



# The Global Financial Centres Index 26

September 2019



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-sixth edition of the Global Financial Centres Index (GFCI 26).

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 30 years ago. 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, Mark Yeandle and Mike Wardle, would like to thank Bikash Kharel, Michael Mainelli, Carol Feng, Peng Yu, and the rest of the GFCI team for their contributions with research, modelling, and ideas.

## Foreword

Financial centres are key to sustain economic growth, as they provide the infrastructure for investment and savings that drives entrepreneurial endeavours. Their prime purpose is to meet growing global funding needs, and these are expected to be particularly high for the next ten to twenty years. In a world confronted with complex issues - including technological disruption, climate change, ageing populations and social issues - access to market financing, accelerated market opening and the competitiveness of the financial centres have become major new challenges, for the satisfaction of economic and social needs. The collection of data on the different financial centres is therefore of utmost importance and should provide as objective an analysis as possible.

In this context, the Paris Financial Centre strives to develop a financial industry that serves society and contributes to a real and sustainable economy. To this aim, it intends to capitalise on its strong assets, which allowed its moving up ten places in the GFCI September edition.

Indeed, Paris is the only 'global city' in the EU, on a par with London, and the leading financial centre in the EU27. It also benefits from a complete ecosystem, including clients, talents and quality infrastructures, as well as from a regulation recognised at international level and a quality dialogue between regulators and market participants.

In addition, the Paris Financial Centre has benefitted, since the election of President Macron, from a strong involvement of the French public authorities to consolidate its position as a leading financial centre. And what has been announced has been implemented. The flexibility of labour law, taxation - in particular in relation to impatriates - the cost of labour and infrastructures - e.g. the international schooling offer - have all been significantly improved.

Today, the Paris Financial Centre is unfolding a new strategy to consolidate its position as financial centre of the future in Europe, based on three main priorities:

- a fully-fledged fintech ecosystem - with striving companies, a large talent pool, a significant number of incubators, and the support of French authorities and regulators;
- sustainable and environmental finance - Paris is the world leader in green bond issues and a driving force in the transformation towards a low-carbon economy;
- infrastructure financing.

It also intends to increase its contribution at European and international level.

Augustin Romanet  
Chairman  
Paris EUROPLACE



# GFCI 26 Summary And Headlines

## Overview

- We researched 114 centres for this edition of the Global Financial Centres Index (GFCI 26). The number of financial centres in the main index has increased from 102 to 104 with the addition of Santiago and Nanjing. There are ten associate centres awaiting potential inclusion in the main index.
- Performance across the index showed slightly reduced confidence, with the overall ratings falling around 2.5% from GFCI 25. Thirty-one of the 104 centres fell in the ratings, including all of the top five centres. Twelve centres rose 10 or more places in the rankings and ten fell 10 or more places.
- Seven of the top ten places in the index are now taken by Asia/Pacific centres, continuing the region's strong performance over recent years.
- Overall, trade wars, geopolitical unrest, and Brexit are inducing significant adjustments to medium-term perceptions.

## FinTech Index

- For the first time, we have developed a separate index ranking financial centres as competitive places for FinTech.
- Beijing and Shanghai lead the FinTech rankings, and five of the top seven centres for FinTech are Chinese.
- New York, London, Singapore, San Francisco, and Chicago also feature in the top ten.

## GFCI 26 results

### Leading Centres

- New York retains its first place in the index, extending its lead over London from seven to 17 points. Hong Kong is now only two points behind London. Singapore and Shanghai remain in fourth and fifth position. All five top centres fell in the ratings in GFCI 26.
- Shenzhen, Dubai, and Sydney entered the top 10, easing out Toronto, Zurich, and Frankfurt.
- Within the top 30 centres, Paris has performed well, rising 10 places to 17<sup>th</sup>.

### Western Europe

- Following a good performance in GFCI 25, this region had a more mixed performance in GFCI 26, with 15 centres rising in the rankings and 13 falling.

### Asia/Pacific

- Asia/Pacific Centres performed well, with 20 of the 27 centres in the region either retaining or improving their position in the rankings. Nanjing entered the index for the first time.
- There were significant rises for Wellington, Mumbai, and Chengdu.

### North America

- North American centres had mixed fortunes in GFCI 26, with Canadian centres dropping back following their improved performance in GFCI 25, while US centres generally improved their rankings and ratings.
- Seven out of the ten North American centres in the index are in the top 20.

### Eastern Europe & Central Asia

- Nur-Sultan (formerly Astana) retained its top ranking in the Eastern Europe & Central Asia region, consolidating its position despite being a recently-formed financial centre.
- All but two of the 16 centres in the region improved their rating, with nine centres improving their overall ranking.

### Middle East & Africa

- Dubai, Casablanca, Tel Aviv, and Doha continued to rise in the index, with Dubai entering the top ten in the world. There were significant improvements for Mauritius, Bahrain, and Nairobi.

### Latin America & The Caribbean

- The Bahamas and Buenos Aires performed well in GFCI 26, rising 11 and ten places in the rankings respectively.

### Island Centres

- The British Crown Dependencies' performance dipped, with the Isle of Man down five places in the rankings, Jersey falling 12, and Guernsey continuing its rapid decline in the index, dropping 17 places following its 15-place fall in GFCI 25.

### GFCI 26

- GFCI 26 was compiled using 134 instrumental factors. These quantitative measures are provided by third parties including the World Bank, The Economist Intelligence Unit, the OECD, and the United Nations. Details can be found in Appendix 4.
- The instrumental factors were combined with 32,227 financial centre assessments provided by respondents to the GFCI online questionnaire ([globalfinancialcentres.net/survey](http://globalfinancialcentres.net/survey)). A breakdown of the 3,360 respondents is shown in Appendix 2. Further details of the methodology behind GFCI 26 are in Appendix 3.

Table 1 | GFCI 26 Top 52 Ranks And Ratings

Centre	GFCI 26		GFCI 25		Change In Rank	Change In Rating
	Rank	Rating	Rank	Rating		
New York	1	790	1	794	0	▼4
London	2	773	2	787	0	▼14
Hong Kong	3	771	3	783	0	▼12
Singapore	4	762	4	772	0	▼10
Shanghai	5	761	5	770	0	▼9
Tokyo	6	757	6	756	0	▲1
Beijing	7	748	9	738	▲2	▲10
Dubai	8	740	12	733	▲4	▲7
Shenzhen	9	739	14	730	▲5	▲9
Sydney	10	738	11	736	▲1	▲2
Toronto	11	737	7	755	▼4	▼18
San Francisco	12	736	16	727	▲4	▲9
Los Angeles	13	735	17	724	▲4	▲11
Zurich	14	734	8	739	▼6	▼5
Frankfurt	15	733	10	737	▼5	▼4
Chicago	16	732	20	717	▲4	▲15
Paris	17	728	27	699	▲10	▲29
Boston	18	727	13	732	▼5	▼5
Melbourne	19	720	15	729	▼4	▼9
Montreal	20	716	18	722	▼2	▼6
Casablanca	21	714	22	712	▲1	▲2
Tel Aviv	22	713	23	710	▲1	▲3
Guangzhou	23	711	24	708	▲1	▲3
Vancouver	24	710	19	721	▼5	▼11
Luxembourg	25	708	30	691	▲5	▲17
Geneva	26	706	28	698	▲2	▲8
Osaka	27	705	31	690	▲4	▲15
Washington DC	28	702	32	689	▲4	▲13
Edinburgh	29	701	35	674	▲6	▲27
Cayman Islands	30	699	21	713	▼9	▼14
Wellington	31	693	40	647	▲9	▲46
Abu Dhabi	32	690	26	702	▼6	▼12
Qingdao	33	688	29	694	▼4	▼6
Taipei	34	687	34	676	0	▲11
Bermuda	35	680	25	705	▼10	▼25
Seoul	36	677	36	668	0	▲9
Amsterdam	37	675	41	646	▲4	▲29
Dublin	38	674	38	658	0	▲16
Doha	39	672	42	642	▲3	▲30
Mauritius	40	671	54	628	▲14	▲43
Monaco	41	669	33	686	▼8	▼17
Stuttgart	42	663	49	633	▲7	▲30
Busan	43	662	46	636	▲3	▲26
Madrid	44	661	37	667	▼7	▼6
Kuala Lumpur	45	660	39	652	▼6	▲8
Stockholm	46	659	55	627	▲9	▲32
Bahrain	47	658	67	608	▲20	▲50
Milan	48	655	45	638	▼3	▲17
Hamburg	49	650	50	632	▲1	▲18
Bangkok	50	649	53	629	▲3	▲20
Nur-Sultan (formerly Astana)	51	648	51	631	0	▲17
Munich	52	645	43	641	▼9	▲4

Table 1 (Continued) | GFCI 26 Remaining Ranks And Ratings

Centre	GFCI 26		GFCI 25		Change In	Change In
	Rank	Rating	Rank	Rating	Rank	Rating
Istanbul	53	641	59	620	▲6	▲21
Vienna	54	640	44	640	▼10	0
Lisbon	55	639	60	619	▲5	▲20
Brussels	56	638	52	630	▼4	▲8
Calgary	57	637	58	621	▲1	▲16
Prague	58	636	62	614	▲4	▲22
Jersey	59	635	47	635	▼12	0
Oslo	60	633	64	612	▲4	▲21
Liechtenstein	61	631	77	596	▲16	▲35
Mexico City	62	630	61	616	▼1	▲14
Cape Town	63	629	56	626	▼7	▲3
Warsaw	64	626	70	605	▲6	▲21
Kuwait City	65	625	57	625	▼8	0
GIFT City-Gujarat	66	624	69	606	▲3	▲18
Copenhagen	67	623	76	597	▲9	▲26
Helsinki	68	622	74	599	▲6	▲23
Rome	69	614	86	584	▲17	▲30
Glasgow	70	613	63	613	▼7	0
Moscow	71	610	88	582	▲17	▲28
Mumbai	72	609	92	573	▲20	▲36
Chengdu	73	608	87	583	▲14	▲25
Bahamas	74	607	85	585	▲11	▲22
British Virgin Islands	75	606	72	602	▼3	▲4
Tallinn	76	605	94	569	▲18	▲36
Gibraltar	77	604	80	591	▲3	▲13
Budapest	78	603	71	603	▼7	0
St Petersburg	79	602	73	601	▼6	▲1
Buenos Aires	80	601	90	580	▲10	▲21
Johannesburg	81	600	48	634	▼33	▼34
Sao Paulo	82	596	66	609	▼16	▼13
Cyprus	83	595	93	572	▲10	▲23
Sofia	84	594	79	593	▼5	▲1
Riga	85	593	78	595	▼7	▼2
Panama	86	592	82	588	▼4	▲4
Rio de Janeiro	87	591	65	611	▼22	▼20
Nairobi	88	590	97	564	▲9	▲26
Isle of Man	89	589	84	586	▼5	▲3
New Delhi	90	588	96	565	▲6	▲23
Jakarta	91	587	68	607	▼23	▼20
Guernsey	92	586	75	598	▼17	▼12
Reykjavik	93	585	83	587	▼10	▼2
Baku	94	584	95	567	▲1	17
Malta	95	577	89	581	▼6	▼4
Riyadh	96	564	91	575	▼5	▼11
Manila	97	549	98	562	▲1	▼13
Almaty	98	548	100	560	▲2	▼12
Santiago	99	540	New	New	New	New
Athens	100	539	102	519	▲2	▲20
Dalian	101	529	101	520	0	▲9
Tianjin	102	528	81	589	▼21	▼61
Nanjing	103	507	New	New	New	New
Hangzhou	104	459	99	561	▼5	▼102

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 ten centres which fall into this ‘associate centres’ category.

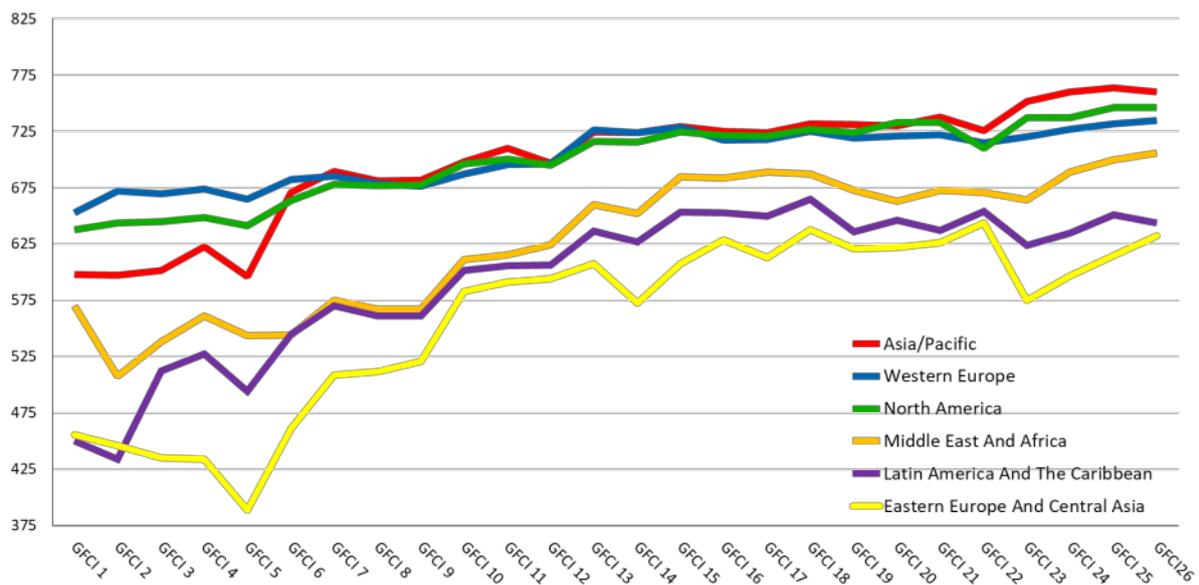
**Table 2 | GFCI 26 Associate Centres**

Centre	Number of Assessments in the last 24 months	Mean of Assessments
San Diego	122	658
Barbados	79	527
Tehran	77	487
Andorra	76	514
Karachi	69	530
Bratislava	59	571
Trinidad & Tobago	39	451
Lugano	33	624
Vilnius	28	604
Lagos	21	514

## Regional Performance

The mean of the top five Asia/Pacific centres is higher than in other regions. North America is still just ahead of Western Europe. The top centres in other regions have improved over time and narrowed the gap with the leading regions. Eastern Europe & Central Asia’s performance has recovered from its position in GFCI 23.

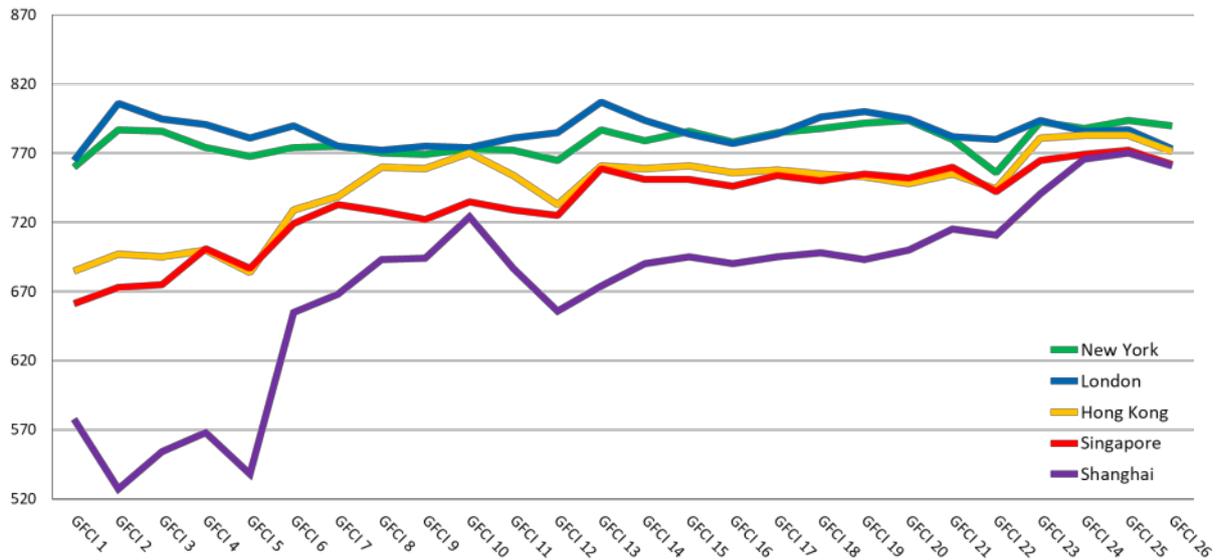
**Chart 1 | Average Ratings Of The Top Five Centres In Each Region**



### The Top Five Centres

New York remains in first place in GFCI 26 and has increased its lead over London to 17 points. Hong Kong, Singapore, and Shanghai have all continued to close the gap on the leaders, with Hong Kong now only two points behind London. When we started tracking financial centres, Shanghai was 193 points behind the leader. It is now just 29 points behind New York and only one point below Singapore.

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



*“Quality of life is very important to get people to work in the vicinity of company headquarters.”*

STRATEGY MANAGER, BASED IN GERMANY



## 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**

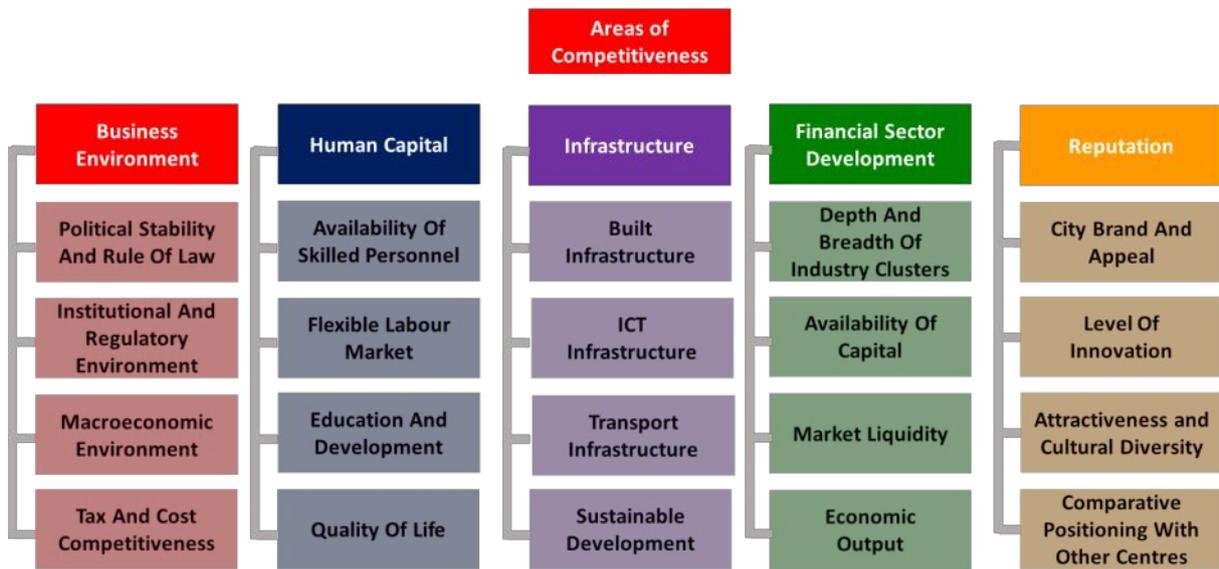
Centre	Mentions in last 24 months
Qingdao	290
Shanghai	107
Stuttgart	81
Hong Kong	55
Paris	51
Frankfurt	49
Shenzhen	48
Beijing	42
Singapore	41
Tokyo	31
London	24
Seoul	24
Nur-Sultan (formerly Astana)	23
Dublin	23
Zurich	22

*“Without skilled and flexible people in the market, it is hard to generate a competitive environment. There is no path to growth without skilled and flexible people, and without them, competitiveness does not have a future.”*

# 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.

Chart 3 | GFCI Areas Of Competitiveness



*“Brexit could have short-term negative but long-term positive impact on regulatory environment. Rule of law is already well-established in the UK and will remain so - corruption is minimal compared to some other centres.”*

INVESTMENT DIRECTOR BASED IN LONDON

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. The top financial centres of the world are well-developed and strong in most areas. The top four financial centres overall hold the top positions in all five of the sub-indices, with New York taking the lead position in all.

