



# The Global Financial Centres Index 25

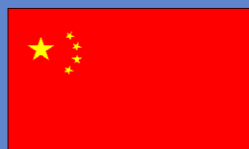
MARCH 2019



New York 1



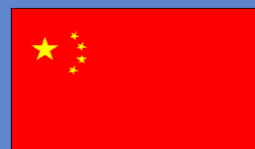
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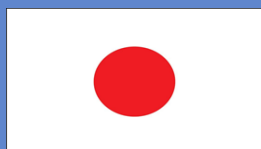
Hong Kong 3



Singapore 4



Shanghai 5



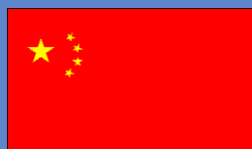
Tokyo 6



Toronto 7



Zurich 8



Beijing 9



Frankfurt 10



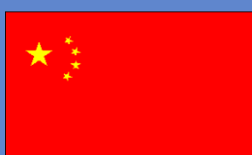
Sydney 11



Dubai 12



Boston 13



Shenzhen 14



Melbourne 15



Financial Centre Futures





In March 2007, Z/Yen 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-fifth edition of the Global Financial Centres Index (GFCI 25).

In July 2016, the China Development Institute (CDI) in Shenzhen and Z/Yen Partners in London 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

The release of the Global Financial Centres Index is always an important day in the calendar for Dubai International Financial Centre.

This year is particularly special for us as the DIFC celebrates 15 years of facilitating trade and investment flows across the Middle East, Africa and South Asia (MEASA) region.

The Centre was established in 2004 with the vision to become a global financial hub, which we have successfully achieved under the guidance and support of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai.

Since then, DIFC has grown into one of the world's most advanced financial centres, and the leading financial hub for the region. We are 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 23,000 professionals working across over 2,100 active registered companies.

Now, we are entering a new period of growth through the recently announced plans for DIFC 2.0, which reframes our vision. The 13 million square feet development will drive growth within the regional financial landscape and foster an environment where innovation and entrepreneurship thrive.

Indeed, we are already seeing our vision coming to life in so many ways, from the growth of emerging sectors, such as aviation financing and FinTech, to the size of the wealth and asset management sector at DIFC. The latter now stands at almost US\$ 500 billion dollars, which is testament to the capital being raised in the Centre.

By continuing to align with the national government agenda that aims to ensure Dubai's sustained prosperity and accelerate the development journey of the Emirate, DIFC will remain at the forefront of financial sector advancement.

**H.E. Essa Kazim**

**Governor**

**Dubai International Financial Centre**



# GFCI 25 Summary And Headlines

## Overview

- We researched 112 centres for this edition of the Global Financial Centres Index (GFCI 25). The number of financial centres in the main index has increased from 100 to 102 with the addition of Stuttgart, Kuwait City and Nairobi from the associate centres list and the exclusion of Trinidad & Tobago which did not obtain a sufficient number of assessments. There are ten associate centres awaiting potential inclusion in the main index.
- GFCI 25 was compiled using 133 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 29,065 financial centre assessments provided by respondents to the GFCI online questionnaire ([.globalfinancialcentres.net/survey](https://globalfinancialcentres.net/survey)).
- A breakdown of the 2,373 respondents is shown in Appendix 2. Further details of the methodology behind GFCI 25 are in Appendix 3.
- Performance across the index was encouraging as respondents are more confident about the future than in GFCI 24. Within the top 30 centres in the index, 26 centres rose in the ratings while one fell and three remained stationary. Only 16 of the 102 centres fell in the ratings.

## The Results

### Leading Centres

- New York remains in first place in the index, just seven points head of London. Hong Kong is only four points behind London in third and Singapore remains in fourth place;
- Shanghai remains ahead of Tokyo in fifth place in the index although Tokyo gained ten points in the ratings;
- Toronto rose 27 points and gained four places to seventh. Zurich, Beijing, and Frankfurt remained in the top ten.

### Western Europe

- This region did well after a mixed performance in GFCI 24. Thirteen of the top 15 Western European centres rose in the ratings with particularly strong performances by Monaco, Madrid and Edinburgh. Only Luxembourg and Amsterdam saw modest declines;
- The centres that are most likely to benefit from Brexit did well, with Zurich, Frankfurt, Paris, and Dublin all gaining ground. Amsterdam was the only centre in

Western Europe that dropped more than ten points in the ratings.

### **Asia/Pacific**

- Most Asia/Pacific Centres performed well. Of the top twenty centres in the region, only Osaka saw a modest decline with the others rising or remaining as they were in GFCI 24;
- There has been a strong trend of Asia/Pacific centres improving over several years. The top eight centres in the region are now in the top fifteen centres in the whole index;
- Melbourne, Jakarta, and GIFT City (Gujarat) all showed strong increases in GFCI 25.

### **North America**

- North American centres also did well in GFCI 25 with most centres rising in the ratings. Of particular note is the performance of Toronto, Montreal and Vancouver, the three leading Canadian centres. All three showed strong increases in the ratings. Toronto rose four places to seventh overall and Montreal is now in 18<sup>th</sup> place;
- Washington DC regained the ground that it lost in GFCI 24 with a rise of 34 points. This rise resulted in it climbing four places to 32<sup>nd</sup> overall.

### **Eastern Europe And Central Asia**

- There were significant gains for Astana, Istanbul and Prague. Astana only officially launched its financial centre in 2018, and it is unusual for such a new centre to perform so strongly;
- Tallinn made a lot of ground in GFCI 24 but fell back this time despite a growing reputation as a strong FinTech centre.

### **Middle East And Africa**

- Dubai, Casablanca, and Abu Dhabi continued to rise in the index. Doha lost some of the ground it made in GFCI 24;
- Kuwait City and Nairobi were new entrants to the index, with Kuwait ranking 57<sup>th</sup> in its first entry.

### **Latin America And The Caribbean**

- There were mixed results in the region with five centres rising in the ranks and three declining. The Cayman Islands, Panama, and Bermuda performed strongly.

### **Island Centres**

- The British Crown dependencies showed a mixed performance with Jersey making a small gain, the Isle of Man moving up but Guernsey dropping 15 places in the index to 75<sup>th</sup> place.

Table 1 | GFCI 25 Top 50 Ranks And Ratings

Centre	GFCI 25		GFCI 24		Change in	Change in
	Rank	Rating	Rank	Rating	Rank	Rating
New York	1	794	1	788	0	▲ 6
London	2	787	2	786	0	▲ 1
Hong Kong	3	783	3	783	0	0
Singapore	4	772	4	769	0	▲ 3
Shanghai	5	770	5	766	0	▲ 4
Tokyo	6	756	6	746	0	▲ 10
Toronto	7	755	11	728	▲ 4	▲ 27
Zurich	8	739	9	732	▲ 1	▲ 7
Beijing	9	738	8	733	▼ 1	▲ 5
Frankfurt	10	737	10	730	0	▲ 7
Sydney	11	736	7	734	▼ 4	▲ 2
Dubai	12	733	15	722	▲ 3	▲ 11
Boston	13	732	13	725	0	▲ 7
Shenzhen	14	730	12	726	▼ 2	▲ 4
Melbourne	15	729	20	699	▲ 5	▲ 30
San Francisco	16	727	14	724	▼ 2	▲ 3
Los Angeles	17	724	16	721	▼ 1	▲ 3
Montreal	18	722	24	690	▲ 6	▲ 32
Vancouver	19	721	18	709	▼ 1	▲ 12
Chicago	20	717	17	717	▼ 3	0
Cayman Islands	21	713	29	683	▲ 8	▲ 30
Casablanca	22	712	28	684	▲ 6	▲ 28
Tel Aviv	23	710	25	689	▲ 2	▲ 21
Guangzhou	24	708	19	708	▼ 5	0
Bermuda	25	705	30	680	▲ 5	▲ 25
Abu Dhabi	26	702	26	686	0	▲ 16
Paris	27	699	23	691	▼ 4	▲ 8
Geneva	28	698	27	685	▼ 1	▲ 13
Qingdao	29	694	31	679	▲ 2	▲ 15
Luxembourg	30	691	21	694	▼ 9	▼ 3
Osaka	31	690	22	693	▼ 9	▼ 3
Washington DC	32	689	36	655	▲ 4	▲ 34
Monaco	33	686	46	629	▲ 13	▲ 57
Taipei	34	676	32	670	▼ 2	▲ 6
Edinburgh	35	674	43	634	▲ 8	▲ 40
Seoul	36	668	33	668	▼ 3	0
Madrid	37	667	53	619	▲ 16	▲ 48
Dublin	38	658	37	652	▼ 1	▲ 6
Kuala Lumpur	39	652	40	638	▲ 1	▲ 14
Wellington	40	647	45	630	▲ 5	▲ 17
Amsterdam	41	646	35	657	▼ 6	▼ 11
Doha	42	642	34	662	▼ 8	▼ 20
Munich	43	641	39	639	▼ 4	▲ 2
Vienna	44	640	51	621	▲ 7	▲ 19
Milan	45	638	56	613	▲ 11	▲ 25
Busan	46	636	44	631	▼ 2	▲ 5
Jersey	47	635	47	628	0	▲ 7
Johannesburg	48	634	57	612	▲ 9	▲ 22
Stuttgart	49	633	New	New	New	New
Hamburg	50	632	41	636	▼ 9	▼ 4

