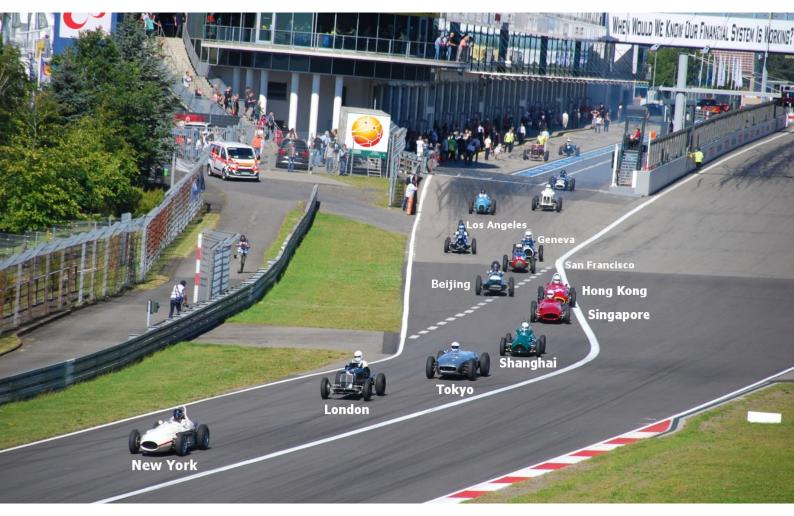


March 2020





# **Financial Centre Futures**







In March 2007, Z/Yen and the City Of London released the first edition of the GFCI, which continues to provide evaluations of competitiveness and rankings for the major financial centres around the world. We are pleased to present the twenty-seventh edition of the Global Financial Centres Index (GFCI 27).

In July 2016, Z/Yen and the China Development Institute (CDI) in Shenzhen established a strategic partnership for research into financial centres. We continue our collaboration in producing the GFCI.

The GFCI is updated every March and September and receives considerable attention from the global financial community. The index serves as a valuable reference for policy and investment decisions.

Z/Yen is the City of London's leading commercial think-tank. Z/Yen was founded in 1994 to promote societal advance through better finance and technology. Z/Yen has built its practice around a core of high-powered project managers, supported by experienced technical specialists so that clients get expertise they need, rather than just resources available. The firm is headquartered in London, but Z/Yen is committed to the 'virtual office' concept and is an intense user of technology in order to improve flexibility and benefit staff.

The CDI is a leading national think-tank that develops solutions to public policy challenges through broad-scope and in-depth research to help advance China's reform and opening-up to world markets. The CDI has been working on the promotion and development of China's financial system since its establishment in 1989. Based on rigorous research and objective analysis, CDI is committed to providing innovative and pragmatic reports for governments at different levels in China and corporations at home and abroad.

The authors of this report, Hugh Morris, Professor Michael Mainelli, and Mike Wardle, would like to thank Bikash Kharel, Alexander Kemsley, Carol Feng, Peng Yu, and the rest of the GFCI team for their contributions with research, modelling, and ideas.



# Foreword

I wholeheartedly congratulate the Z/Yen Group on holding the GFCI 27 launch in partnership with Seoul Metropolitan Government.

Ever since "Yeouido" in Seoul was designated as a financial centre by the central government in accordance with the related Act in 2009, Seoul Metropolitan Government has cultivated Yeouido to be one of the world-leading financial centres and implemented various policies to support finance industries in Seoul.

In particular, 2019 was an important year during which concentrated support was offered to the fintech industry in order to develop Seoul into a city of finance, as well as a city of fintech. The Seoul Fintech Lab was established to foster fintech companies attracting some 70 companies of which 24 were overseas companies. Alongside this, the Global Fintech Lab was also established. Seoul Fintech Week, which encompasses the conference, investor relations (IR), and networking, was held successfully, drawing public attention to fintech in Seoul.

In 2020, the Seoul Metropolitan Government will continue to foster financial and fintech industries and conduct new policies to expand inter-industry exchanges. The Graduate School of Finance, which will open in the second half of the year, will operate global programs that are associated with excellent overseas educational institutions and foster 840 talented professionals in finance and fintech over the next four years. Additionally, specialised spaces for inviting excellent overseas financial institutions to Seoul will be in operation; and dedicated spaces and programs to support exchanges among workers in the fields of finance and fintech will be in operation.

The expertise and data-based information of the Z/Yen Group were a great help for Seoul Metropolitan Government to support finance and fintech industries. Again, congratulations on the co-hosting of the GFCI 27 Launch by Z/Yen and Seoul Metropolitan Government. I hope this event will be a valuable opportunity to further promote and develop the finance industry of Seoul.

Thank you.



Park Won-soon, Mayor of Seoul

# **GFCI 27 Summary And Headlines**

## Overview

- We researched 120 centres for this edition of the Global Financial Centres Index (GFCI 27). The number of financial centres in the main index has increased from 104 to 108 with the addition of Barbados, San Diego, Tehran, and Vilnius. There are 12 associate centres awaiting potential inclusion in the main index.
- GFCI 27 showed a high level of volatility, with 26 centres rising ten or more places in the rankings and 23 falling ten or more places. This may reflect the uncertainty around international trade and the impact of geopolitical and local unrest with a flight to stability; and also reflects the importance of sustainable finance, with Western European centres benefitting, and centres with a legacy of brown finance losing ground.
- Nine of the top ten centres in the index had lower ratings (eight of these centres fell by 12 points or more). Of the next 40 centres, 24 improved their rating while 16 fell.
- Eastern Europe & Central Asia showed the strongest regional improvement with twelve centres increasing their rating, while only two centres received lower ratings.

## **GFCI 27 results**

## **Leading Centres**

- New York retains its first place in the index, further extending its lead over London from 17 to 27 points (although the ratings for both centres dropped by more than 20 points). Tokyo moved up three places to rank third in the index. Hong Kong fell from third place to sixth. Five Asian centres are now within ten points of London.
- Geneva, Los Angeles, and San Francisco entered the top 10, easing out Dubai, Shenzhen, and Sydney.
- Within the top 30 centres, Amsterdam, Edinburgh, Geneva, Hamburg, and Stockholm all rose by more than ten places.

## Western Europe

• After a mixed performance in GFCI 26, this region had a strong performance in GFCI 27, with 23 centres rising in the rankings and five falling. Fourteen centres increased their ranking by ten places or more, including Geneva which is now in the top 10.

## Asia/Pacific

- Asia/Pacific Centres had a somewhat downbeat performance with fifteen centres falling in the rankings and ten rising. This appears to reflect levels of confidence in the stability of Asian centres and in their approach to sustainable finance, which appears to be growing in its effect on the overall rating of centres.
- Tokyo and Shanghai improved their ranking in the top 10, whilst Singapore and Hong Kong fell.

## North America

- North American centres showed little change from GFCI 26, with the exceptions of Calgary, which climbed 17 places, and Toronto which fell 12 places.
- Four out of the eleven North American centres are in the top 20.

## Eastern Europe & Central Asia

- All but two centres in this region improved their rating (the exceptions being Nur-Sultan and Istanbul). Nur-Sultan may rise rapidly as people become more familiar with the new name and residence of the Astana International Financial Centre.
- Nine of the centres improved their ranking (moving mainly from the bottom of the index to its middle), with four falling and one (Moscow) remaining in the same position.

## Middle East & Africa

• Centres in the Middle East and Africa performed poorly with ten of the 13 centres falling in ranking. Only Nairobi and Riyadh improved their position. Tehran entered the index for the first time.

## Latin America & The Caribbean

• Centres in Latin America & The Caribbean also performed poorly, with only the British Virgin Islands increasing its ranking (by 15 places). Barbados is a new entry.

## **Island Centres**

• The British Crown Dependencies' performances bounced back with the Isle of Man up 12 places in the rankings, Jersey up 10, and Guernsey rising 19 places.

## FinTech

- For the second time, we include within the GFCI a separate index ranking financial centres as competitive places for FinTech.
- New York leads the FinTech rankings, followed by Beijing, Shanghai, London, and Singapore. Five of the top ten centres for FinTech are Chinese.
- Vilnius, on its first entry in the GFCI, ranks 13th in the FinTech ranking.

## GFCI 27

- GFCI 27 was compiled using 138 instrumental factors. These quantitative measures are provided by third parties including the World Bank, The Economist Intelligence Unit, the OECD, and the UN. Details can be found in Appendix 4 of the report
- The instrumental factors were combined with 37,695 financial centre assessments provided by respondents to the GFCI online questionnaire.
- A breakdown of the 5,064 respondents is shown in Appendix 2 to the report. Further details of the methodology behind GFCI 27 are in Appendix 3 to the report.

### Table 1 | GFCI 27 Top 54 Ranks And Ratings

Centre	GI	CI 27	GI	GFCI 26		Change in
centre	Rank	Rating	Rank	Rating	Rank	Rating
New York	1	769	1	790	0	▼21
London	2	742	2	773	0	▼31
Tokyo	3	741	6	757	▲3	▼16
Shanghai	4	740	5	761	<b>▲</b> 1	▼21
Singapore	5	738	4	762	▼1	▼24
Hong Kong	6	737	3	771	▼3	▼34
Beijing	7	734	7	748	0	▼14
San Francisco	8	732	12	736	4	▼4
Geneva	9	729	26	706	▲ <del>-</del>	▲ 23
Los Angeles	10	723	13	735	▲3	▼12
Shenzhen	10	722	9	739	₹2	▼12
Dubai	12	721	8	740	▼2	▼19
Frankfurt	12	720	15	733	2	▼13
Zurich	13	719	13	734	0	▼15
Paris	14	719	14	728	2	▼13
Chicago	16 17	717 716	16 29	732	0 ▲12	▼ 15
Edinburgh						▲ 15
Luxembourg	18	715	25	708	▲7	▲7
Guangzhou	19	714	23	711	4	▲3
Sydney	20	713	10	738	▼10	▼25
Melbourne	21	712	19	720	▼2	▼8
Vancouver	22	711	24	710	▲2	▲1
Toronto	23	710	11	737	▼12	▼27
Washington DC	24	709	28	702	▲ 4	▲7
Boston	25	708	18	727	▼7	▼19
Montreal	26	704	20	716	▼6	▼12
Amsterdam	27	703	37	675	▲ 10	▲ 28
Stockholm	28	702	46	659	▲ 18	▲ 43
Hamburg	29	699	49	650	▲ 20	▲ 49
Dublin	30	698	38	674	▲8	▲ 24
Wellington	31	697	31	693	0	▲ 4
Stuttgart	32	696	42	663	▲ 10	▲ 33
Seoul	33	694	36	677	▲3	▲ 17
Brussels	34	691	56	638	▲ 22	▲ 53
Copenhagen	35	689	67	623	▲ 32	▲ 66
Tel Aviv	36	688	22	713	▼14	▼25
Munich	37	687	52	645	▲ 15	▲ 42
Vienna	38	685	54	640	▲ 16	▲ 45
Abu Dhabi	39	682	32	690	▼7	▼8
Calgary	40	681	57	637	▲ 17	▲ 44
Casablanca	41	680	21	714	▼20	▼34
Milan	41	679	48	655	▲ 6	▲ 24
Madrid	42	678	43	661	▲ 0 ▲ 1	▲ 24 ▲ 17
Kuala Lumpur	43	677	44	660	▲1 ▲1	▲ 17 ▲ 17
Mumbai	44 45	672	72	609	▲ 1 ▲ 27	▲ 17 ▲ 63
	45		58	636		
Prague Covmon Islands	40	671 670	30		▲ 12 ▼ 17	▲ 35 ▼ 29
Cayman Islands				699	▼1/	
Doha	48	669	39	672		▼3
Jersey	49	666	59	635	<b>▲</b> 10	▲ 31
Warsaw	50	665	64	626	<b>▲</b> 14	▲ 39
Busan	51	664	43	662	▼8	▲2
Tallinn	52	663	76	605	▲ 24	▲ 58
Rome	53	662	69	614	▲ 16	▲ 48
Liechtenstein	54	661	61	631	▲7	▲ 30

Centre	GF	CI 27	GI	GFCI 26		Change in
	Rank	Rating	Rank	Rating	Rank	Rating
Almaty	55	660	98	548	▲43	▲ 112
Bahrain	56	659	47	658	▼9	<b>▲</b> 1
Baku	57	658	94	584	▲37	▲74
Bangkok	58	657	50	649	▼8	▲8
Osaka	59	656	27	705	▼32	▼49
British Virgin Islands	60	655	75	606	▲15	▲ 49
Oslo	61	654	60	633	▼1	▲21
Sofia	62	653	84	594	▲22	▲ 59
Bermuda	63	652	35	680	▼28	▼28
Mauritius	64	651	40	671	▼24	▼20
Glasgow	65	650	70	613	▲5	▲ 37
Vilnius	66	649	New	New	New	New
Cyprus	67	648	83	595	▲16	▲ 53
Helsinki	68	647	68	622	0	▲ 25
New Delhi	69	646	90	588	▲21	▲ 58
Riga	70	645	85	593	▲15	▲ 52
Moscow	71	644	71	610	0	▲ 34
Nur-Sultan	72	643	51	648	▼21	▼5
Guernsey	73	642	92	586	▲ 19	▲ 56
Chengdu	74	641	73	608	▼1	▲ 33
Taipei	75	640	34	687	▼41	▼47
Lisbon	76	639	55	639	▼21	0
Isle of Man	77	638	89	589	▲ 12	▲ 49
Mexico City	78	637	62	630	▼16	▲7
Istanbul	79	636	53	641	▼26	▼5
Cape Town	80	635	63	629	▼17	<b>▲</b> 6
San Diego	81	634	New	New	New	New
GIFT City-Gujarat	82	633	66	624	▼16	▲9
Sao Paulo	83	632	82	596	▼10	▲ 36
Budapest	84	628	78	603	▼6	▲ 25
Johannesburg	85	627	81	600	▼4	▲ 27
Monaco	86	626	41	669	▼45	▼43
Nairobi	87	625	88	590	▲1	▲ 35
Riyadh	88	624	96	564	<b>A</b> 8	▲ 55 ▲ 60
Rio de Janeiro	89	622	87	591	▼2	▲ 31
Gibraltar	90	621	77	604	▼13	▲ 31 ▲ 17
Kuwait City	91	620	65	625	▼13	▼5
Reykjavik	92	618	93	585	1	▲ 33
Jakarta	93	617	91	587	▼2	▲ 33
Panama	94	616	86	592	▼2	▲ 24
Tehran	95	615	New	New	New	New
Athens	96	614	100	539	▲ 4	▲75
St Petersburg	97	614	79	602	▼18	▲ 75 ▲ 11
Hangzhou	98	613	104	459	▲6	▲ 11 ▲ 153
Qingdao	98	612	33	688	▼66	▼78
Tianjin	100	609	102	528	▲ 2	√ 78 ▲ 81
	100	608	102	528	▲ 2 ▲ 2	▲ 81 ▲ 101
Nanjing Dalian	101	607	103			
			97	529	▼1	▲ 78
Manila	103	606		549	▼6	▲ 57
Santiago	104	603	99	540	▼5	<b>▲</b> 63
Bahamas	105	599	74	607	▼31	▼8
Buenos Aires	106	592	80	601	▼26	▼9
Malta	107	588	95	577	▼12	<b>▲</b> 11
Barbados	108	583	New	New	New	New

# Table 1 (Continued) | GFCI 27 Remaining Ranks And Ratings

We track centres that have yet to achieve the number of assessments required to be listed in the main GFCI index. Table 2 lists the twelve centres which fall into this 'associate centres' category.

### Table 2 GFCI 27 Associate Centres

Centre	Number of Assessments in the last 24 months	Mean of Assessments	
Wuhan, China	137	436	
Bratislava, Slovakia	83	614	
Andorra	80	550	
Bogota, Colombia	79	539	
Lagos, Nigeria	59	546	
Lugano, Switzerland	49	612	
Trinidad & Tobago	48	548	
Karachi, Pakistan	39	536	
Ho Chi Minh City, Vietnam	35	566	
Chisinau, Moldova	35	711	
Turks and Caicos	24	646	
Kaunas, Lithuania	18	611	

## **Regional Performance**

The mean of the top five Asia/Pacific centre remains higher than other regions. North America is still fractionally ahead of Western Europe. The top centres in other regions continue to narrow the gap with the leading regions. Eastern Europe & Central Asia's performance demonstrates continued strength, overtaking Latin America & The Caribbean.

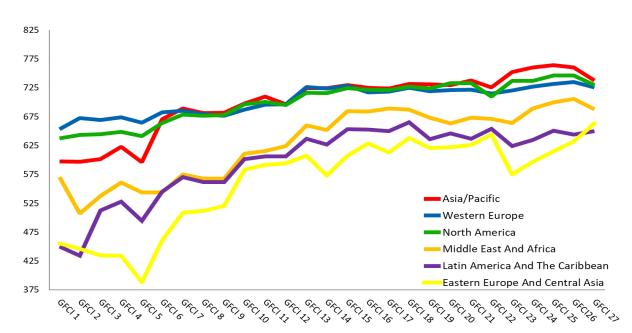
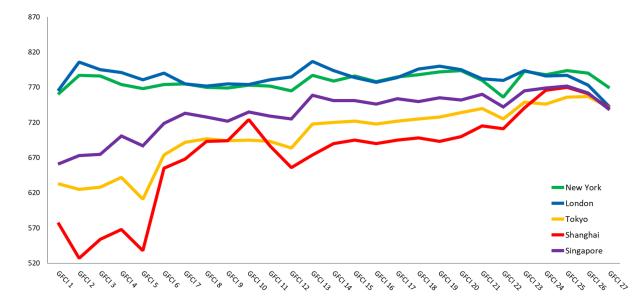


Chart 1 | Average Ratings Of The Top Five Centres In Each Region

### **The Top Five Centres**

New York retained its first place in the index, further extending its lead over London from 17 to 27 points (although the ratings for both centres dropped by more than 20 points). Tokyo moved up three places to rank third in the index, only one point behind London, with Shanghai and Singapore very close. Hong Kong fell from third place to sixth.