**Table 4 | GFCI 26 Top 15 By Area Of Competitiveness**

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

*“Infrastructure is often underestimated and really only acknowledged when appropriate infrastructure is not there. It is often taken for granted and not understood!”*

## 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.

**Table 5 | GFCI 26 Main Areas Of Competitiveness**

Areas of Competitiveness	Number of Mentions	Main Issues
<b>Business Environment</b>	580	<ul style="list-style-type: none"> <li>Regulation and laws should be strong and predictable but adaptable to changing circumstances</li> <li>The rule of law needs to be enforced</li> <li>Regulators must be educated on new technologies</li> </ul>
<b>Taxation</b>	533	<ul style="list-style-type: none"> <li>Lower taxes are ideal but centres should avoid lowering taxes at the expense of their infrastructure</li> <li>Taxes should be impartial and not target specific sectors or businesses</li> <li>High taxes hurt smaller businesses and cause big businesses to keep their money in low tax, offshore centres</li> </ul>
<b>Human Capital</b>	531	<ul style="list-style-type: none"> <li>Free movement of talent is crucial (will Brexit impede this in Europe?)</li> <li>The importance of training inexperienced or displaced workers</li> <li>Employee turnover is increasing as workers tend to change companies more often than in previous times</li> </ul>
<b>Infrastructure</b>	490	<ul style="list-style-type: none"> <li>Easily accessible airports and public transportation</li> <li>Infrastructure should encourage new businesses, not deter them</li> <li>Making ICT infrastructure strong but also secure</li> </ul>
<b>Reputation</b>	493	<ul style="list-style-type: none"> <li>Maintaining a long-term brand in an often short-sited financial industry</li> <li>Advertising centres through social media</li> <li>Safety is the more important than ever when attracting new businesses</li> </ul>
<b>Financial Centre Development</b>	456	<ul style="list-style-type: none"> <li>Access to clients is changing as businesses work online (Can technology replace the value of face-to-face meetings?)</li> <li>Active communication is necessary to maintain competitiveness</li> <li>Making access to clients affordable</li> </ul>

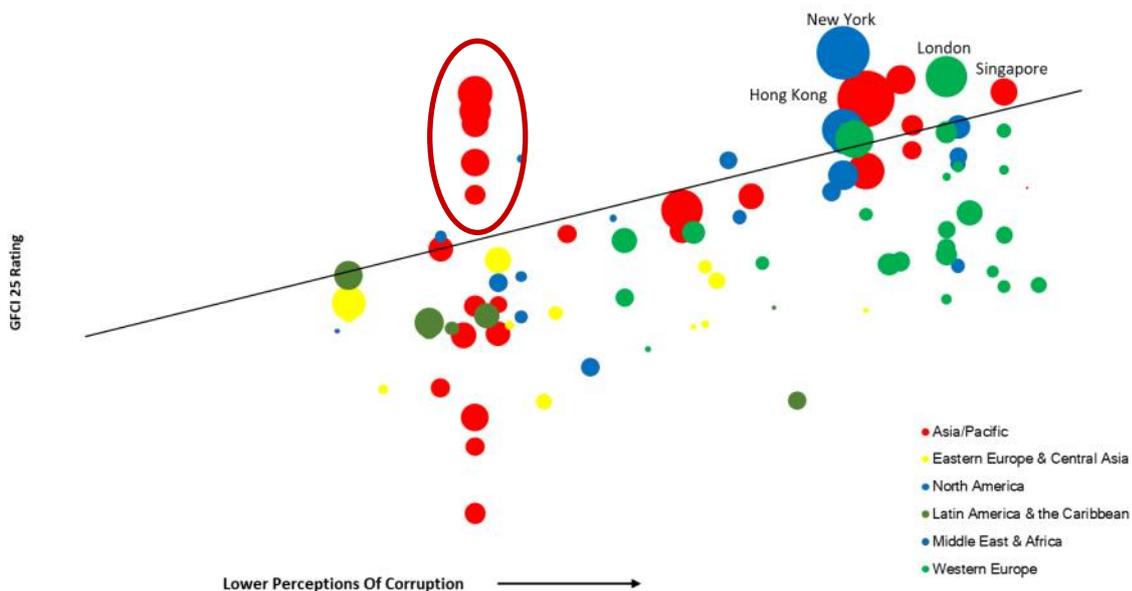
*“The legal system in Australia is strong and authoritative, improved by the recent Royal Commission in the banking finance sector.”*

# The Rule Of Law And Corruption

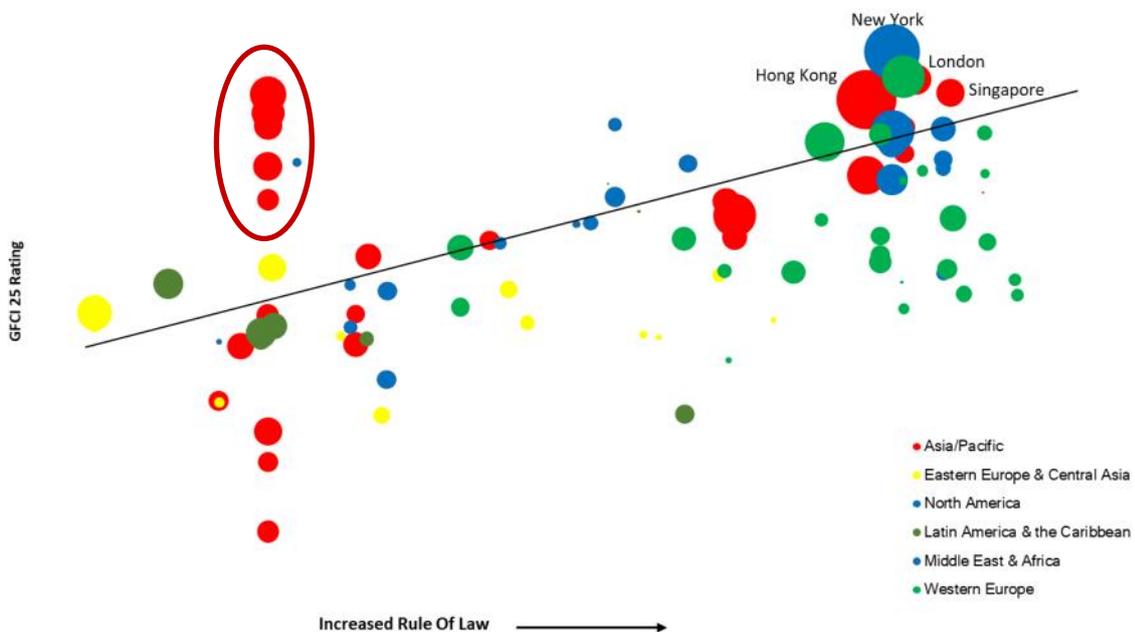
The level of corruption and the rule of law continue to have a significant correlation with financial centre competitiveness. Chart 4 plots GFCI ratings against Transparency International’s Corruption Perceptions Index and Chart 5 plots GFCI rating against the World Bank’s Rule Of Law Indicator. These charts demonstrate the correlation of these factors with the GFCI 26 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 26 Rating Against Corruption Perceptions Index (Supplied by Transparency International)**



**Chart 5 | GFCI 26 Rating Against the Rule Of Law Indicator (Supplied by the World Bank)**



# 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 Paris and Zurich to demonstrate the contrast, with Paris having connections with a wider spread of centres than Zurich; both being well connected with London; and both having strong connections with other individual centres, for example, Hong Kong in the case of Paris and Stuttgart in the case of Zurich.

Chart 6 | GFCI 26 Connectivity — Paris

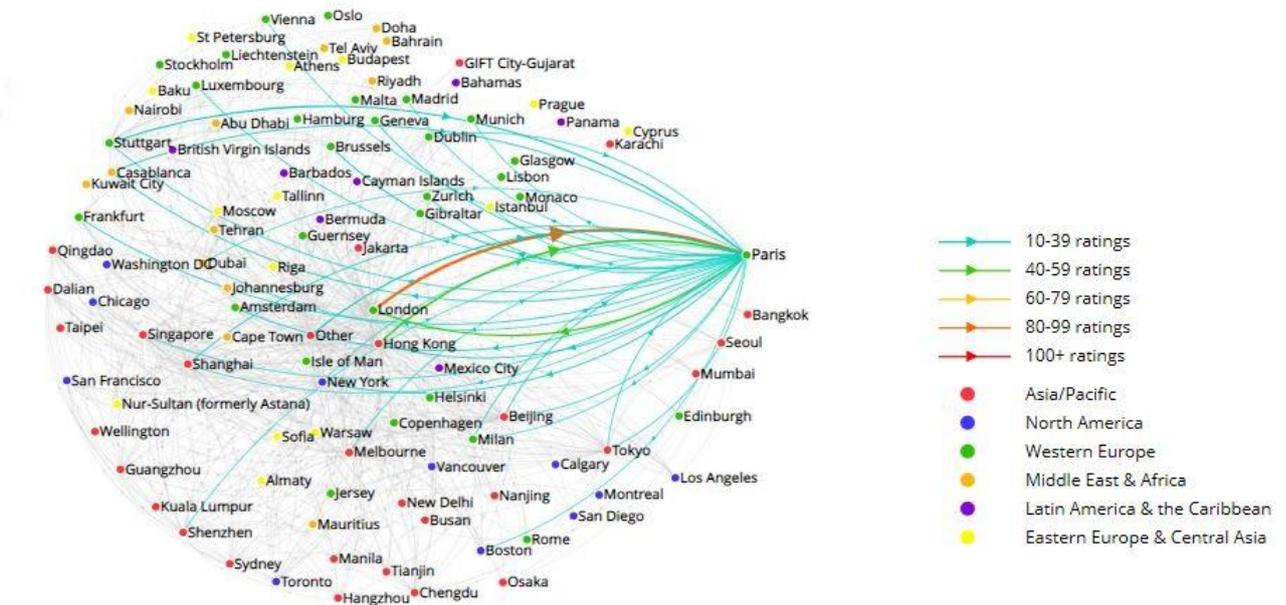
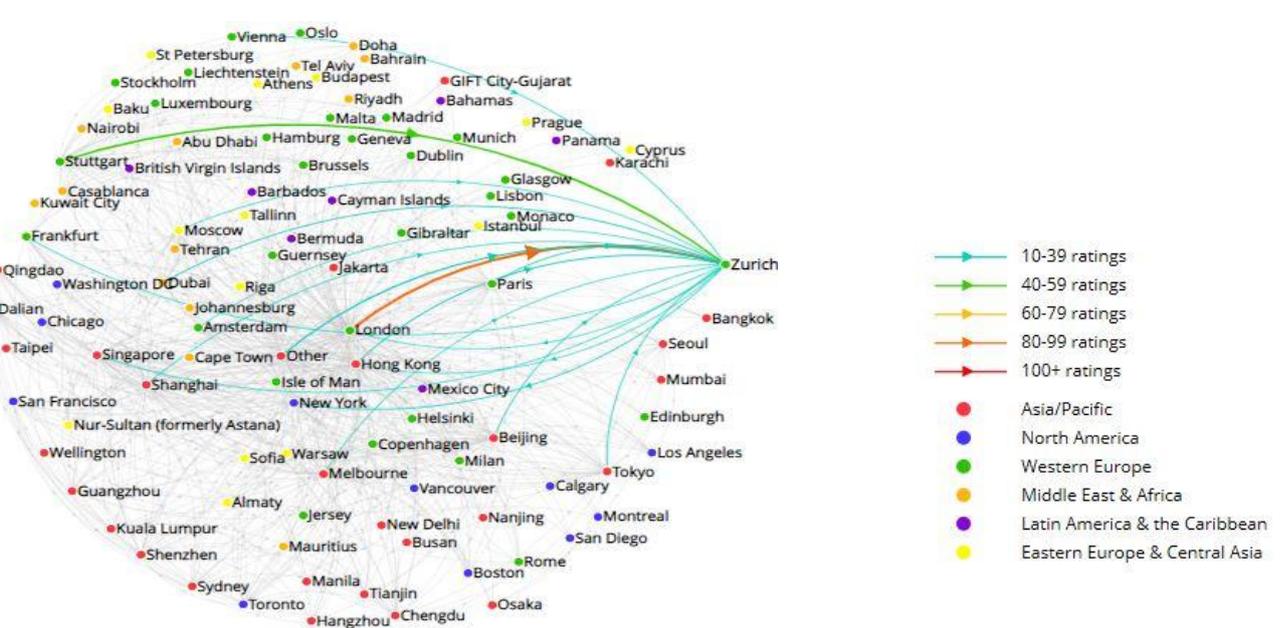
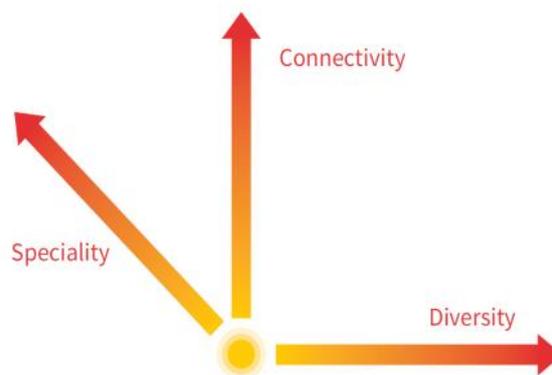


Chart 7 | GFCI 26 Connectivity — Zurich



## Financial Centre Profiles

Chart 8 | GFCI 26 Profile Elements



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 56% 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 104 centres in GFCI 26 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 14 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 10 of the top 12 global financial centres in GFCI 26.

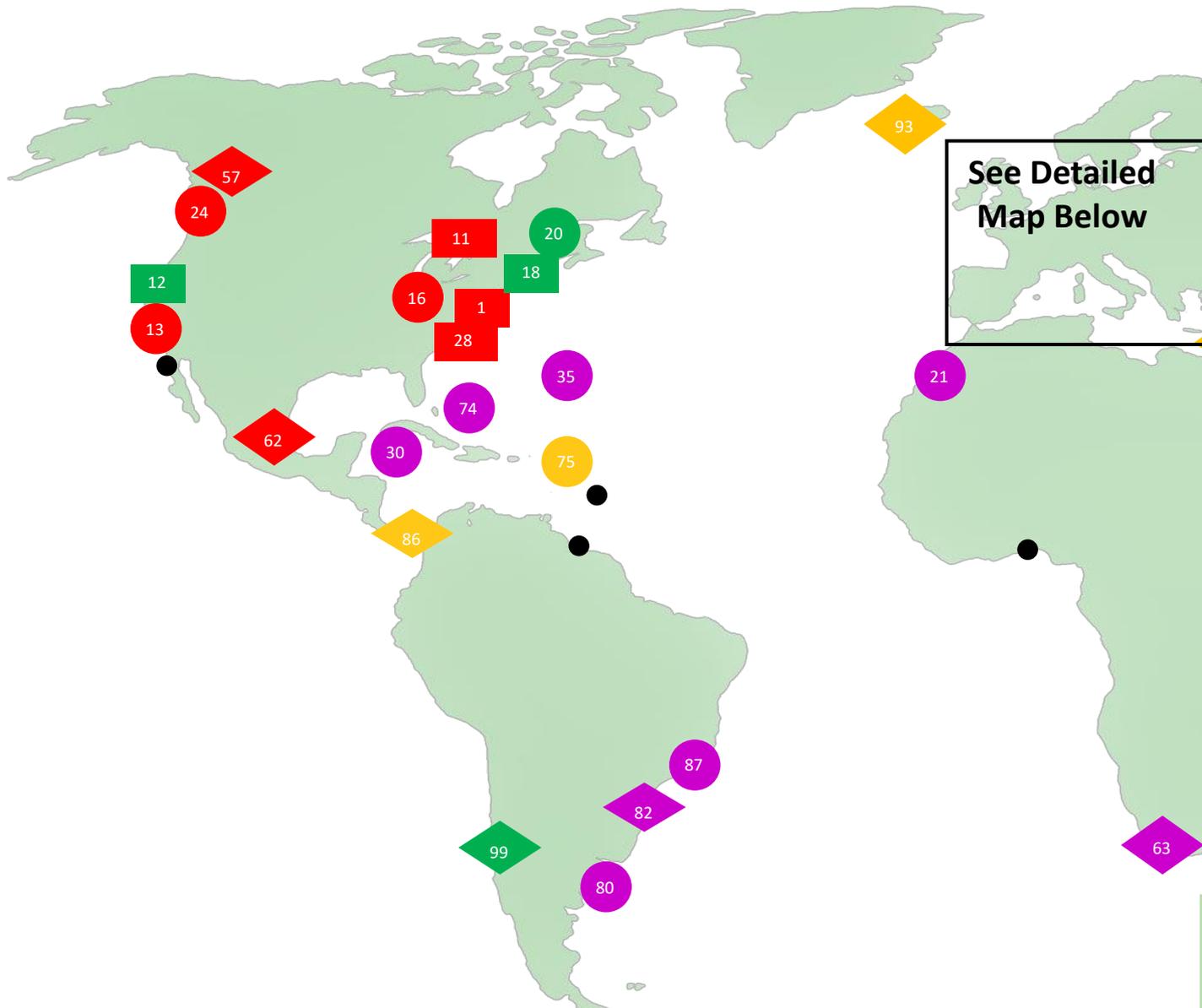
Significant changes in GFCI 26 include Melbourne and Washington DC replacing Chicago and Los Angeles as Global Leaders; Boston and Madrid moving to become Global Diversified; and Guangzhou and Dalian becoming Global Specialists.

Table 6 | GFCI 26 Financial Centre Profiles

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

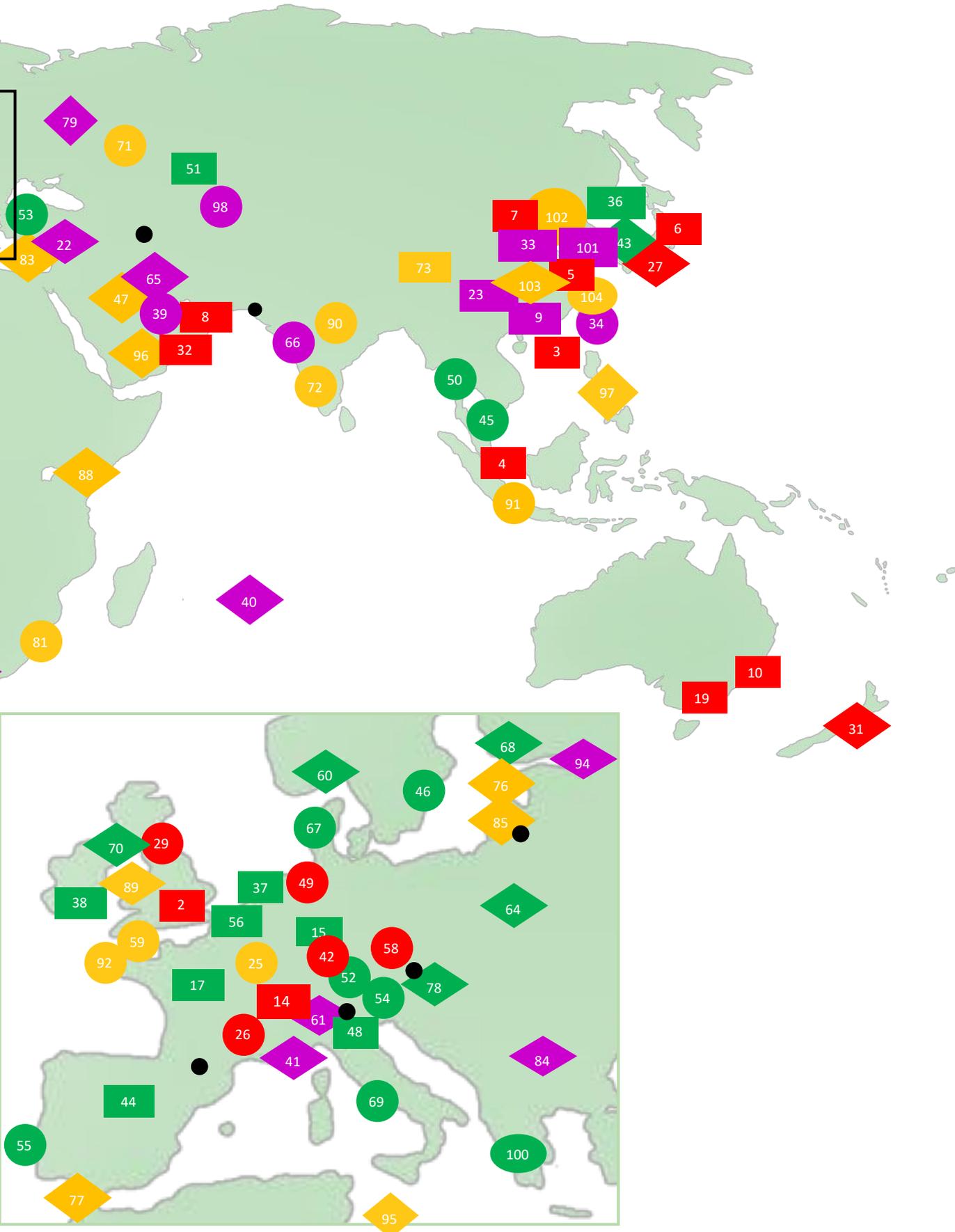
Note: An asterisk denotes centres that have changed their classification since GFCI 25

# The GFCI 26 World



The numbers on the map indicate the GFCI 26 rankings. Black dots denote Associate Centres:

- | Broad and Deep   | Relatively Broad   | Relatively Deep   | Emerging   |
|--|--|---|--|
| <span style="color: red;">■</span> Global Leaders            | <span style="color: green;">■</span> Global Diversified        | <span style="color: purple;">■</span> Global Specialists        | <span style="color: yellow;">■</span> Global Contenders        |
| <span style="color: red;">●</span> Established International | <span style="color: green;">●</span> International Diversified | <span style="color: purple;">●</span> International Specialists | <span style="color: yellow;">●</span> International Contenders |
| <span style="color: red;">◆</span> Established Players       | <span style="color: green;">◆</span> Local Diversified         | <span style="color: purple;">◆</span> Local Specialists         | <span style="color: yellow;">◆</span> Evolving 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:

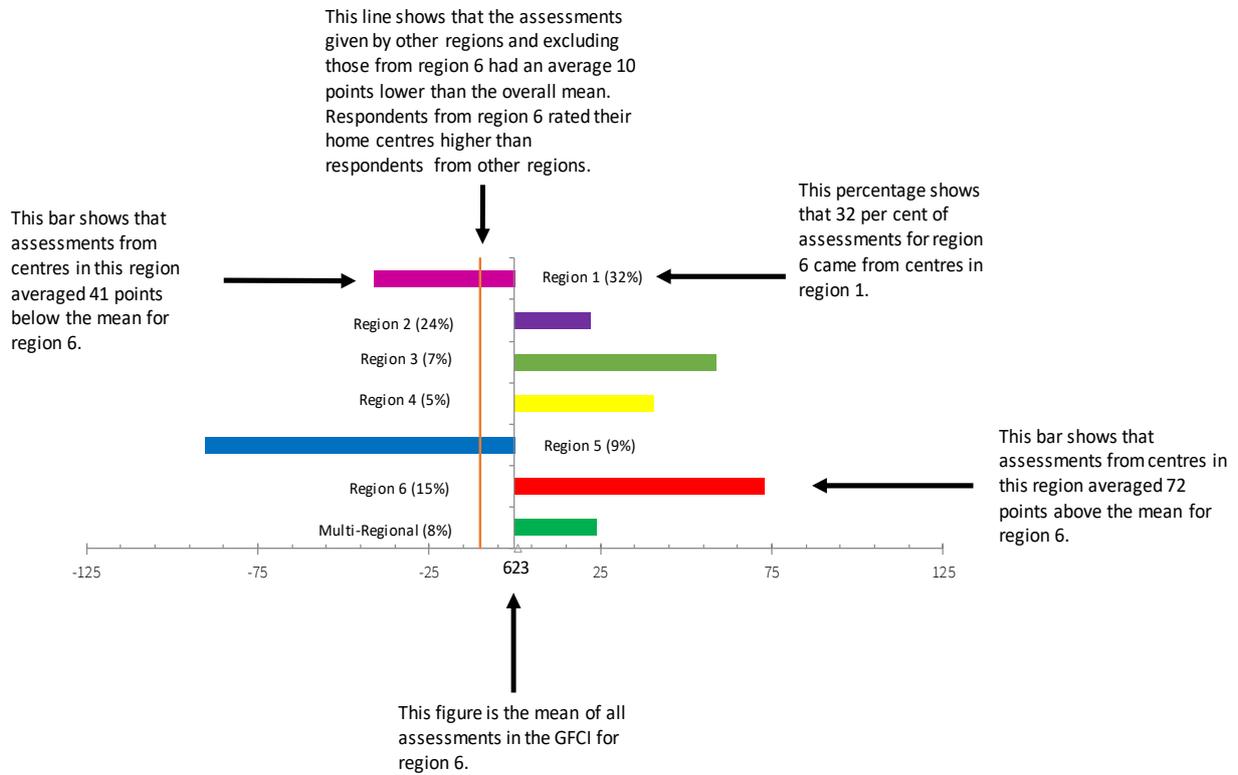
- the mean assessment provided to that region or centre;
- the difference in the mean assessment when home region assessments are removed from the analysis;
- the difference between the mean and the assessments provided by other regions;
- the proportion of assessments provided by each region.

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.

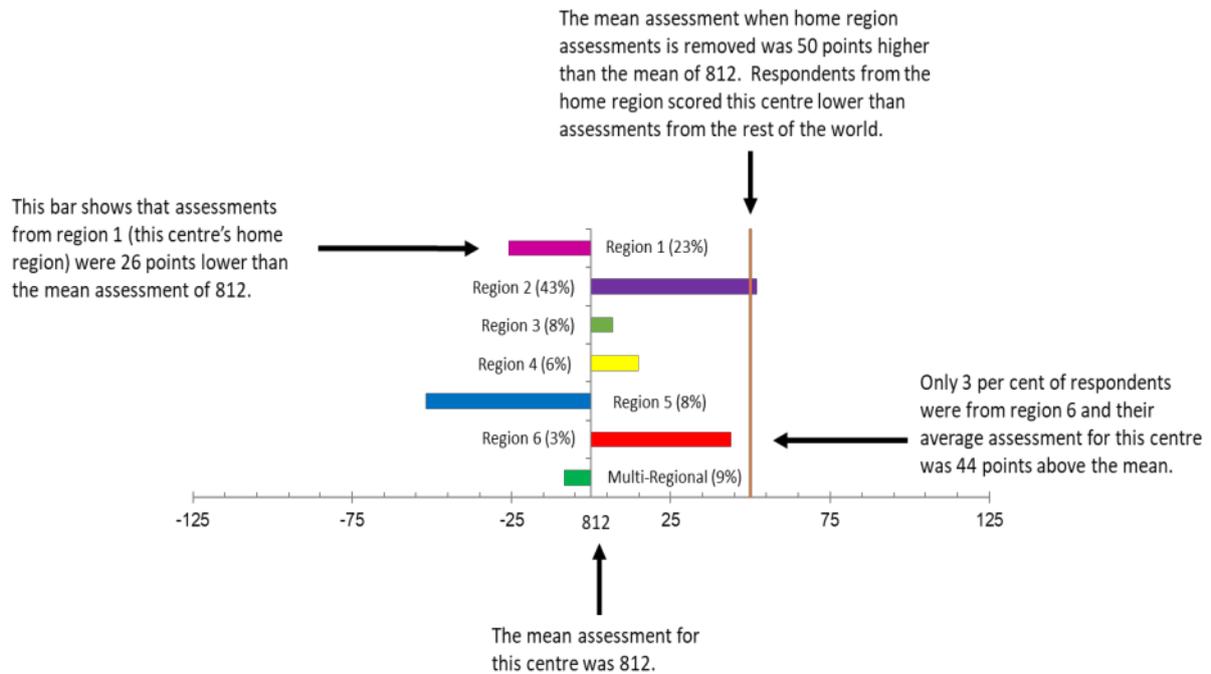
The additional vertical axis (in red) shows the mean of assessments when assessments from the home region are removed. The percentage figure noted by each region indicates the percentage of the total number of assessments that are from that region.

*“Too heavy regulation is becoming apparent in some centres (e.g. London) and this will slow business growth considerably, at best driving unhealthy levels of consolidation and reducing customer choice. The Irish regulator seems to have achieved a good balance although they are now noticeably understaffed, a position they are trying to change under the next governor who will have a mandate to update the organisation.”*

**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

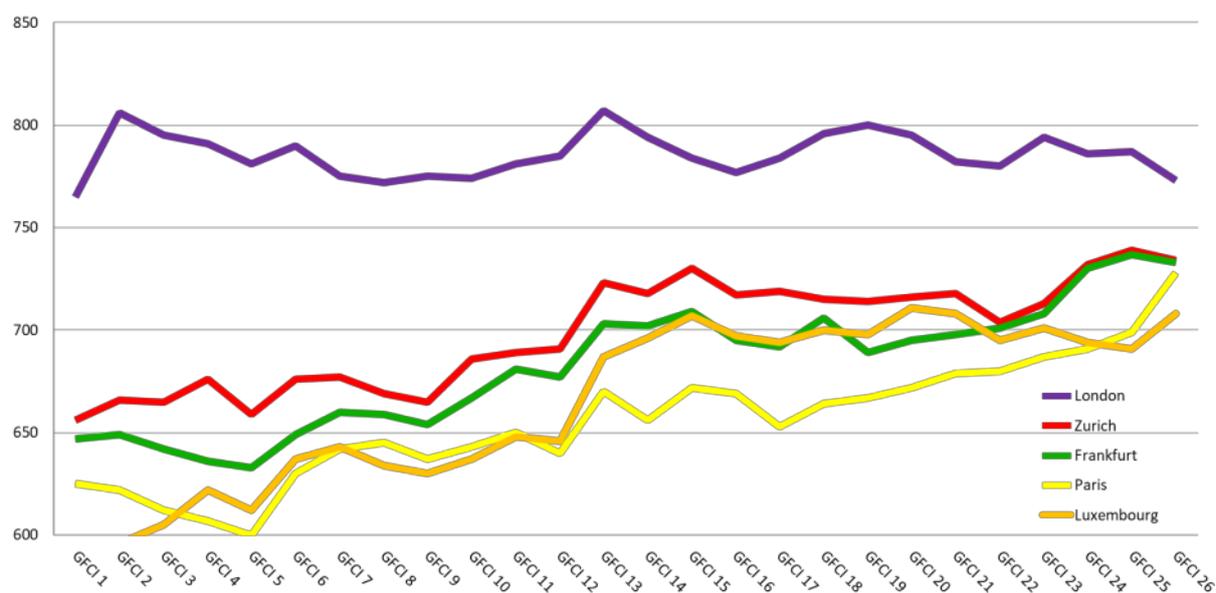
This region had a mixed performance in GFCI 26. Thirteen of the top 20 Western European centres rose in the ratings. London held onto second place in the index, but fell 14 points in the ratings. If London and Paris have similar falls and rises in the ratings in GFCI 27, London would be reduced to a two point lead over Paris and would lie behind Shanghai.

Zurich, Frankfurt, Monaco, and Madrid lost some of the ground they gained in GFCI 25. Jersey was the only centre in Western Europe that dropped more than ten places in the rankings, overtaken by other centres.

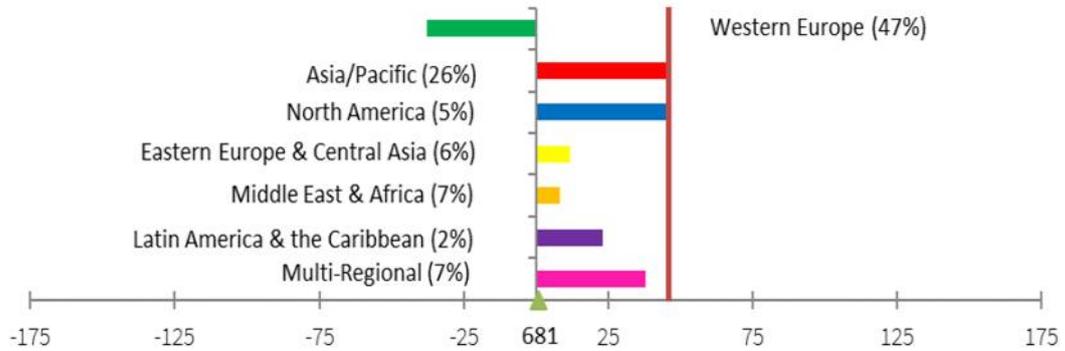
**Table 7 | Western European Top 20 Centres In GFCI 26**

Centre	GFCI 26		GFCI 25		Change in Rank	Change in Rating
	Rank	Rating	Rank	Rating		
London	2	773	2	787	0	▼14
Zurich	14	734	8	739	▼6	▼5
Frankfurt	15	733	10	737	▼5	▼4
Paris	17	728	27	699	▲10	▲29
Luxembourg	25	708	30	691	▲5	▲17
Geneva	26	706	28	698	▲2	▲8
Edinburgh	29	701	35	674	▲6	▲27
Amsterdam	37	675	41	646	▲4	▲29
Dublin	38	674	38	658	0	▲16
Monaco	41	669	33	686	▼8	▼17
Stuttgart	42	663	49	633	▲7	▲30
Madrid	44	661	37	667	▼7	▼6
Stockholm	46	659	55	627	▲9	▲32
Milan	48	655	45	638	▼3	▲17
Hamburg	49	650	50	632	▲1	▲18
Munich	52	645	43	641	▼9	▲4
Vienna	54	640	44	640	▼10	0
Lisbon	55	639	60	619	▲5	▲20
Brussels	56	638	52	630	▼4	▲8
Jersey	59	635	47	635	▼12	0

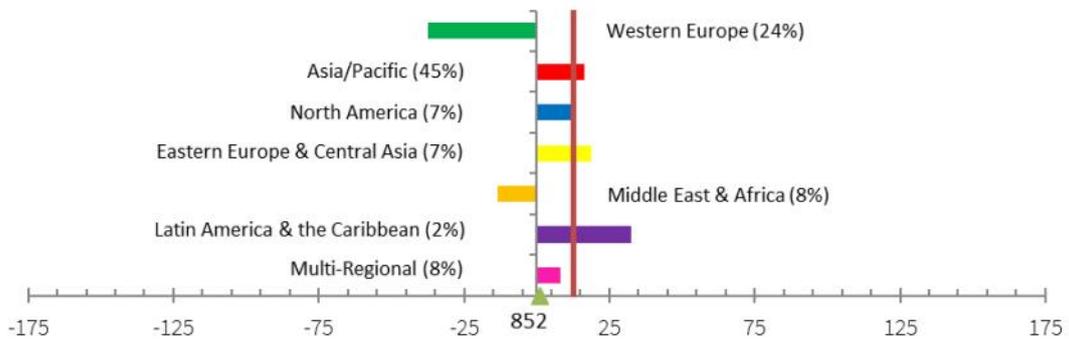
**Chart 11 | Top Five Western European Centres Over Time**



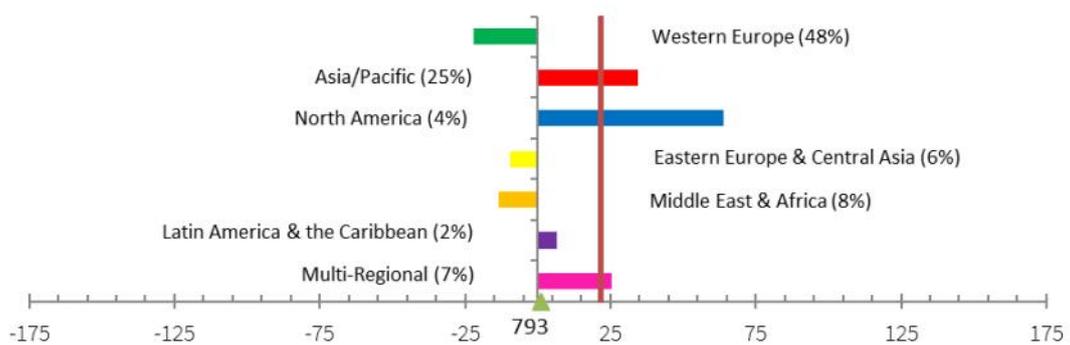
**Chart 12 | Average Assessments By Region For Western Europe – Difference From The Overall Mean**



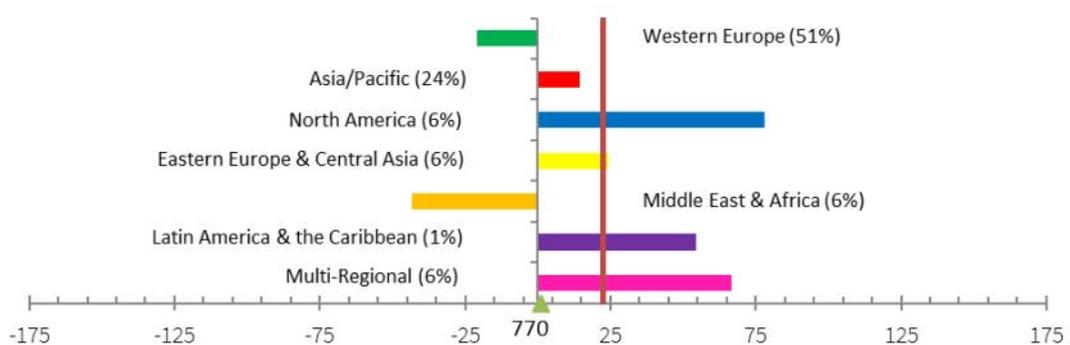
**Chart 13 | Assessments By Region For London — Difference From The Overall Mean**



**Chart 14 | Assessments By Region For Zurich — Difference From The Overall Mean**



**Chart 15 | Assessments By Region For Frankfurt — Difference From The Overall Mean**



## Asia/Pacific

Most Asia/Pacific centres performed well. Beijing rose two places in the rankings, with Shenzhen improving five places to enter the top ten.

There has been a strong trend of Asia/Pacific centres improving over several years.

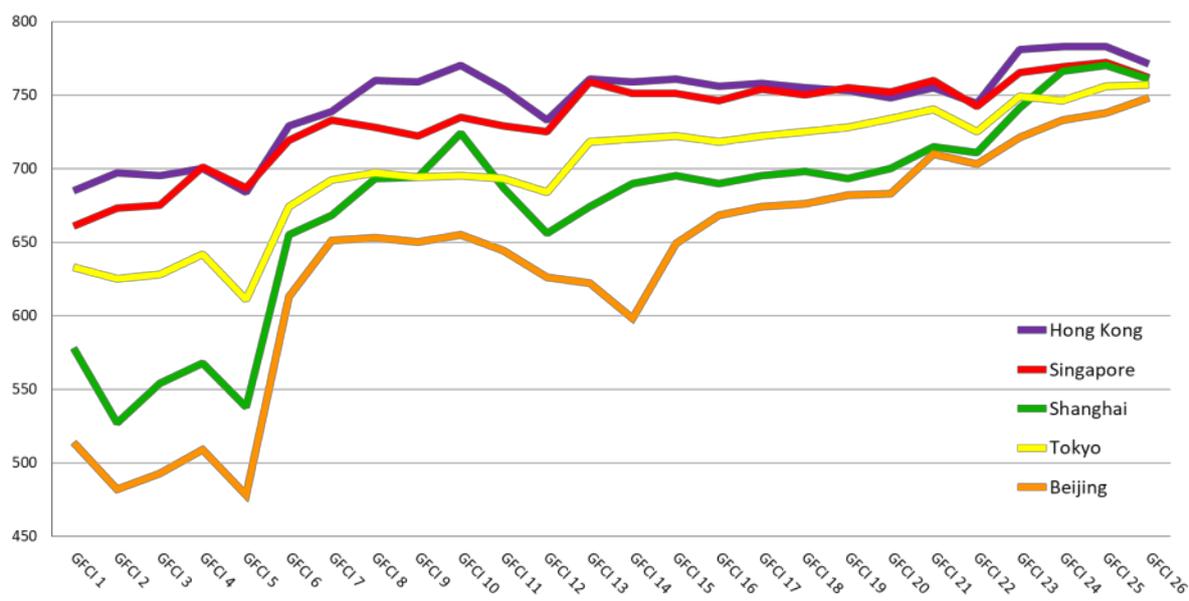
The top seven centres in the region are now in the top 15 centres in the index.

Mumbai, Wellington, and Chengdu showed strong increases in GFCI 26. Melbourne fell four places after a strong performance in GFCI 25.