Table 1 (Continued) | GFCI 25 Remaining Ranks And Ratings

Centre	GFCI 25		GFCI 24		Change in	Change in
	Rank	Rating	Rank	Rating	Rank	Rating
Astana	51	631	61	599	▲ 10	▲ 32
Brussels	52	630	54	617	▲ 2	▲ 13
Bangkok	53	629	48	626	▼ 5	▲ 3
Mauritius	54	628	49	625	▼ 5	▲ 3
Stockholm	55	627	58	611	▲ 3	▲ 16
Cape Town	56	626	38	651	▼ 18	▼ 25
Kuwait City	57	625	New	New	New	New
Calgary	58	621	42	635	▼ 16	▼ 14
Istanbul	59	620	68	590	▲ 9	▲ 30
Lisbon	60	619	70	585	▲ 10	▲ 34
Mexico City	61	616	62	598	▲ 1	▲ 18
Prague	62	614	74	581	▲ 12	▲ 33
Glasgow	63	613	50	622	▼ 13	▼ 9
Oslo	64	612	64	596	0	▲ 16
Rio de Janeiro	65	611	65	594	0	▲ 17
Sao Paulo	66	609	55	616	▼ 11	▼ 7
Bahrain	67	608	59	607	▼ 8	▲ 1
Jakarta	68	607	76	579	▲ 8	▲ 28
GIFT City-Gujarat	69	606	77	578	▲ 8	▲ 28
Warsaw	70	605	66	592	▼ 4	▲ 13
Budapest	71	603	71	584	0	▲ 19
British Virgin Islands	72	602	63	597	▼ 9	▲ 5
St Petersburg	73	601	80	575	▲ 7	▲ 26
Helsinki	74	599	94	556	▲ 20	▲ 43
Guernsey	75	598	60	603	▼ 15	▼ 5
Copenhagen	76	597	81	573	▲ 5	▲ 24
Liechtenstein	77	596	73	582	▼ 4	▲ 14
Riga	78	595	87	565	▲ 9	▲ 30
Sofia	79	593	97	544	▲ 18	▲ 49
Gibraltar	80	591	75	580	▼ 5	▲ 11
Tianjin	81	589	78	577	▼ 3	▲ 12
Panama	82	588	90	562	▲ 8	▲ 26
Reykjavik	83	587	84	570	▲ 1	▲ 17
Isle of Man	84	586	85	568	▲ 1	▲ 18
Bahamas	85	585	67	591	▼ 18	▼ 6
Rome	86	584	72	583	▼ 14	▲ 1
Chengdu	87	583	79	576	▼ 8	▲ 7
Moscow	88	582	83	571	▼ 5	▲ 11
Malta	89	581	88	564	▼ 1	▲ 17
Buenos Aires	90	580	93	557	▲ 3	▲ 23
Riyadh	91	575	69	588	▼ 22	▼ 13
Mumbai	92	573	92	558	0	▲ 15
Cyprus	93	572	91	560	▼ 2	▲ 12
Tallinn	94	569	52	620	▼ 42	▼ 51
Baku	95	567	95	555	0	▲ 12
New Delhi	96	565	82	572	▼ 14	▼ 7
Nairobi	97	564	New	New	New	New
Manila	98	562	86	566	▼ 12	▼ 4
Hangzhou	99	561	89	563	▼ 10	▼ 2
Almaty	100	560	96	550	▼ 4	▲ 10
Dalian	101	520	100	499	▼ 1	▲ 21
Athens	102	519	98	518	▼ 4	▲ 1

We track centres which are included in the GFCI questionnaire, but 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 category of ‘associate centres’.

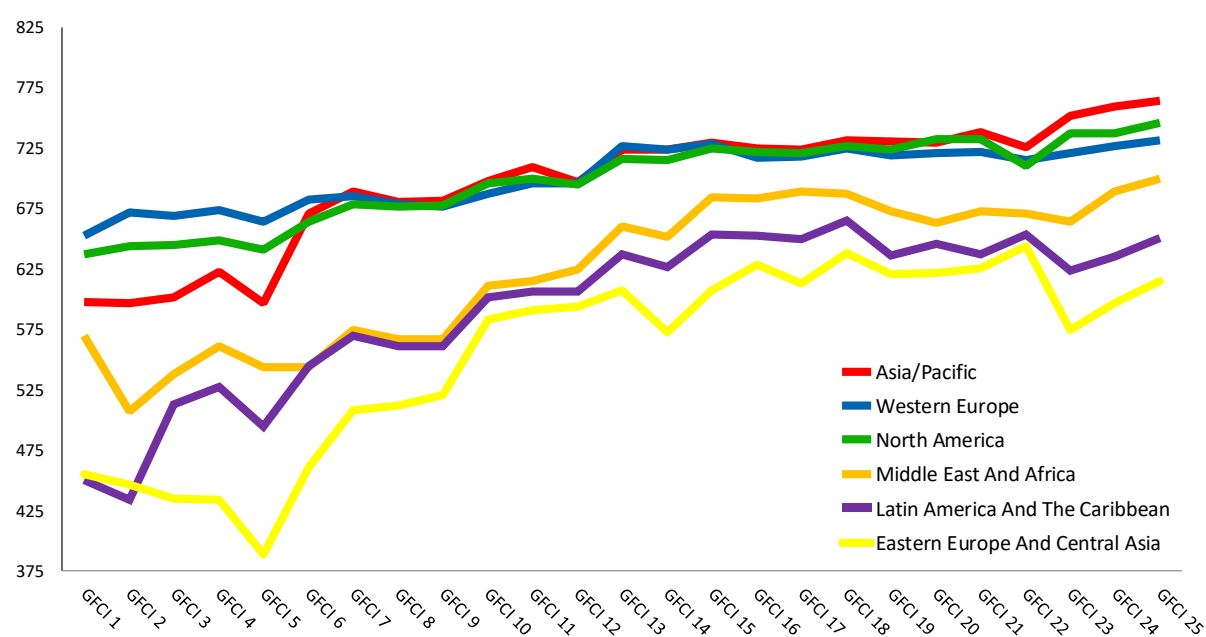
**Table 2 | GFCI 25 Associate Centres**

Centre	Number of Assessments in the last 24 months	Mean of Assessments
Barbados	82	507
Karachi	75	532
Tehran	75	484
San Diego	70	607
Andorra	61	490
Bratislava	57	553
Santiago	50	540
Trinidad & Tobago	43	460
Vilnius	14	557
Lugano	13	454

