille	India	Turin
Melbourne	Vancouver	Tianjin	Paris	Ahmedabad	Japan
Austria	Calgary	Urumqi	Strasbourg	Bangalore	Fukuoka
Vienna	Chile	Wuhan	Toulouse	Chennai	Nagoya
Bangladesh	Santiago	Xiamen	Germany	Delhi	Osaka
Dhaka	China (Mainland)	Xi'an	Berlin	Hyderabad	Sapporo
Belgium	Beijing	Zhengzhou	Cologne	Jaipur	Sendai
Brussels	Changsha	Colombia	Düsseldorf	Kolkata	Tokyo
Bolivia	Chengdu	Bogotá	Frankfurt	Lucknow	Yokohama
La Paz	Chongqing	Czechia	Hamburg	Mumbai	Kazakhstan
Brazil	Dalian	Prague	Munich	Nagpur	Almaty
São Paulo	Fuzhou	Denmark	Stuttgart	Pune	Kenya
Rio de Janeiro	Guangzhou	Copenhagen	Ghana	Indonesia	Nairobi
Brasília	Hangzhou	Dominican Republic	Accra	Jakarta	
Fortaleza	Harbin	Santo Domingo		Surabaya	
	Jinan				

Global Business Cities 2025

South Korea

Busan
Incheon
Seoul

Kuwait

Kuwait City

Lithuania

Vilnius

Malaysia

Kuala Lumpur

Mexico

Guadalajara
Mérida
Mexico City
Monterrey
Puebla

Morocco

Casablanca

Netherlands

Amsterdam
Rotterdam

New Zealand

Auckland

Nigeria

Lagos

Norway

Oslo

Oman

Muscat

Pakistan

Karachi
Lahore

Panama

Panama City

Peru

Lima

Philippines

Manila

Poland

Krakow
Warsaw

Portugal

Lisbon

Qatar

Doha

Romania

Bucharest

Russia

Kazan
Moscow
Novosibirsk
Saint Petersburg
Vladivostok
Yekaterinburg

Saudi Arabia

Riyadh

Serbia

Belgrade

Singapore

Singapore

South Africa

Cape Town
Johannesburg

Spain

Barcelona
Madrid
Sevilla

Sweden

Stockholm

Switzerland

Genève

Zürich

Taiwan

Kaohsiung
Taipei

Thailand

Bangkok

Turkey

Ankara
Istanbul
Izmir

Ukraine

Kiev

United Arab Emirates

Dubai

United Kingdom

Birmingham
Bristol
Glasgow
London
Manchester

United States of America

Austin
Albuquerque
Atlanta

Baltimore

Boston
Columbus
Charlotte
Chicago
Cleveland

Dallas

Denver

Detroit

El Paso

Honolulu

Houston

Indianapolis

Jacksonville

Kansas City

Los Angeles

Louisville

Memphis

Miami

Minneapolis

Nashville

New Orleans

New York

Philadelphia

Phoenix

Pittsburgh

Portland

Sacramento

San Antonio

San Diego

San Francisco

San Jose

Seattle

St. Louis

Tampa

Washington D.C.

Uruguay

Montevideo

Uzbekistan

Tashkent

Vietnam

Ho Chi Minh City
Hanoi

Regional division for countries and territories covered in this report

Africa: Algeria, Angola, Egypt, Ghana, Kenya, Morocco, Nigeria, and South Africa

Australia & Oceania: Australia and New Zealand

Central & Western Europe: Austria, Belgium, Czechia, France, Germany, Hungary, Ireland, Netherlands, Poland, Switzerland, and United Kingdom

East Asia: China, Hong Kong, Japan, South Korea, and Taiwan

Eastern Europe: Bulgaria, Romania, Russia, and Ukraine

Latin America: Argentina, Bolivia, Brazil, Chile, Colombia, Dominican Republic, Ecuador, Guatemala, Panama, Peru, and Uruguay

North America: Canada, Mexico, and United States

Northern Europe: Denmark, Finland, Lithuania, Norway, and Sweden

South Asia: Bangladesh, India, and Pakistan

Southeast Asia: Cambodia, Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam

Southern Europe: Greece, Italy, Portugal, Serbia, Spain, and Turkey

West & Central Asia: Israel, Kazakhstan, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates, and Uzbekistan

Methodology and data used in this report

Data sources

The Global Business City 2025 Reports present quantitative data from various private and public sources of information. These sources include data providers such as the International Monetary Fund, the World Bank, the United Nations, the OECD, the World Economic Forum and Statista itself. The data sources are indicated in footnotes throughout the report.

Forecasts and estimates

The population estimates for cities are based on forecasts by the United Nations. The original data provided with 5-year intervals was transformed with cubic spline interpolation to produce yearly values. The city GDP per capita forecasts for 2025 are based on the growth rates of the country level GDP growth forecasts by International Monetary Fund up to 2024 with those rates kept as constant for 2025. The total city GDP values for 2025 were achieved by multiplying the per capita values by the population estimates for 2025.