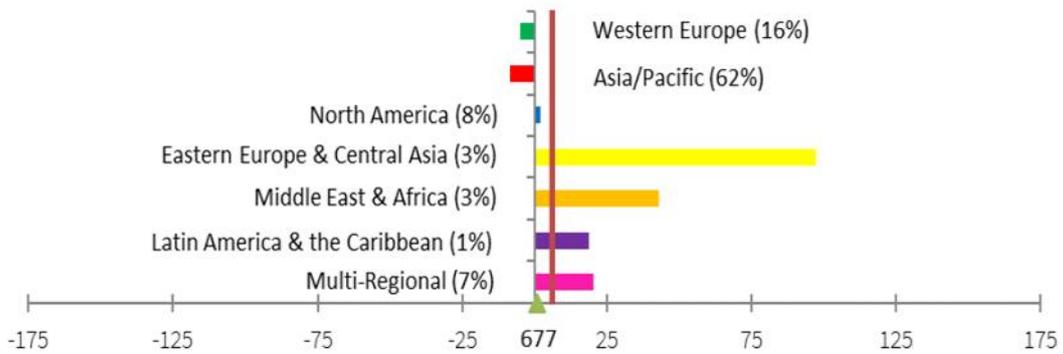
**Table 8 | Asia/Pacific Top 20 Centres In GFCI 26**

Centre	GFCI 26		GFCI 25		Change in Rank	Change in Rating
	Rank	Rating	Rank	Rating		
Hong Kong	3	771	3	783	0	▼12
Singapore	4	762	4	772	0	▼10
Shanghai	5	761	5	770	0	▼9
Tokyo	6	757	6	756	0	▲1
Beijing	7	748	9	738	▲2	▲10
Shenzhen	9	739	14	730	▲5	▲9
Sydney	10	738	11	736	▲1	▲2
Melbourne	19	720	15	729	▼4	▼9
Guangzhou	23	711	24	708	▲1	▲3
Osaka	27	705	31	690	▲4	▲15
Wellington	31	693	40	647	▲9	▲46
Qingdao	33	688	29	694	▼4	▼6
Taipei	34	687	34	676	0	▲11
Seoul	36	677	36	668	0	▲9
Busan	43	662	46	636	▲3	▲26
Kuala Lumpur	45	660	39	652	▼6	▲8
Bangkok	50	649	53	629	▲3	▲20
GIFT City-Gujarat	66	624	69	606	▲3	▲18
Mumbai	72	609	92	573	▲20	▲36
Chengdu	73	608	87	583	▲14	▲25

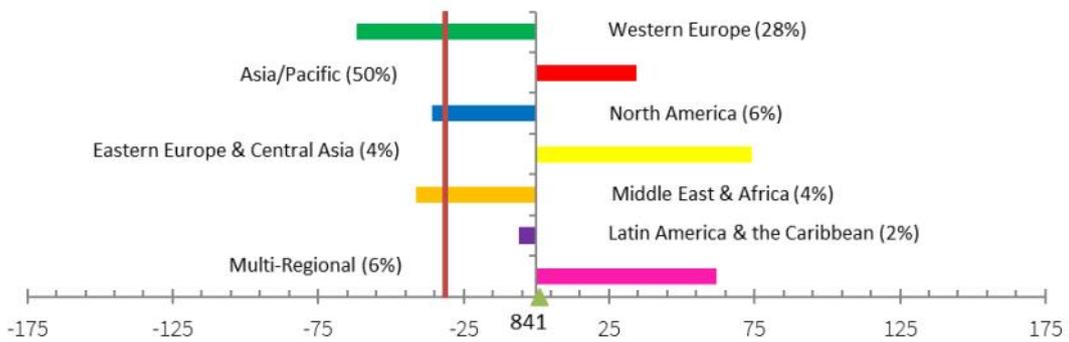
**Chart 16 | Top Five Asia/Pacific Centres Over Time**



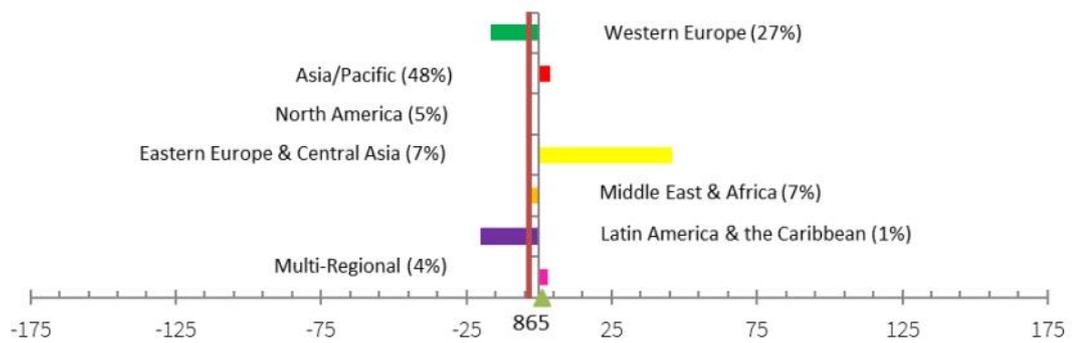
**Chart 17 | GFCI 26 Average Assessments By Region For Asia/Pacific – Difference From The Overall Mean**



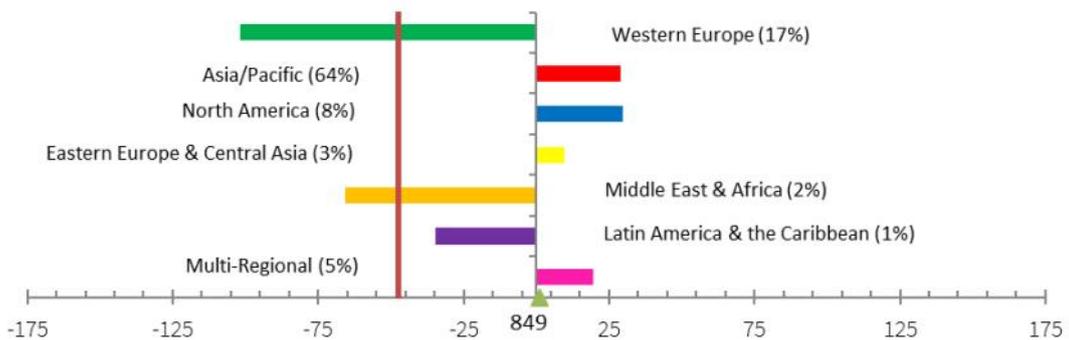
**Chart 18 | Assessments By Region For Hong Kong – Difference From The Overall Mean**



**Chart 19 | Assessments By Region For Singapore – Difference From The Overall Mean**



**Chart 20 | Assessments By Region For Shanghai – Difference From The Overall Mean**



## North America

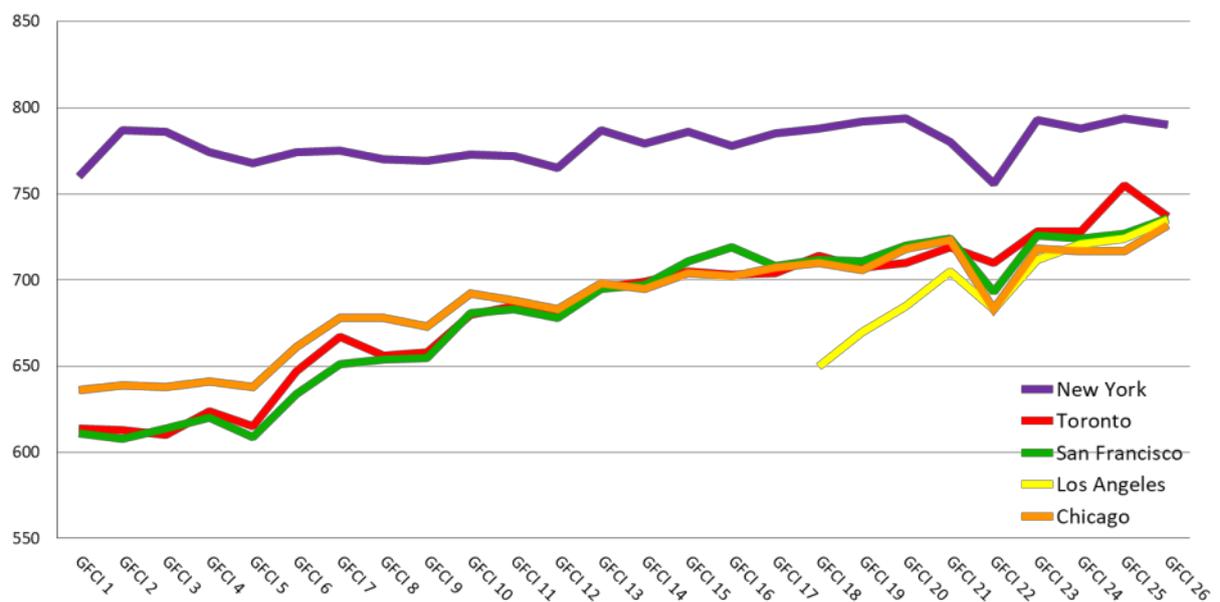
North American centres had a mixed performance in GFCI 26. US centres were the winners in this edition, with New York retaining its leading place in the index, and San Francisco, Washington DC, Los Angeles, and Chicago all increasing their ranking.

By contrast, Toronto, Montreal, and Vancouver lost ground after their improvement in GFCI 25.

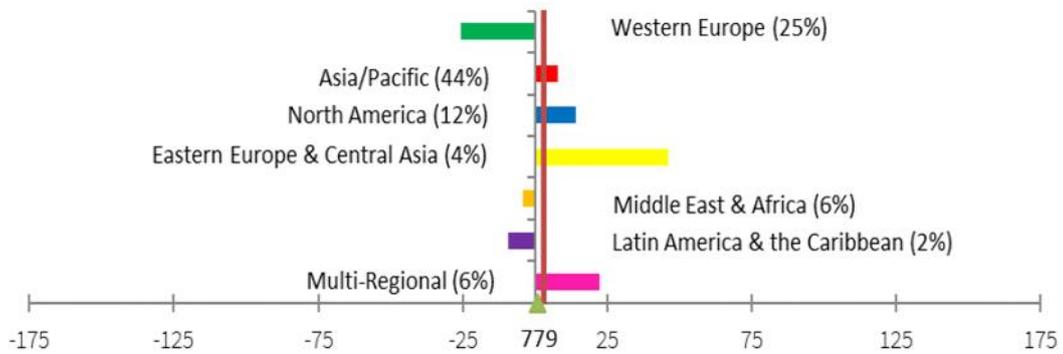
**Table 9 | North American Centres In GFCI 26**

Centre	GFCI 26		GFCI 25		Change in	
	Rank	Rating	Rank	Rating	Rank	Rating
New York	1	790	1	794	0	▼4
Toronto	11	737	7	755	▼4	▼18
San Francisco	12	736	16	727	▲4	▲9
Los Angeles	13	735	17	724	▲4	▲11
Chicago	16	732	20	717	▲4	▲15
Boston	18	727	13	732	▼5	▼5
Montreal	20	716	18	722	▼2	▼6
Vancouver	24	710	19	721	▼5	▼11
Washington DC	28	702	32	689	▲4	▲13
Calgary	57	637	58	621	▲1	▲16

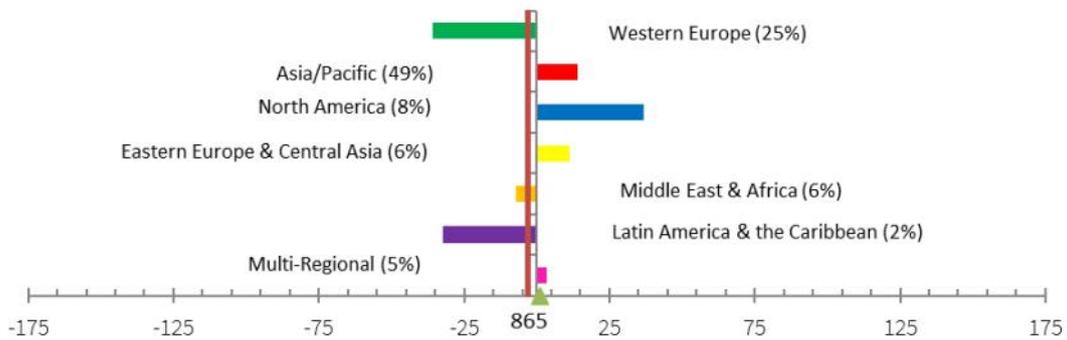
**Chart 21 | Top Five North American Centres Over Time**



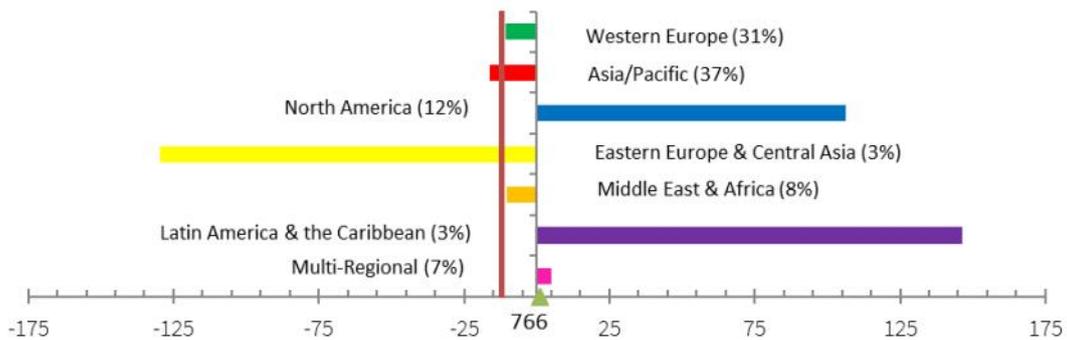
**Chart 22 | Average Assessments By Region For North America – Difference From The Overall Mean**



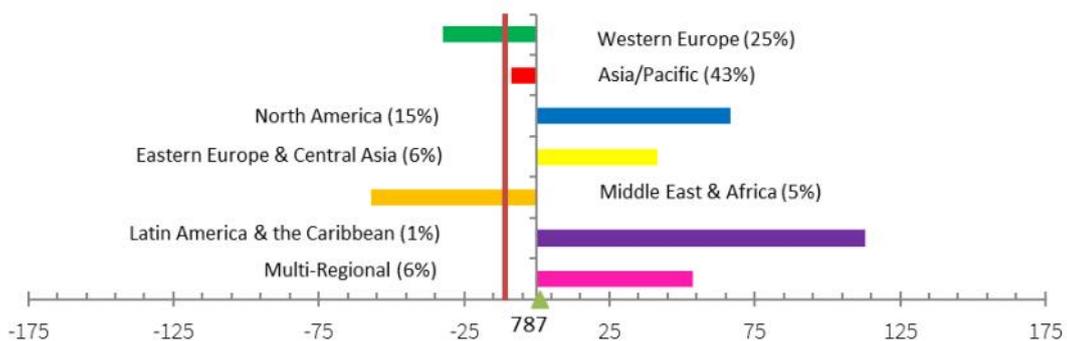
**Chart 23 | Assessments By Region For New York — Difference From The Overall Mean**



**Chart 24 | Assessments By Region for Toronto — Difference From The Overall Mean**



**Chart 25 | Assessments By Region For San Francisco — Difference From The Overall Mean**



## Eastern Europe & Central Asia

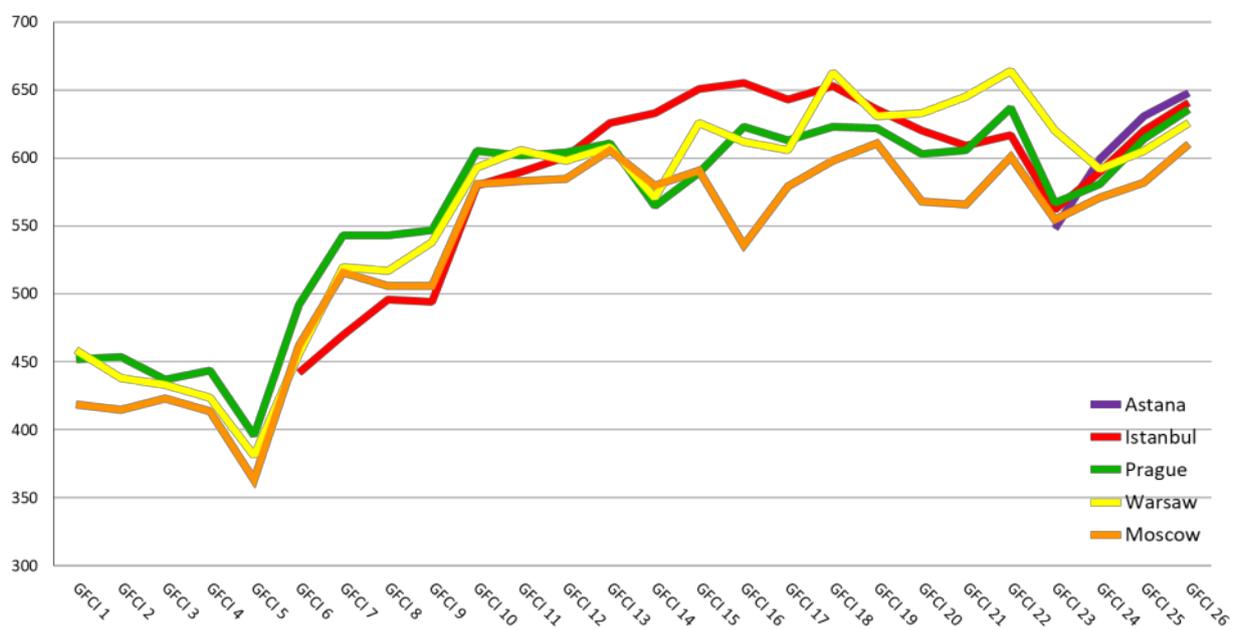
This region performed well, with 12 of the 14 centres improving their rating. Nur-Sultan (formerly Astana) retained its top position in the region. There were significant gains too for Istanbul and Prague. Nur-Sultan only officially launched its financial centre in 2018 and it is unusual for such a new centre to perform so strongly.

Tallinn regained the ground it lost in the last edition, and Moscow rose 17 places after falling in GFCI 25.

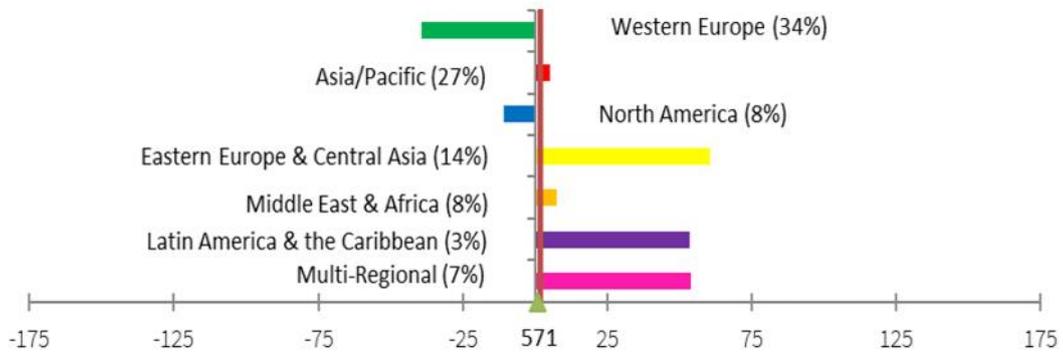
**Table 10 | Eastern European & Central Asian Centres In GFCI 26**

Centre	GFCI 26		GFCI 25		Change in Rank	Change in Rating
	Rank	Rating	Rank	Rating		
Nur-Sultan (formerly Astana)	51	648	51	631	0	▲17
Istanbul	53	641	59	620	▲6	▲21
Prague	58	636	62	614	▲4	▲22
Warsaw	64	626	70	605	▲6	▲21
Moscow	71	610	88	582	▲17	▲28
Tallinn	76	605	94	569	▲18	▲36
Budapest	78	603	71	603	▼7	0
St Petersburg	79	602	73	601	▼6	▲1
Cyprus	83	595	93	572	▲10	▲23
Sofia	84	594	79	593	▼5	▲1
Riga	85	593	78	595	▼7	▼2
Baku	94	584	95	567	▲1	▲17
Almaty	98	548	100	560	▲2	▼12
Athens	100	539	102	519	▲2	▲20

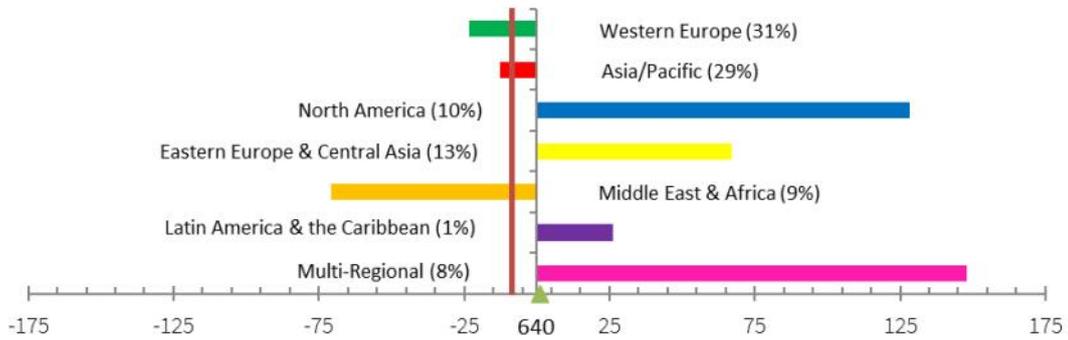
**Chart 26 | GFCI 26 Top Five Eastern European & Central Asian Centres Over Time**



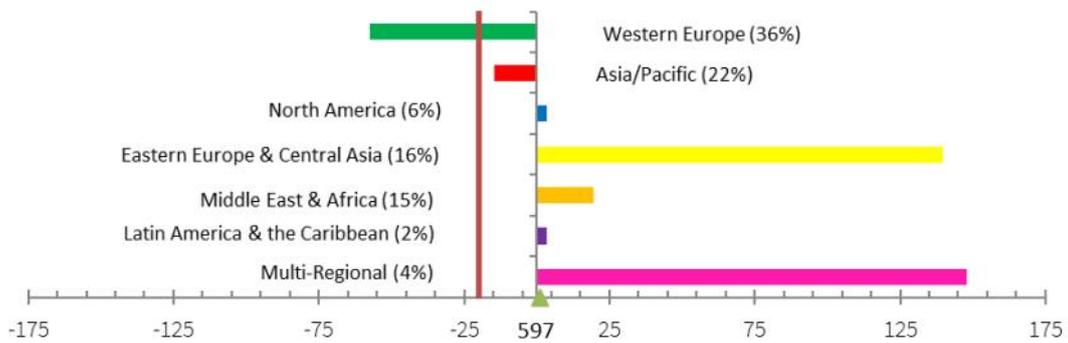
**Chart 27 | Average Assessments By Region For Eastern Europe & Central Asia — Difference From The**