## 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.

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

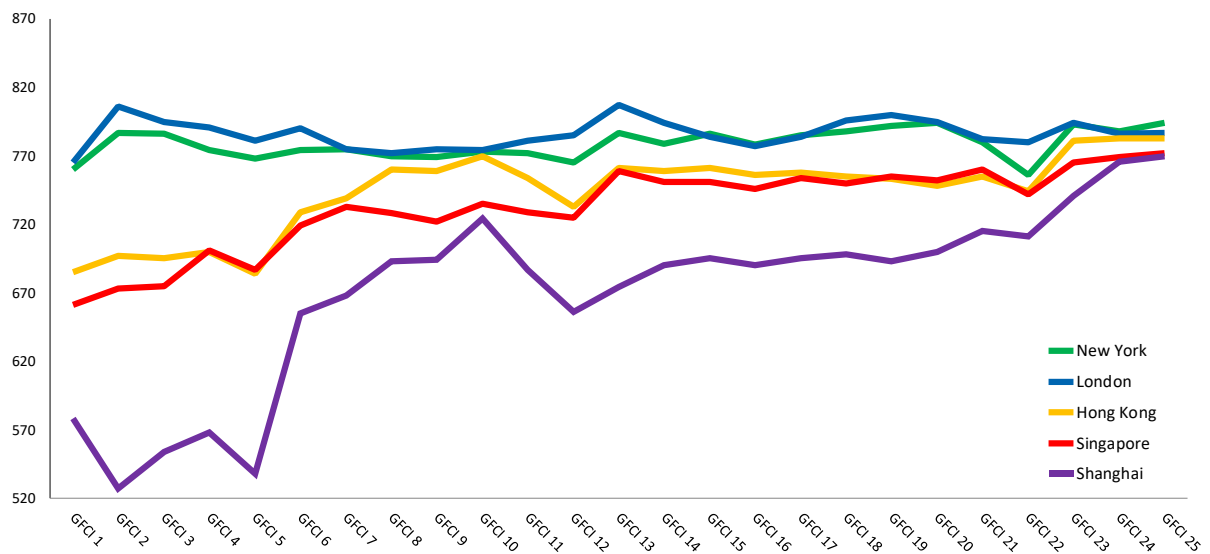




## The Top Five Centres

New York remains in first place in GFCI 25 and has increased its lead over London to seven points. Hong Kong, Singapore, and Shanghai have all continued to close the gap on the leaders, with Hong Kong now only four points behind London. When we started tracking financial centres, Shanghai was 193 points behind the leader. It is now just 17 points behind.

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



*“The top Asian centres, are to my mind,  
leading the way at the moment.”*

INVESTMENT BANKER BASED IN STUTTGART

## 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. Seven of the top 15 centres are in the Asia/Pacific region.

**Table 3 | The 15 Centres Likely To Become More Significant**

Centre	Mentions in last 24 months
Shanghai	188
Qingdao	109
Frankfurt	57
Singapore	51
GIFT City	61
Chengdu	36
Hong Kong	31
Paris	30
Casablanca	30
Dublin	29
Stuttgart	28
Shenzhen	24
Beijing	23
London	22
Astana	20

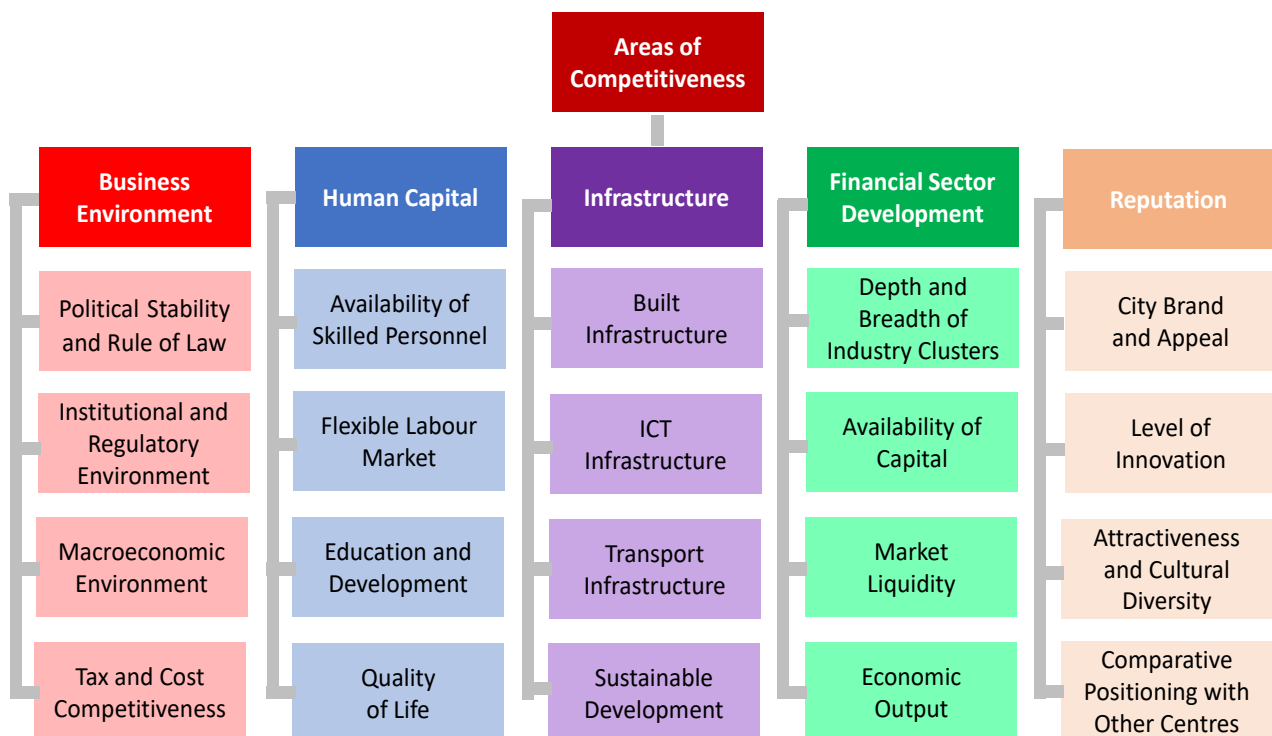
*“Frankfurt and Dublin seem ideally placed to take business away from London in the next two years.”*

COMMERCIAL BASED IN PARIS

# 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**



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 at a time. 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 four positions in all five of the sub-indices.

**Table 4 | GFCI 25 Top 15 By Area Of Competitiveness**

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



## 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 24 Main Areas Of Competitiveness**

Area of Competitiveness	Number of Mentions	Main Issues
Business Environment	555	The regulatory environment is still the most important factor
		Levels of corruption seem to be getting worse
		The rule of law must be enforced
Human Capital	522	The importance of attracting talent is increasing
		The free movement of skilled people is crucial (will Brexit impede this in Europe?)
		Reduced human rights and freedom are harming some centres
Infrastructure	480	Improved air connectivity is now the top priority for some centres
		Centres are becoming more aware of creating 'ecosystems'
		ICT Infrastructure is now taken for granted in the leading centres
Reputation	478	Increased competition means that more intense marketing is vital
		Reputation for a good quality of life remains important
		A good reputation takes a long time to build
Financial Sector Development	428	Financial Institutions looking at relocation decisions, especially in London
		Having a critical mass of international organisations remains important
		Being able to meet clients face-to-face increases business