Chart 2 | The Top Five Centres— GFCI Ratings Over Time



"Cities of high life quality like Zurich, Melbourne, Toronto will benefit from people deciding more and more to live and work in those places."

BANKER, FRANKFURT



### **Future Prospects**

The GFCI questionnaire asks respondents which centres they consider will become more significant over the next two to three years. Table 3 shows the top 15 centres mentioned. Nine of the 15 centres are in the Asia/Pacific region.

 Table 3
 The 15 Centres Likely To Become More Significant

Centre	Mentions in last 24 months
Qingdao	226
Stuttgart	211
Shanghai	124
Beijing	71
Seoul	62
Shenzhen	57
Guangzhou	56
Singapore	56
Hong Kong	48
Paris	45
Frankfurt	32
London	22
Dublin	21
Nur-Sultan	20
Токуо	19

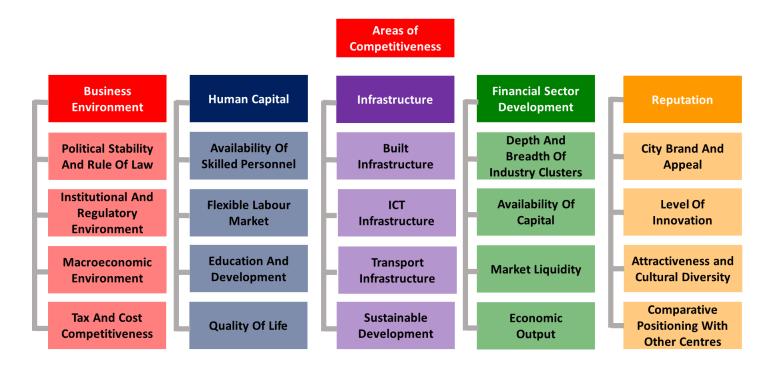
# "Given the social unrest, brain drain would be expected and supply and demand for skilled labour would be diminished."

HEAD OF LEGAL, INVESTMENT MANAGERMENT, HONG KONG

# **Areas Of Competitiveness**

The instrumental factors used in the GFCI model are grouped into five broad areas of competitiveness: Business Environment, Human Capital, Infrastructure, Financial Sector Development, and Reputation. These areas and the instrumental factor groups which comprise each area are shown in Chart 3.





"Branding and reputation are developed on the basis of actuality. You can't brand a city as a leading financial services centre if it is not one. You can't say that you are number 1 in something if you are not. More important is the ease of doing business and the community in the centre, and how it gives access to decision makers."

CEO, FINTECH, LUXEMBOURG

To assess how financial centres perform in each of these areas, the GFCI factor assessment model is run separately for each of the five areas of competitiveness. The top 15 ranked centres in each of these sub-indices are shown in Table 4. New York takes the lead position in all areas, followed by London. Singapore and Hong Kong also feature strongly, with the remaining slots in the top five places across the different areas of competitiveness taken by Frankfurt, Luxembourg, Oslo and Zurich. The top five positions are less concentrated in the top four centres than previously.

Rank	Business Environment	Human Capital	Infrastructure	Financial Sector Development	Reputational & General
1	New York	New York	New York	New York	New York
2	London	London	London	London	London
3	Hong Kong	Hong Kong	Singapore	Singapore	Singapore
4	Singapore	Luxembourg	Tokyo	Zurich	Hong Kong
5	Frankfurt	Singapore	Hong Kong	Frankfurt	Oslo
6	Zurich	Shanghai	Geneva	Hong Kong	Tokyo
7	Chicago	Beijing	Zurich	Geneva	Paris
8	Geneva	Paris	Stockholm	Amsterdam	Dublin
9	Toronto	Chicago	Shanghai	Shanghai	Shanghai
10	Montreal	Dubai	San Francisco	Tokyo	Beijing
11	Oslo	Tokyo	Beijing	San Francisco	Zurich
12	Edinburgh	Brussels	Dubai	Paris	Amsterdam
13	Copenhagen	San Francisco	Paris	Dubai	Frankfurt
14	Amsterdam	Frankfurt	Sydney	Luxembourg	Edinburgh
15	Dublin	Los Angeles	Vancouver	Copenhagen	Sydney

Table 4	GFCI 27	<b>Top 15 Centres</b>	By Area C	Of Competitiveness
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"A city's infrastructure is important to a business in many ways. Commercial property and development only works if good infrastructure supports it. Infrastructure is needed to bring people to and from home, work, shop and provide the utilities essential to business such as water, electricity, internet. There is an economic cost, in the order of billions of dollars, if that infrastructure is clogged or inefficient."

### **Factors Affecting Competitiveness**

The GFCI questionnaire asks respondents to indicate which factors of competitiveness they consider the most important at this time. The number of times that each area was mentioned and the key issues raised by respondents are shown in Table 5.

Area of Competitiveness	Number of Mentions	Main Issues
Business Environment	612	The regulatory environment is still the most important factor. Stability and international standards are seen as vital Levels of corruption seem to be getting worse The quality of the legal system is important
Human Capital	557	The importance of attracting talent is increasing with quality of living a key factor The free movement of skilled people is crucial Flexible labour markets and the availability of IT skills are becoming more important
Infrastructure	512	Infrastructure needs to be flexible and designed with sustainability in mind Essential to build working environments which cater to the social as well as business needs of people World-class ICT Infrastructure is essential
Reputation	524	Branding needs to be based on real strengths as a centre Reputation enables the attraction of talent, investors, and start ups Reputation takes time to build in a series of steps
Financial Sector Development	480	Web-based communication means that it is less important to be able to meet face to-face Access to markets in other centres through regulatory approaches is growing Clusters of financial businesses allow for more efficiency in the system

Table 5	GFCI 27 Main Areas Of Competitiveness

"The key element with respect to regulatory environment and rule of law for firms with 'on the ground' operations is the predictability and stability of outcomes. With increasing focus on reputation, firms are more attracted to centres where there is no (or lower) tolerance for corruption."

# Government Effectiveness and Financial Secrecy

Government effectiveness and financial secrecy have a significant correlation with financial centre competitiveness. Chart 4 plots GFCI ratings against the World Bank's Government Effectiveness Indicator and Chart 5 plots GFCI rating against the Tax Justice Network's Financial Secrecy Index. These charts demonstrate the correlation of these factors with the GFCI 27 ratings (the size of the bubble indicates the relative GDP of each centre).

The clusters highlighted show leading centres in China, where their performance in the GFCI is higher than their ranking on the two indicators we use in this analysis

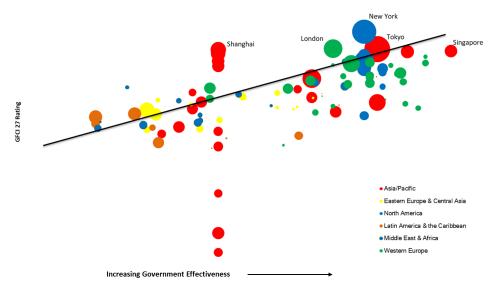


Chart 4 | GFCI 27 Rating Against Government Effectiveness (Supplied by The World Bank)

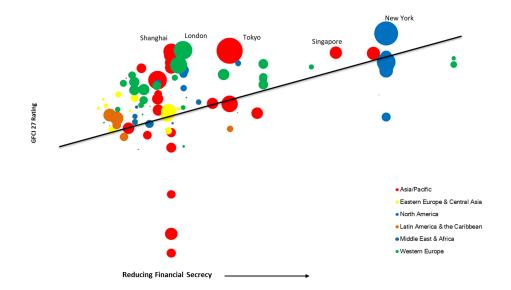
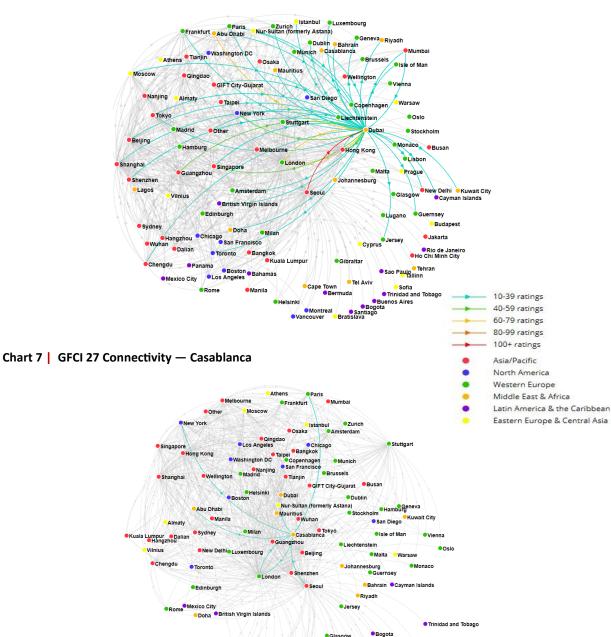


Chart 5 | GFCI 27 Rating Against the Financial Secrecy Index (Supplied by the Tax Justice Network)

# Connectivity

Financial centres thrive when they develop deep connections with other centres. The GFCI allows us to measure connectivity by investigating the number of assessments given to and received from other financial centres. Charts 6 and 7 show the different levels of connectivity enjoyed by Dubai and Casablanca to demonstrate the contrast, with Dubai having connections with a wider spread of centres than Casablanca. Both are well connected with London and New York; but Dubai is much better connected to centres in Western Europe.



Bahamas

Lago

Lugano

Montreal

Vanc

Gibraltar Cyprus Lisbor

Bratislava

Buenos Aires Tehrar Tallinn Sofia

Santiago

Jakarta

Rio de Janeiro

Ho Chi Minh City

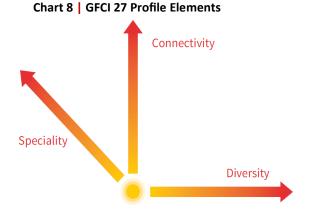
Sao Paulo

#### Chart 6 | GFCI 27 Connectivity — Dubai

# **Financial Centre Profiles**

Using clustering and correlation analysis we have identified three measures (axes) that determine a financial centre's profile along different dimensions of competitiveness.

**'Connectivity'** – the extent to which a centre is well connected around the world, based on the number of assessments given by and received by that centre from professionals based in other centres.



A centre's connectivity is assessed using a combination of 'inbound' assessment locations (the number of locations from which a particular centre receives assessments) and 'outbound' assessment locations (the number of other centres assessed by respondents from a particular centre). If the weighted assessments for a centre are provided by over 55% of other centres, this centre is deemed to be 'Global'. If the ratings are provided by over 35% of other centres, this centre is deemed to be 'International'.

'Diversity' – the instrumental factors used in the GFCI model give an indication of a range of factors that influence the richness and evenness of areas of competitiveness that characterise any particular financial centre. We consider this span of factors to be measurable in a similar way to that of the natural environment. We therefore use a combination of biodiversity indices (calculated on the instrumental factors) to assess a centre's diversity taking account of the range of factors against which the centre has been assessed – the 'richness' of the centre's business environment; and the 'evenness' of the distribution of that centre's scores. A high score means that a centre is well diversified; a low diversity score reflects a less rich business environment.

**'Speciality'** – the depth within a financial centre of the following industry sectors: investment management, banking, insurance, professional services, and the government and regulatory sector. A centre's 'speciality' performance is calculated from the difference between the GFCI rating and the industry sector ratings.

In Table 6 'Diversity' (Breadth) and 'Speciality' (Depth) are combined on one axis to create a two dimensional table of financial centre profiles. The 108 centres in GFCI 27 are assigned a profile on the basis of a set of rules for the three measures: how well connected a centre is, how broad its services are, and how specialised it is.

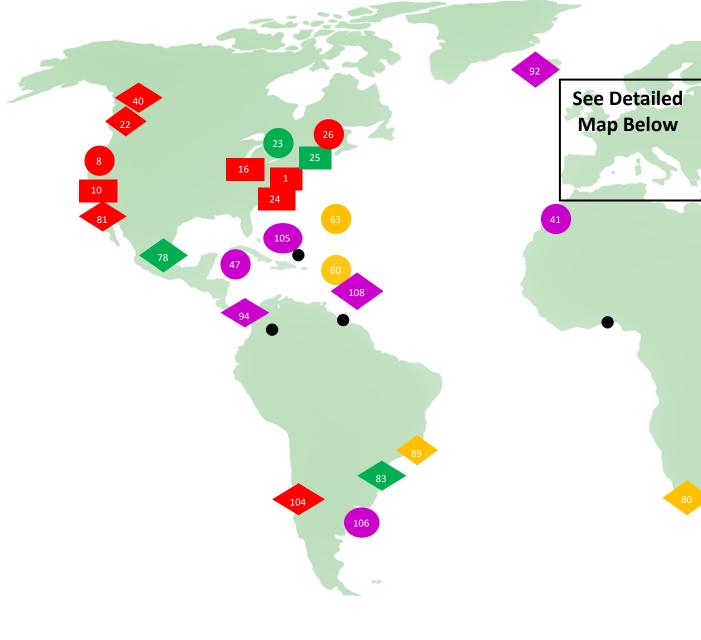
The 12 Global Leaders (in the top left of the table) have both broad and deep financial services activities and are connected with many other financial centres. This list includes eight of the top ten global financial centres in GFCI 27.

Significant changes in GFCI 27 include Abu Dhabi, Melbourne, Sydney, and Toronto exiting the Global Leaders, with Chicago and Los Angeles reinstated as Global Leaders; Moscow moving to become a Global Diversified centre; and Chengdu becoming a Global Specialist.

	Broad & Deep	Relatively Broad	Relatively Deep	Emerging
	Global Leaders	Global Diversified	Global Specialists	Global Contenders
	London	Amsterdam	Guangzhou	Dalian*
	New York	Moscow*	Chengdu*	Shenzhen*
	Shanghai	Frankfurt	Qingdao	Abu Dhabi*
	Hong Kong	Seoul		
	Dubai	Paris		
Clabal	Beijing	Dublin		
Global	Zurich	Boston		
	Tokyo			
	Singapore			
	Chicago*			
	Washington DC			
	Los Angeles*			
	Established	International	International	International
	International	Diversified	Specialists	Contenders
	San Francisco*	Milan*	Casablanca	Tianjin
	Munich*	Brussels*	Taipei	Hangzhou
	Wallen	Diassels	Тарсі	Hangzhoù
	Melbourne*	Madrid*	Busan*	Nur-Sultan*
	Edinburgh	Vienna	Cayman Islands	Luxembourg
International	Kuala Lumpur*	Istanbul	Buenos Aires	GIFT City-Gujarat*
	Montreal*	Toronto*	Vilnius (New)	New Delhi
	Hamburg	Sydney*	Tallinn*	Mumbai
	Athens*	Copenhagen	Bahamas	Guernsey
	Tel Aviv*	Rome	Nanjing*	British Virgin Islands
	Lisbon*	Bangkok	Doha	Jersey
	Stuttgart	Stockholm	Almaty	Bermuda*
		Geneva*		
	Established Players	Local Diversified	Local Specialists	Evolving Centres
	Established Players Vancouver*	Local Diversified Sao Paulo*	Local Specialists Jakarta*	Evolving Centres Malta
	Players Vancouver*			
	Players Vancouver* Prague*	Sao Paulo*	Jakarta* Riyadh*	Malta
	Players Vancouver*	Sao Paulo* Johannesburg*	Jakarta*	Malta Rio de Janeiro*
	Players Vancouver* Prague* Calgary	Sao Paulo* Johannesburg* Warsaw	Jakarta* Riyadh* Riga* Manila*	Malta Rio de Janeiro* Mauritius*
	Players Vancouver* Prague* Calgary Budapest*	Sao Paulo* Johannesburg* Warsaw	Jakarta* Riyadh* Riga*	Malta Rio de Janeiro* Mauritius* Cape Town*
	Players Vancouver* Prague* Calgary Budapest* Helsinki* Oslo*	Sao Paulo* Johannesburg* Warsaw	Jakarta* Riyadh* Riga* Manila* Reykjavik*	Malta Rio de Janeiro* Mauritius* Cape Town* Isle of Man
Local	Players Vancouver* Prague* Calgary Budapest* Helsinki*	Sao Paulo* Johannesburg* Warsaw	Jakarta* Riyadh* Riga* Manila* Reykjavik* Bahrain*	Malta Rio de Janeiro* Mauritius* Cape Town* Isle of Man
Local	Players Vancouver* Prague* Calgary Budapest* Helsinki* Oslo* Santiago*	Sao Paulo* Johannesburg* Warsaw	Jakarta* Riyadh* Riga* Manila* Reykjavik* Bahrain* Panama*	Malta Rio de Janeiro* Mauritius* Cape Town* Isle of Man
Local	Players Vancouver* Prague* Calgary Budapest* Helsinki* Oslo* Santiago* Osaka	Sao Paulo* Johannesburg* Warsaw	Jakarta* Riyadh* Riga* Manila* Reykjavik* Bahrain* Panama* Barbados (New)	Malta Rio de Janeiro* Mauritius* Cape Town* Isle of Man
Local	PlayersVancouver*Prague*CalgaryBudapest*Helsinki*Oslo*Santiago*OsakaWellington	Sao Paulo* Johannesburg* Warsaw	Jakarta* Riyadh* Riga* Manila* Reykjavik* Bahrain* Panama* Barbados (New) Kuwait City	Malta Rio de Janeiro* Mauritius* Cape Town* Isle of Man
Local	Players Vancouver* Prague* Calgary Budapest* Helsinki* Oslo* Santiago* Osaka Wellington San Diego (New)	Sao Paulo* Johannesburg* Warsaw	Jakarta* Riyadh* Riga* Manila* Reykjavik* Bahrain* Panama* Barbados (New) Kuwait City Cyprus*	Malta Rio de Janeiro* Mauritius* Cape Town* Isle of Man
Local	Players Vancouver* Prague* Calgary Budapest* Helsinki* Oslo* Santiago* Osaka Wellington San Diego (New)	Sao Paulo* Johannesburg* Warsaw	Jakarta* Riyadh* Riga* Manila* Reykjavik* Bahrain* Panama* Barbados (New) Kuwait City Cyprus* Nairobi*	Malta Rio de Janeiro* Mauritius* Cape Town* Isle of Man
Local	Players Vancouver* Prague* Calgary Budapest* Helsinki* Oslo* Santiago* Osaka Wellington San Diego (New)	Sao Paulo* Johannesburg* Warsaw	Jakarta* Riyadh* Riga* Manila* Reykjavik* Bahrain* Panama* Barbados (New) Kuwait City Cyprus* Nairobi* St Petersburg	Malta Rio de Janeiro* Mauritius* Cape Town* Isle of Man
Local	Players Vancouver* Prague* Calgary Budapest* Helsinki* Oslo* Santiago* Osaka Wellington San Diego (New)	Sao Paulo* Johannesburg* Warsaw	Jakarta* Riyadh* Riga* Manila* Reykjavik* Bahrain* Panama* Barbados (New) Kuwait City Cyprus* Nairobi* St Petersburg Monaco	Malta Rio de Janeiro* Mauritius* Cape Town* Isle of Man
Local	Players Vancouver* Prague* Calgary Budapest* Helsinki* Oslo* Santiago* Osaka Wellington San Diego (New)	Sao Paulo* Johannesburg* Warsaw	Jakarta* Riyadh* Riga* Manila* Reykjavik* Bahrain* Panama* Barbados (New) Kuwait City Cyprus* Nairobi* St Petersburg Monaco Sofia	Malta Rio de Janeiro* Mauritius* Cape Town* Isle of Man