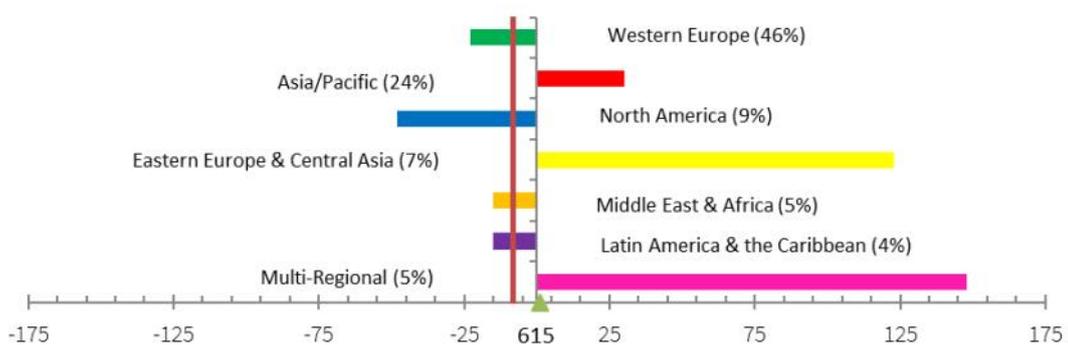
**Chart 28 | Assessments By Region For Nur-Sultan (formerly Astana) — Difference From The Overall Mean**



**Chart 29 | Assessments By Region For Istanbul — Difference From The Overall Mean**



**Chart 30 | Assessments By Region For Prague — Difference From The Overall Mean**



## The Middle East & Africa

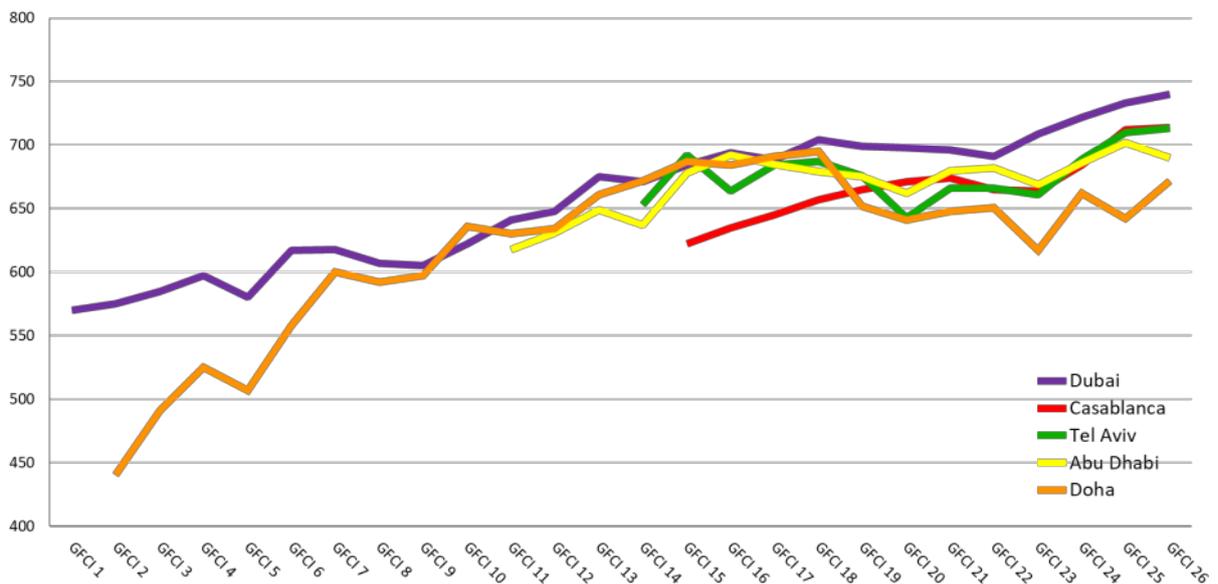
In this region, Dubai, Casablanca, Tel Aviv, continued to rise in the index, while Abu Dhabi fell in the rankings and ratings. There were also large improvements for Mauritius and Bahrain.

Johannesburg fell sharply, losing ground to other centres. Nairobi, which was a new entrant in GFCI 25, rose nine places.

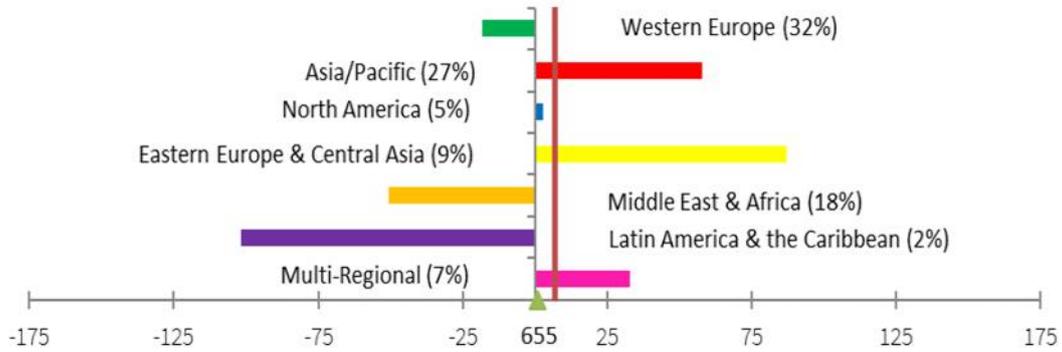
**Table 11 | Middle East & African Centres In GFCI 26**

Centre	GFCI 26		GFCI 25		Change in	Change in
	Rank	Rating	Rank	Rating	Rank	Rating
Dubai	8	740	12	733	▲4	▲7
Casablanca	21	714	22	712	▲1	▲2
Tel Aviv	22	713	23	710	▲1	▲3
Abu Dhabi	32	690	26	702	▼6	▼12
Doha	39	672	42	642	▲3	▲30
Mauritius	40	671	54	628	▲14	▲43
Bahrain	47	658	67	608	▲20	▲50
Cape Town	63	629	56	626	▼7	▲3
Kuwait City	65	625	57	625	▼8	0
Johannesburg	81	600	48	634	▼33	▼34
Nairobi	88	590	97	564	▲9	▲26
Riyadh	96	564	91	575	▼5	▼11

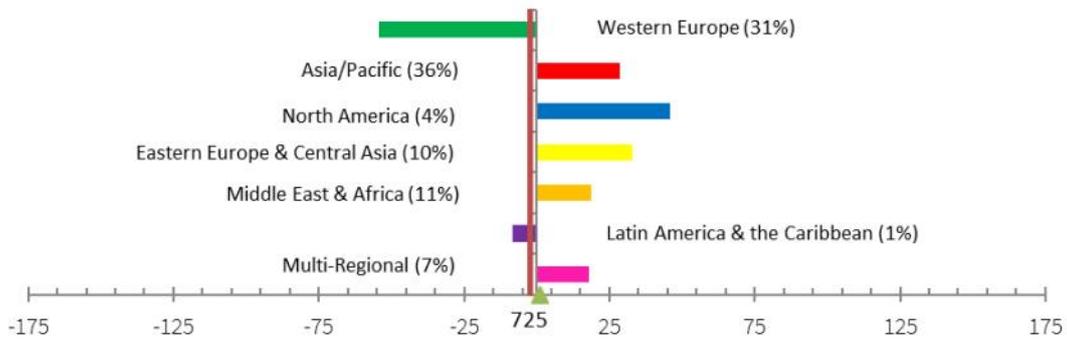
**Chart 31 | GFCI 25 Top Five Middle East & African Centres Over Time**



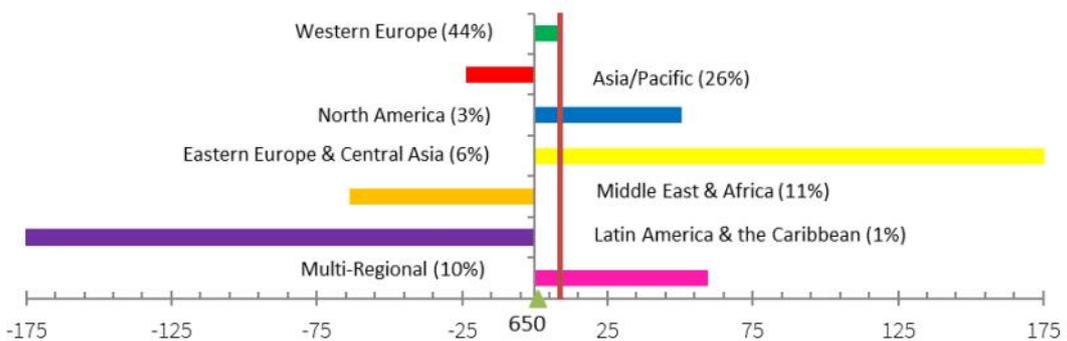
**Chart 32 | Average Assessments By Region For The Middle East & Africa — Difference From The Overall Mean**



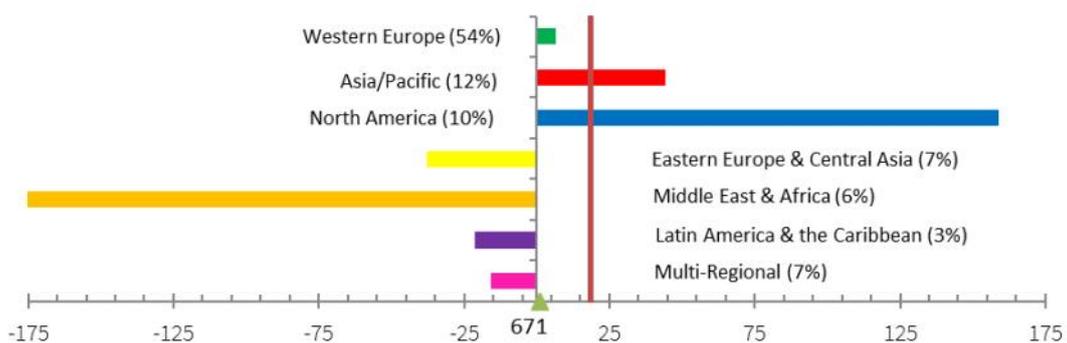
**Chart 33 | Assessments By Region For Dubai — Difference From The Overall Mean**



**Chart 34 | Assessments By Region For Casablanca — Difference From The Overall Mean**



**Chart 35 | Assessments By Region For Tel Aviv — Difference From The Overall Mean**



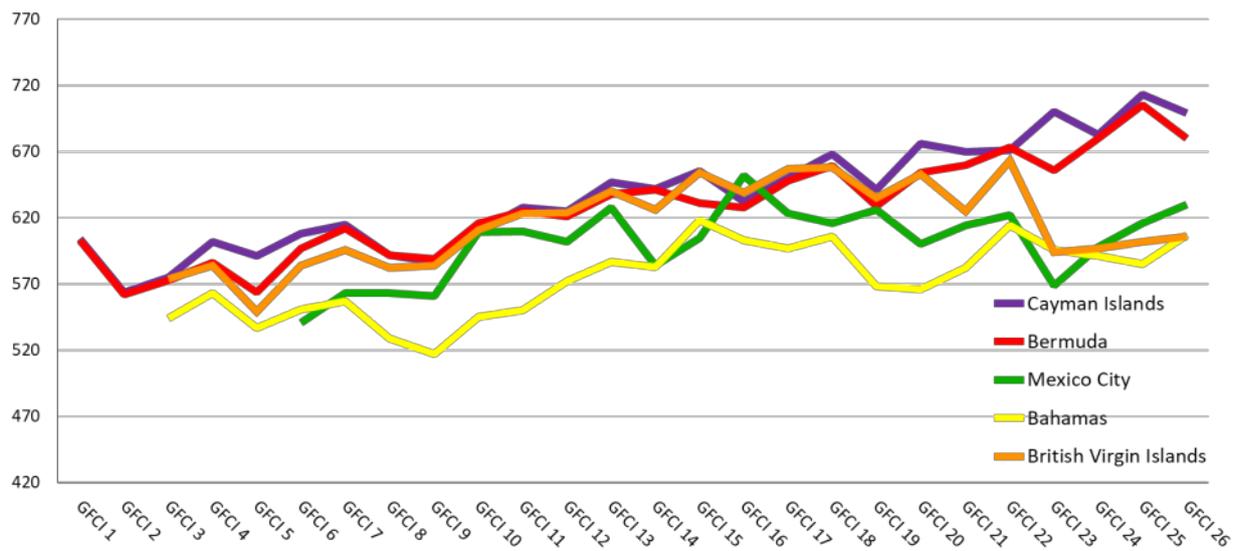
## Latin America & The Caribbean

Centres in Latin America & The Caribbean performed worse in GFCI 26, with seven of the ten centres in the region dropping in the rankings since GFCI 25. The Bahamas and Buenos Aires were the only two centres to gain places, though Mexico City, British Virgin Islands, and Panama all saw improvements in their ratings.

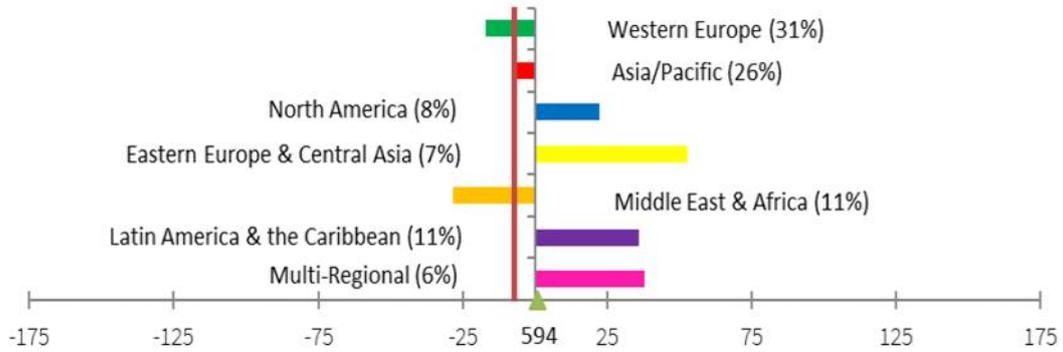
**Table 12 | Latin American & Caribbean Centres In GFCI 26**

Centre	GFCI 26		GFCI 25		Change in Rank	Change in Rating
	Rank	Rating	Rank	Rating		
Cayman Islands	30	699	21	713	▼9	▼14
Bermuda	35	680	25	705	▼10	▼25
Mexico City	62	630	61	616	▼1	▲14
Bahamas	74	607	85	585	▲11	▲22
British Virgin Islands	75	606	72	602	▼3	▲4
Buenos Aires	80	601	90	580	▲10	▲21
Sao Paulo	82	596	66	609	▼16	▼13
Panama	86	592	82	588	▼4	▲4
Rio de Janeiro	87	591	65	611	▼22	▼20
Santiago	99	540	New	New	New	New

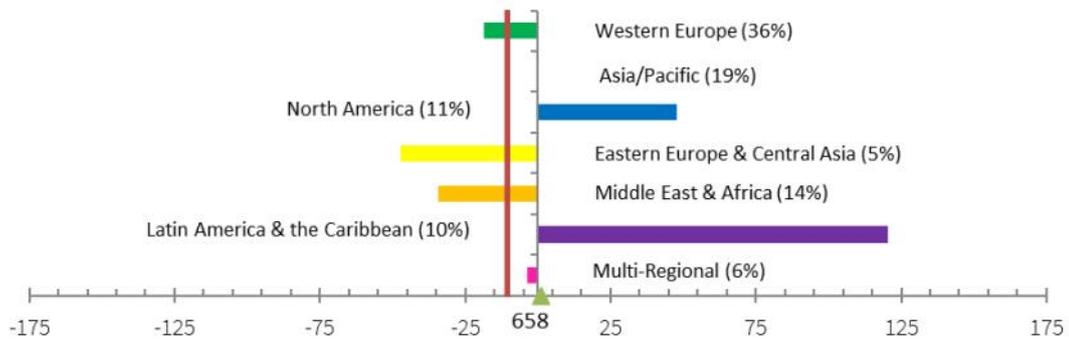
**Chart 36 | Top Five Latin American & Caribbean Centres Over Time**



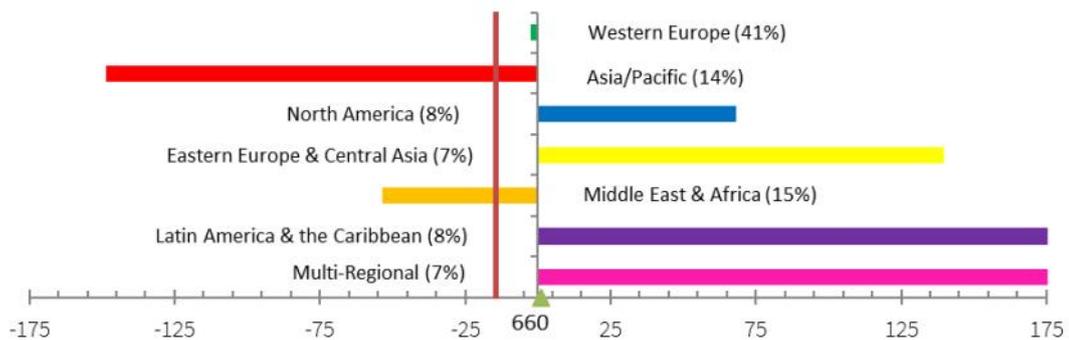
**Chart 37 | Average Assessments By Region For Latin America & The Caribbean – Difference From The Overall Mean**



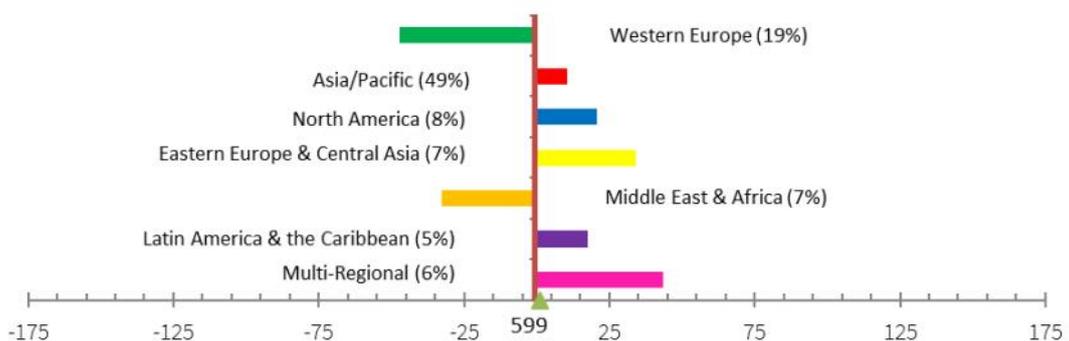
**Chart 38 | Assessments By Region For The Cayman Islands — Difference From The Overall Mean**



**Chart 39 | Assessments By Region For Bermuda — Difference From The Overall Mean**



**Chart 40 | Assessments By Region For Mexico City — 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 after Brexit.

Chart 41 | Home Centre Prospects — New York

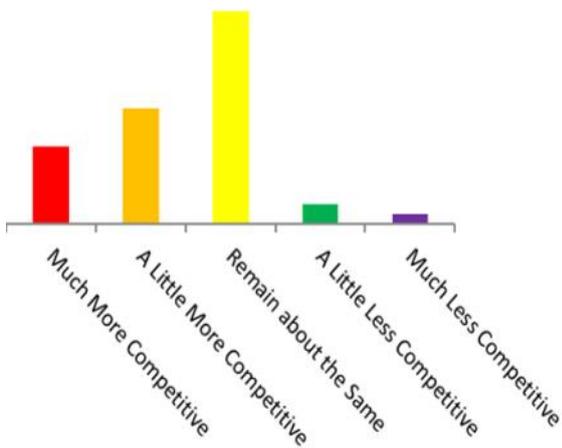


Chart 42 | Home Centre Prospects — London

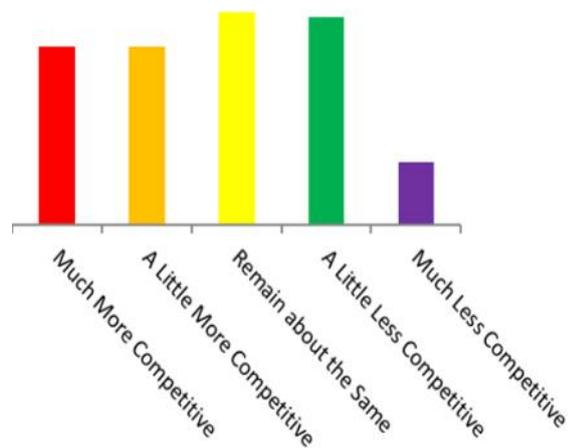


Chart 43 | Home Centre Prospects — Hong Kong

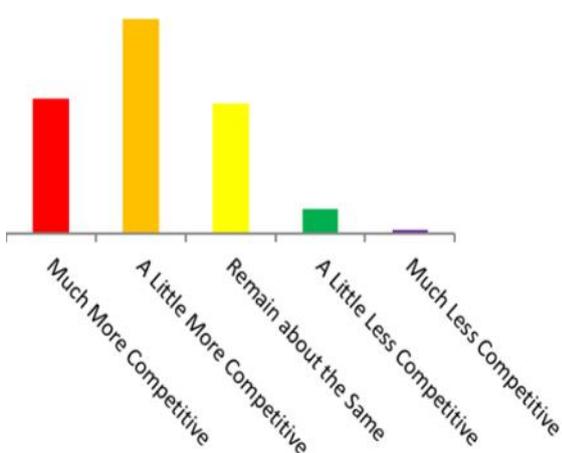
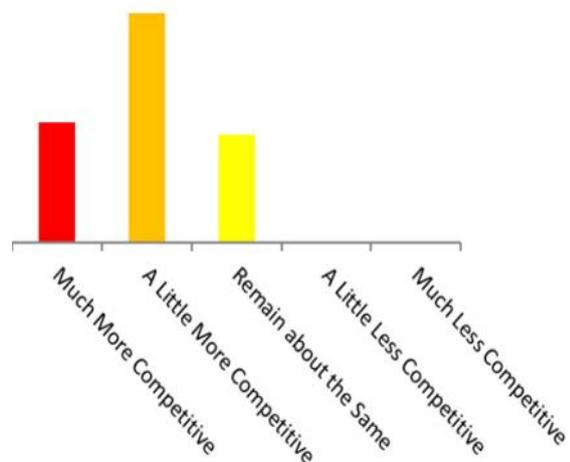