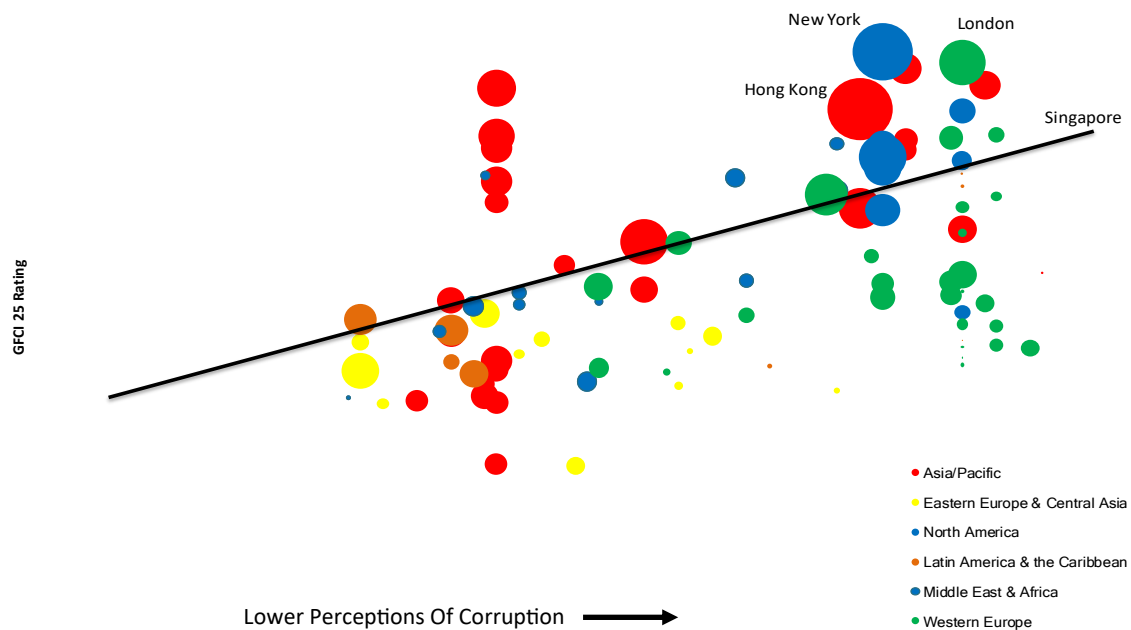
*“We have reluctantly decided to move to mainland Europe. We cannot wait until the Brexit debacle is sorted out”*

FUND MANAGER BASED IN LONDON

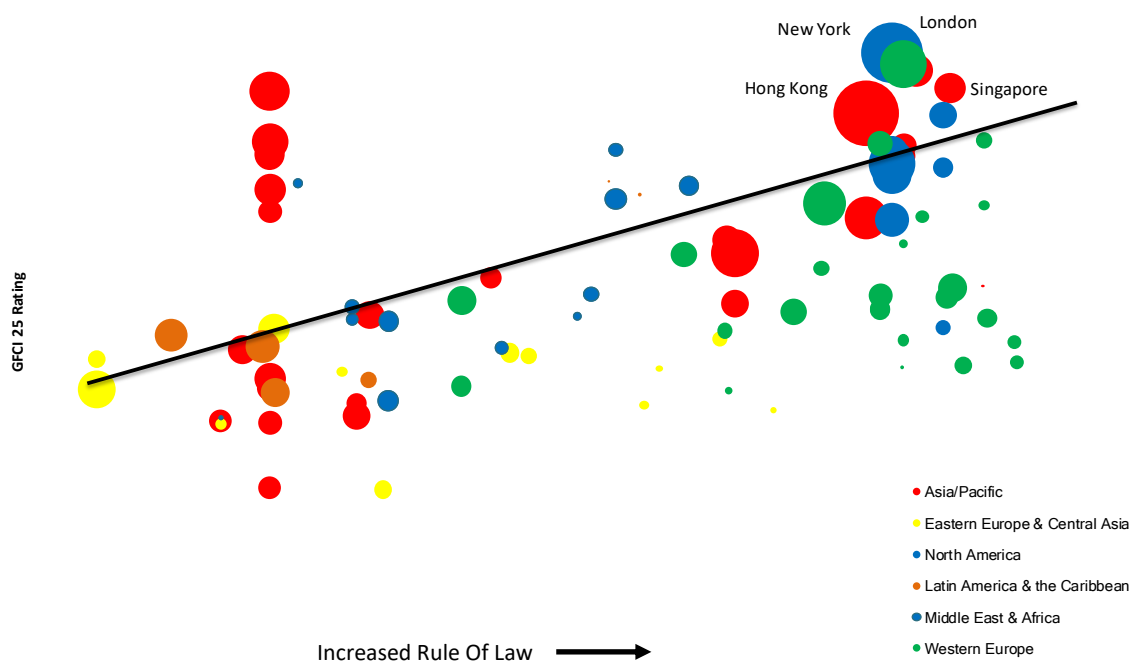
# The Rule Of Law And Corruption

In developing our research into financial centres, we have found that the level of corruption and the rule of law are significant factors in a financial centre's competitiveness. Chart 4 plots GFCI ratings against the Corruption Perceptions Index and Chart 5 plots GFCI rating against the Rule Of Law. These charts demonstrate the correlation of these factors with the GFCI 25 ratings (the size of the bubble indicates the relative GDP of each centre).

**Chart 4 | GFCI 25 Rating Against Corruption Perceptions (Supplied by Transparency International)**



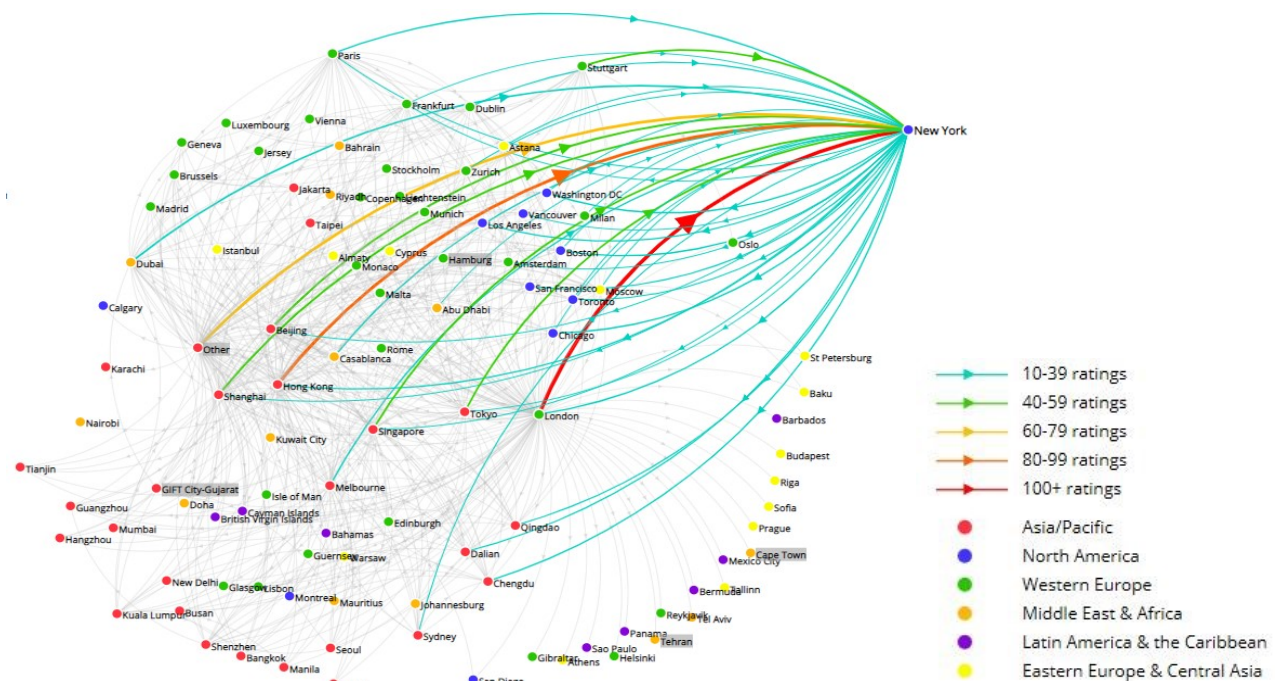
**Chart 5 | GFCI 25 Rating Against the Rule Of Law (Supplied by the World Bank)**