For English language skills in mostly anglophone countries, i.e. Canada, United States, Ireland, United Kingdom, Australia, and New Zealand, missing data was imputed for the subindex by assigning the highest value assigned in the data. In other cases, national level data or mean values were used to impute missing values.

Real GDP calculation

A country's real GDP is an inflation-adjusted GDP assessment reflecting its net growth. It can be used to compare economy sizes across countries. The data in this report are presented in U.S. dollars and maintain the growth rates of the real GDP series. The data are expressed in the base year of each country's national accounts, the year is country specific. For more information please refer to [World Economic Outlook Database FAQ](#).

Difference between current and constant US\$

Data reported in current US\$ reflect the value the currency has in a particular year. Current data series are influenced by the effect of price inflation and differences in exchange rates and the comparability of growth rates between countries is limited.

Data expressed in constant US\$ reflect the value of a currency in a particular base year. The individual base year listed in a country's national accounts differs from country to country. Constant series are used to measure the true growth of a series by adjusting for the effects of price inflation.

Methods for index construction (1/3)

Index construction

- The indicators for the Global Business Cities 2025 index were chosen based on their relevance to the conceptual framework represented by the chapter and section divisions in this report as well as their availability on the level of analysis. The final choice of indicators included in the index was based on correlation, which was a requirement for assigning the indicator weights, and exploratory factor analysis
- The retained data frame had a value of 0.77 in Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, which was well above the 0.60 required to proceed with factor analysis. The KMO is a set of statistics that is used to compare magnitudes of the observed correlation coefficients to the magnitudes of the partial correlation coefficients. In addition, the Bartlett's test of sphericity was implemented to test the null hypothesis of uncorrelated sub-indicators in the correlation matrix
- The weights for the included indicators were assigned based on factor analysis conducted with z-score normalized values for variables with moderate to high loadings (correlations larger than 0.5) in factors retained in the confirmatory factor analysis after orthogonal varimax rotation. The retained factors had associated eigenvalues larger than one based on the Kaiser criterion, explained individually at least 8.7% of the total variation, and cumulatively explained 57.3% of the total variation in the dataset
- The indicator values were aggregated to the final index with a linear aggregation in summation of weighted and min-max scaled individual indicators. Values for the indicators Freedom of Speech index and air pollution density were inverted prior to aggregation due to inverse scale in the original data. The final values featured in this report were also normalized with min-max scaling to facilitate easier interpretation of the values

Methods for index construction (2/3)

Formulas and technical descriptions

- Z Score formula where μ is the mean of the population and σ is the standard deviation of the population

$$z = \frac{x - \mu}{\sigma}$$

- Min-max normalization where x is an original value and x' is the normalized value

$$x' = \frac{x - \min(x)}{\max(x) - \min(x)}$$

- Factor analysis is conducted on a set of intercorrelated variables. The analysis forms groups of highly intercorrelated variables that can be seen to measure underlying variables called “factors” that can’t be directly measured. Factor analysis model aims to describe a set of Q variables x_1, x_2, \dots, x_Q with a smaller number of m factors and to explain the relationship between these variables. In this model x_i ($i = 1, \dots, Q$) represents the original values standardized with zero mean and unit variance, $\alpha_{i1}, \alpha_{i2}, \dots, \alpha_{im}$ are factor loadings connected to the variable, $X_i, F_1, F_2, \dots, F_m$ ($j = 1, \dots, m$) are m uncorrelated common factors with zero unit variance and mean, and e_i are the Q specific factors supposed independently and identically distributed with zero mean

$$\begin{aligned}x_1 &= \alpha_{11}F_1 + \alpha_{12}F_2 + \dots + \alpha_{1m}F_m + e_1 \\x_2 &= \alpha_{21}F_1 + \alpha_{22}F_2 + \dots + \alpha_{2m}F_m + e_2 \\&\dots \\x_Q &= \alpha_{Q1}F_1 + \alpha_{Q2}F_2 + \dots + \alpha_{Qm}F_m + e_Q\end{aligned}$$

- The weights were assigned based on the results of the factor analysis with a statistic-based method where r_{F_j} is the proportion of the explained variance of the factor F_j (or the intermediate composite F_j) in the dataset, α_{ij} the factor loading of the x_i indicator on factor F_j and E_{F_j} the variance explained by factor F_j

$$\begin{aligned}\omega_i &= r_{F_j} (\alpha_{ij}^2 / E_{F_j}) \\i &= 1, \dots, Q; j \in \{1, \dots, m\}\end{aligned}$$

Methods for index construction (3/3)