Chart 44 | Home Centre Prospects — Singapore



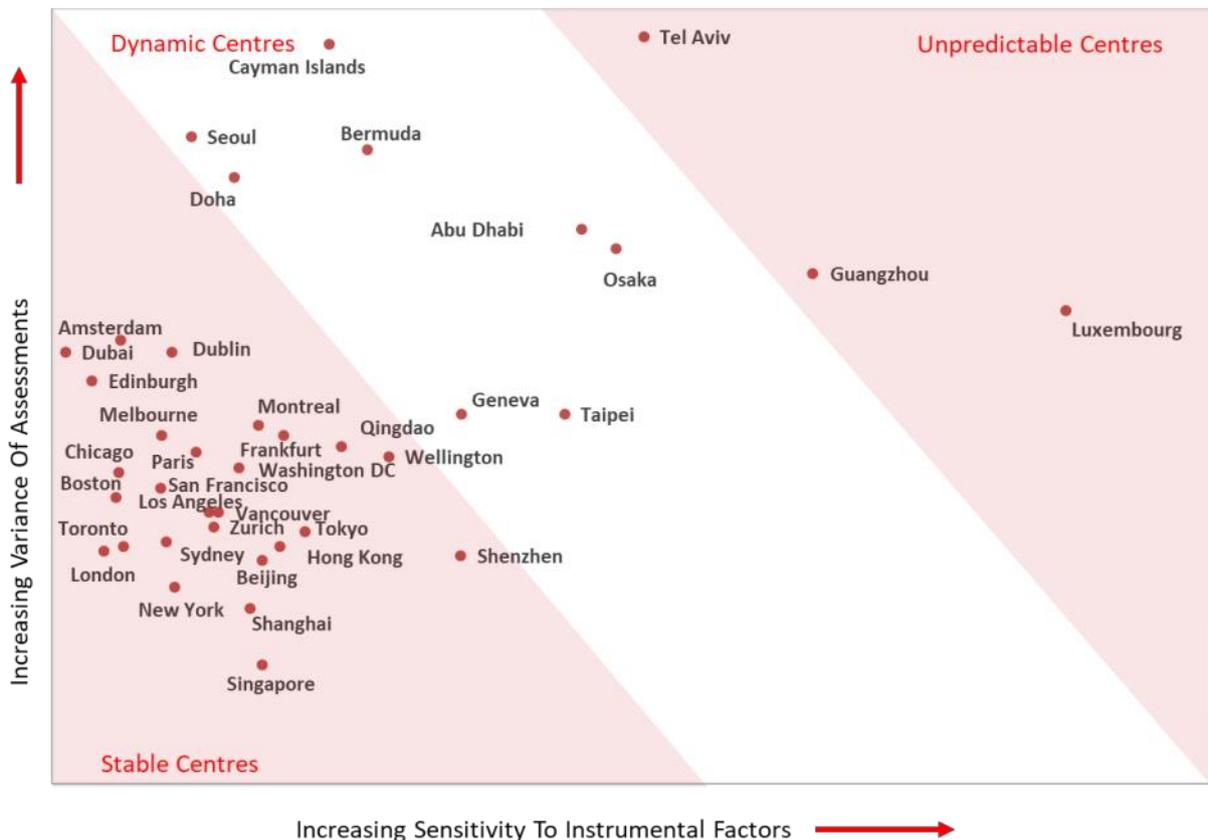
# Stability

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.

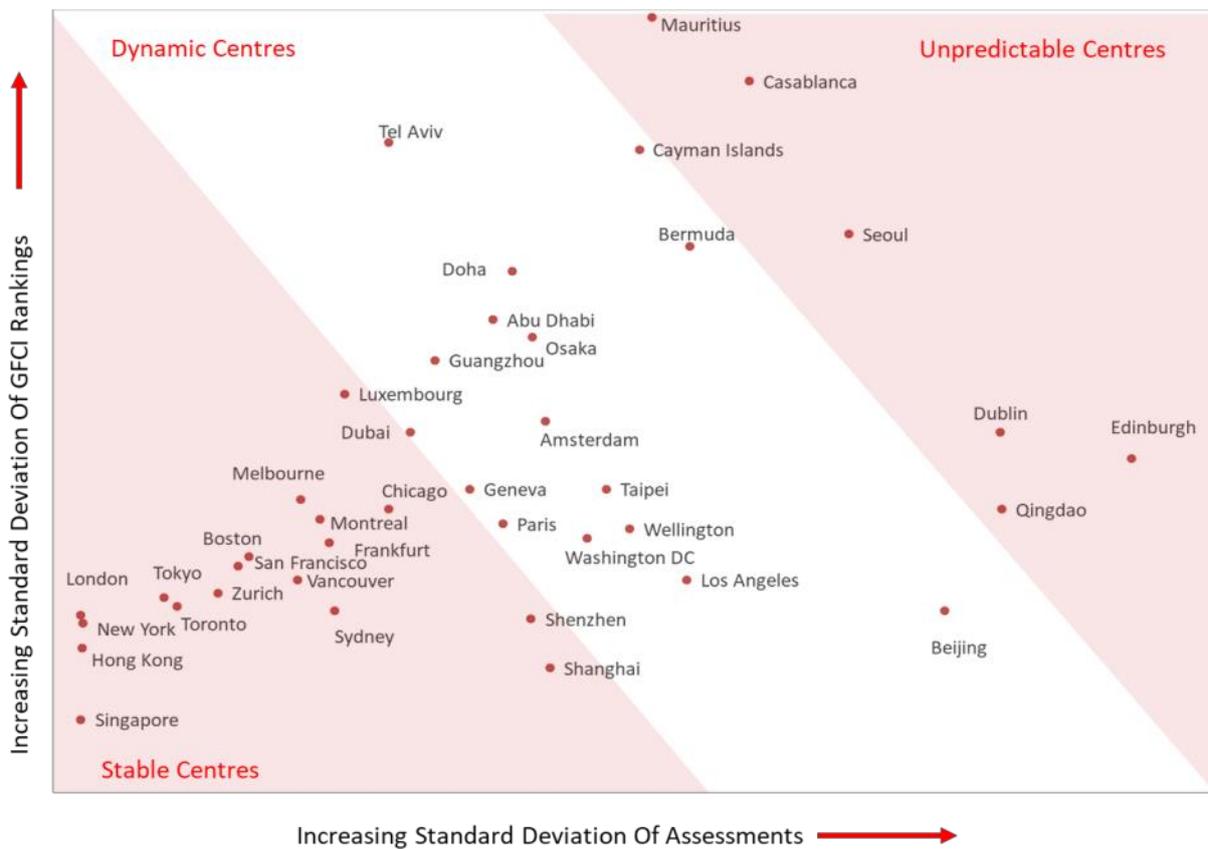
We have only plotted the top 40 centres (for clarity) but it is worth noting that most of the centres lower in the index would be in the dynamic and unpredictable areas of the chart if plotted. The top ten centres in the index are all in the stable area, with Beijing moving into this group since GFCI 25.

Chart 45 | Stability Of The Top 40 Centres In GFCI 26



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, Paris 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**



*“Regulation in Dalian is a bit conservative. If the city wants to become better and have good prospects for development, it has to be determined to make some modifications to regulation and policy.”*

## 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, Montreal, Zurich, and San Francisco 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 an increase in their reputational advantage since GFCI 25. These centres may need to concentrate on the quality of their underlying offer.

**Table 13 | GFCI 26 Top 15 Centres Assessments And Ratings — Reputational Advantage**

Centre	Weighted Average Assessment	GFCI 26 Rating	GFCI 26 Reputational Advantage
Singapore	864	762	102
Qingdao	788	688	100
Stuttgart	748	663	85
Sydney	819	738	81
London	852	773	79
New York	867	790	77
Montreal	787	716	71
Hangzhou	530	459	71
Hong Kong	840	771	69
Shanghai	823	761	62
Tokyo	817	757	60
Zurich	793	734	59
Shenzhen	793	739	54
San Francisco	788	736	52
Melbourne	772	720	52

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.

**Table 14 | GFCI 26 Bottom 15 Centres Assessments And Ratings — Reputational Disadvantage**

Centre - Bottom 15	Weighted Average Assessment	GFCI 26 Rating	GFCI 26 Reputational Advantage
Istanbul	598	641	-43
Mumbai	566	609	-43
Glasgow	570	613	-43
Tallinn	558	605	-47
Mauritius	621	671	-50
Bahamas	542	607	-65
Cyprus	526	595	-69
Busan	592	662	-70
Riga	520	593	-73
Edinburgh	627	701	-74
Sofia	499	594	-95
Nanjing	410	507	-97
Dalian	432	529	-97
Tianjin	420	528	-108
Nairobi	468	590	-122



*“The regulator will need to relax their position on the financial sector if London is to remain a financial powerhouse on the global stage.”*

SENIOR INSURER BASED IN LONDON

## 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.

London has dropped from first to fourth place in the Banking sub-index, and from first to second in the Government & Regulatory sub-index.

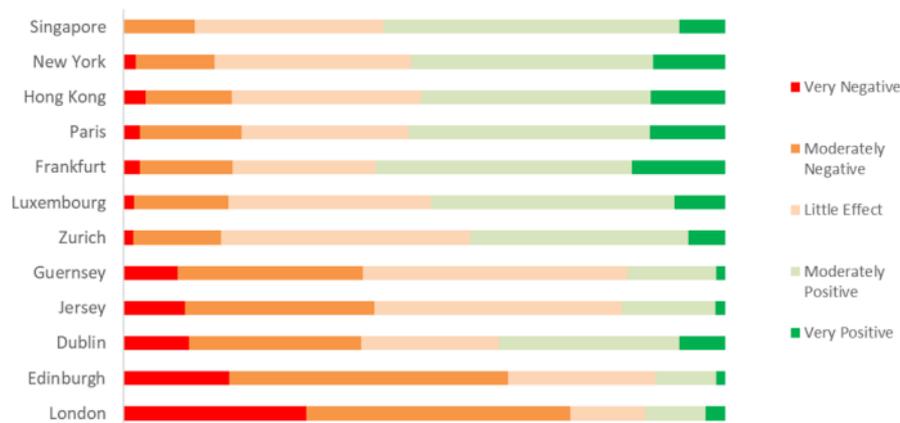
**Table 15 | GFCI 26 Industry Sector Sub-Indices — Top Fifteen**

Rank	Banking	Investment Management	Insurance	Professional Services	Government & Regulatory
1	New York	Hong Kong	New York	New York	New York
2	Hong Kong	New York	London	Hong Kong	London
3	Shanghai	London	Singapore	London	Hong Kong
4	London	Shanghai	Hong Kong	Singapore	San Francisco
5	Beijing	Singapore	Shanghai	Shanghai	Singapore
6	Singapore	Shenzhen	Tokyo	Tokyo	Zurich
7	Tokyo	Beijing	Luxembourg	Toronto	Shanghai
8	Sydney	Toronto	Zurich	Sydney	Luxembourg
9	Shenzhen	Zurich	Los Angeles	Dubai	Sydney
10	San Francisco	San Francisco	San Francisco	Frankfurt	Los Angeles
11	Los Angeles	Copenhagen	Monaco	Zurich	Frankfurt
12	Frankfurt	Luxembourg	Sydney	Beijing	Tokyo
13	Chicago	Boston	Shenzhen	Los Angeles	Seoul
14	Dubai	Stockholm	Chicago	Cayman Islands	Chicago
15	Toronto	Tokyo	Frankfurt	Tel Aviv	Boston

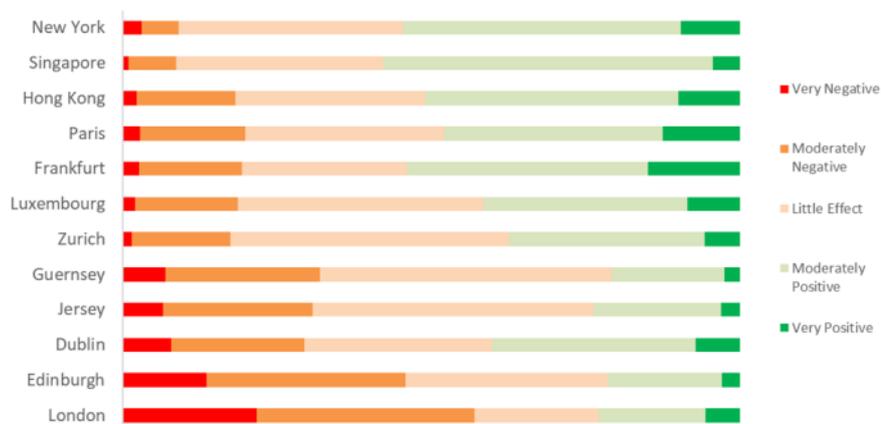
## Brexit

Since the United Kingdom voted to leave the Europe Union (Brexit) in June 2016, we have asked respondents to the GFCI online questionnaire about their opinions on the effect that Brexit will have on a number of financial centres both in the short- and long-term. The results are shown in charts 47 and 48 below.

**Chart 47 | The Anticipated Short-Term Effect Of Brexit On Certain Financial Centres**



**Chart 48 | The Anticipated Long-Term Effect Of Brexit On Certain Financial Centres**



The two leading UK financial centres in the United Kingdom (London and Edinburgh), are the two centres that respondents believe will suffer the largest negative effects, although these effects are seen to improve a little in the longer-term.

Respondents consider that New York, Hong Kong, and Singapore will benefit substantially from Brexit. In Europe, Frankfurt is considered likely to benefit most, followed by Paris, Luxembourg, Zurich, and Dublin.

# FinTech

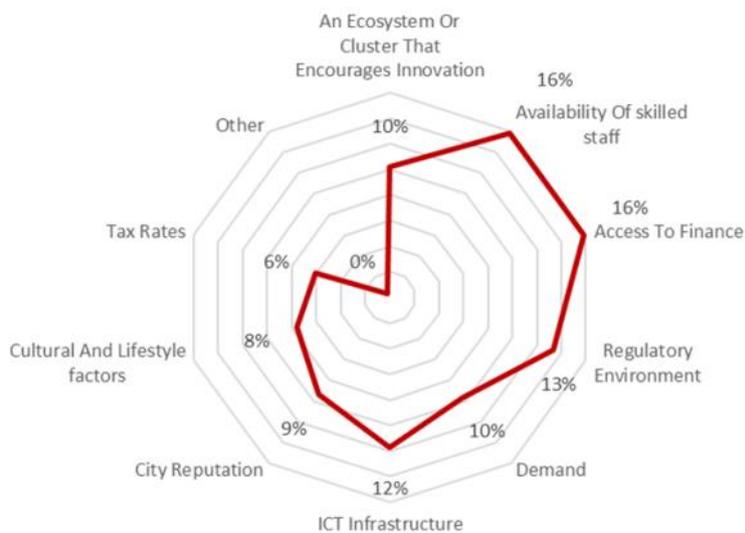
In the GFCI survey, we have introduced questions looking directly at FinTech. As a result, we are able to produce a ranking of financial centres as competitive locations for fostering a FinTech industry. Table 16 shows the top 20 centres on this analysis. Chinese centres feature strongly, reflecting their focus on technology development.

**Table 16 | The Leading FinTech Centres**

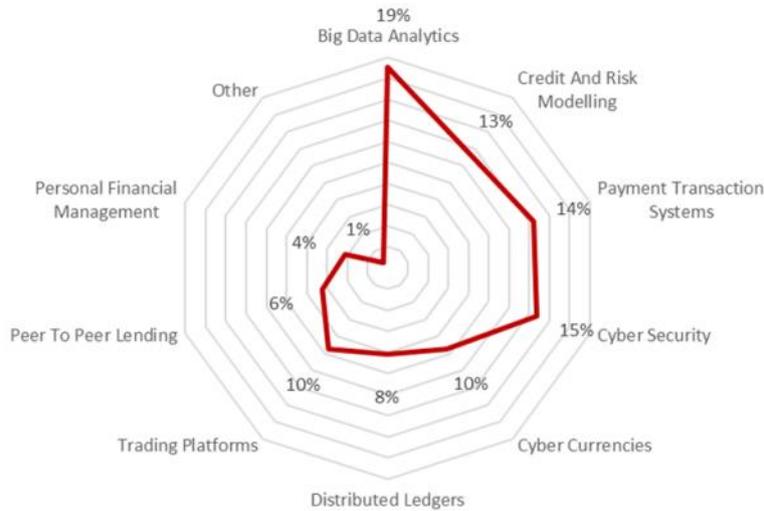
Centre	GFCI 26	
	FinTech Rank	FinTech Rating
Beijing	1	776
Shanghai	2	762
New York	3	759
Guangzhou	4	753
Shenzhen	5	752
London	6	741
Hong Kong	7	740
Singapore	8	738
San Francisco	9	730
Chicago	10	729
Sydney	11	728
Tokyo	12	726
Los Angeles	13	725
Washington DC	14	723
Stuttgart	15	716
Melbourne	16	713
Boston	17	711
Chengdu	18	707
Toronto	19	700
Frankfurt	20	698

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 49 and 50 show the results, with the availability of skilled people and access to finance seen as the leading factors..

**Chart 49 | Most Important Elements In Generating A Competitive Environment For FinTech Providers**



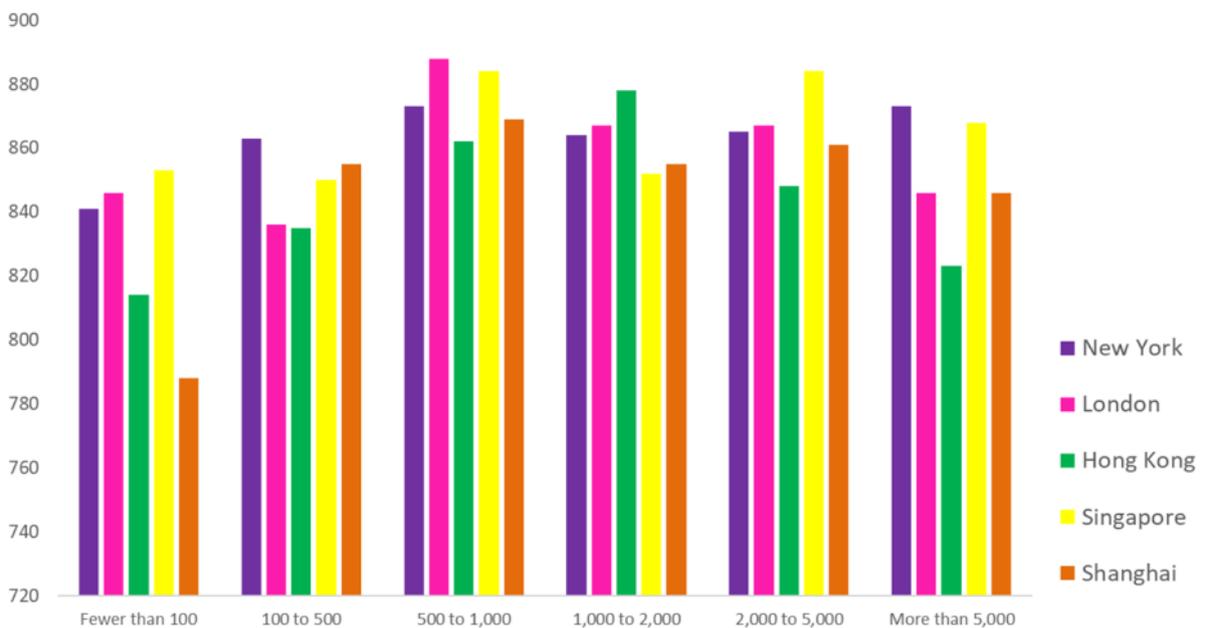
**Chart 49 | Most Important Areas Of FinTech Activity**



## Size Of Organisation

We have analysed how the leading centres in the index are viewed by respondents working for organisations of difference sizes. London is favoured over New York in four of the size categories that we use, but New York has a strong lead in the largest organisations. Singapore scores consistently high across all categories and Shanghai scores high except in the smallest organisations. Hong Kong leads in the category of 1,000 to 2,000 employees.