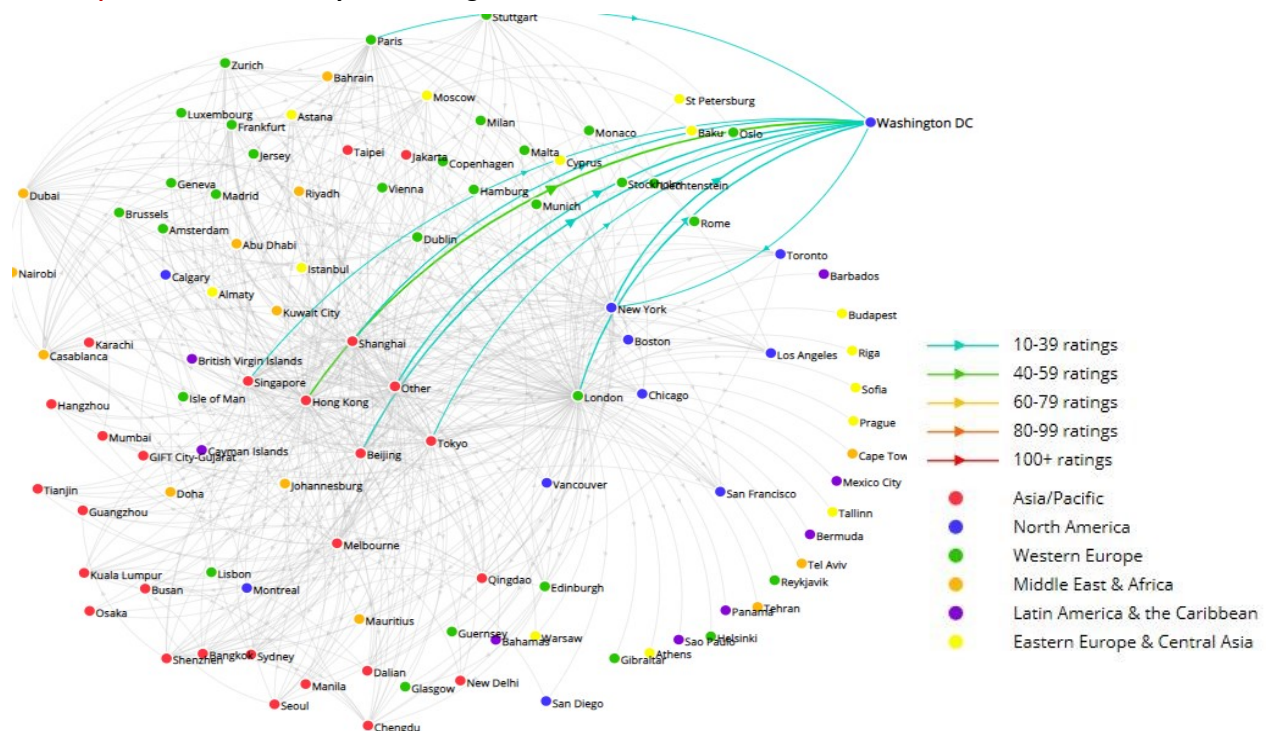
# Connectivity

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 New York and Washington DC to demonstrate the contrast.

**Chart 6 | GFCI 25 Connectivity — New York**



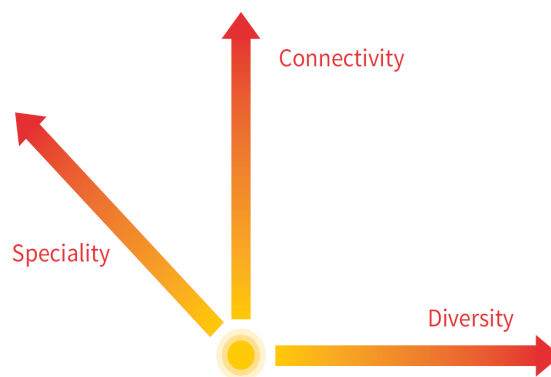
**Chart 7 | GFCI 25 Connectivity — Washington DC**





## Financial Centre Profiles

Chart 8 | GFCI 25 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 55 per cent of other centres, this centre is deemed to be 'Global'. If the ratings are provided by over 40 per cent 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 102 centres in GFCI 25 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 11 of the top 12 global financial centres in GFCI 25.

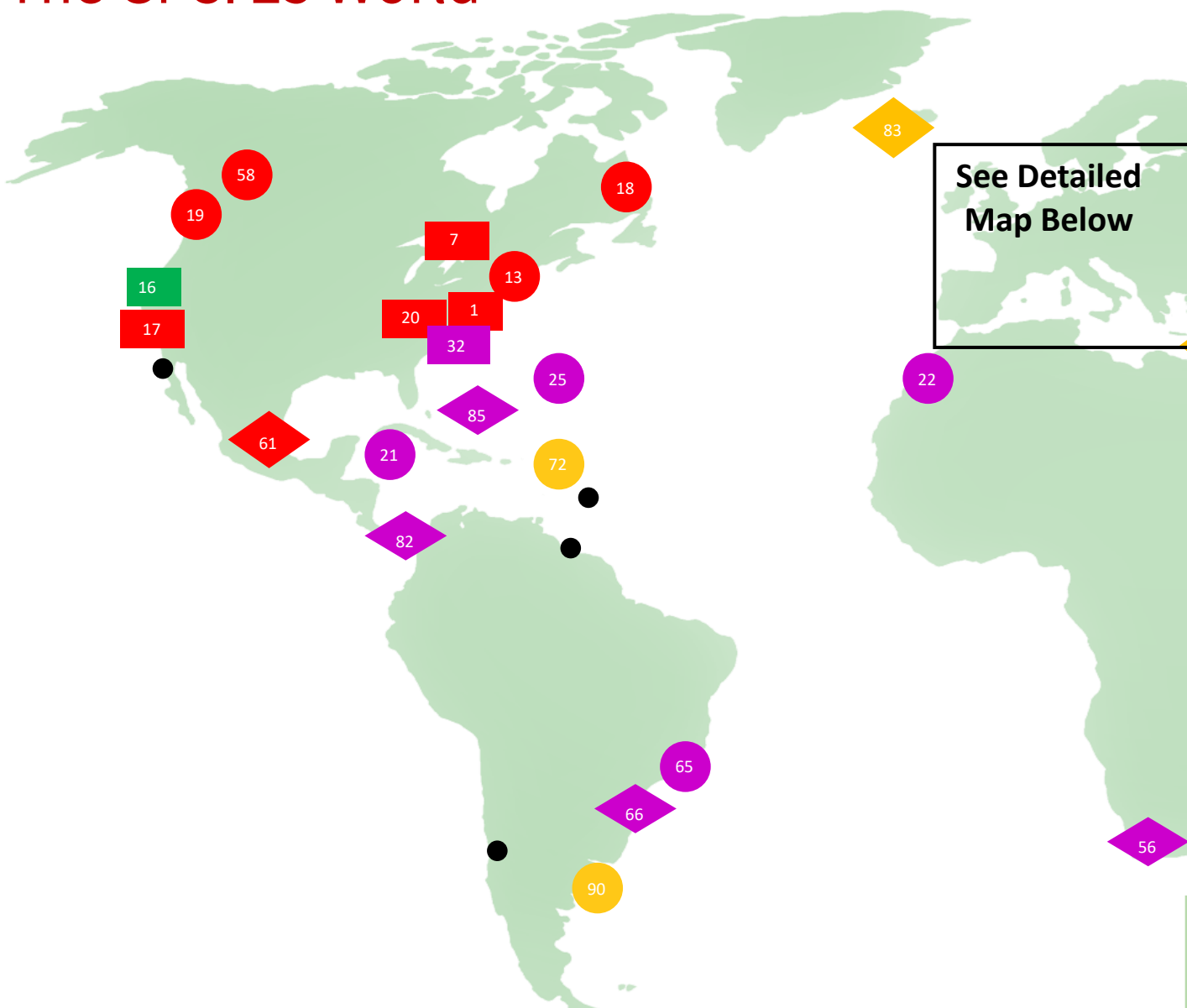
Significant changes in GFCI 25 include Chicago and Los Angeles becoming Global Leaders and Luxembourg, Qingdao and Washington DC becoming Global Specialists. An asterisk by a centre's name in Table 6 indicates a movement from their profile in GFCI 24.