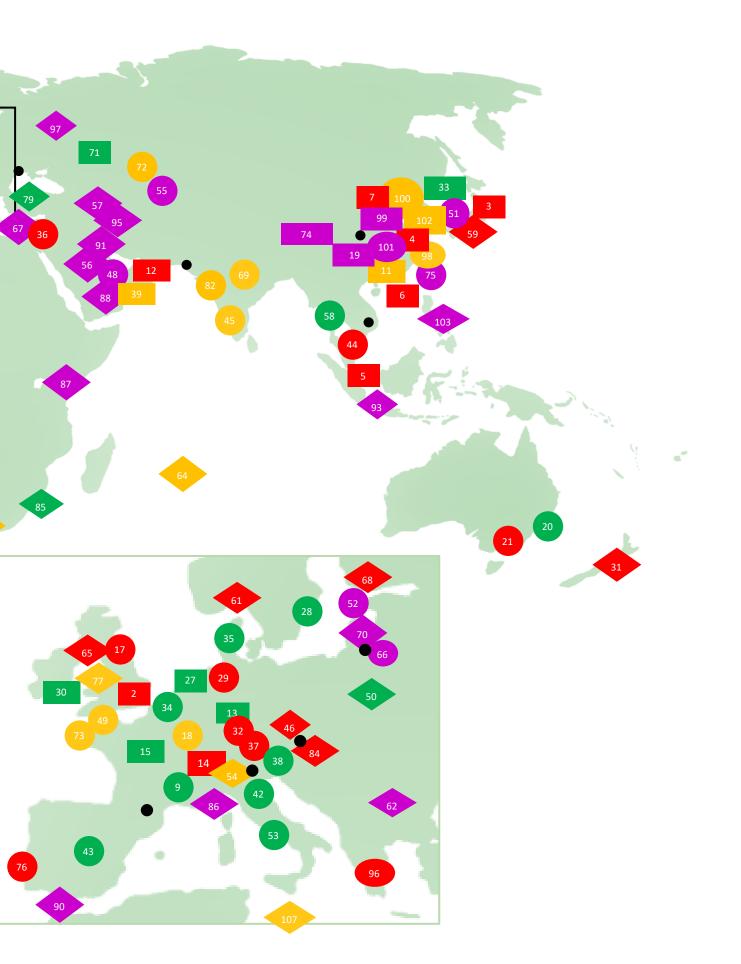
# Table 6 | GFCI 27 Financial Centre Profiles

# The GFCI 27 World



#### The numbers on the map indicate the GFCI 27 rankings. Black dots denote Associate Centres:





# **Regional Analysis**

In our analysis of the GFCI data, we look at six regions of the world to explore the competitiveness of their financial centres. Alongside the ranks and ratings of centres, we look at trends in the leading centres in each region and investigate the average assessments received by regions and centres in more detail.

We display this analysis in charts which show:

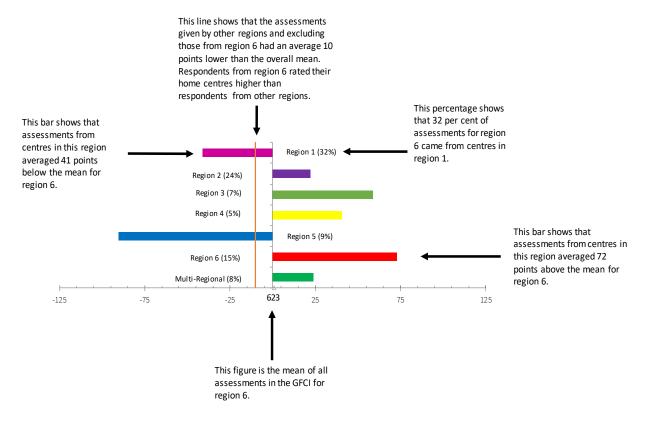
- the mean assessment provided to that region or centre;
- the difference in the mean assessment when home region assessments are removed from the analysis;
- the difference between the mean and the assessments provided by other regions;
- the proportion of assessments provided by each region.

Charts 9 and 10 show examples of these analyses. Coloured bars to the left of the vertical axis indicate that respondents from that region gave lower than the average assessments. Bars to the right indicate respondents from that region gave higher than average assessments. It is important to recognise that assessments given to a centre by people based in that centre are excluded to remove 'home' bias.

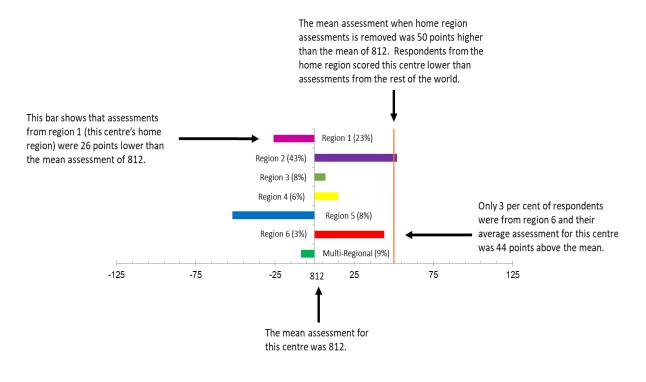
The additional vertical axis (in red) shows the mean of assessments when assessments from the home region are removed. The percentage figure noted by each region indicates the percentage of the total number of assessments that are from that region.

"With the current push of EU, OECD, FATF, etc. toward greater regulation, those jurisdictions that have weak regulation will find it becoming increasingly difficult to do business internationally. Unfortunately the cost and burden of regulation is starting to outweigh the benefits. Highly regulated jurisdictions are finding that regulation is impacting the cost of doing business - potentially decreasing international competitiveness."

#### Chart 9 | Example 1: Assessments Compared With The Mean For Region 6



#### Chart 10 Example 2: Assessments Compared With The Mean For An Individual Centre



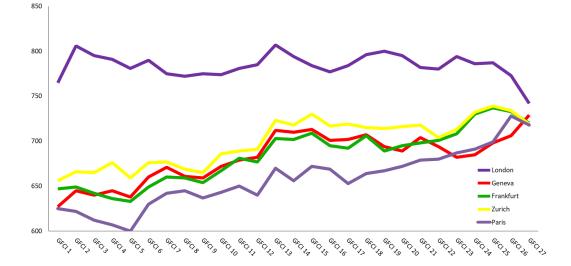
# Western Europe

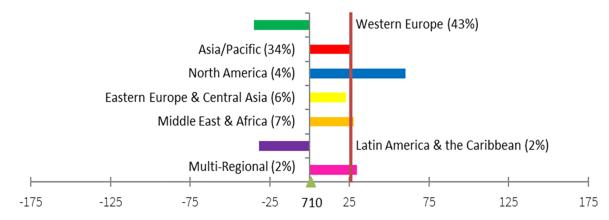
This region showed a strong performance in GFCI 27. All top 20 Western European centres rose in the rankings or retained their position. On ratings the performance was more mixed with four of the five leading centres showing falls in ratings, while the remaining top 14 all rose. London held onto second place in the index, but fell a further 31 points in the ratings. Zurich, Frankfurt, and Paris also received lower ratings. Brussels, Copenhagen, and Hamburg all improved their ranking by 20 places or more.

Contro	GF	GFCI 27		GFCI 26		Change in
Centre	Rank	Rating	Rank	Rating	Rank	Rating
London	2	742	2	773	0	▼31
Geneva	9	729	26	706	<b>▲</b> 17	▲ 23
Frankfurt	13	720	15	733	▲2	▼13
Zurich	14	719	14	734	0	▼15
Paris	15	718	17	728	▲2	▼10
Edinburgh	17	716	29	701	▲12	▲ 15
Luxembourg	18	715	25	708	▲7	▲7
Amsterdam	27	703	37	675	▲ 10	▲ 28
Stockholm	28	702	46	659	<b>▲</b> 18	▲ 43
Hamburg	29	699	49	650	▲ 20	▲ 49
Dublin	30	698	38	674	▲8	▲ 24
Stuttgart	32	696	42	663	▲10	▲ 33
Brussels	34	691	56	638	▲ 22	▲ 53
Copenhagen	35	689	67	623	▲ 32	▲ 66
Munich	37	687	52	645	▲ 15	▲ 42
Vienna	38	685	54	640	▲16	▲ 45
Milan	42	679	48	655	▲6	▲ 24
Madrid	43	678	44	661	<b>▲</b> 1	▲ 17
Jersey	49	666	59	635	▲ 10	▲ 31
Rome	53	662	69	614	▲ 16	▲ 48

### Table 7 | Western European Top 20 Centres In GFCI 27

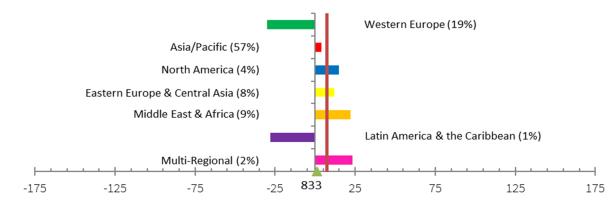
Chart 11 | Top Five Western European Centres Over Time



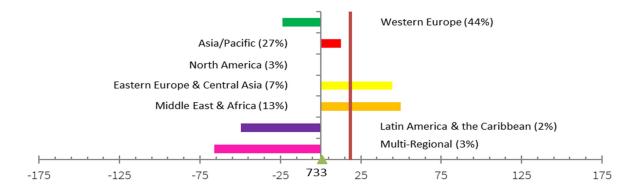


#### Chart 12 | Average Assessments By Region For Western Europe – Difference From The Overall Mean

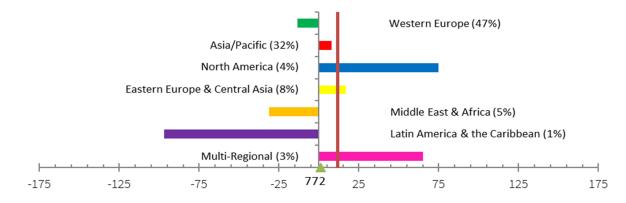












# Asia/Pacific

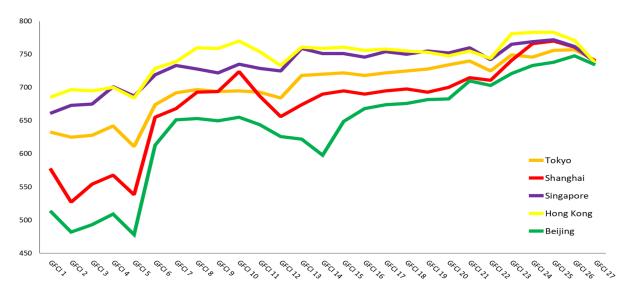
Asia/Pacific centres showed a mixed performance. Tokyo and Shanghai improved their position while Singapore and Hong Kong fell in the rankings. Eight of the top ten centres in the region fell in the ratings.

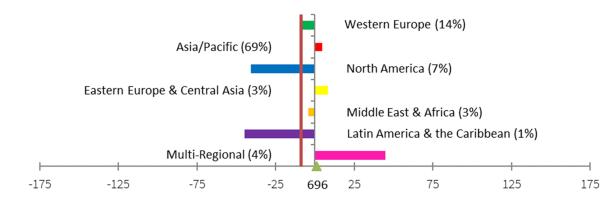
The longer term trend over a number of years of Asia/Pacific centres improving mostly continues. The top seven centres in the region are firmly embedded in the top 10 centres in the overall index. New Delhi and Mumbai improved their ratings and rankings significantly in this edition.

Combus	GFCI 27		GFC	GFCI 26		Change in
Centre	Rank	Rating	Rank	Rating	Rank	Rating
Tokyo	3	741	6	757	▲3	▼16
Shanghai	4	740	5	761	▲1	▼21
Singapore	5	738	4	762	▼1	▼24
Hong Kong	6	737	3	771	▼3	▼34
Beijing	7	734	7	748	0	▼14
Shenzhen	11	722	9	739	▼2	▼17
Guangzhou	19	714	23	711	▲ 4	▲3
Sydney	20	713	10	738	▼10	▼25
Melbourne	21	712	19	720	▼2	▼8
Wellington	31	697	31	693	0	▲ 4
Seoul	33	694	36	677	▲3	<b>▲</b> 17
Kuala Lumpur	44	677	45	660	▲1	<b>▲</b> 17
Mumbai	45	672	72	609	▲27	<b>▲</b> 63
Busan	51	664	43	662	▼8	▲2
Bangkok	58	657	50	649	▼8	▲8
Osaka	59	656	27	705	▼32	▼49
New Delhi	69	646	90	588	▲21	▲ 58
Chengdu	74	641	73	608	▼1	▲ 33
Taipei	75	640	34	687	▼41	▼47
GIFT City-Gujarat	82	633	66	624	▼16	▲9

### Table 8 Asia/Pacific Top 20 Centres In GFCI 27

Chart 16 | Top Five Asia/Pacific Centres Over Time





### Chart 17 | Average Assessments By Region For Asia/Pacific – Difference From The Overall Mean



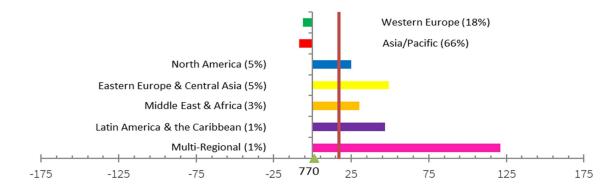


Chart 19 Assessments By Region For Shanghai — Difference From The Overall Mean

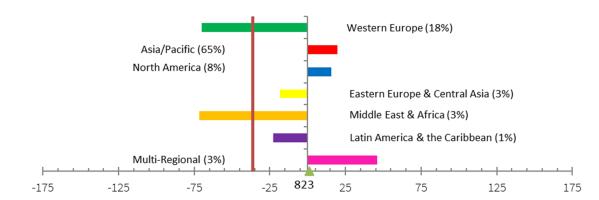
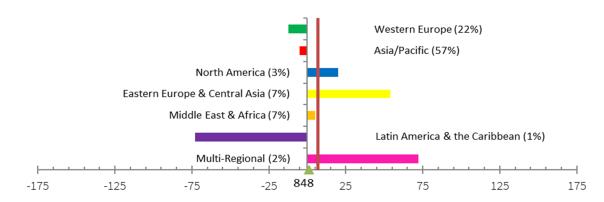


Chart 20 Assessments By Region For Singapore – Difference From The Overall Mean



# North America

North American centres had a mixed performance again in GFCI 27. New York retaining its leading place in the index, but dropped 21 points in the ratings. In the global top 10, Los Angeles and San Francisco increased their ranking over GCFI 26.

By contrast, Boston, Toronto and Montreal lost ground from GFCI 26. The biggest gainer in North America was Calgary, increasing its place in the rankings by 17 positions and its rating by 44 points. San Diego joined the index for the first time.