**Chart 50 | GFCI 26 Average Assessments By Respondents' Organisation Size (Number Of Employees)**



# Appendix 1: Assessment Details

Table 17 | GFCI 26 Details Of Assessments By Centre

Centre	GFCI 26		Assessments		
	Rank	Rating	Number	Average	St Dev.
New York	1	790	1,314	865	142
London	2	773	1,017	852	150
Hong Kong	3	771	1,108	841	148
Singapore	4	762	699	865	123
Shanghai	5	761	1,168	849	137
Tokyo	6	757	548	818	154
Beijing	7	748	1,142	801	151
Dubai	8	740	578	725	188
Shenzhen	9	739	710	790	149
Sydney	10	738	403	817	151
Toronto	11	737	353	766	152
San Francisco	12	736	389	787	163
Los Angeles	13	735	423	763	158
Zurich	14	734	530	793	155
Frankfurt	15	733	631	770	171
Chicago	16	732	438	751	166
Paris	17	728	569	726	170
Boston	18	727	395	743	161
Melbourne	19	720	254	767	173
Montreal	20	716	184	710	175
Casablanca	21	714	117	650	245
Tel Aviv	22	713	118	671	236
Guangzhou	23	711	849	751	201
Vancouver	24	710	204	748	158
Luxembourg	25	708	295	701	195
Geneva	26	706	318	728	177
Osaka	27	705	168	732	205
Washington DC	28	702	333	781	167
Edinburgh	29	701	276	664	183
Cayman Islands	30	699	172	658	235
Wellington	31	693	82	791	169
Abu Dhabi	32	690	399	679	208
Qingdao	33	688	994	799	173
Taipei	34	687	185	703	177
Bermuda	35	680	93	660	220
Seoul	36	677	346	652	222
Amsterdam	37	675	436	670	190
Dublin	38	674	358	661	188
Doha	39	672	165	676	216
Mauritius	40	671	107	616	254
Monaco	41	669	159	635	239
Stuttgart	42	663	182	807	202
Busan	43	662	189	465	231
Madrid	44	661	252	655	173
Kuala Lumpur	45	660	279	630	193
Stockholm	46	659	163	636	206
Bahrain	47	658	139	627	211
Milan	48	655	263	662	171
Hamburg	49	650	243	630	198
Bangkok	50	649	231	637	161
Nur-Sultan (formerly Astana)	51	648	236	640	259
Munich	52	645	294	680	186
Istanbul	53	641	175	597	209
Vienna	54	640	211	645	208
Lisbon	55	639	157	629	189
Brussels	56	638	320	650	191
Calgary	57	637	115	611	190
Prague	58	636	128	615	186
Jersey	59	635	214	604	212
Oslo	60	633	113	606	196
Liechtenstein	61	631	143	631	227
Mexico City	62	630	130	599	189
Cape Town	63	629	121	628	171
Warsaw	64	626	178	601	229
Kuwait City	65	625	73	596	247
GIFT City-Gujarat	66	624	89	545	251
Copenhagen	67	623	181	607	211
Helsinki	68	622	106	585	171
Rome	69	614	253	621	182
Glasgow	70	613	134	569	205
Moscow	71	610	361	596	210
Mumbai	72	609	212	555	187
Chengdu	73	608	1,556	584	274
Bahamas	74	607	144	549	235
British Virgin Islands	75	606	161	601	243
Tallinn	76	605	91	564	237
Gibraltar	77	604	122	572	241
Budapest	78	603	99	592	219
St Petersburg	79	602	121	587	210
Buenos Aires	80	601	66	591	242
Johannesburg	81	600	106	616	191
Sao Paulo	82	596	110	599	221
Cyprus	83	595	124	531	226
Sofia	84	594	68	509	216
Riga	85	593	80	520	221
Panama	86	592	128	575	245
Rio de Janeiro	87	591	84	601	228
Nairobi	88	590	53	466	218
Isle of Man	89	589	148	583	207
New Delhi	90	588	188	551	174
Jakarta	91	587	107	558	196
Guernsey	92	586	164	570	212
Reykjavik	93	585	87	572	235
Baku	94	584	121	541	193
Malta	95	577	166	558	228
Riyadh	96	564	109	539	225
Manila	97	549	151	536	194
Almaty	98	548	148	559	228
Santiago	99	540	51	567	241
Athens	100	539	98	528	231
Dalian	101	529	907	317	183
Tianjin	102	528	403	401	218
Nanjing	103	507	208	411	218
Hangzhou	104	459	543	537	256

## Appendix 2: Respondents' Details

**Table 18 | GFCI 26 Respondents By Industry Sector**

Industry Sector	Number Of Respondents	% Of Respondents
Banking	1,197	36%
Finance	267	8%
FinTech	39	1%
Government & Regulatory	127	4%
Insurance	179	5%
Investment Management	393	12%
Professional Services	408	12%
Trade Association	115	3%
Trading	170	5%
Not Specified	465	14%
<b>Total</b>	<b>3,360</b>	<b>100%</b>

**Table 19 | GFCI 26 Respondents By Region**

Region	Number Of Respondents	% Of Respondents
Western Europe	890	26%
Asia/Pacific	1,631	49%
North America	253	8%
Middle East & Africa	169	5%
Eastern Europe & Central Asia	173	5%
Latin America & The Caribbean	53	2%
Multi-Regional	191	6%
<b>Total</b>	<b>3,360</b>	<b>100%</b>

**Table 20 | GFCI 26 Respondents By Size Of Organisation**

Size Of Organisation	Number Of Respondents	% Of Respondents
Fewer than 100	701	21%
100 to 500	633	19%
500 to 1,000	508	15%
1,000 to 2,000	464	14%
2,000 to 5,000	297	9%
More than 5,000	736	22%
Not Specified	21	1%
<b>Total</b>	<b>3,360</b>	<b>100%</b>

## 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 134 instrumental factors are used in GFCI 26 of which 68 were updated since GFCI 25 and one is 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 3,478 responses to the questionnaire in the 24 months to June 2019. Of these 3,360 respondents provided 32,227 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 other centres within the previous 24 months 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;

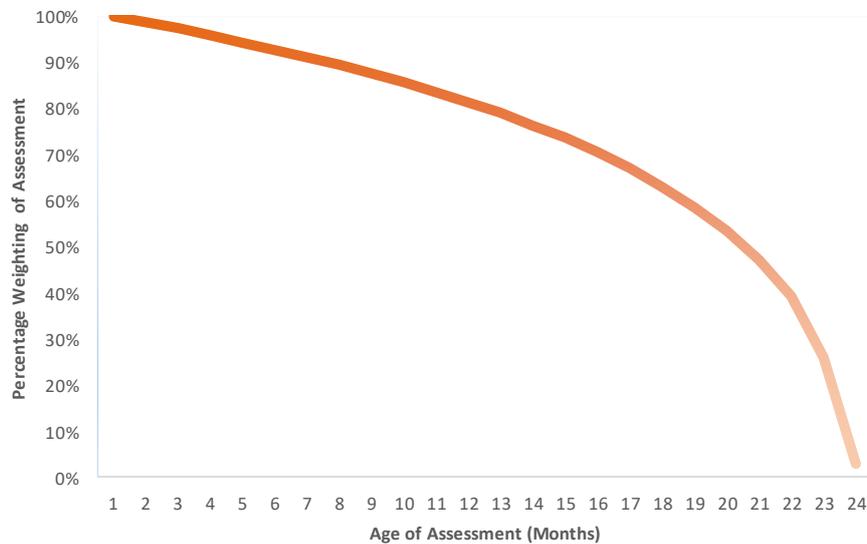
- if a factor is at a national level, the score will be used for all centres in that country; nation-based factors will be avoided if financial centre (city) - based factors are available;
- if an index has multiple values for a city or nation, the most relevant value is used (and the method for judging 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 the centres.

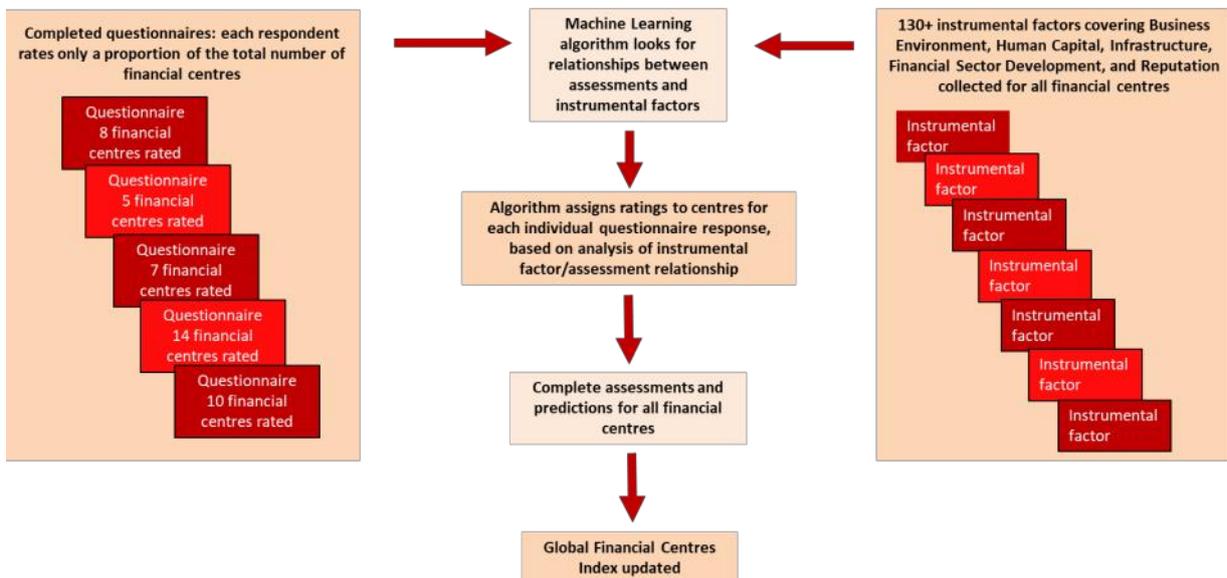
It is worth drawing attention to a few consequences of basing the GFCI on instrumental factors and questionnaire responses:

- 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 26

Instrumental Factor	R-squared
Global Power City Index	0.572
Household Net Financial Wealth	0.463
Citizens Domestic Purchasing Power	0.407
Household Net Adjusted Disposable Income	0.406
Global Cities Index	0.397
Price Levels	0.395
Wage Comparison Index	0.393
IESE Cities In Motion Index	0.374
Innovation Cities Global Index	0.369
Sustainable Cities Index	0.356
Government Effectiveness	0.311
Office Occupancy Cost	0.304
Quality Of Roads	0.302
Best Countries For Business	0.302
Business Environment Rankings	0.293
Global Competitiveness Index	0.290
World Competitiveness Scoreboard	0.278
Business Process Outsourcing Location Index	0.275
Financial Secrecy Index	0.274
Global Enabling Trade Report	0.267
Networked Readiness Index	0.265
Rule Of Law	0.263
JLL Real Estate Transparency Index	0.263
Regulatory Quality	0.257
Cost Of Living City Rankings	0.255
Corruption Perception Index	0.253
Quality Of Living City Rankings	0.253
Logistics Performance Index	0.246
Networked Society Index	0.245
Global Innovation Index	0.244

Table 22 | GFCI 26 Business Environment Factors

Instrumental Factor	Source	Website	Change Since GFCI 25
Business Environment Rankings	EIU	<a href="http://country.eiu.com/All">http://country.eiu.com/All</a>	Updated
Ease Of Doing Business Index	The World Bank	<a href="http://databank.worldbank.org/data/reports.aspx?source=doing-business">http://databank.worldbank.org/data/reports.aspx?source=doing-business</a>	
Operational Risk Rating	EIU	<a href="http://www.viewswire.com/index.asp?layout=homePubTypeRK">http://www.viewswire.com/index.asp?layout=homePubTypeRK</a>	Updated
Real Interest Rate	The World Bank	<a href="http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators">http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators</a>	Updated
Global Services Location	AT Kearney	<a href="https://www.atkearney.com/digital-transformation/gslj">https://www.atkearney.com/digital-transformation/gslj</a>	Updated
Corruption Perception Index	Transparency International	<a href="https://www.transparency.org/cpi2018">https://www.transparency.org/cpi2018</a>	Updated
Wage Comparison Index	UBS	<a href="https://www.ubs.com/microsites/prices-earnings/en/">https://www.ubs.com/microsites/prices-earnings/en/</a>	
Corporate Tax Rates	PWC	<a href="https://www.pwc.com/payingtaxes">https://www.pwc.com/payingtaxes</a>	Updated
Individual Income Tax Rates	KPMG	<a href="https://home.kpmg.com/xx/en/home/services/tax/tax-tools-and-resources/tax-rates-online/individual-income-tax-rates-table.html">https://home.kpmg.com/xx/en/home/services/tax/tax-tools-and-resources/tax-rates-online/individual-income-tax-rates-table.html</a>	Updated
Personal Tax Rates	OECD	<a href="https://stats.oecd.org/index.aspx?DataSetCode=TABLE_I6">https://stats.oecd.org/index.aspx?DataSetCode=TABLE_I6</a>	Updated
Tax As Percentage Of GDP	The World Bank	<a href="https://data.worldbank.org/indicator/GC.TAX.TOTL.GD.ZS">https://data.worldbank.org/indicator/GC.TAX.TOTL.GD.ZS</a>	Updated
Bilateral Tax Information Exchange Agreements	OECD	<a href="http://www.oecd.org/ctp/exchange-of-tax-information/taxinformationexchangeagreementsstieas.htm">http://www.oecd.org/ctp/exchange-of-tax-information/taxinformationexchangeagreementsstieas.htm</a>	
Economic Freedom Of The World	Fraser Institute	<a href="http://www.freetheworld.com/release.html">http://www.freetheworld.com/release.html</a>	
Government Debt As % Of GDP	CIA	<a href="https://www.cia.gov/library/publications/the-world-factbook/rankorder/2186rank.html">https://www.cia.gov/library/publications/the-world-factbook/rankorder/2186rank.html</a>	
OECD Country Risk Classification	OECD	<a href="http://www.oecd.org/trade/topics/export-credits/documents/cre-crc-current-english.pdf">http://www.oecd.org/trade/topics/export-credits/documents/cre-crc-current-english.pdf</a>	Updated
Global Peace Index	Institute for Economics & Peace	<a href="http://www.visionofhumanity.org/">http://www.visionofhumanity.org/</a>	Updated
Financial Secrecy Index	Tax Justice Network	<a href="http://www.financialsecrecyindex.com/">http://www.financialsecrecyindex.com/</a>	
Government Effectiveness	The World Bank	<a href="http://info.worldbank.org/governance/wgi/index.aspx#home">http://info.worldbank.org/governance/wgi/index.aspx#home</a>	
Open Government	World Justice Project	<a href="http://worldjusticeproject.org/rule-of-law-index">http://worldjusticeproject.org/rule-of-law-index</a>	Updated
Regulatory Enforcement	World Justice Project	<a href="http://worldjusticeproject.org/rule-of-law-index">http://worldjusticeproject.org/rule-of-law-index</a>	Updated
Press Freedom Index	Reporters Without Borders (RSF)	<a href="https://rsf.org/en/ranking/2019">https://rsf.org/en/ranking/2019</a>	Updated
Currencies	Swiss Association for Standardization (SNV)	<a href="http://www.currency-iso.org/en/home/tables/table-a1.html">http://www.currency-iso.org/en/home/tables/table-a1.html</a>	
Commonwealth Countries	The Commonwealth	<a href="http://thecommonwealth.org/member-countries">http://thecommonwealth.org/member-countries</a>	Updated
Common Law Countries	CIA	<a href="https://www.cia.gov/library/publications/the-world-factbook/fields/308.html">https://www.cia.gov/library/publications/the-world-factbook/fields/308.html</a>	Updated
Inflation, GDP Deflator	The World Bank	<a href="https://data.worldbank.org/indicator/NY.GDP.DEFL.KD.ZG">https://data.worldbank.org/indicator/NY.GDP.DEFL.KD.ZG</a>	Updated
Rule Of Law	The World Bank	<a href="http://info.worldbank.org/governance/wgi/index.aspx#home">http://info.worldbank.org/governance/wgi/index.aspx#home</a>	
Political Stability And Absence Of Violence/Terrorism	The World Bank	<a href="http://info.worldbank.org/governance/wgi/index.aspx#home">http://info.worldbank.org/governance/wgi/index.aspx#home</a>	
Regulatory Quality	The World Bank	<a href="http://info.worldbank.org/governance/wgi/index.aspx#home">http://info.worldbank.org/governance/wgi/index.aspx#home</a>	
Control Of Corruption	The World Bank	<a href="http://info.worldbank.org/governance/wgi/index.aspx#home">http://info.worldbank.org/governance/wgi/index.aspx#home</a>	
Best Countries For Business	Forbes	<a href="https://www.forbes.com/best-countries-for-business/list/">https://www.forbes.com/best-countries-for-business/list/</a>	
Lloyd's City Risk Index 2015-2025	Lloyd's	<a href="https://cityriskindex.lloyds.com/about/">https://cityriskindex.lloyds.com/about/</a>	
Global Cybersecurity Index	ITU	<a href="http://www.itu.int/en/ITU-D/Cybersecurity/Pages/GCI.aspx">http://www.itu.int/en/ITU-D/Cybersecurity/Pages/GCI.aspx</a>	Updated
Open Budget Survey	International Budget Partnership	<a href="http://survey.internationalbudget.org/#download">http://survey.internationalbudget.org/#download</a>	
Democracy Index	The Economist	<a href="https://www.eiu.com/topic/democracy-index">https://www.eiu.com/topic/democracy-index</a>	New

Table 23 | GFCI 26 Human Capital Factors

Instrumental Factor	Source	Website	Change Since GFCI 25
Graduates In Social Science, Business And Law (As % Of Total Graduates)	The World Bank	<a href="http://databank.worldbank.org/data/reports.aspx?source=Education%20Statistics">http://databank.worldbank.org/data/reports.aspx?source=Education%20Statistics</a>	Updated
Gross Tertiary Graduation Ratio	The World Bank	<a href="http://databank.worldbank.org/data/reports.aspx?source=Education%20Statistics">http://databank.worldbank.org/data/reports.aspx?source=Education%20Statistics</a>	Updated
Passport Index	Henley Partners	<a href="https://www.henleyglobal.com/henley-passport-index/">https://www.henleyglobal.com/henley-passport-index/</a>	Updated
Human Development Index	UN Development Programme	<a href="http://hdr.undp.org/en/2018-update/download">http://hdr.undp.org/en/2018-update/download</a>	
Citizens Domestic Purchasing Power	UBS	<a href="https://www.ubs.com/microsites/prices-earnings/en/">https://www.ubs.com/microsites/prices-earnings/en/</a>	
Number of High Net Worth Individuals	Capgemini	<a href="https://www.worldwealthreport.com/">https://www.worldwealthreport.com/</a>	Updated
Homicide Rates	UN Office of Drugs & Crime	<a href="https://dataunodc.un.org/crime/">https://dataunodc.un.org/crime/</a>	
Top Tourism Destinations	Euromonitor	<a href="https://go.euromonitor.com/white-paper-travel-2018-100-cities.html">https://go.euromonitor.com/white-paper-travel-2018-100-cities.html</a>	
Average Precipitation In Depth	The World Bank	<a href="http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators">http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators</a>	
Quality Of Living City Rankings	Mercer	<a href="https://mobilityexchange.mercer.com/insights/quality-of-living-rankings">https://mobilityexchange.mercer.com/insights/quality-of-living-rankings</a>	Updated
Health Care Index	Numbeo	<a href="http://www.numbeo.com/health-care/rankings.jsp">http://www.numbeo.com/health-care/rankings.jsp</a>	Updated
Global Skills Index	Hays	<a href="http://www.hays-index.com/">http://www.hays-index.com/</a>	
Linguistic Diversity	Ethnologue	<a href="http://www.ethnologue.com/statistics/country">http://www.ethnologue.com/statistics/country</a>	Updated
Global Terrorism Index	Institute for Economics & Peace	<a href="http://www.visionofhumanity.org/">http://www.visionofhumanity.org/</a>	
World Talent Rankings	IMD	<a href="https://www.imd.org/wcc/world-competitiveness-center-rankings/talent-rankings-2018/">https://www.imd.org/wcc/world-competitiveness-center-rankings/talent-rankings-2018/</a>	
Cost Of Living City Rankings	Mercer	<a href="https://mobilityexchange.mercer.com/insights/cost-of-living-rankings">https://mobilityexchange.mercer.com/insights/cost-of-living-rankings</a>	Updated
Quality Of Life Index	Numbeo	<a href="http://www.numbeo.com/quality-of-life/rankings.jsp">http://www.numbeo.com/quality-of-life/rankings.jsp</a>	Updated
Crime Index	Numbeo	<a href="http://www.numbeo.com/crime/rankings.jsp#">http://www.numbeo.com/crime/rankings.jsp#</a>	Updated
Household Net Adjusted Disposable Income	OECD	<a href="https://stats.oecd.org/Index.aspx?DataSetCode=BLI">https://stats.oecd.org/Index.aspx?DataSetCode=BLI</a>	Updated
Household Net Financial Wealth	OECD	<a href="https://stats.oecd.org/Index.aspx?DataSetCode=BLI">https://stats.oecd.org/Index.aspx?DataSetCode=BLI</a>	Updated
Education Attainment	OECD	<a href="https://stats.oecd.org/Index.aspx?DataSetCode=BLI">https://stats.oecd.org/Index.aspx?DataSetCode=BLI</a>	Updated
Life Expectancy	OECD	<a href="https://stats.oecd.org/Index.aspx?DataSetCode=BLI">https://stats.oecd.org/Index.aspx?DataSetCode=BLI</a>	Updated
Employees Working Very Long Hours	OECD	<a href="https://stats.oecd.org/Index.aspx?DataSetCode=BLI">https://stats.oecd.org/Index.aspx?DataSetCode=BLI</a>	Updated
Human Freedom Index	Cato Institute	<a href="https://www.cato.org/human-freedom-index">https://www.cato.org/human-freedom-index</a>	