Table 6 | GFCI 25 Financial Centre Profiles

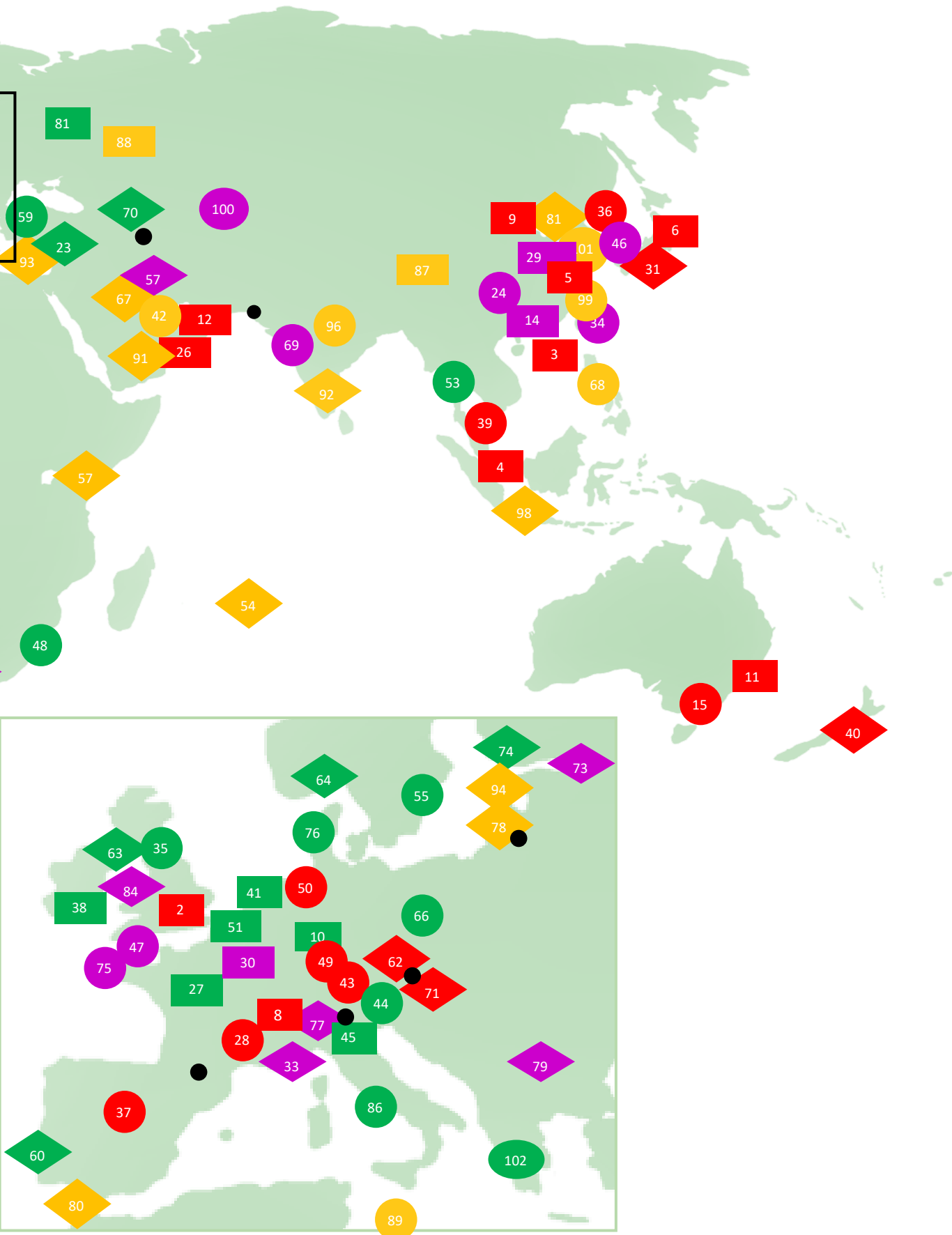
	Broad & Deep	Relatively Broad	Relatively Deep	Emerging
	Global Leaders	Global Diversified	Global Specialists	Global Contenders
Global	Abu Dhabi	Amsterdam	Astana	Chengdu*
	Beijing	Brussels	Luxembourg*	Moscow*
	Chicago*	Dublin	Qingdao*	
	Dubai	Frankfurt	Shenzhen	
	Hong Kong	Milan	Washington DC*	
	London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

# The GFCI 25 World



The numbers on the map indicate the GFCI 25 rankings. Black dots denote Associate Centres:

Broad and Deep		Relatively Broad		Relatively Deep		Emerging	
	Global Leaders		Global Diversified		Global Specialists		Global Contenders
	Established International		International Diversified		International Specialists		International Contenders
	Established Players		Local Diversified		Local Specialists		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:

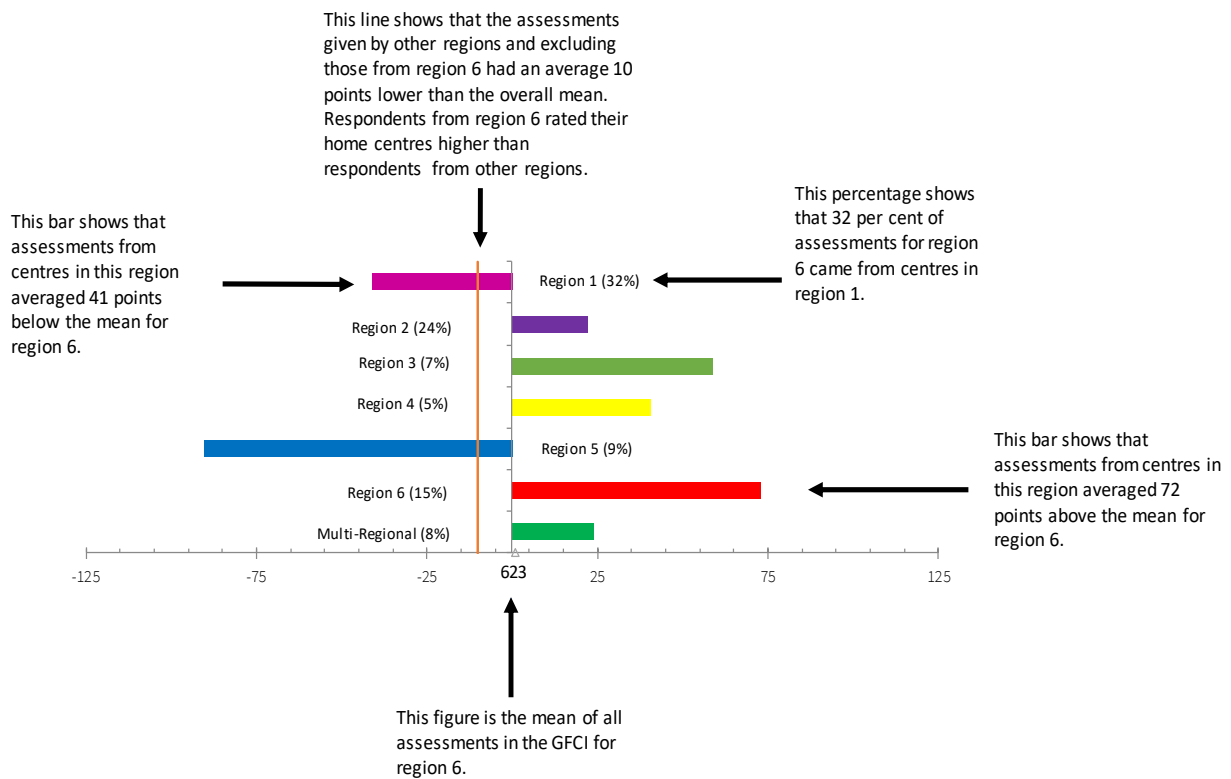
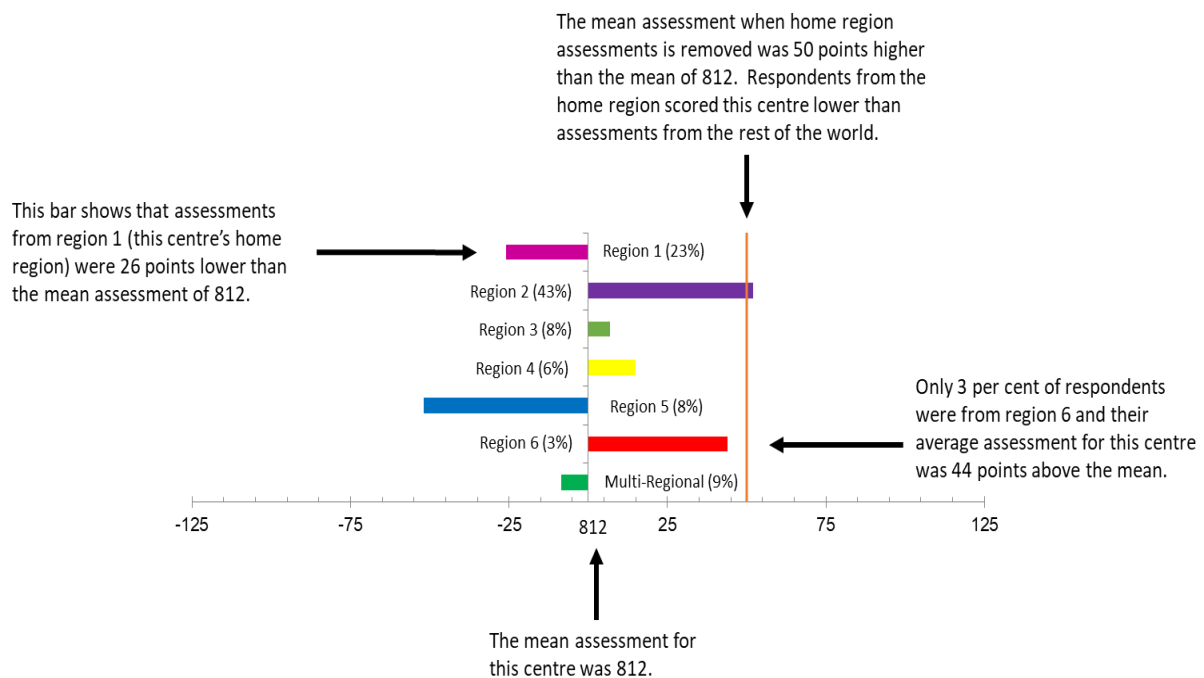
- the mean assessment provided to that region or centre;
- the difference in the mean assessment when home region assessments are removed from the analysis;
- the difference between the mean and the assessments provided by other regions;
- the proportion of assessments provided by each region.

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.

*“We are currently being hampered by a needless trade war. There are too many politicians who think they understand business and economics.”*

HEAD OF EXCHANGE BASED IN ISTANBUL

**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

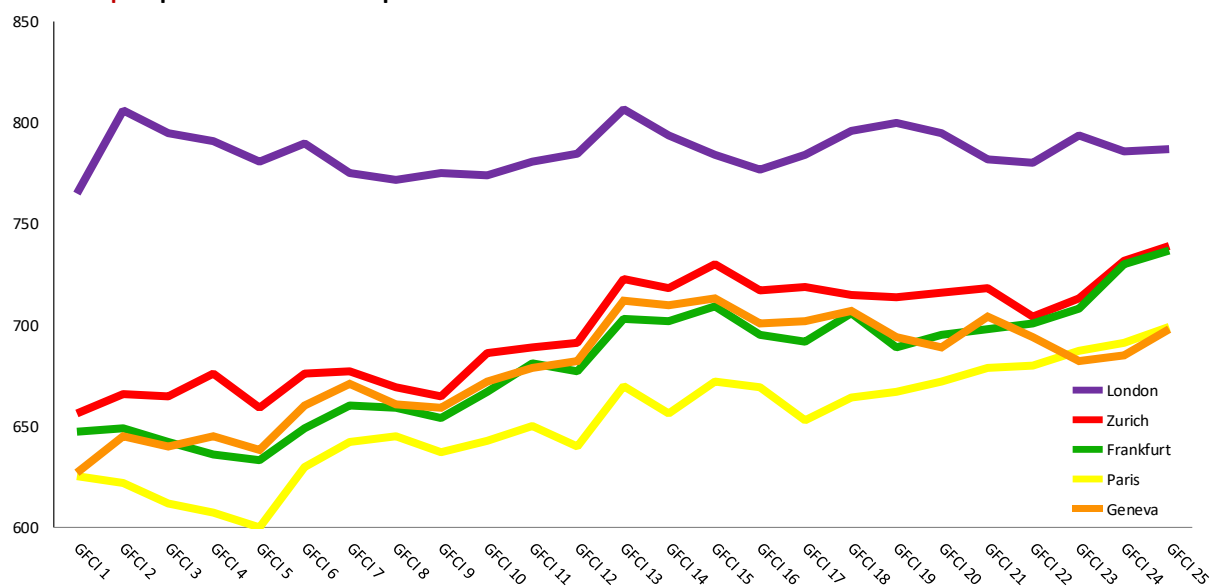
This region did well after a mixed performance in GFCI 24. Thirteen of the top 15 Western European centres rose in the ratings with particularly strong performances by Monaco, Madrid and Edinburgh. Only Luxembourg and Amsterdam saw modest declines.