Contro	G	GFCI 27		GFCI 26		Change in
Centre	Rank	Rating	Rank	Rating	Rank	Rating
New York	1	769	1	790	0	▼21
San Francisco	8	732	12	736	▲ 4	▼4
Los Angeles	10	723	13	735	▲3	▼12
Chicago	16	717	16	732	0	▼15
Vancouver	22	711	24	710	▲2	▲1
Toronto	23	710	11	737	▼12	▼27
Washington DC	24	709	28	702	▲ 4	▲7
Boston	25	708	18	727	▼7	▼19
Montreal	26	704	20	716	▼6	▼12
Calgary	40	681	57	637	▲17	▲ 44
San Diego	81	634	New	New	New	New

Table 9 | North American Centres In GFCI 27

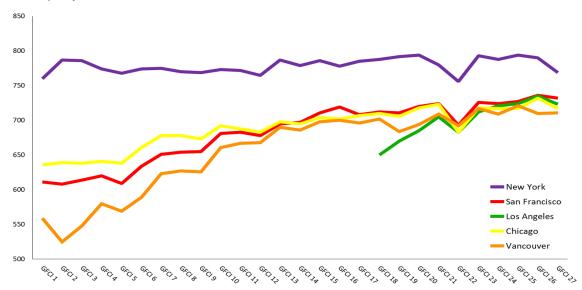
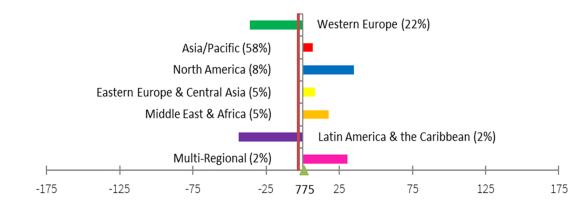


Chart 21 | Top Five North American Centres Over Time



#### Chart 22 | Average Assessments By Region For North America – Difference From The Overall Mean



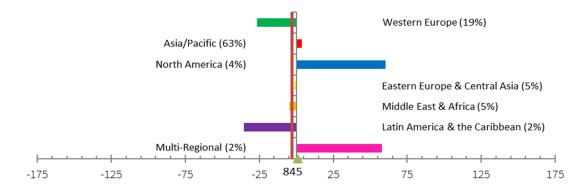
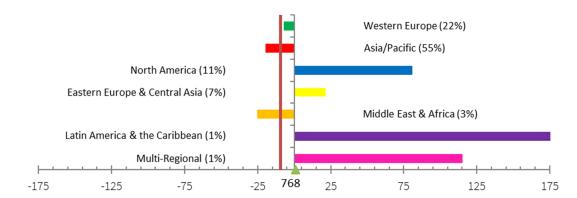
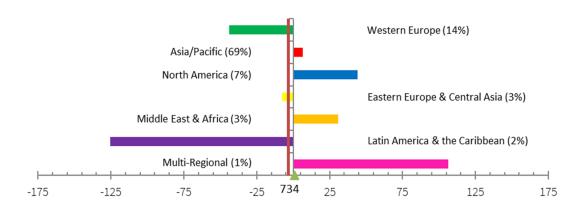


Chart 24 Assessments By Region for San Francisco – Difference From The Overall Mean





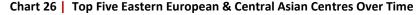


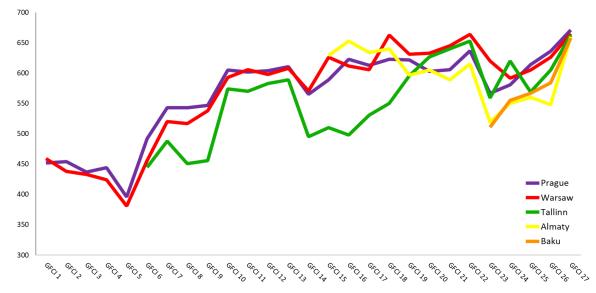
# Eastern Europe & Central Asia

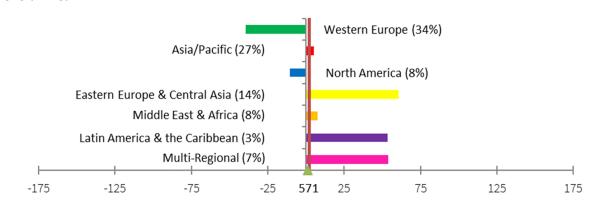
This region performed well, with 12 of the 15 centres improving their rating (Vilnius is a new entrant). Eight centres improved their ranking by over 10 places. Prague now tops the rankings for the Eastern Europe & Central Asia region, with strong performances from Warsaw, Tallinn, Baku, and Sofia. Almaty has improved 43 places in the rankings, with a corresponding increase of 112 points in rating. This may reflect the recent action to undertake Asset Quality Reviews and the establishment of the new financial regulator in the city. Nur-Sultan and Istanbul fell back from their rankings in GFCI 26.

Centre	GFCI 27		GFCI 26		Change in	Change in
	Rank	Rating	Rank	Rating	Rank	Rating
Prague	46	671	58	636	▲ 12	▲ 35
Warsaw	50	665	64	626	▲ 14	▲ 39
Tallinn	52	663	76	605	▲ 24	▲ 58
Almaty	55	660	98	548	▲ 43	▲ 112
Baku	57	658	94	584	▲ 37	▲74
Sofia	62	653	84	594	▲ 22	▲ 59
Vilnius	66	649	New	New	New	New
Cyprus	67	648	83	595	▲ 16	▲ 53
Riga	70	645	85	593	▲ 15	▲ 52
Moscow	71	644	71	610	0	▲ 34
Nur-Sultan	72	643	51	648	▼21	▼5
Istanbul	79	636	53	641	▼26	▼5
Budapest	84	628	78	603	▼6	▲ 25
Athens	96	614	100	539	▲ 4	▲ 75
St Petersburg	97	613	79	602	▼18	▲11

#### Table 10 | Eastern European & Central Asian Centres In GFCI 27











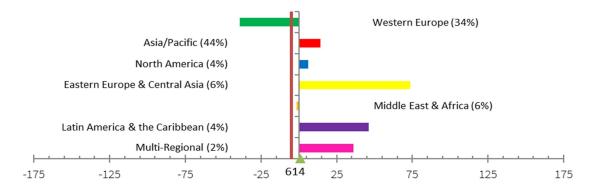
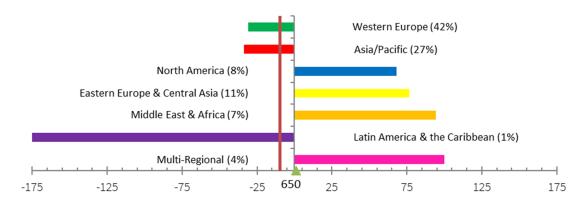
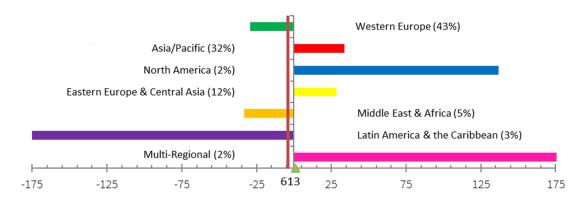


Chart 29 Assessments By Region For Warsaw — Difference From The Overall Mean







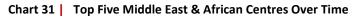
# The Middle East & Africa

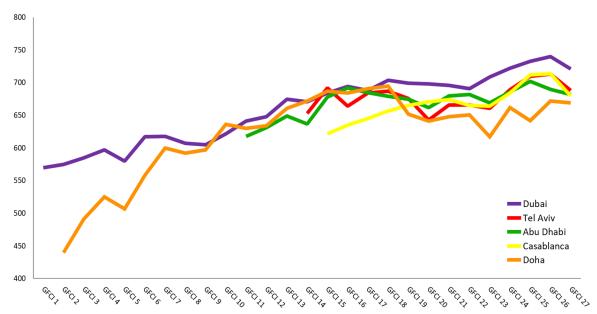
In this region, the majority of centres fell in terms of both ranking and rating. Tehran was a new entrant to the index. The biggest fallers in terms of ranking were Cape Town, Casablanca, Kuwait City and Mauritius. Johannesburg fell four places in ranking, but improved its rating by 27 points.

The stand out gainers in terms of ratings were Nairobi and Riyadh increasing their rating by 35 and 60 points respectively.

Centre	GFCI 27		GFCI 26		Change in	Change in
	Rank	Rating	Rank	Rating	Rank	Rating
Dubai	12	721	8	740	▼4	▼19
Tel Aviv	36	688	22	713	▼14	▼25
Abu Dhabi	39	682	32	690	▼7	▼8
Casablanca	41	680	21	714	▼20	▼34
Doha	48	669	39	672	▼9	▼3
Bahrain	56	659	47	658	▼9	<b>▲</b> 1
Mauritius	64	651	40	671	▼24	▼20
Cape Town	80	635	63	629	▼17	▲ 6
Johannesburg	85	627	81	600	▼4	▲ 27
Nairobi	87	625	88	590	<b>1</b>	▲ 35
Riyadh	88	624	96	564	▲ 8	▲ 60
Kuwait City	91	620	65	625	₹26	▼5
Tehran	95	615	New	New	New	New

### Table 11 | Middle East & African Centres In GFCI 27





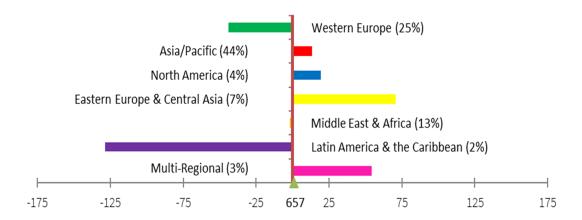
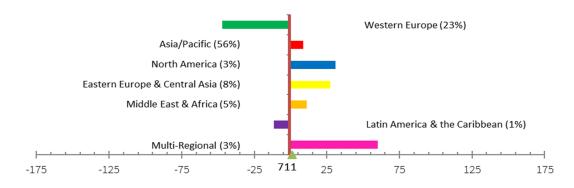


Chart 32 | Average Assessments By Region For The Middle East & Africa — Difference From The Overall Mean







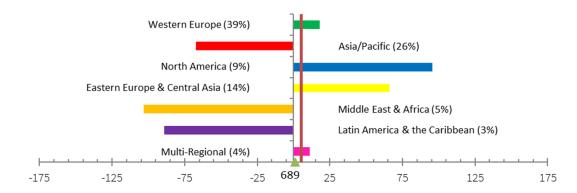
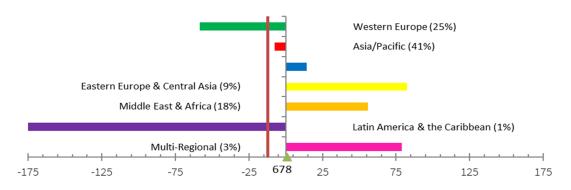


Chart 35 | Assessments By Region For Abu Dhabi — Difference From The Overall Mean

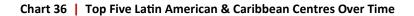


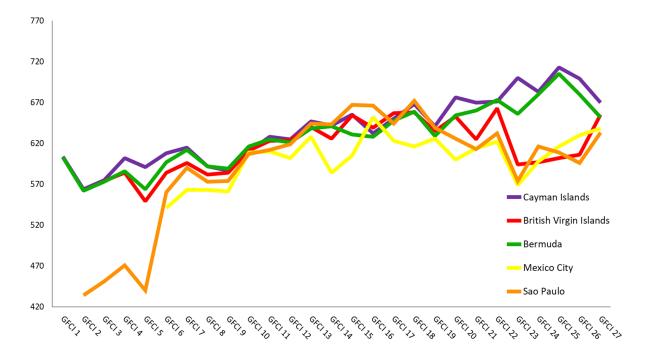
# Latin America & The Caribbean

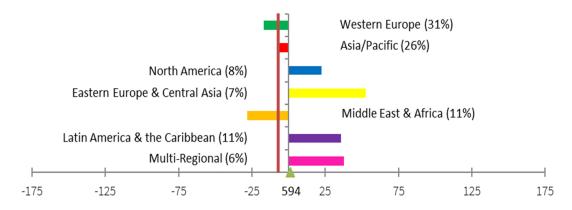
Centres in Latin America & The Caribbean performed worse again in GFCI 27, with nine of the eleven centres in the region dropping in the rankings since GFCI 26 (although six centres improved their rating). Bahamas and Bermuda fell 31 and 28 places in ranking respectively. The British Virgin Islands was the only centre to gain places in ranking. Barbados is a new centre in the index.

Centre	GFCI 27		GFCI 26		Change in	Change in
	Rank	Rating	Rank	Rating	Rank	Rating
Cayman Islands	47	670	30	699	▼17	▼29
British Virgin Islands	60	655	75	606	▲ 15	▲ 49
Bermuda	63	652	35	680	▼28	▼28
Mexico City	78	637	62	630	▼16	▲7
Sao Paulo	83	632	82	596	▼1	▲36
Rio de Janeiro	89	622	87	591	₹2	▲31
Panama	94	616	86	592	▼8	▲24
Santiago	104	603	99	540	▼5	▲ 63
Bahamas	105	599	74	607	▼31	▼8
Buenos Aires	106	592	80	601	▼26	▼9
Barbados	108	583	New	New	New	New

### Table 12 | Latin American & Caribbean Centres In GFCI 27

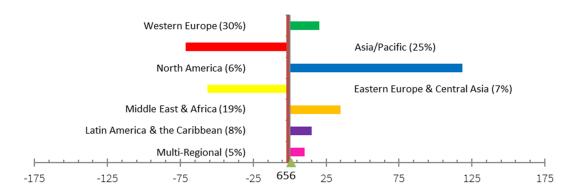


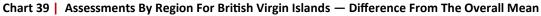


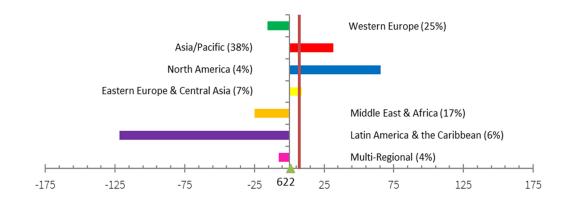


# Chart 37 | Average Assessments By Region For Latin America & The Caribbean – Difference From The Overall Mean

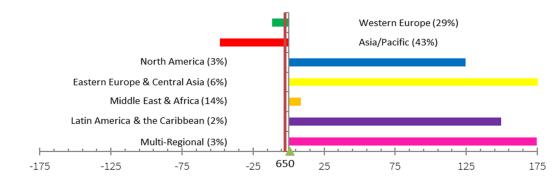
Chart 38 | Assessments By Region For The Cayman Islands — Difference From The Overall Mean







#### Chart 40 | Assessments By Region For Bermuda — Difference From The Overall Mean



# **Home Centre Prospects**

While the GFCI is calculated using only assessments from other centres, we ask respondents about the prospects of the centre in which they are based; and specifically whether their 'home' centre will become more or less competitive.

In general, people are more optimistic about the future of their own centre than people outside that centre. However, respondents in London continue to be less optimistic than those in other centres, reflecting the continuing uncertainty about future trading relations with the E.U. and the rest of the world. In both New York and Tokyo, the largest group of respondents considered that their city's performance would remain about the same.

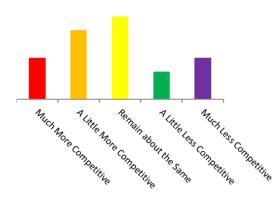


Chart 41 | Home Centre Prospects — New York

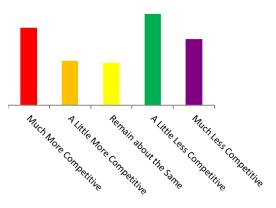
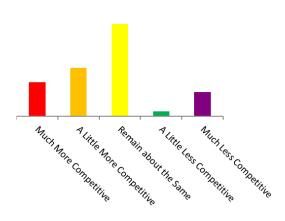
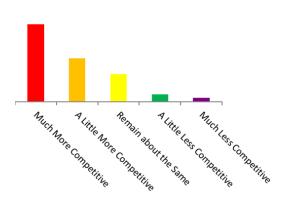


Chart 42 | Home Centre Prospects – London

Chart 43 | Home Centre Prospects — Tokyo





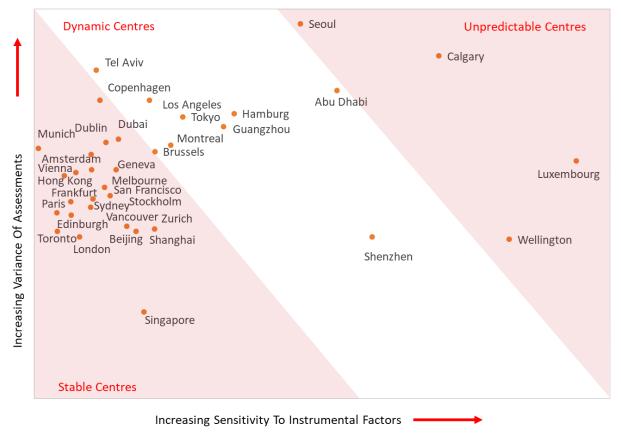


# Stability

The GFCI model allows for an analysis of the volatility in financial centre competitiveness. Chart 45 contrasts the 'spread' or variance of the individual assessments given to each of the top 40 centres with the sensitivity to changes in the instrumental factors.

The chart shows three bands of financial centres. The unpredictable centres in the top right of the chart have a higher sensitivity to changes in the instrumental factors and a higher variance of assessments. These centres have the highest potential future movement. The stable centres in the bottom left have a lower sensitivity to changes in the instrumental factors and a lower variance of assessments.

We have only plotted the top 40 centres (for clarity) but it is worth noting that most of the centres lower in the index would be in the dynamic and unpredictable areas of the chart if plotted. The top ten centres in the index are all in the stable area, with Brussels and Copenhagen shown in the dynamic area for the first time.



## Chart 45 | Stability Of The Top 40 Centres In GFCI 27

We can also look at the stability of rankings in the index over time. Chart 46 shows the standard deviation of index rankings against the variance in assessments over the last 24 months. Some of the centres in the stable area in the most recent analysis in the first chart move into a more dynamic area when their rankings and assessments are considered over time, for example, Los Angeles and Beijing. For these centres, gaining more consistency in ratings over time would be of benefit.



Chart 46 | Standard Deviation In Index Rankings And Assessments Over Time

Increasing Standard Deviation Of Assessments -

"The competitive and open market in London has negatively given FinTech firms a false sense of security in regulatory approach, as FCA has not applied or challenged its financial services sector sufficiently enough to stem and stop the use of Financial Services for AML, CTF, and Sanctions exposed transactions."

## Reputation

We look at reputation in the GFCI model by examining the difference between the weighted average assessment given to a financial centre and the overall rating in the index.

The first measure reflects the average score a centre receives from financial professionals across the world, adjusted for time, with more recent assessments given more weight (see Appendix 3 for details).

The second measure is the GFCI rating itself, which represents the assessments adjusted to take account of the instrumental factors. If a centre has a higher average assessment than its GFCI rating, this indicates that respondents' perceptions of a centre are more favourable than the quantitative measures alone suggest.

Table 13 shows the top 15 centres with the greatest positive difference between the average assessment and the GFCI rating. Nine of the top 15 centres in terms of reputational advantage are in the Asia/Pacific region. Stuttgart, London, New York, Vilnius, Zurich, and Washington also show a strong reputational advantage. This may be due to strong marketing or awareness of a centre's emerging strengths.