Formulas and technical descriptions

- The indicator aggregation was conducted with an additive aggregation where GBC is the Global Business Cities 2025 index, ω_i the weight of the i^{th} indicator, and I_i the normalized score of the i^{th} indicator

$$GBC = \omega_1 I_1 + \omega_2 I_2 + \dots + \dots + \omega_Q I_Q = \sum_{i=1}^Q \omega_i I_i$$

Variables in Global Business Cities 2025 index

Variable list

- Shipping freight in million TEU
- Stock market prescience
- Internet penetration rate
- Physicians per 1,000
- Number of air passengers in million
- Air pollution density (PM 10)
- Number of embassies and consulates
- Number of museums
- Number of Instagram tags
- Mean years of schooling
- LGBTQ+ rights
- Gender gap index
- Freedom of speech index
- Level of proficiency in English
- Control on corruption
- Per capita city GDP in 2025
- Total city GDP 2025

Glossary of terms

City GDP: The sum of the gross value added (wages plus business surplus plus taxes less imports) or the total final demand (consumption plus investment plus exports)

City Product: See City GDP

Constant US\$: Data expressed in constant US\$ show the data for each year in the value of a particular base year. The base year of each country's national accounts is country specific. Constant series are used to measure the true growth of a series by adjusting for the effects of price inflation

Cost of living: The cost of living incorporates most everyday expenses: groceries and restaurants, clothing, transportation and fuel, utilities, etc. These are the expenses of a fairly affluent family, but do not enter into the realm of luxury item expenses. Rent is calculated separately. The estimate is based upon three active spenders in the family (the couple and the oldest child attending university)

Current US\$: Data reported in current US\$ reflect the value the currency has in a particular year. Current data series are influenced by the effect of price inflation and differences in exchange rates, and the comparability of growth rates between countries is limited.

Density of universities: The amount of existing public and other relevant universities in a city and its surrounding area. Other relevant universities can be religious (ecclesiastical, islamic) or private institutions that are publicly funded. For the regions Australia & Oceania, Northern and Central & Western Europe only public universities are included. The regional averages are only representative within the region and not for a worldwide comparison because of different educational standards and classification of qualifications

Efficiency of customs clearance: Includes e.g. speed, simplicity, and predictability of customs clearance (5 = high efficiency, 1 = low efficiency)

Internet penetration: Share of individuals in the country who have used the Internet (from any location) in the last 3 months

Mean years of schooling: Average number of completed years of education of population aged 25 years and older, excluding years spent repeating individual grades

PM10: Particulate matter (PM) with particles smaller than 10 μg

Glossary of terms

Poverty rate : Ratio of the number of people with income below the poverty line

Purchasing Power Parity (PPP) : Ratio of the number of people with income below the poverty line

Real GDP: Real gross domestic product (GDP) is an inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year, expressed in base-year prices, and is often referred to as "constant-price", "inflation-corrected" GDP or "constant dollar GDP". Unlike nominal GDP, real GDP can account for changes in price level and provide a more accurate figure of economic growth

Time needed to export: Time necessary to comply with all the procedures required to export/import goods in calendar days

Time needed to resolve insolvency : Number of years from the filing for insolvency in court until the resolution of distressed assets

Time needed to start a business: Number of calendar days needed to complete the procedures to legally operate a business

Unemployment rate: Unemployment refers to the share of the labor force that is without work but available for and seeking employment

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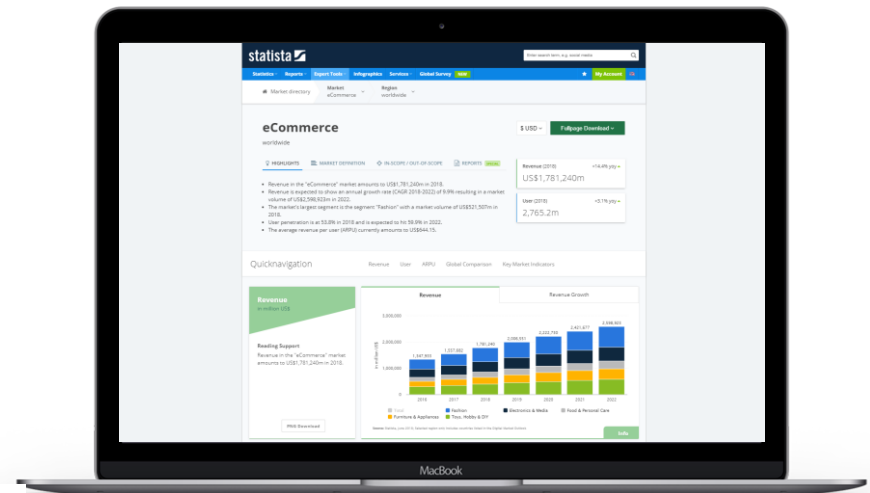
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