Table 24 | GFCI 26 Infrastructure Factors

Instrumental Factor	Source	Website	Change Since GFCI 25
Office Occupancy Cost	CBRE Research	<a href="https://www.cbre.com/research-and-reports/Global-Prime-Office-Occupancy-Costs-2019">https://www.cbre.com/research-and-reports/Global-Prime-Office-Occupancy-Costs-2019</a>	Updated
Prime International Residential Index	Knight Frank	<a href="http://www.knightfrank.com/wealthreport">http://www.knightfrank.com/wealthreport</a>	Updated
JLL Real Estate Transparency Index	Jones Lang LaSalle	<a href="http://greti.jll.com/greti/rankings">http://greti.jll.com/greti/rankings</a>	
ICT Development Index	United Nations	<a href="http://www.itu.int/net4/ITU-D/idi/2017/index.html">http://www.itu.int/net4/ITU-D/idi/2017/index.html</a>	
Telecommunication Infrastructure Index	United Nations	<a href="https://publicadministration.un.org/egovkb/en-us/Data-Center">https://publicadministration.un.org/egovkb/en-us/Data-Center</a>	
Quality Of Domestic Transport Network	World Economic Forum	<a href="https://www.weforum.org/reports/the-travel-tourism-competitiveness-report-2017">https://www.weforum.org/reports/the-travel-tourism-competitiveness-report-2017</a>	
Quality Of Roads	World Economic Forum	<a href="https://www.weforum.org/reports/the-travel-tourism-competitiveness-report-2017">https://www.weforum.org/reports/the-travel-tourism-competitiveness-report-2017</a>	
Roadways Per Land Area	CIA	<a href="https://www.cia.gov/library/publications/the-world-factbook/rankorder/2085rank.html">https://www.cia.gov/library/publications/the-world-factbook/rankorder/2085rank.html</a>	Updated
Railways Per Land Area	CIA	<a href="https://www.cia.gov/library/publications/the-world-factbook/rankorder/2121rank.html">https://www.cia.gov/library/publications/the-world-factbook/rankorder/2121rank.html</a>	Updated
Networked Readiness Index	World Economic Forum	<a href="http://reports.weforum.org/global-information-technology-report-2016/">http://reports.weforum.org/global-information-technology-report-2016/</a>	
Energy Sustainability Index	World Energy Council	<a href="https://www.worldenergy.org/publications/entry/world-energy-trilemma-index-2018">https://www.worldenergy.org/publications/entry/world-energy-trilemma-index-2018</a>	
Metro Network Length	Metro Bits	<a href="http://mic-ro.com/metro/table.html">http://mic-ro.com/metro/table.html</a>	
Open Data Barometer	World Wide Web Foundation	<a href="https://opendatabarometer.org/4thedition/?year=2016&amp;indicator=ODB">https://opendatabarometer.org/4thedition/?year=2016&amp;indicator=ODB</a>	
Environmental Performance Index	Yale University	<a href="https://epi.envirocenter.yale.edu/epi-topline">https://epi.envirocenter.yale.edu/epi-topline</a>	
Global Sustainable Competitiveness Index	Solability	<a href="http://solability.com/the-global-sustainable-competitiveness-index/the-index">http://solability.com/the-global-sustainable-competitiveness-index/the-index</a>	
Logistics Performance Index	The World Bank	<a href="http://lpi.worldbank.org/international/global">http://lpi.worldbank.org/international/global</a>	
Networked Society City Index	Ericsson	<a href="https://www.ericsson.com/res/docs/2016/2016-networked-society-city-index.pdf">https://www.ericsson.com/res/docs/2016/2016-networked-society-city-index.pdf</a>	
TomTom Traffic Index	TomTom	<a href="https://www.tomtom.com/en_gb/trafficindex/list?citySize=LARGE&amp;continent=ALL&amp;country=ALL">https://www.tomtom.com/en_gb/trafficindex/list?citySize=LARGE&amp;continent=ALL&amp;country=ALL</a>	
Sustainable Cities Mobility Index	Arcadis	<a href="https://www.arcadis.com/en/global/our-perspectives/sustainable-cities-mobility-index-2017/">https://www.arcadis.com/en/global/our-perspectives/sustainable-cities-mobility-index-2017/</a>	
Water Quality	OECD	<a href="https://stats.oecd.org/Index.aspx?DataSetCode=BLI">https://stats.oecd.org/Index.aspx?DataSetCode=BLI</a>	Updated
INRIX Traffic Scorecard	INRIX	<a href="http://inrix.com/scorecard/">http://inrix.com/scorecard/</a>	Updated
Air Quality Data	WHO	<a href="http://www.who.int/airpollution/data/cities/en/">http://www.who.int/airpollution/data/cities/en/</a>	
Forestry Area	World Bank	<a href="http://databank.worldbank.org/data/reports.aspx?source=2&amp;series=AG.LND.FRST.ZS&amp;country=">http://databank.worldbank.org/data/reports.aspx?source=2&amp;series=AG.LND.FRST.ZS&amp;country=</a>	
CO2 Emissions Per Capita	World Bank	<a href="https://data.worldbank.org/indicator/EN.ATM.CO2E.PC">https://data.worldbank.org/indicator/EN.ATM.CO2E.PC</a>	
Buildings Energy Efficiency Policies Database (Y/N)	IEA	<a href="https://www.iea.org/beep/">https://www.iea.org/beep/</a>	Updated
4G Availability %	Open Signal	<a href="https://opensignal.com/reports/2018/02/state-of-lte">https://opensignal.com/reports/2018/02/state-of-lte</a>	
Worldwide Broadband Speed League	Cable	<a href="https://www.cable.co.uk/broadband/speed/worldwide-speed-league/">https://www.cable.co.uk/broadband/speed/worldwide-speed-league/</a>	Updated
Share Of Wind And Solar In Electricity Production	Enerdata Statistical Yearbook	<a href="https://yearbook.enerdata.net/download/">https://yearbook.enerdata.net/download/</a>	Updated
Energy Intensity Of GDP	Enerdata Statistical Yearbook	<a href="https://yearbook.enerdata.net/download/">https://yearbook.enerdata.net/download/</a>	Updated
Share Of Renewables In Electricity Production	Enerdata Statistical Yearbook	<a href="https://yearbook.enerdata.net/download/">https://yearbook.enerdata.net/download/</a>	Updated
City Commitment To Carbon Reduction (Cooperative Action)	UNFCCC	<a href="http://climateaction.unfccc.int/views/stakeholders.html?type=cities">http://climateaction.unfccc.int/views/stakeholders.html?type=cities</a>	

Table 25 | GFCI 26 Financial Sector Development Factors

Instrumental Factor	Source	Website	Change Since GFCI 25
Capitalisation Of Stock Exchanges	The World Federation of Stock Exchanges	<a href="http://www.world-exchanges.org/home/index.php/statistics/monthly-reports">http://www.world-exchanges.org/home/index.php/statistics/monthly-reports</a>	Updated
Value Of Share Trading	The World Federation of Stock Exchanges	<a href="http://www.world-exchanges.org/home/index.php/statistics/monthly-reports">http://www.world-exchanges.org/home/index.php/statistics/monthly-reports</a>	Updated
Volume Of Share Trading	The World Federation of Stock Exchanges	<a href="http://www.world-exchanges.org/home/index.php/statistics/monthly-reports">http://www.world-exchanges.org/home/index.php/statistics/monthly-reports</a>	Updated
Broad Stock Index Levels	The World Federation of Stock Exchanges	<a href="http://www.world-exchanges.org/home/index.php/statistics/monthly-reports">http://www.world-exchanges.org/home/index.php/statistics/monthly-reports</a>	Updated
Value Of Bond Trading	The World Federation of Stock Exchanges	<a href="http://www.world-exchanges.org/home/index.php/statistics/monthly-reports">http://www.world-exchanges.org/home/index.php/statistics/monthly-reports</a>	Updated
Domestic Credit Provided By Banking Sector (% Of GDP)	The World Bank	<a href="http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators">http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators</a>	Updated
Percentage of Firms Using Banks To Finance Investment	The World Bank	<a href="http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators">http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators</a>	Updated
Total Net Assets Of Regulated Open-End Funds	Investment Company Institute	<a href="http://www.icifactbook.org/">http://www.icifactbook.org/</a>	Updated
Islamic Finance Country Index	Islamic Banks and Financial Institutions	<a href="http://www.gifr.net/publications">http://www.gifr.net/publications</a>	Updated
Net External Positions Of Banks	The Bank for International Settlements	<a href="http://www.bis.org/statistics/annex_map.htm">http://www.bis.org/statistics/annex_map.htm</a>	Updated
External Positions of Central Banks As A Share Of GDP	The Bank for International Settlements	<a href="http://www.bis.org/statistics/annex_map.htm">http://www.bis.org/statistics/annex_map.htm</a>	Updated
Liner Shipping Connectivity Index	The World Bank	<a href="http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators">http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators</a>	
Global Connectedness Index	DHL	<a href="http://www.logistics.dhl/gci">www.logistics.dhl/gci</a>	Updated
Economic Performance Index	The Brookings Institution	<a href="https://www.brookings.edu/research/global-metro-monitor-2018/#rank">https://www.brookings.edu/research/global-metro-monitor-2018/#rank</a>	
Business Process Outsourcing Location Index	Cushman & Wakefield	<a href="http://www.cushmanwakefield.com/en/research-and-insight/2016/business-process-outsourcing-location-index-2016/">http://www.cushmanwakefield.com/en/research-and-insight/2016/business-process-outsourcing-location-index-2016/</a>	
Financial Centre Sustainability Disclosure	Corporate Knights	<a href="https://www.finance-watch.org/publication/global-green-finance-index-">https://www.finance-watch.org/publication/global-green-finance-index-</a>	
Financial Centre Carbon Intensity	Corporate Knights	<a href="https://www.finance-watch.org/publication/global-green-finance-index-">https://www.finance-watch.org/publication/global-green-finance-index-</a>	
Financial System Green Alignment	Corporate Knights	<a href="https://www.finance-watch.org/publication/global-green-finance-index-">https://www.finance-watch.org/publication/global-green-finance-index-</a>	
Labelled Green Bonds Issued By Country Of Issuer	Corporate Knights	<a href="https://www.finance-watch.org/publication/global-green-finance-index-">https://www.finance-watch.org/publication/global-green-finance-index-</a>	
Total Issuance Of Labelled Green Bonds To July 2018, US\$bn	CBI	<a href="http://www.finance-watch.org/our-work/dossiers?fid=192">http://www.finance-watch.org/our-work/dossiers?fid=192</a>	
Sustainable Stock Exchange (Y/N)	UN Sustainable Stock Exchange Initiative	<a href="http://www.sseinitiative.org/sse-partner-exchanges/list-of-partner-exchanges/">http://www.sseinitiative.org/sse-partner-exchanges/list-of-partner-exchanges/</a>	Updated
Green Bond Segments On Stock Exchange (Y/N)	CBI	<a href="https://www.climatebonds.net/green-bond-segments-stock-exchanges">https://www.climatebonds.net/green-bond-segments-stock-exchanges</a>	Updated

Table 26 | GFCI 26 Reputation Factors

Instrumental Factor	Source	Website	Change Since GFCI 25
World Competitiveness Scoreboard	IMD	<a href="https://www.imd.org/wcc/world-competitiveness-center-rankings/world-competitiveness-ranking-2019/">https://www.imd.org/wcc/world-competitiveness-center-rankings/world-competitiveness-ranking-2019/</a>	Updated
Global Competitiveness Index	World Economic Forum	<a href="http://reports.weforum.org/global-competitiveness-report-2018/competitiveness-rankings/">http://reports.weforum.org/global-competitiveness-report-2018/competitiveness-rankings/</a>	
Foreign Direct Investment Inflows	UNCTAD	<a href="http://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=96740">http://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=96740</a>	
FDI Confidence Index	AT Kearney	<a href="https://www.atkearney.com/foreign-direct-investment-confidence-index">https://www.atkearney.com/foreign-direct-investment-confidence-index</a>	Updated
GDP Per Person Employed (Constant 2011 PPP \$)	The World Bank	<a href="http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators">http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators</a>	Updated
Global Innovation Index	INSEAD	<a href="http://www.globalinnovationindex.org/content.aspx?page=GII-Home">http://www.globalinnovationindex.org/content.aspx?page=GII-Home</a>	
Global Intellectual Property Index	Taylor Wessing	<a href="https://united-kingdom.taylorwessing.com/en/ip-index/reports">https://united-kingdom.taylorwessing.com/en/ip-index/reports</a>	
RPI (% Change On Year Ago)	The Economist	<a href="https://www.economist.com/economic-and-financial-indicators/2019/07/04/economic-data-markets-and-commodities">https://www.economist.com/economic-and-financial-indicators/2019/07/04/economic-data-markets-and-commodities</a>	Updated
Price Levels	UBS	<a href="https://www.ubs.com/microsites/prices-earnings/en/">https://www.ubs.com/microsites/prices-earnings/en/</a>	
Number Of International Association Meetings	World Economic Forum	<a href="http://reports.weforum.org/travel-and-tourism-competitiveness-report-2017/">http://reports.weforum.org/travel-and-tourism-competitiveness-report-2017/</a>	
Innovation Cities Global Index	2ThinkNow Innovation Cities	<a href="https://www.innovation-cities.com/innovation-cities-index-2018-global/">https://www.innovation-cities.com/innovation-cities-index-2018-global/</a>	
Big Mac Index	The Economist	<a href="http://www.economist.com/content/big-mac-index">http://www.economist.com/content/big-mac-index</a>	Updated
Sustainable Economic Development	Boston Consulting Group	<a href="https://www.bcg.com/en-gb/publications/2018/seda-striking-balance-between-well-being-growth.aspx">https://www.bcg.com/en-gb/publications/2018/seda-striking-balance-between-well-being-growth.aspx</a>	
Global Enabling Trade Report	World Economic Forum	<a href="https://www.weforum.org/focus/global-enabling-trade-report-2016">https://www.weforum.org/focus/global-enabling-trade-report-2016</a>	
Good Country Index	Good Country Party	<a href="https://www.goodcountry.org/index/results">https://www.goodcountry.org/index/results</a>	Updated
Legatum Prosperity Index	Legatum Institute	<a href="http://www.prosperity.com/#!/ranking">http://www.prosperity.com/#!/ranking</a>	
IESE Cities In Motion Index	IESE	<a href="http://citiesinmotion.iese.edu/indicecim/?lang=en">http://citiesinmotion.iese.edu/indicecim/?lang=en</a>	Updated
FDI Inward Stock As A Percentage Of GDP	UNCTAD	<a href="http://unctad.org/en/Pages/DIAE/World%20Investment%20Report/Annex-Tables.aspx">http://unctad.org/en/Pages/DIAE/World%20Investment%20Report/Annex-Tables.aspx</a>	Updated
Sustainable Cities Index	Arcadis	<a href="https://www.arcadis.com/en/global/our-perspectives/sustainable-cities-index-2018/citizen-centric-cities/">https://www.arcadis.com/en/global/our-perspectives/sustainable-cities-index-2018/citizen-centric-cities/</a>	
Global Cities Index	AT Kearney	<a href="https://www.atkearney.com/global-cities/2019">https://www.atkearney.com/global-cities/2019</a>	Updated
Quality Of Nationality Index	Henley Partners	<a href="https://nationalityindex.com/#">https://nationalityindex.com/#</a>	
Best Countries	U.S.News	<a href="https://www.usnews.com/news/best-countries/overall-full-list">https://www.usnews.com/news/best-countries/overall-full-list</a>	Updated
Global Power City Index	The Mori Memorial Foundation	<a href="http://mori-m-foundation.or.jp/english/ius2/gpci2/index.shtml">http://mori-m-foundation.or.jp/english/ius2/gpci2/index.shtml</a>	

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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.

**Dipesh Shah at [dipesh.shah@giftgujarat.in](mailto:dipesh.shah@giftgujarat.in)  
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Luxembourg for Finance (LFF) is the Agency for the Development of the Financial Centre. It is a public-private partnership between the Luxembourg Government and the Luxembourg Financial Industry Federation (PROFIL). Founded in 2008, its objective is to develop Luxembourg's financial services industry and identify new business opportunities.

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Chinese centres in membership of Vantage Financial Centres and represented through the China Development Institute include:

- Shenzhen
- Shanghai
- Beijing
- Chengdu
- Guangzhou
- Dalian

For details of their involvement, contact CDI direct.

**Carol Feng at [carolf@cdi.org.cn](mailto:carolf@cdi.org.cn)  
[www.cdi.org.cn](http://www.cdi.org.cn)**



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Since 2009 Busan Metropolitan City has been developing a financial hub specialising 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 will be completed in 2018 and is expected to provide world-class business infrastructure for financial institutions.

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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.

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Based in Shenzhen, Guangdong Province China Development Institute (CDI) is a market oriented, non-governmental think tank which was founded in 1989 on approval from the Chinese State Council. CDI was designated as one of the 25 China Top Think Tanks in 2015. CDI is committed to providing proactive, innovative and practical research and consultation for China’s central and local governments and businesses at home and abroad. Its research and consultation is centered on macro strategy, regional economy, urbanization, industrial development and policies, business strategy and investment decision-making.

CDI has been exploring to improve its mechanism and operation models which are beneficial to development of non-governmental think tank. With leadership of its Board of Directors, CDI is in the charge of its President. There are more than 140 employees in CDI, 70% of them are researchers.

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The AIFC is the new destination for business offering ample opportunity for growth. AIFC is the unrivalled financial centre in the region to facilitate an access to world class capital markets and asset management industry. It also promotes financial technology and drives the development of niche markets such as Islamic and green finance in the region.

Located at the heart of Eurasia, AIFC provides unprecedented conditions and opportunities for its participants and investors: legal system based on the principles of the English law, independent regulatory framework consistent with internationally recognised standards, no corporate tax regime, depth and breadth in financial services and instruments’ offering, simplified visa and labour regimes, English as a working language. Astana strives to become the gateway to the Eurasian Economic Union and has already been dubbed “The Buckle on the Belt”—key regional financial services hub for the Belt and Road.

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CentresPlease find out more at: [www.vantagefinancialcentres.net](http://www.vantagefinancialcentres.net)or by contacting Mark Yeandle at [mark\\_yeandle@zyen.com](mailto:mark_yeandle@zyen.com)

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.

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Since the establishment of the International Financial Services Centre (IFSC) in Ireland in 1987, Ireland's IFS sector has experienced rapid growth to become a truly nationwide industry with a mix of indigenous and international firms specialising in sub-sectors such as asset management and investment management, aviation finance, banking, fintech and payments, and insurance and reinsurance.

IFS Ireland takes a public-private partnership approach to promoting Ireland as being at the vanguard of financial services due to our English speaking, common law, pro-enterprise environment which is underpinned by membership of the European Union (EU) and the Single Market, a strong and independent regulator and readily available talent thanks to our world-class education system.

**[IFSireland@finance.gov.ie](mailto:IFSireland@finance.gov.ie)**



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), 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 22,000 professionals working across over 2,000 active registered companies

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 cost-effective licensing solutions, fit-for-purpose regulation, innovative accelerator programmes, and funding for growth-stage start-ups.

**[www.difc.ae](http://www.difc.ae)**



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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The China Development Institute (CDI) is a non-governmental 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 nine years ago. Based on rigorous research and objective analysis, CDI is committed to providing prospective, innovative and pragmatic reports for governments at different levels in China and corporations at home and abroad.

PUBLISHED BY LONG FINANCE AND FINANCIAL CENTRE FUTURES



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[www.globalfinancialcentres.net](http://www.globalfinancialcentres.net)

Financial Centre Futures is a programme within the Long Finance Initiative that initiates discussion on the changing landscape of global finance, seeking to explore how finance might work in the future. 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.