The majority of leading centres in this list have seen a continued increase in their reputational advantage since GFCI 26. These centres will need to put in sustained effort to maintain their reputational advantage over increasing numbers of challengers.

Centre	Weighted Average Assessment	GFCI 27 Rating	GFCI 27 Reputational Advantage
Stuttgart	900	696	204
Qingdao	780	610	170
Wellington	809	697	112
Singapore	843	738	105
Guangzhou	818	714	104
London	832	742	90
Shanghai	815	740	75
New York	843	769	74
Vilnius	723	649	74
Sydney	785	713	72
Beijing	800	734	66
Zurich	785	719	66
Shenzhen	776	722	54
Washington DC	760	709	51
Frankfurt	769	720	49

Table 13	GFCI 27 Top 15 Centres Assessments And Ratings — Reputational Advantage
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Table 14 shows the 15 centres with the greatest reputational disadvantage. This indicates that respondents' perceptions of a centre are less favourable than the quantitative measures alone would suggest. The centres featured might benefit from a stronger marketing effort as well as tackling some core issues attaching to the centre.

Centre	Weighted Average Assessment	GFCI 27 Rating	GFCI 27 Reputational Advantage
Almaty	599	660	-61
Kuala Lumpur	614	677	-63
Tehran	550	615	-65
Istanbul	570	636	-66
Riga	577	645	-68
Baku	583	658	-75
Hamburg	620	699	-79
Casablanca	598	680	-82
Hangzhou	520	612	-92
Nairobi	532	625	-93
Sofia	556	653	-97
Cyprus	550	648	-98
Nanjing	430	608	-178
Tianjin	399	609	-210
Dalian	373	607	-234

Table 14	GFCI 27 Bottom 15 Centres Assessments And Ratings — Reputational Disadvantage
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"The regulatory environment is becoming more and more standardized. Decreasing corruption. The rule of law is becoming more and more sound."

PRESIDENT, BANKING, GUANGZHOU

## **Industry Sectors**

We investigate the differing assessments for relevant industry sectors by building the index separately using only the responses provided by people working in those industries. This creates separate sub-indices for Banking, Investment Management, Insurance, Professional Services, and Government & Regulatory sectors. Table 15 shows the top 15 financial centres in these five industry sectors.

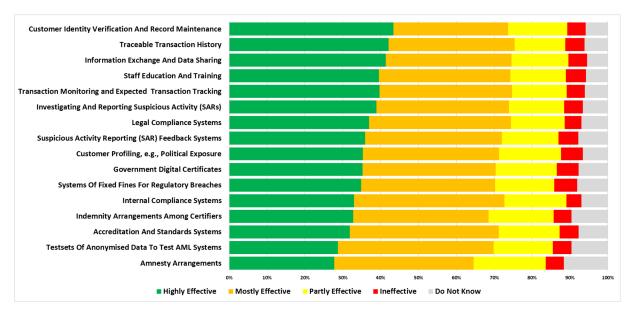
New York has consolidated its leading position, now coming first for Investment Management. Shanghai has leapt into second place for both the Banking and Investment Management sub-indices.

Rank	Banking	Investment Management	Insurance	Professional Services	Government & Regulatory
1	New York	New York	Luxembourg	New York	New York
2	Shanghai	Shanghai	New York	London	London
3	London	Singapore	London	Hong Kong	Luxembourg
4	Hong Kong	London	Singapore	Dubai	Hong Kong
5	Tokyo	Hong Kong	Zurich	Singapore	Singapore
6	Singapore	Beijing	Geneva	Shanghai	Shanghai
7	Beijing	Frankfurt	Frankfurt	Toronto	Tokyo
8	San Francisco	Toronto	Hong Kong	Geneva	Zurich
9	Geneva	San Francisco	Abu Dhabi	Frankfurt	Frankfurt
10	Shenzhen	Boston	Shanghai	Beijing	Los Angeles
11	Sydney	Dubai	Los Angeles	Zurich	Tel Aviv
12	Melbourne	Tokyo	Toronto	Tokyo	Beijing
13	Frankfurt	Luxembourg	Chicago	Tel Aviv	San Francisco
14	Paris	Shenzhen	Beijing	Sydney	Vilnius
15	Guangzhou	Zurich	Dubai	San Francisco	Geneva

#### Table 15 GFCI 27 Industry Sector Sub-Indices — Top Fifteen

## Anti Money Laundering

In recent months, we have included in the GFCI questionnaire a section on Anti-Money Laundering (AML), a key element of the fight against corruption in our financial institutions and systems. We asked first what approaches to combating money laundering were more effective than others. The approaches considered most effective were Customer Identify Verification And Record Maintenance, Traceable Transaction History, and Information Exchange And Data Sharing. The results are shown in Chart 47.



#### Chart 47 | Effectiveness Of Anti-Money Laundering Approaches

We also asked respondents to comment on key issues in AML. The main issues raised were:

- The need for increased co-operation and information systems connectivity between international agencies in recognition that AML activity needs to cover multiple jurisdictions. This might include benchmarking activity between regulators and other major players.
- Regulatory approaches need to keep up with technology and developments, with Hong Kong's Security and Futures Commission (SFC) cited as a good example of a regulator that is keeping up-to-date and has focused on investor protection and AML.
- The need for better staff training and achieving the right balance between automated systems for identifying suspect transactions and human analysis.
- There is a role for technology solutions and big data in AML approaches. These should include systems to allow knowledge sharing and will require additional investment.
- A call for more proactive work in AML rather than financial institutions simply reacting to suspect transaction reports.

## FinTech

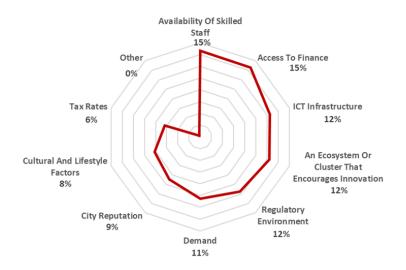
In the GFCI survey, we have introduced questions looking directly at FinTech. As a result, we are able to produce a ranking of financial centres as competitive locations for fostering a FinTech industry. Table 16 shows the top 15 centres on this analysis together with the change in their rank and ratings since GFCI 26. Chinese and U.S. centres feature strongly, reflecting their focus on technology development.

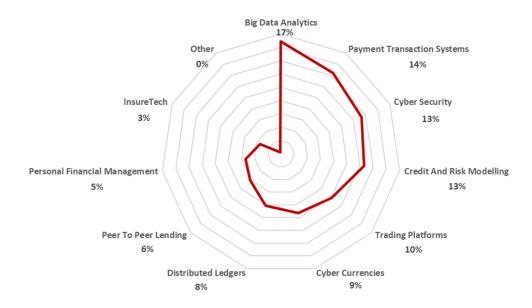
	GFCI 27 GFCI 26					
Centre	FinTech Rank	FinTech Rating	FinTech Rank	FinTech Rating	Change In Rank	Change In Rating
New York	1	735	3	759	▲2	₹24
Beijing	2	729	1	776	▼1	▼47
Shanghai	3	722	2	762	▼1	▼40
London	4	719	6	741	▲ 2	▼22
Singapore	5	714	8	738	▲3	₹24
Shenzhen	6	709	5	752	▼1	▼43
Hong Kong	7	705	7	740	0	▼35
Guangzhou	8	702	4	753	▼4	▼51
San Francisco	9	701	9	730	0	▼29
Tokyo	10	698	12	726	▲2	▼28
Washington DC	11	697	14	723	▲3	▼26
Stuttgart	12	696	15	716	▲3	▼20
Vilnius	13	695	New	New	New	New
Los Angeles	14	692	13	725	▼1	▼33
Chicago	15	691	10	729	▼5	▼38

### Table 16 | The Leading FinTech Centres

We asked survey respondents to identify the four most important elements to generate a competitive environment for FinTech providers and the most important areas of current FinTech activity currently. Charts 48 and 49 show the results, with the availability of skilled people and access to finance seen as the leading factors, with big data analytics and cybersecurity the most important applications.

### Chart 48 | Most Important Elements In Generating A Competitive Environment For FinTech Providers





### Chart 49 | Most Important Areas Of FinTech Activity

## Size Of Organisation

We have analysed how the leading centres in the index are viewed by respondents working for organisations of difference sizes. New York and Singapore are leaders, or amongst the leaders, in all sizes of organisation. London leads only in the 1,000–2,000 and 2,000–5,000 employee organisations. Shanghai features most prominently in the 200–500 and 500–1,000 employee organisations.

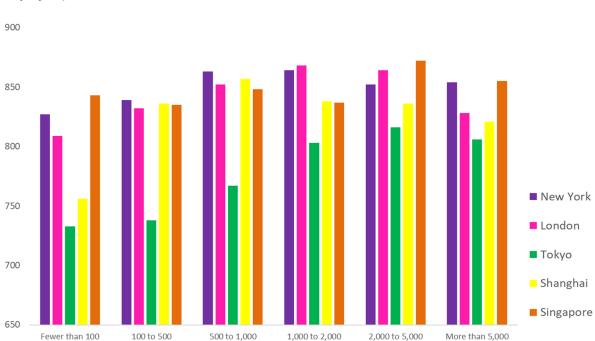


Chart 50 | GFCI 27 Average Assessments By Respondents' Organisation Size (Number Of Employees)

# **Appendix 1: Assessment Details**

### Table 17 GFCI 27 Details Of Assessments By Centre

	GFCI 27 Assessments				GF	CI 27	Assessments				
Centre	Rank	Rating	Number	Average	St. Dev	Centre	Rank	Rating	Number	Average	St. Dev
New York	1	769	1,962	845	179	Almaty	55	660	131	600	250
London	2	742	1,282	833	168	Bahrain	56	659	166	651	215
Tokyo	3	741	759	770	209	Baku	57	658	107	583	220
Shanghai	4	740	1,412	823	171	Bangkok	58	657	266	630	186
Singapore	5	738	885	848	136	Osaka	59	656	350	651	234
Hong Kong	6	737	1,586	786	190	British Virgin	60	655	193	622	247
Beijing	7	734	1,484	799	172	Islands	00				
San Francisco	8	732	407	768	186	Oslo	61	654	123	600	203
Geneva	9	729	298	733	192	Sofia	62	653	82	550	219
Los Angeles	10	723	546	734	214	Bermuda	63	652	123	650	214
Shenzhen	11	722	876	776	168	Mauritius	64	651	109	626	247
Dubai	12	721	802	711	202	Glasgow	65	650	98	572	239
Frankfurt	13	720	686	772	182	Vilnius	66	649	123	719	239
Zurich	14	719	537	787	170	Cyprus	67	648	130	542	233
Paris	15	718	662	729	179	Helsinki	68	647	127	620	190
Chicago	16	717	489	757	184	New Delhi	69	646	135	602	173
Edinburgh	17	716	243	681	181	Riga	70	645	92	572	231
Luxembourg	18	715	312	724	195	Moscow	71	644	419	614	203
Guangzhou	19	714	1,309	805	206	Nur-Sultan	72	643	191	676	254
Sydney	20	713	411	794	177	Guernsey	73	642	139	611	227
Melbourne	21	712	223	758	192	Chengdu	74 75	641	1,497	619	272 191
Vancouver	22	711	164	718	176	Taipei Lisbon	75	640 639	371 137	645 622	201
Toronto	23	710	332	755	170		76				
Washington DC	24	709	332	758	189	Isle of Man Mexico City	78	638 637	147 251	608 593	212 216
Boston	25	708	488	711	223	Istanbul	78	636	274	577	205
Montreal	26	703	183	699	200						
Amsterdam	20	704	476	703	197	Cape Town	80	635	115	615	193
Stockholm	28	703	165	687	183	San Diego	81	634	163	649	215
	29	699	214	614	210	GIFT City-	82	633	68	607	251
Hamburg Dublin	30	698	342	674	210	Gujarat					
		698				Sao Paulo	83	632	179	593	212
Wellington	31 32	696	69	809 887	167	Budapest	84	628	160	594	218
Stuttgart			275		165	Johannesburg	85	627	95	599	200
Seoul	33	694	304	633	236	Monaco	86	626	137	598	234
Brussels	34	691	292	657	198	Nairobi	87	625	58	516	230
Copenhagen	35	689	173	664	214	Riyadh	88	624	125	566	224
Tel Aviv	36	688	145	689	223	Rio de Janeiro	89	622	106	589	231
Munich	37	687	283	668	199	Gibraltar	90	621	98	576	247
Vienna	38	685	212	671	191	Kuwait City	91	620	89	628	235
Abu Dhabi	39	682	473	678	217	Reykjavik	92	618	73	581	266
Calgary	40	681	110	619	227	Jakarta	93	617	78	582	214
Casablanca	41	680	144	609	252	Panama	94	616	183	589	230
Milan	42	679	250	656	186	Tehran	95	615	71	556	264
Madrid	43	678	235	643	196	Athens	96	614	126	587	238
Kuala Lumpur	44	677	253	628	203	St Petersburg	97	613	109	634	191
Mumbai	45	672	171	611	190	Hangzhou	98	612	740	523	253
Prague	46	671	129	614	200	Qingdao	99	610	851	788	192
Cayman Islands	47	670	186	656	240	Tianjin	100	609	554	402	204
Doha	48	669	249	650	224	Nanjing	101	608	393	429	213
Jersey	49	666	173	646	213	Dalian	102	607	765	365	192
Warsaw	50	665	136	650	213	Manila	103	606	123	582	214
Busan	51	664	436	584	255	Santiago	104	603	134	579	224
Tallinn	52	663	99	613	246	Bahamas	105	599	172	565	228
Rome	53	662	288	626	192	Buenos Aires	106	592	114	582	236
Liechtenstein	54	661	128	664	220	Malta	107	588	153	564	241
LICONCHISTEN	J+	001	120	00+	220	Barbados	108	583	89	575	271

# Appendix 2: Respondents' Details

### Table 18 | GFCI 27 Respondents By Industry Sector

Industry Sector	Number of Respondents	% of Respondents
Banking	1,599	32%
Finance	392	8%
FinTech	228	5%
Government & Regulatory	241	5%
Insurance	213	4%
Investment Management	541	11%
Professional Services	604	12%
Trade Association	220	4%
Trading	271	5%
Not Specified	755	15%
Total	5,064	100%

### Table 19 | GFCI 27 Respondents By Region

Region	Number of Respondents	% of Respondents
Western Europe	996	20%
Asia/Pacific	3,123	62%
North America	261	5%
Middle East End Africa	218	4%
Eastern Europe And Central Asia	263	5%
Latin America And the Caribbean	72	1%
Multi-Regional	131	3%
Total	5,064	100%

### Table 20 | GFCI 27 Respondents By Size Of Organisation

Size of Organisation	Number of Respondents	% of Respondents
Fewer than 100	1,388	27%
100 to 500	908	18%
500 to 1,000	549	11%
1,000 to 2,000	623	12%
2,000 to 5,000	463	9%
More than 5,000	1,119	22%
Not Specified	14	0%
Total	5,064	100%

## Appendix 3: Methodology

The GFCI provides ratings for financial centres calculated by a 'factor assessment model' that uses two distinct sets of input:

**Instrumental factors:** objective evidence of competitiveness was sought from a wide variety of comparable sources. For example, evidence about the telecommunications infrastructure competitiveness of a financial centre is drawn from the ICT Development Index (supplied by the United Nations), the Networked Readiness Index (supplied by the World Economic Forum), the Telecommunication Infrastructure Index (by the United Nations) and the Web Index (supplied by the World Wide Web Foundation). Evidence about a business-friendly regulatory environment is drawn from the Ease of Doing Business Index (supplied by the World Bank), the Government Effectiveness rating (supplied by the World Bank) and the Corruption Perceptions Index (supplied by Transparency International) amongst others.

A total of 138 instrumental factors are used in GFCI 27 of which 59 were updated since GFCI 26 and four are new to the GFCI. Not all financial centres are represented in all the external sources, and the statistical model takes account of these gaps.

**Financial centre assessments:** by means of an online questionnaire, running continuously since 2007. We received 5,166 responses to the questionnaire in the 24 months to December 2019. Of these 5,064 respondents provided 37,695 valid assessments of financial centres. Financial centres are added to the GFCI questionnaire when they receive five or more mentions in the online questionnaire in response to the question: 'Are there any financial centres that might become significantly more important over the next two to three years?'

A centre is only given a GFCI rating and ranking if it receives more than 150 assessments from people based in other centres over time in the online survey. Centres in the GFCI that do not receive 50 assessments in a 24 month period are removed and added to the associate list until the number of assessments increases.

At the beginning of our work on the GFCI, a number of guidelines were set out. Additional Instrumental Factors are added to the GFCI model when relevant and meaningful ones are discovered:

- indices should come from a reputable body and be derived by a sound methodology;
- indices should be readily available (ideally in the public domain) and be regularly updated;
- updates to the indices are collected and collated every six months;
- no weightings are applied to indices;
- Indices are entered into the GFCI model as directly as possible, whether this is a rank, a derived score, a value, a distribution around a mean, or a distribution around a benchmark;

- if a factor is at a national level, the score will be used for all centres in that country; nation-based factors will be avoided if financial centre (city) - based factors are available;
- if an index has multiple values for a city or nation, the most relevant value is used (and the method for judging relevance is noted);
- if an index is at a regional level, the most relevant allocation of scores to each centre is made (and the method for judging relevance is noted);
- if an index does not contain a value for a particular city, a blank is entered against that centre (no average or mean is used).

Creating the GFCI does not involve totalling or averaging scores across instrumental factors. An approach involving totalling and averaging would involve a number of difficulties:

- indices are published in a variety of different forms: an average or base point of 100 with scores above and below this; a simple ranking; actual values (e.g. \$ per square foot of occupancy costs); a composite 'score';
- indices would have to be normalised, e.g. in some indices a high score is positive while in others a low score is positive;
- not all centres are included in all indices;
- the indices would have to be weighted.

The guidelines for financial centre assessments by respondents are:

- responses are collected via an online questionnaire which runs continuously. A link to this questionnaire is emailed to the target list of respondents at regular intervals and other interested parties can fill this in by following the link given in the GFCI publications;
- financial centre assessments will be included in the GFCI model for 24 months after they have been received;
- respondents rating fewer than three or more than half of the centres are excluded from the model;
- respondents who do not say where they work are excluded;
- financial centre assessments from the month when the GFCI is created are given full weighting and earlier responses are given a reduced weighting on a log scale.

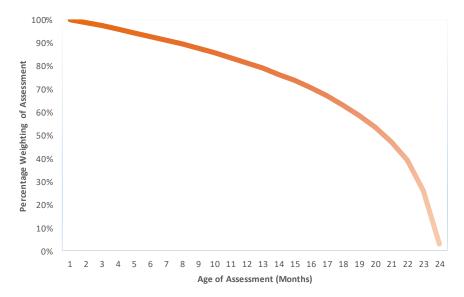


Chart 51 | Reduction In Weighting As Assessments Get Older

The financial centre assessments and instrumental factors are used to build a predictive model of centre competitiveness using a support vector machine (SVM). SVMs are based upon statistical techniques that classify and model complex historic data in order to make predictions of new data. SVMs work well on discrete, categorical data but also handle continuous numerical or time series data. The SVM used for the GFCI provides information about the confidence with which each specific classification is made and the likelihood of other possible classifications.

A factor assessment model is built using the centre assessments from responses to the online questionnaire. Assessments from respondents' home centres are excluded from the factor assessment model to remove home bias. The model then predicts how respondents would have assessed centres they are not familiar with, by answering questions such as:

• If an investment banker gives Singapore and Sydney certain assessments then, based on the relevant data for Singapore, Sydney and Paris, how would that person assess Paris?

Or

• If a pension fund manager gives Edinburgh and Munich a certain assessment then, based on the relevant data for Edinburgh, Munich and Zurich, how would that person assess Zurich?

Financial centre predictions from the SVM are re-combined with actual financial centre assessments (except those from the respondents' home centres) to produce the GFCI – a set of financial centre ratings.

The GFCI is dynamically updated either by updating and adding to the instrumental factors or through new financial centre assessments. These updates permit, for instance, a recently changed index of rental costs to affect the competitiveness rating of centres.

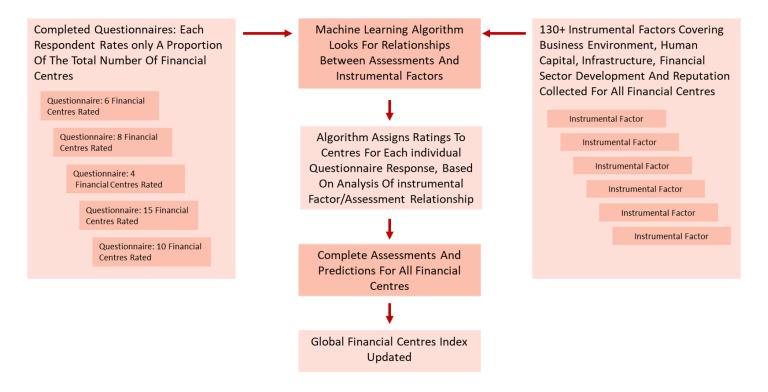
It is worth drawing attention to a few consequences of basing the GFCI on instrumental factors and questionnaire responses:

- several indices can be used for each competitive factor;
- a strong international group of 'raters' has developed as the GFCI progresses;
- sector-specific ratings are available using the business sectors represented by questionnaire respondents. This makes it possible to rate Frankfurt as competitive in Banking (for example) while less competitive Insurance (for example);
- the factor assessment model can be queried in a 'what if' mode 'how much would London rental costs need to fall in order to increase London's ranking against New York?'

Part of the process of building the GFCI is extensive sensitivity testing to changes in factors of competitiveness and financial centre assessments.

There are over ten million data points in the current GFCI model. The accuracy of predictions given by the SVM are regularly tested against actual assessments.

### Chart 52 | The GFCI Process



# **Appendix 4: Instrumental Factors**

Table 21 | Top 30 Instrumental Factors By Correlation With GFCI 27

Instrumental Factor	R-squared
Global Power City Index	0.518
Global Cities Index	0.493
Sustainable Cities Index	0.455
Wage Comparison Index	0.452
Price Levels	0.446
Best Countries For Business	0.426
Innovation Cities Global Index	0.426
Logistics Performance Index	0.421
Citizens Domestic Purchasing Power	0.408
Global Competitiveness Index	0.397
Government Effectiveness	0.385
Business Environment Rankings	0.381
Quality Of Roads	0.379
IESE Cities In Motion Index	0.373
Sustainable Cities Mobility Index	0.372
JLL Real Estate Transparency Index	0.369
Global Innovation Index	0.368
The Global Green Finance Index (Depth)	0.364
Global Enabling Trade Report	0.363
Regulatory Enforcement	0.353
Quality Of Living City Rankings	0.352
Ease Of Doing Business Index	0.351
The Global Green Finance Index (Quality)	0.349
World Competitiveness Scoreboard	0.345
Global Cybersecurity Index	0.343
Quality Of Domestic Transport Network	0.343
World Talent Rankings	0.338
Regulatory Quality	0.331
Rule Of Law	0.328
Legatum Prosperity Index	0.326

### Table 22 | GFCI 27 Business Environment Factors

Instrumental Factor	Source	Website	Change Since GFCI 26
Business Environment Rankings	EIU	http://country.eiu.com/All	Updated
Ease Of Doing Business Index	The World Bank	https://www.doingbusiness.org/en/reports/global- reports/doing-business-2020	Updated
Operational Risk Rating	EIU	http://www.viewswire.com/index.asp?	Updated
Real Interest Rate	The World Bank	layout=homePubTypeRK https://databank.worldbank.org/reports.aspx? source=world-development- indicators&series=FR.INR.RINR	Updated
Global Services Location	AT Kearney	https://www.atkearney.com/digital- transformation/gsli	
Corruption Perception Index	Transparency International	https://www.transparency.org/cpi2018	
Wage Comparison Index	UBS	https://www.ubs.com/microsites/prices-earnings/ en/	
Corporate Tax Rates	PWC	https://www.pwc.com/payingtaxes	Updated
Individual Income Tax Rates	крмд	https://home.kpmg.com/xx/en/home/ services/tax/tax-tools-and-resources/tax- rates-online/individual-income-tax-rates- table.html	
Personal Tax Rates	OECD	https://stats.oecd.org/index.aspx? DataSetCode=TABLE 16	
Tax Revenue As Percentage Of GDP	The World Bank	https://data.worldbank.org/indicator/ GC.TAX.TOTL.GD.ZS	Updated
Bilateral Tax Information Exchange Agreements	OECD	<u>http://www.oecd.org/ctp/exchange-of-tax-</u> information/ taxinformationexchangeagreementstieas.htm	
Economic Freedom Of The World	Fraser Institute	http://www.freetheworld.com/release.html	Updated
Government Debt As % Of GDP	CIA	https://www.cia.gov/library/publications/the- world-factbook/rankorder/2186rank.html	·
OECD Country Risk Classification	OECD	http://www.oecd.org/trade/topics/export-credits/ documents/cre-crc-current-english.pdf	Updated
Global Peace Index	Institute for Economics & Peace	http://www.visionofhumanity.org/	
Financial Secrecy Index	Tax Justice Network	http://www.financialsecrecyindex.com/	
Government Effectiveness	The World Bank	<u>http://info.worldbank.org/governance/wgi/ index.aspx#home</u>	Updated
Open Government	World Justice Project	http://worldjusticeproject.org/rule-of-law-index	
Regulatory Enforcement	World Justice Project	http://worldjusticeproject.org/rule-of-law-index	
Press Freedom Index	Reporters Without Borders (RSF)	https://rsf.org/en/ranking/2019	
Currencies	Swiss Association for Standardization (SNV)	http://www.currency-iso.org/en/home/tables/ table-a1.html	
Commonwealth Countries	The Commonwealth	http://thecommonwealth.org/member-countries	
Common Law Countries	CIA	https://www.cia.gov/library/publications/the- world-factbook/fields/308.html	
Inflation, GDP Deflator	The World Bank	<u>https://data.worldbank.org/indicator/ NY.GDP.DEFL.KD.ZG</u>	Updated
Rule Of Law	The World Bank	http://info.worldbank.org/governance/wgi/ index.aspx#home	Updated
Political Stability And Absence Of Violence/Terrorism	The World Bank	http://info.worldbank.org/governance/wgi/ index.aspx#home	Updated
Regulatory Quality	The World Bank	http://info.worldbank.org/governance/wgi/ index.aspx#home	Updated
Control Of Corruption	The World Bank	<u>http://info.worldbank.org/governance/wgi/</u> <u>index.aspx#home</u>	Updated
Best Countries For Business	Forbes	<u>https://www.forbes.com/best-countries-for-</u> <u>business/list/</u>	
Lloyd's City Risk Index 2015-2025	Lloyd's	https://cityriskindex.lloyds.com/about/	
Global Cybersecurity Index	ITU	http://www.itu.int/en/ITU-D/Cybersecurity/Pages/ GCI.aspx	
Open Budget Survey	International Budget Partnership	http://survey.internationalbudget.org/#download	
Democracy Index	The Economist	https://www.eiu.com/topic/democracy-index	

### Table 23 | GFCI 27 Human Capital Factors

Graduates In Social Science, Business And Law (as % of total The World Bar graduates)	http://databank.worldbank.org/data/reports.aspx?	
	nk <u>source=Education%</u> 20Statistics&series=UIS.FOSGP.5T8.F400	Updated
Gross Tertiary Graduation Ratio The World Bar	nk <u>http://databank.worldbank.org/data/reports.aspx?</u> source=Education%20Statistics&series=SE.TER.CMPL.ZS	Updated
Passport Index Henley Partne	rs <u>https://www.henleypassportindex.com/passport</u>	Updated
Human Development Index UN Development Programme	ent <u>http://hdr.undp.org/en/2019-report/download</u>	Updated
Citizens Domestic Purchasing Power UBS	https://www.ubs.com/microsites/prices-earnings/en/	
Number Of High Net Worth Individuals Capgemini	https://www.worldwealthreport.com/	
Homicide Rates UN Office of D Crime	rugs & <u>https://dataunodc.un.org/crime/</u>	Updated
Top Tourism Destinations Euromonitor	https://go.euromonitor.com/white-paper-travel-2019-100- cities.html	Updated
Average Precipitation In Depth The World Bar	http://databank.worldbank.org/data/reports.aspx? source=world-development- indicators&series=AG.LND.PRCP.MM	
Quality of Living City Rankings Mercer	https://mobilityexchange.mercer.com/Insights/quality-of- living-rankings	
Health Care Index Numbeo	http://www.numbeo.com/health-care/rankings.jsp	Updated
Global Skills Index Hays	http://www.hays-index.com/	Updated
Linguistic Diversity Ethnologue	http://www.ethnologue.com/statistics/country	
Global Terrorism Index & Institute for Ec & Peace	conomics <u>http://visionofhumanity.org/indexes/terrorism-index/</u>	Updated
World Talent Rankings IMD	https://www.imd.org/wcc/world-competitiveness-center- rankings/world-talent-ranking-2019/	Updated
Cost Of Living City Rankings Mercer	https://mobilityexchange.mercer.com/Insights/cost-of- living-rankings	
Quality Of Life Index Numbeo	http://www.numbeo.com/quality-of-life/rankings.jsp	Updated
Crime Index Numbeo	http://www.numbeo.com/crime/rankings.jsp#	Updated
Household Net Adjusted Disposable Income	https://stats.oecd.org/Index.aspx?DataSetCode=BLI	
Household Net Financial Wealth OECD	https://stats.oecd.org/Index.aspx?DataSetCode=BLI	
Education Attainment OECD	https://stats.oecd.org/Index.aspx?DataSetCode=BLI	
Life Expectancy OECD	https://stats.oecd.org/Index.aspx?DataSetCode=BLI	
Employees Working Very Long Hours OECD	https://stats.oecd.org/Index.aspx?DataSetCode=BLI	
Human Freedom Index Cato Institute	https://www.cato.org/human-freedom-index	Updated

### Table 24 | GFCI 27 Infrastructure Factors

Instrumental Factor	Source	Website	Change Since GFCI 26
Office Occupancy Cost	CBRE Research	https://www.cbre.com/research-and-reports/ Global-Prime-Office-Occupancy-Costs-2019	
Prime International Residential Index	Knight Frank	http://www.knightfrank.com/wealthreport	
JLL Real Estate Transparency Index	Jones Lang LaSalle	http://greti.jll.com/greti/rankings	
ICT Development Index	United Nations	http://www.itu.int/net4/ITU-D/idi/2017/ index.html	
Telecommunication Infrastructure Index	United Nations	https://publicadministration.un.org/egovkb/en- us/Data-Center	
Quality Of Domestic Transport Network	World Economic Forum	<u>http://reports.weforum.org/travel-and-tourism</u> -competitiveness-report-2019/rankings/ <u>#series=TRSPEFFICY</u>	Updated
Quality Of Road Infrastructure	World Economic Forum	http://reports.weforum.org/travel-and-tourism -competitiveness-report-2019/rankings/ #series=EOSQ057	Updated
Roadways Per Land Area	CIA	https://www.cia.gov/library/publications/the- world-factbook/rankorder/2085rank.html	
Railways Per Land Area	CIA	https://www.cia.gov/library/publications/the- world-factbook/rankorder/2121rank.html	
Networked Readiness Index	World Economic Forum	http://reports.weforum.org/global-information -technology-report-2016/	
World Energy Trilemma Index	World Energy Council	https://trilemma.worldenergy.org/	Updated
Metro Network Length	Metro Bits	http://mic-ro.com/metro/table.html	Updated
Open Data Barometer	World Wide Web Foundation	https://opendatabarometer.org/4thedition/? year=2016&indicator=ODB	
Environmental Performance Index	Yale University	https://epi.envirocenter.yale.edu/epi-topline	
Global Sustainable Competitiveness Index	Solability	<u>http://solability.com/the-global-sustainable-</u> competitiveness-index/the-index	
Logistics Performance Index	The World Bank	http://lpi.worldbank.org/international/global	
Networked Society City Index	Ericsson	https://www.ericsson.com/en/reports-and- papers/networked-society-insights/city-index	
TomTom Traffic Index	TomTom	https://www.tomtom.com/en_gb/traffic-index/ ranking/	Updated
Sustainable Cities Mobility Index	Arcadis	https://www.arcadis.com/en/global/our- perspectives/sustainable-cities-mobility-index- 2017/	
Water Quality	OECD	<u>https://stats.oecd.org/Index.aspx?</u> DataSetCode=BLI	
INRIX Traffic Scorecard	INRIX	http://inrix.com/scorecard/	
Air Quality Data	WHO	http://www.who.int/airpollution/data/cities/ en/	Updated
Forestry Area	World Bank	http://databank.worldbank.org/data/ reports.aspx? source=2&series=AG.LND.FRST.ZS&country=	
CO2 Emissions Per Capita	World Bank	https://data.worldbank.org/indicator/ EN.ATM.CO2E.PC	
Buildings Energy Efficiency Policies Database (Y/N)	IEA	https://www.iea.org/beep/	
4G Availability %	Open Signal	https://www.opensignal.com/reports/2019/05/ global-state-of-the-mobile-network	Updated
Worldwide Broadband Speed League	Cable	https://www.cable.co.uk/broadband/speed/ worldwide-speed-league/	
Share Of Wind And Solar In Electricity Production	Enerdata Statistical Yearbook	https://yearbook.enerdata.net/download/	
Energy Intensity Of GDP	Enerdata Statistical Yearbook	https://yearbook.enerdata.net/download/	
Share Of Renewables In Electricity Production	Enerdata Statistical Yearbook	https://yearbook.enerdata.net/download/	
City Commitment To Carbon Reduction (Cooperative Action)	UNFCCC	http://climateaction.unfccc.int/views/ stakeholders.html?type=cities	Updated
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Value of Share Trading         Deck Exchanges         Deck Deck Interview         Deck Interview           Value of Share Trading         The World Federation of Stock Exchanges         Http://castables.world.exchanges.org/issue/ december.2039/market.statistics         Update           Volume of Share Trading         The World Federation of Stock Exchanges         Http://castables.world.exchanges.org/issue/ december.2039/market.statistics         Update           Broad Stock Index Levels         The World Federation of Stock Exchanges         Http://castables.world.exchanges.org/issue/ december.2039/market.statistics         Update           Domestic Credit Provided By Banking Sector (% of GDP)         The World Bank         Http://fastabank.org/data/ redicatorsReserved/development.         Update           Finance Investment         The World Bank         Http://fastabank.org/data/ redicatorsReserved/development.         Update           Foral Net Assets Of Regulated Open- Iend Funds         Investment Company Institute         http://www.idfactbook.org/         Update           Net External Positions Of Banks         International         http://www.idfactbook.org/         Update           Settlements         The Bank for International         http://www.idfactbook.org/         Update           Settlements         The Bank for International         http://www.idfactbook.org/         Update           Settlements         The Bank for International	Instrumental Factor	Source	Website	Change Since GFCI 26
Value of Share Trading         Stock Exchanges         december 2019/market-datatilics         Update           Volume of Share Trading         The World Federation of Stock Exchanges         http://statistic.world.exchanges.org/         Update           Broad Stock Index Levels         The World Federation of Stock Exchanges         http://statistic.world.exchanges.org/         Update           Value of Bond Trading         The World Federation of Stock Exchanges         http://statistic.world.exchanges.org/         Update           Domestic Credit Provided By Banking Sector (% of GDP)         The World Bank         http://statistic.world.exchanges.org/         Update           Percentage of Firms Using Banks To Finance Investment         The World Bank         http://statistic.world.exchanges         Update           Islamic Finance Country Index         Islamic Banks and Financia Institute         http://www.kifactbook.org/         Update           Islamic Finance Country Index         Islamic Banks and Financia Institutions         http://www.kifactbook.org/         Update           Islamic Finance Country Index         The Bank for International         http://www.kifactbook.org/         Update           Islamic Finance International         http://www.kifactbook.org/         Update           Settlements         http://www.kifactbook.org/         Update           Islamic Finance Of CDP         The Bank for International<	Capitalisation Of Stock Exchanges			Updated
Volume of Share Trading         Stock Exchanges         Baged/Sensatur/Sensatur/Sensatur/         Update           Broad Stock Index Levels         The World Federation of Stock Exchanges         thttp://double.com/sensatur/Sensatur/         Update           Value of Bond Trading         The World Federation of Stock Exchanges         thttp://databank.world.ace/statur/         Update           Domestic Credit Provided By Banking Sector (% of GDP)         The World Bank         thtp://databank.world.ace/statur/ reports.ace/comresuor/id-development- indicator.ace/statures/comresuor/id-development- inace/comresuor/id-development- institute         Update </td <td>Value of Share Trading</td> <td></td> <td></td> <td>Updated</td>	Value of Share Trading			Updated
Broad Stock Index Levels     Stock Exchanges     Intervention     Intervention     Update       Value of Bond Trading     The World Federation of Stock Exchanges     Intervention     Intervention     Update       Domestic Credit Provided By     The World Bank     Intervention     Update       Banking Sector (% of GDP)     The World Bank     Intervention     Update       Percentage of Firms Using Banks To Finance Investment     The World Bank     Intervention     Update       Index Assets Of Regulated Open- Investment Company Financial Institute     Intervention     Update       Islamic Finance Country Index     Islamic Banks and Financial Institutions     Update       Islamic Finance Country Index     International Institute     Interventions     Update       Islamic Finance Institute     International Institute     Interventions     Update       Islamic Finance Country Index     The Bank for International     Interventional     Interventional       External Positions Of Banks     The Bank for International     Interventional     Interventional     Update       External Positions Of Central Banks     The World Bank     Interventional     Interventional     Update       Stobal Connectivity Index     The Brookings Institution     Interventional     Interventional     Interventional       Business Process Outsourcing     Cushman & Wakefi	Volume of Share Trading			Updated
Value of Bond Trading         Stock Exchanges         Basort/Generator/Senerator#         Update Basort/Generator/Senerator#         Update Basort/Generator/Senerator#         Update Basort/Generator#           Domestic Credit Provided By Banking Sector (% of GDP)         The World Bank         Intro//fitabank.worldbank.org/display/ represented Senerator#         Update           Percentage of Firms Using Banks To Finance Investment         The World Bank         Intro//fitabank.worldbank.org/display/ represented Senerator#         Update           Investment Company Intel //www.kis.org/statistics/annex.world.development: indicators/secretics/ICFRM.BMXS.ZZ         Update           Islamic Finance Country Index         Islamic Banks and Financial Institutions         http://www.bis.org/statistics/annex.ma.bitm         Update           External Positions Of Banks         International Settlements         http://www.bis.org/statistics/annex.ma.bitm         Update           Global Connectedness Index         DHL         www.bis.org/statistics/annex.ma.bitm         Update           Business Process Outsourcing Disclosure         Cushman & Wakefield         http://www.finane-watch.org/publication/ abbus/represents.and/out-watch.org/publication/ abbus/represents.and/out-watch.org/publication/ abbus/represents.and/out-watch.org/publication/ abbus/represents.and/out-watch.org/publication/ abbus/represents.and/out-watch.org/publication/ abbus/represents.and/out-watch.org/publication/ abbus/represents.and/out-watch.org/publication/ abbus/represents.and/out-watch.org/publication/ abbus/represents.and/out-watch.org/publ	Broad Stock Index Levels			Updated
Domestic Credit Fronted by         The World Bank         reports sagx?sourceworld evelopment: Indicators?sourceworld evelopment: International         Update Inter//www.is/indicators           Net External Positions Of Banks         International         http://www.bis.org/statistics/annex.map.htm         Update Settlements           External Positions Of Central Banks S A Share Of GDP         The World Bank         http://databank.worldank.org/data/ reports.sou?         Update           Global Connectedness Index         DHL         www.lositsci.dl/irs         Update           Economic Performance Index         The Brookings Institution         http://www.lonace.edu/research/global- metro-monitor.2018/trank         Update           Financial Centre Sustainability         Corporate Knights         http://www.finance.watch.org/publication/ global.green.finance.index.3/         Ittp://www.finance.watch.org/publication/ global.green.finance.index.3/	Value of Bond Trading			Updated
Percentage of Hinds Stillig Bainks 10       The World Bank       reports.aspx3surce-world-development: Indicators&series-IC_FMI.BNKS.Zs       Update         Total Net Assets Of Regulated Open- End Funds       Investment Company Institute       http://www.icifactbook.org/       International       http://www.icifactbook.org/       International       http://www.icifactbook.org/       International       Update         Islamic Finance Investments       Islamic Banks and International       http://www.bis.org/statistics/annex_map.htm       Update         External Positions Of Banks       The Bank for International       http://www.bis.org/statistics/annex_map.htm       Update         Settlements       The World Bank       thtp://databank.worldbank.org/data/ teoports.asp2       Update         Global Connectedness Index       DHL       www.lostatistics/annex_map.htm       Update         Business Process Outsourcing Location Index       Cushman & Wakefield       https://www.finance-watch.org/publication/ global zeren-finance-index.3/       Ittps://www.finance-watch.org/publication/ global zeren-finance-index.3/         Financial Centre Carbon Intensity       Corporate Knights       http://www.finance-watch.org/publication/ global zeren-finance-index.3/       Ittps://www.finance-watch.org/publication/ global zeren-finance-index.3/         Financial Centre Carbon Intensity       Corporate Knights       https://www.finance-watch.org/publication/ global zeren-finance-index.3/       Ittps://www.finance-wa		The World Bank	reports.aspx?source=world-development-	Updated
End Funds         Institute         Imp://www.finattbook.org/           Islamic Finance Country Index         Islamic Banks and Financial Institutions         http://www.gir.net/publications         Update           Stamic Finance Country Index         The Bank for International         http://www.bis.org/statistics/annex_map.htm         Update           Settlements         The Bank for International         http://www.bis.org/statistics/annex_map.htm         Update           SA Share Of GDP         The World Bank         International         http://www.bis.org/statistics/annex_map.htm         Update           Global Connectivity Index         The World Bank         international         http://www.bis.org/statistics/annex_map.htm         Update           Global Connectedness Index         DHL         www.logistics.dhl/gcl         Update           Economic Performance Index         The Brookings Institution         http://www.finance-watch.org/publication/ global_green.finance.index.3/         Update           Financial Centre Sustainability         Corporate Knights         http://www.finance-watch.org/publication/ global_green.finance.index.3/         Ittp://www.finance-watch.org/publication/ global_green.finance-index.3/           Financial Centre Carbon Intensity         Corporate Knights         http://www.finance-watch.org/publication/ global_green.finance-index.3/         Ittp://www.finance-watch.org/publication/ global_green.finance-index.3/ <td< td=""><td></td><td>The World Bank</td><td>reports.aspx?source=world-development-</td><td>Updated</td></td<>		The World Bank	reports.aspx?source=world-development-	Updated
Islamic Finance Country Index         Financial Institutions         http://www.gir.net/publications         Update           Net External Positions Of Banks         International         http://www.bis.org/statistics/annex_map.htm         Update           External Positions Of Central Banks         The Bank for International         http://www.bis.org/statistics/annex_map.htm         Update           External Positions Of Central Banks         The Bank for International         http://www.bis.org/statistics/annex_map.htm         Update           Global Connectivity Index         The World Bank         thus//databank.worldbank.org/data/ reports.saya?         Update           Global Connectedness Index         DHL         www.logstics.dh/lpci         Update           Economic Performance Index         The Brookings Institution         http://www.finance-watch.org/nublication/ global-green-finance-index-3/         Update           Financial Centre Sustainability         Corporate Knights         http://www.finance-watch.org/nublication/ global-green-finance-index-3/         Financial doe           Financial Centre Carbon Intensity         Corporate Knights         http://www.finance-watch.org/nublication/ global-green-finance-index-3/         Financial does/ slobal Suda         Exchange N/NW			http://www.icifactbook.org/	
Net External Positions Of Banks       International       http://www.bis.org/statistics/annex_map.htm       Update         External Positions Of Central Banks       The Bank for       International       http://www.bis.org/statistics/annex_map.htm       Update         Settlements       International       http://www.bis.org/statistics/annex_map.htm       Update         Liner Shipping Connectivity Index       The World Bank       http://databank.worldbank.org/data/       update         Global Connectedness Index       DHL       www.logistics.abn/2       update         Economic Performance Index       The Brookings Institution       http://www.finance-watch.org/publication/       global-green-finance-index-3/         Business Process Outsourcing       Cushman & Wakefield            Financial Centre Sustainability       Corporate Knights       http://www.finance-watch.org/publication/       global-green-finance-index-3/         Financial Centre Carbon Intensity       Corporate Knights       http://www.finance-watch.org/publication/       global-green-finance-index-3/         Financial System Green Alignment       Corporate Knights       http://www.finance-watch.org/publication/       global-green-finance-index-3/         Cotal Susance Of Labelled Green       Collagreen-finance-index-3/       Update       global-green-finance-index-3/       Exchanges (Y/N)       UN Sustainable Stock <td>Islamic Finance Country Index</td> <td></td> <td>http://www.gifr.net/publications</td> <td>Updated</td>	Islamic Finance Country Index		http://www.gifr.net/publications	Updated
External Positions Of Central Banks       International       http://www.bis.org/statistics/annex_map.htm       Update         Settlements       http://databank.worldbank.org/data/       reports.aspx?       update         Liner Shipping Connectivity Index       The World Bank       http://databank.worldbank.org/data/       reports.aspx?         Global Connectedness Index       DHL       www.logistics.dhl/gci       update         Economic Performance Index       The Brookings Institution       https://www.finance-watch.org/publication/       international         Business Process Outsourcing       Cushman & Wakefield       netro-monitor-2018/#rank       inters://www.finance-watch.org/publication/         Financial Centre Sustainability       Corporate Knights       https://www.finance-watch.org/publication/       global_green-finance-index-3/         Financial Centre Carbon Intensity       Corporate Knights       https://www.finance-watch.org/publication/       global-green-finance-index-3/         Financial System Green Alignment       Corporate Knights       http://www.finance-watch.org/publication/       global-green-finance-index-3/         Country Of Issuer       CBI       http://www.finance-watch.org/publication/       global-green-finance-index-3/         Sustainable Stock Exchanges (Y/N)       UN Sustainable Stock       http://www.finance-watch.org/publication/       global-green-finance-index-3/         <	Net External Positions Of Banks	International	http://www.bis.org/statistics/annex_map.htm	Updated
Liner Shipping Connectivity Index       The World Bank       reports.spx2 source=28series=IS SHP.GCNW.XQ         Global Connectedness Index       DHL       www.logistics.dhl/gci         Economic Performance Index       The Brookings Institution       https://www.brookings.edu/research/global- metro-monitor-2018/#rank         Business Process Outsourcing Location Index       Cushman & Wakefield       https://www.finance-watch.org/publication/ global-green-finance-index.3/         Financial Centre Sustainability Disclosure       Corporate Knights       https://www.finance-watch.org/publication/ global-green-finance-index.3/         Financial Centre Carbon Intensity       Corporate Knights       https://www.finance-watch.org/publication/ global-green-finance-index.3/         Financial System Green Alignment       Corporate Knights       https://www.finance-watch.org/publication/ global-green-finance-index.3/         Labelled Green Bonds Issued by Country Of Issuer       Corporate Knights       http://www.finance-watch.org/publication/ global-green-finance-index.3/         Sustainable Stock Exchanges (Y/N)       CBI       http://www.finance-watch.org/publication/ global-green-finance-index.3/         Sustainable Stock Exchanges (Y/N)       CBI       http://www.finance-watch.org/publication/ global-green-finance-index.3/         Findexable       http://www.finance-watch.org/publication/ global-green-finance-index.3/       Update         Financial Support       CBI       http://www.finance-watc		International	http://www.bis.org/statistics/annex_map.htm	Updated
Global Connectedness Index       DHL       www.logistics.dhi/gci         Economic Performance Index       The Brookings Institution       https://www.brookings.edu/research/global- metro-monitor-2018/#rank         Business Process Outsourcing Location Index       Cushman & Wakefield       https://www.finance-watch.org/publication/ global-green-finance-index-3/         Financial Centre Sustainability Disclosure       Corporate Knights       https://www.finance-watch.org/publication/ global-green-finance-index-3/         Financial Centre Carbon Intensity       Corporate Knights       https://www.finance-watch.org/publication/ global-green-finance-index-3/         Financial System Green Alignment       Corporate Knights       https://www.finance-watch.org/publication/ global-green-finance-index-3/         Labelled Green Bonds Issued by Country Of Issuer       Corporate Knights       http://www.finance-watch.org/publication/ global-green-finance-index-3/         Sustainable Stock Exchanges (Y/N)       UN Sustainable Stock Exchange Initiative       http://www.finance-watch.org/our-work/ dossiers?fid=192         Sustainable Stock Exchanges (Y/N)       CBI       https://www.climatebonds.net/green-bond- segments-stock-exchanges       Update segments-stock-exchanges         The Global Green Finance Index       Z/Yen       https://www.longfinance.net/orogrammes/ financial.cente-futures/global-green-finance_infance       New	Liner Shipping Connectivity Index	The World Bank	reports.aspx?	Updated
Economic Performance index       The Brookings Institution       metro-monitor-2018/#rank         Business Process Outsourcing Location Index       Cushman & Wakefield         Financial Centre Sustainability Disclosure       Corporate Knights       https://www.finance-watch.org/publication/ global-green-finance-index-3/         Financial Centre Carbon Intensity       Corporate Knights       https://www.finance-watch.org/publication/ global-green-finance-index-3/         Financial System Green Alignment       Corporate Knights       https://www.finance-watch.org/publication/ global-green-finance-index-3/         Labelled Green Bonds Issued by Country Of Issuer       Corporate Knights       https://www.finance-watch.org/publication/ global-green-finance-index-3/         Sustainable Stock Exchanges (Y/N)       CBI       https://www.finance-watch.org/our-work/ dossiers?fid=192         Sustainable Stock Exchanges (Y/N)       CBI       https://www.climatebonds.net/green-bond- segments-stock-exchanges       Update segments-stock-exchanges         The Global Fineten Index       Findexable       https://www.longfinance.net/programmes/ financial-centre-futures/global-green-finance- index/       New         The Global Green Finance Index       Z/Yen       https://www.longfinance.net/programmes/ financial-centre-futures/global-green-finance- index/       New	Global Connectedness Index	DHL		
Location Index       Cushman & Wakeheld         Financial Centre Sustainability       Corporate Knights       https://www.finance-watch.org/publication/ global-green-finance-index-3/         Financial Centre Carbon Intensity       Corporate Knights       https://www.finance-watch.org/publication/ global-green-finance-index-3/         Financial System Green Alignment       Corporate Knights       https://www.finance-watch.org/publication/ global-green-finance-index-3/         Labelled Green Bonds Issued by       Corporate Knights       https://www.finance-watch.org/publication/ global-green-finance-index-3/         Total Issuance Of Labelled Green Bonds To December 2018, USDm       CBI       http://www.finance-watch.org/our-work/ dossiers?fid=192         Sustainable Stock Exchanges (Y/N)       UN Sustainable Stock Exchange Initiative       https://www.climatebonds.net/green-bond- segments-stock-exchanges       Update         The Global Frieten Finance Index (Depth)       Z/Yen       https://www.longfinance.net/programmes/ financial-centre-futures/global-green-finance- index/       New         The Global Green Finance Index       Z/Yen       https://www.longfinance.net/programmes/ financial-centre-futures/global-green-finance- index/       New	Economic Performance Index	The Brookings Institution		
Disclosure         Corporate Knights         global-green-finance-index-3/           Financial Centre Carbon Intensity         Corporate Knights         https://www.finance-watch.org/publication/ global-green-finance-index-3/           Financial System Green Alignment         Corporate Knights         https://www.finance-watch.org/publication/ global-green-finance-index-3/           Labelled Green Bonds Issued by Country Of Issuer         Corporate Knights         https://www.finance-watch.org/publication/ global-green-finance-index-3/           Total Issuance Of Labelled Green Bonds To December 2018, USDm         CBI         http://www.finance-watch.org/our-work/ dossiers?fid=192           Sustainable Stock Exchanges (Y/N)         UN Sustainable Stock Exchange Initiative         http://www.climatebonds.net/green-bond- segments-stock-exchanges/         Update           The Global Fintech Index         Findexable         https://www.longfinance.net/grogrammes/ financial-centre-futures/global-green-finance- index/         New           The Global Green Finance Index (Depth)         Z/Yen         https://www.longfinance.net/grogrammes/ financial-centre-futures/global-green-finance- finance/         New	e e e e e e e e e e e e e e e e e e e	Cushman & Wakefield		
Financial Centre Carbon Intensity       Corporate Knights       Ittps://www.finance-index-3/         Financial System Green Alignment       Corporate Knights       https://www.finance-watch.org/publication/global-green-finance-index-3/         Labelled Green Bonds Issued by       Corporate Knights       https://www.finance-watch.org/publication/global-green-finance-index-3/         Labelled Green Bonds Issued by       Corporate Knights       https://www.finance-watch.org/publication/global-green-finance-index-3/         Total Issuance Of Labelled Green       CBI       http://www.finance-watch.org/our-work/dossiers?fid=192         Sustainable Stock Exchanges (Y/N)       UN Sustainable Stock       https://www.sseinitiative.org/sse-partner-exchanges/         Green Bond Segments On Stock       CBI       https://www.climatebonds.net/green-bond-segments-stock-exchanges       Update         The Global Fintech Index       Findexable       https://findexable.com/       New         The Global Green Finance Index       Z/Yen       https://www.longfinance.net/programmes/finance.net/programmes/finance.net/programmes/finance.net/programmes/finance.net/programmes/finance.net/programmes/finance.net/programmes/finance.net/programmes/financial-centre-futures/global-green-finance_index/financial-centre-futures/global-green-finance_index/financial-centre-futures/global-green-finance_index/financial-centre-futures/global-green-finance_index/financial-centre-futures/global-green-finance_index/financial-centre-futures/global-green-finance_index/financial-centre-futures/global-green-finance_index/financial-centre-futures/gl	-	Corporate Knights		
Financial system Green Alignment       Corporate Knights       global-green-finance-index-3/         Labelled Green Bonds Issued by Country Of Issuer       Corporate Knights       https://www.finance-watch.org/publication/ global-green-finance-index-3/         Total Issuance Of Labelled Green Bonds To December 2018, USDm       CBI       http://www.finance-watch.org/our-work/ dossiers?fid=192         Sustainable Stock Exchanges (Y/N)       UN Sustainable Stock Exchange Initiative       http://www.climatebonds.net/green-bond- segments-of-partner-exchanges/       Update         Green Bond Segments On Stock Exchanges (Y/N)       CBI       https://www.climatebonds.net/green-bond- segments-stock-exchanges       Update         The Global Fintech Index       Findexable       https://findexable.com/       New         The Global Green Finance Index (Depth)       Z/Yen       https://www.longfinance.net/programmes/ financial-centre-futures/global-green-finance- index/       New	Financial Centre Carbon Intensity	Corporate Knights		
Country Of Issuer       Corporate Knights       Inter-index-3/         Total Issuance Of Labelled Green Bonds To December 2018, USDm       CBI       http://www.finance-watch.org/our-work/ dossiers?fid=192         Sustainable Stock Exchanges (Y/N)       UN Sustainable Stock Exchange Initiative       http://www.sseinitiative.org/sse-partner- exchanges/list-of-partner-exchanges/         Green Bond Segments On Stock Exchanges (Y/N)       CBI       http://www.climatebonds.net/green-bond- segments-stock-exchanges       Update         The Global Fintech Index       Findexable       https://findexable.com/       New         The Global Green Finance Index (Depth)       Z/Yen       https://www.longfinance.net/programmes/ financial-centre-futures/global-green-finance- index/       New		Corporate Knights		
Bonds To December 2018, USDm       CBI       dossiers?fid=192         Sustainable Stock Exchanges (Y/N)       UN Sustainable Stock       http://www.sseinitiative.org/sse-partner-exchanges/         Green Bond Segments On Stock       CBI       https://www.climatebonds.net/green-bond-segments-stock-exchanges       Update         The Global Fintech Index       Findexable       https://findexable.com/       New         The Global Green Finance Index       Z/Yen       https://www.longfinance.net/programmes/financeinters/global-green-finance-index/       New         The Global Green Finance Index       Z/Yen       https://www.longfinance.net/programmes/financial-centre-futures/global-green-finance-index/       New	Country Of Issuer	Corporate Knights		
Sustainable Stock Exchanges (Y/N)       Exchange Initiative       Initiative       Exchanges/list-of-partner-exchanges/         Green Bond Segments On Stock       CBI       https://www.climatebonds.net/green-bond-segments-stock-exchanges       Update         The Global Fintech Index       Findexable       https://findexable.com/       New         The Global Green Finance Index       Z/Yen       financial-centre-futures/global-green-finance-index/       New         The Global Green Finance Index       Z/Yen       https://www.longfinance.net/programmes/       New         The Global Green Finance Index       Z/Yen       https://www.longfinance.net/programmes/       New         Mutps://www.longfinance.net/programmes/       financial-centre-futures/global-green-finance-       New		-		
Exchanges (Y/N)         CBI         segments-stock-exchanges         Update           The Global Fintech Index         Findexable         https://findexable.com/         New           The Global Green Finance Index (Depth)         Z/Yen         https://www.longfinance.net/programmes/ financial-centre-futures/global-green-finance- index/         New           The Global Green Finance Index (Depth)         Z/Yen         https://www.longfinance.net/programmes/ financial-centre-futures/global-green-finance- financial-centre-futures/global-green-finance- financial-centre-futures/global-green-finance- financial-centre-futures/global-green-finance- New	Sustainable Stock Exchanges (Y/N)			
https://www.longfinance.net/programmes/ financial-centre-futures/global-green-finance- index/     New       The Global Green Finance Index     https://www.longfinance.net/programmes/ index/     New       Coupling)     Z/Yen     https://www.longfinance.net/programmes/ financial-centre-futures/global-green-finance- financial-centre-futures/global-green-finance- financial-centre-futures/global-green-finance- New     New		СВІ		Updated
Interdiction     Z/Yen     financial-centre-futures/global-green-finance- index/     New       The Global Green Finance Index     https://www.longfinance.net/programmes/ financial-centre-futures/global-green-finance- financial-centre-futures/global-green-finance- New     New	The Global Fintech Index	Findexable	https://findexable.com/	New
(Quality) Z/Yen <u>financial-centre-futures/global-green-finance-</u> New		Z/Yen	financial-centre-futures/global-green-finance-	New
		Z/Yen	financial-centre-futures/global-green-finance-	New

### Table 25 GFCI 27 Financial Sector Development Factors

### Table 26 | GFCI 27 Reputation Factors

Instrumental Factor	Source	Website	Change Since GFCI 26
World Competitiveness Scoreboard	IMD	https://www.imd.org/wcc/world- competitiveness-center-rankings/world- competitiveness-ranking-2019/	
Global Competitiveness Index	World Economic Forum	http://reports.weforum.org/global- competitiveness-report-2019/competitiveness- rankings/	Updated
Foreign Direct Investment Inflows	UNCTAD	http://unctadstat.unctad.org/wds/ TableViewer/tableView.aspx?ReportId=96740	Updated
FDI Confidence Index	AT Kearney	https://www.atkearney.com/foreign-direct- investment-confidence-index	
GDP Per Person Employed (Constant 2011 PPP \$)	The World Bank	http://databank.worldbank.org/data/ reports.aspx?source=world-development- indicators	Updated
Global Innovation Index	INSEAD	http://www.globalinnovationindex.org/ content.aspx?page=GII-Home	Updated
Global Intellectual Property Index	Taylor Wessing	https://united-kingdom.taylorwessing.com/en/ ip-index/reports	
RPI (% Change On Year Ago)	The Economist	https://www.economist.com/economic-and- financial-indicators/2020/01/09/economic- data-commodities-and-markets	Updated
Price Levels	UBS	https://www.ubs.com/microsites/prices- earnings/en/	
Number of International Association Meetings	World Economic Forum	http://reports.weforum.org/travel-and- tourism-competitiveness-report-2019/ rankings/#series=NRFAIREX	Updated
Innovation Cities Global Index	2ThinkNow Innovation Cities	https://www.innovation-cities.com/index-2019 -global-city-rankings/18842/	Updated
Big Mac Index	The Economist	http://www.economist.com/content/big-mac- index	Updated
Sustainable Economic Development	Boston Consulting Group	https://www.bcg.com/en-gb/ publications/2019/seda-measuring-well- being.aspx	Updated
Global Enabling Trade Report	World Economic Forum	https://www.weforum.org/focus/global- enabling-trade-report-2016	
Good Country Index	Good Country Party	https://www.goodcountry.org/index/results	
Legatum Prosperity Index	Legatum Institute	http://www.prosperity.com/#!/ranking	Updated
IESE Cities In Motion Index	IESE	http://citiesinmotion.iese.edu/indicecim/? lang=en	
FDI Inward Stock (in Million Dollars) As A Percentage Of GDP	UNCTAD	http://unctad.org/en/Pages/DIAE/World% 20Investment%20Report/Annex-Tables.aspx	
Sustainable Cities Index	Arcadis	https://www.arcadis.com/en/global/our- perspectives/sustainable-cities-index-2018/ citizen-centric-cities/	
Global Cities Index	AT Kearney	https://www.atkearney.com/global- cities/2019	
Quality Of Nationality Index	Henley Partners	https://nationalityindex.com/#	Updated
Best Countries	U.S.News	https://www.usnews.com/news/best- countries/overall-rankings	
Global Power City Index	The Mori Memorial Foundation	http://mori-m-foundation.or.jp/english/ius2/ gpci2/index.shtml	Updated
TRACE Bribery Risk Matrix	Trace International	https://matrixbrowser.traceinternational.org/	New

**Vantage** Financial Centres Vantage Financial Centres is an exclusive network of financial centres around the world run by Z/Yen Partners for organisations looking for a deeper understanding of financial centre competitiveness. Members receive enhanced access to GFCI data, marketing opportunities, and training for centres seeking to enhance their profile and reputation.



Seoul is a rising star among the financial cities of the world. It is already one of the top 10 cities in the world based on various indices, and it has many more opportunities to offer as a financial hub and great growth potential. Seoul believe global financial companies are our true partners for growth. There are many incentives provided to global financial companies that enter into Seoul, such as the financial incentives provided when moving into IFC, so that we can all jointly work towards the growth and development of the financial market.

It is sure that Seoul will become a top star of global financial hubs in the near future! Pay close attention to Seoul's potentials and preemptively gain a foothold in the Seoul financial hub. Seoul is the gateway to Northeast Asia and the world.

> Daehur Kim at vera8804@seoul.go.kr /www.seoul.go.kr/main/index.jsp

### BEFE BUSAN INTERNATIONAL FINANCE CENTER

Since 2009 Busan Metropolitan City has been developing a financial hub specialized in maritime finance and derivatives. With its strategic location in the center of the southeast economic block of Korea and the crossroads of a global logistics route, Busan envisions growing into an international financial city in Northeast Asia. Following the successful launch of the 63-story Busan International Finance Center in 2014, the second phase development of the Busan Financial Hub was completed in 2018, residing the fintech hub center and financial museum. In addition, Busan has been designated as a Regulation-Free Blockchain Zone by the government, becoming a hub of the financial industry that applies the new technology.

With this world-class business infrastructure, BIFC offers an attractive incentive package to global financial leaders, including 25 years of free office rentals to be offered to a small number of companies.

BIFC will support you to identify opportunities in Busan, one of the fastest developing cities in Asia.

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Casablanca Finance City is an African financial and business hub located at the crossroads of continents. Recognized as the leading financial center in Africa, and partner of the largest financial centers in the world, CFC has built a strong and thriving community of members across four major categories: financial companies, regional headquarters of multinationals, service providers and holdings.

CFC offers its members an attractive value proposition and a premium "Doing Business" support that fosters the deployment of their activities in Africa. Driven by the ambition to cater to its community, CFC is committed to promoting its members expertise across the continent, while enabling fruitful business and partnership synergies through its networking platform.

Manal Bernoussi at manal.bernoussi@cfca.ma www.casablancafinancecity.com

## Q

ABU DHABI GLOBAL MARKET ىبيوق أبوظبي العالمي

Abu Dhabi Global Market (ADGM), an awardwinning financial centre in the capital of the UAE, opened for business in October 2015, consisting of three independent authorities: the Registration Authority (RA); the Financial Services Regulatory Authority (FSRA); and ADGM Courts. Comprised of the three independent authorities where Common English Law is directly applicable, ADGM plays an essential role in the diversification of the economy in the UAE and is committed to providing a comprehensive business ecosystem operating with the highest standards of integrity and is renowned for its ease of doing business.

Strategically situated in Abu Dhabi, home to one of the world's largest sovereign wealth funds, ADGM plays a vital role in positioning Abu Dhabi as a global trade and business hub and serves as a link between the growing economies of the Middle East, Africa and South Asia to the rest of the world. ADGM has earned industry recognition as the Financial Centre of the Year (MENA) four years in a row as well as being recognized as the leading FinTech Hub in the region.

www.adgm.com/ info@adgm.com

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Global Times Consulting

Global Times Consulting Co. is a strategic consultancy with a focus on China. We help Chinese (local) governments at all levels to build their reputation globally, providing strategic counsel, stakeholder outreach and communications to support their sustainable development. We also partner with multinational companies operating in this dynamic but challenging market, serving as a gateway to China. In addition, we help Chinese companies extend their reach overseas.

Global Times Consulting Co. adopts a research and knowledge-based approach. With extensive contacts and deep insights into China's political and economic landscape, we develop and execute integrated programs for stakeholder relations and reputation management. Our extensive relationship with media and government organizations in China and worldwide helps us successfully execute programs and achieve desired goals.

Daniel Wang at danielwang@globaltimes.com.cn www.globaltimes.com.cn



The Long Finance initiative grew out of the London Accord, a 2005 agreement among investment researchers to share environmental, social and governance research with policy-makers and the public. Long Finance was established more formally by Z/Yen Group and Gresham College from 2007 with the aim of exploring long-term thinking across a global network of people.

We work on researching innovative ways of building a more sustainable financial system. In so doing, we try to operate openly and emulate scientific ideals. At the same time, we are looking to create a supportive and caring community where people can truly question the accepted paradigms of risk and reward.

### Dubai International Financial Centre

Dubai International Financial Centre (DIFC) is one of the world's most advanced financial centres, and the leading financial hub for the Middle East, Africa and South Asia (MEASA) region, which comprises 72 countries with an approximate population of 3 billion and a nominal GDP of US\$ 7.7 trillion.

DIFC is home to an internationally recognised, independent regulator and a proven judicial system with an English common law framework, as well as the region's largest financial ecosystem of more than 24,000 professionals working across over 2,300 active registered companies – making up the largest and most diverse pool of industry talent in the region. The Centre's vision is to drive the future of finance. Today, it offers one of the region's most comprehensive FinTech and venture capital environments, including costeffective licensing solutions, fit-for-purpose regulation, innovative accelerator programmes, and funding for growth-stage start-ups.

Comprising a variety of world-renowned retail and dining venues, a dynamic art and culture scene, residential apartments, hotels and public spaces, DIFC continues to be one of Dubai's most sought-after business and lifestyle destinations.

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Finance Montréal's mandate is to promote Montréal as a world-class financial hub and foster cooperation among its member institutions to accelerate the industry's growth. With renowned research capacities in artificial intelligence and a booming fintech sector, Montréal offers an experienced, diversified and innovative pool of talent as well as a stable, low cost and dynamic business environment.

For financial institutions searching for an ideal location to set up an intelligent service centre and operationalize their digital transformation, Finance Montréal can advise on the advantageous tax incentives aimed at facilitating the establishment and development of financial services corporations in the city.

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Vantage Financial Centres

Please find out more at: www.vantagefinancialcentres.net

or by contacting Mark Yeandle at mark\_yeandle@zyen.com



AIFC is an all-around financial centre located in Nur-Sultan, the capital of Kazakhstan, which offers ample opportunities for businesses to grow. AIFC provides greater access to world-class capital markets and the asset management industry. It also promotes financial technology and drives the development of niche markets such as Islamic and green finance in the region.

AIFC provides unprecedented conditions and opportunities for its participants and investors: legal system based on the principles of English law, independent judicial system, regulatory framework consistent with internationally recognised standards, wide range of financial services and instruments, simplified visa and labour regimes, zero corporate tax rate, and English as a working language.

Located in the heart of Eurasia, AIFC is striving to become the gateway to the Eurasian Economic Union, Central Asia and Caucasus, and play a key role in the Belt and Road Initiative. AIFC is already gaining tremendous recognition as a leading financial hub in the region: recently, Asiamoney Awards recognised it as the best Belt and Road Initiative project of 2019.

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Gujarat International Finance Tec-City (GIFT), Gujarat, India has set up International Financial Services Centre (IFSC) which is the only approved IFSC in India. The GIFT IFSC is a gateway for inbound and outbound business from India. Centre is fast emerging as a preferred destination for undertaking International Financial Services. The GIFT IFSC covers Banking, Insurance, Capital Market and allied services covering law firms, accounting firms and professional services firms.

It provides very competitive cost of operation with competitive tax regime, single window clearance, relaxed Company Law provisions, International Arbitration Centre with overall facilitation of doing business.

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Approved by the China's State Council, China Development Institute (CDI) was founded in 1989 with one hundred and sixteen representatives from the government, academia and business in China. Being an independent think tank, CDI is committed to develop policy solutions via research and debates that help to advance China's reform and opening-up. After years of development, CDI has become one of the leading think tanks in China. CDI focuses on the studies of open economy and innovation-driven development, regional economy and regional development, industrial policies and industrial development, urbanization and urban development, business strategies and investment decision -making. Via conducting research, CDI provides policy recommendations for the Chinese governments at various levels and develops consultation for corporate sectors at home and abroad. CDI organizes events in different formats that evokes dialogue among scholars, government officials, business people and civil society members around the globe. Based in Shenzhen, Southern China, CDI has one hundred and sixty staff, with an affiliated network that consists of renowned experts from different fields

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LFF connects international investors to the range of financial services provided in Luxembourg, such as investment funds, wealth management, capital market operations or advisory services. In addition to being the first port of call for foreign journalists, LFF cooperates with the various professional associations and monitors global trends in finance, providing the necessary material on products and services available in Luxembourg.

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Long Finance is a Z/Yen initiative designed to address the question **"When would we know our financial system is working?"** This question underlies Long Finance's goal to improve society's understanding and use of finance over the long-term. In contrast to the shorttermism that defines today's economic views the Long Finance timeframe is roughly 100 years.



### www.globalfinancialcentres.net

Financial Centre Futures is a programme within the Long Finance Initiative that initiates discussion on the changing landscape of global finance. Financial Centre Futures comprises the Global Financial Centres Index, the Global Green Finance Index and other research publications that explore major changes to the way we will live and work in the financial system of the future.