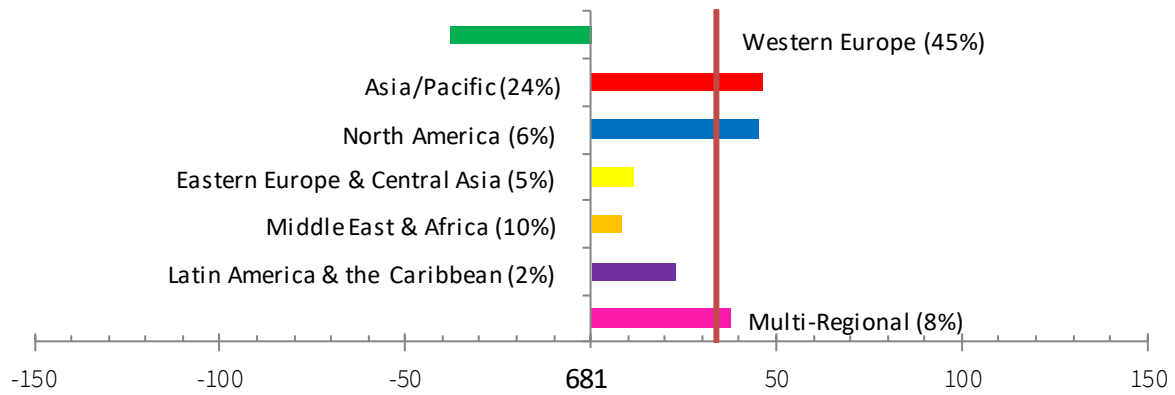
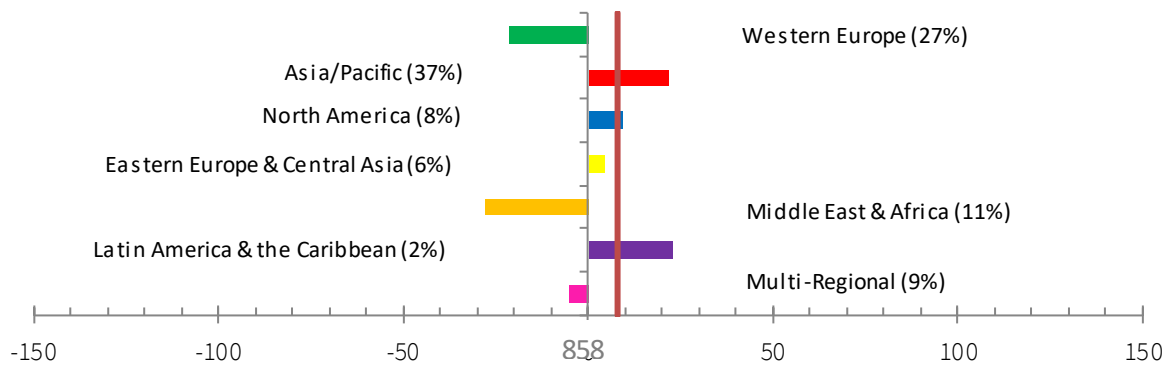
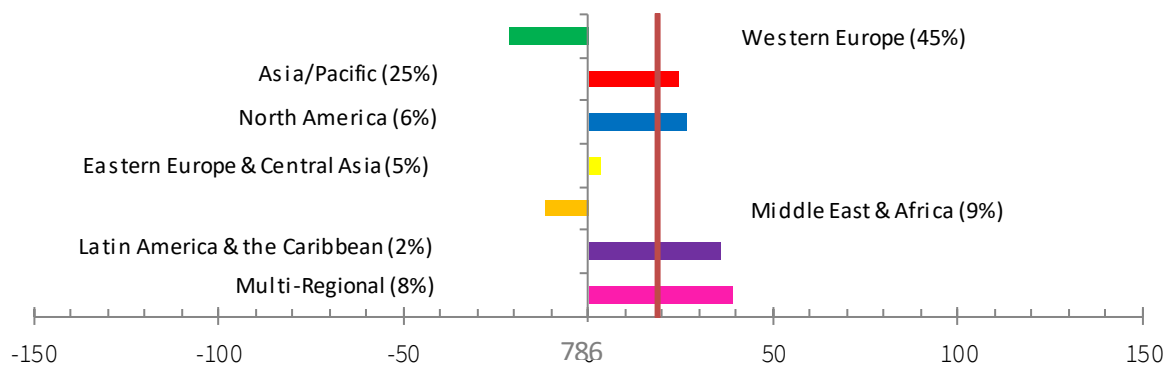
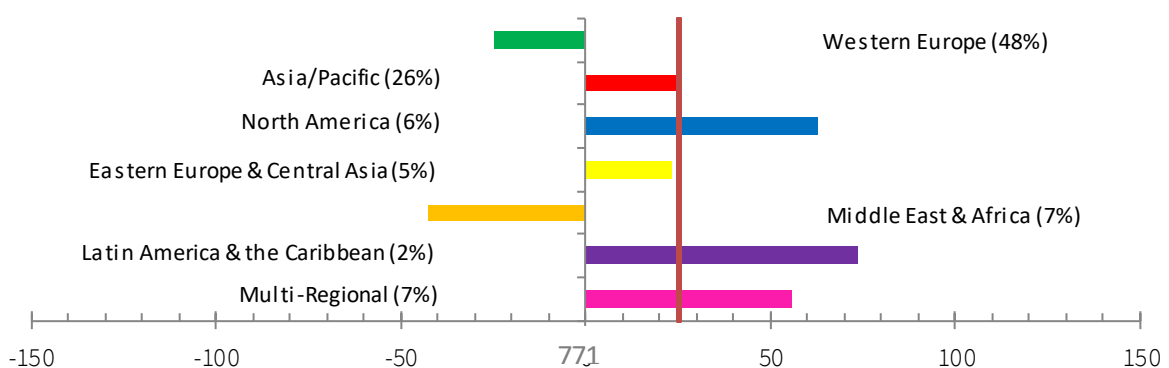
The centres that are most likely to benefit from Brexit did well with Zurich, Frankfurt, Paris, and Dublin, all gaining ground. Amsterdam was the only centre in Western Europe that dropped more than ten points in the ratings.

**Table 7 | Western European Top 20 Centres In GFCI 25**

Centre	GFCI 25		GFCI 24		Change in	
	Rank	Rating	Rank	Rating	Rank	Rating
London	2	787	2	786	0	▲1
Zurich	8	739	9	732	▲1	▲7
Frankfurt	10	737	10	730	0	▲7
Paris	27	699	23	691	▼4	▲8
Geneva	28	698	27	685	▼1	▲13
Luxembourg	30	691	21	694	▼9	▼3
Monaco	33	686	46	629	▲13	▲57
Edinburgh	35	674	43	634	▲8	▲40
Madrid	37	667	53	619	▲16	▲48
Dublin	38	658	37	652	▼1	▲6
Amsterdam	41	646	35	657	▼6	▼11
Munich	43	641	39	639	▼4	▲2
Vienna	44	640	51	621	▲7	▲19
Milan	45	638	56	613	▲11	▲25
Jersey	47	635	47	628	0	▲7
Stuttgart	49	633	New	New	New	New
Hamburg	50	632	41	636	▼9	▼4
Brussels	52	630	54	617	▲2	▲13
Stockholm	55	627	58	611	▲3	▲16
Lisbon	60	619	70	585	▲10	▲34

**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

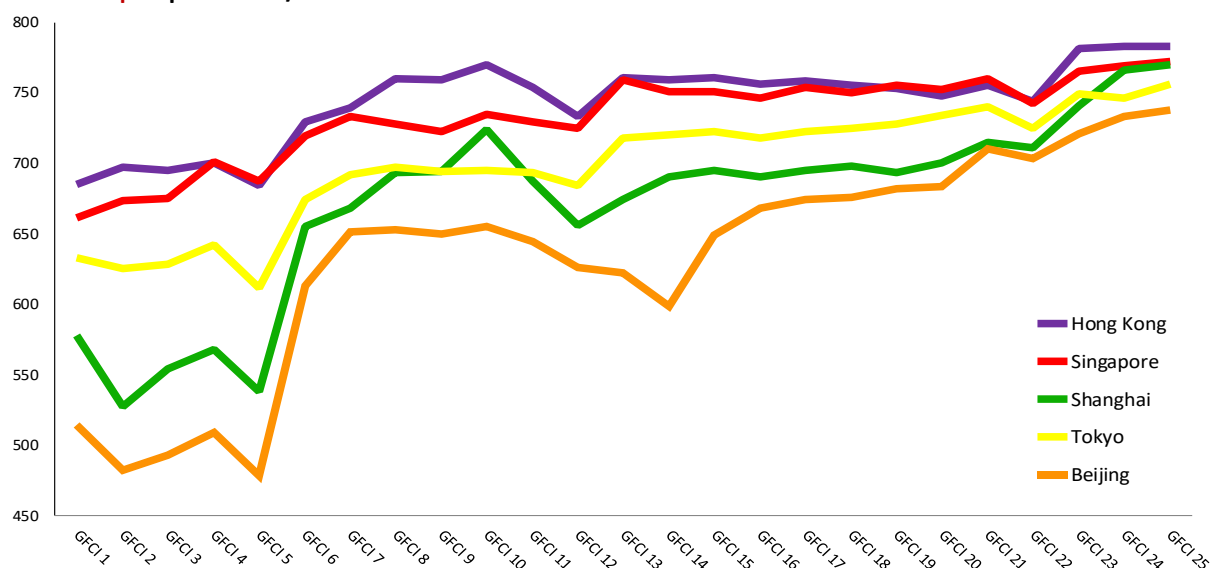
Most Asia/Pacific Centres performed well. Of the top twenty centres in the region, only Osaka saw a modest decline with the others rising or remaining as they were in GCI 24.

There has been a strong trend of Asia/Pacific centres improving over several years. The top eight centres in the region are now in the top fifteen centres in the whole index. Melbourne, Jakarta, and GIFT City (Gujarat) all showed strong increases in GFCI 25.

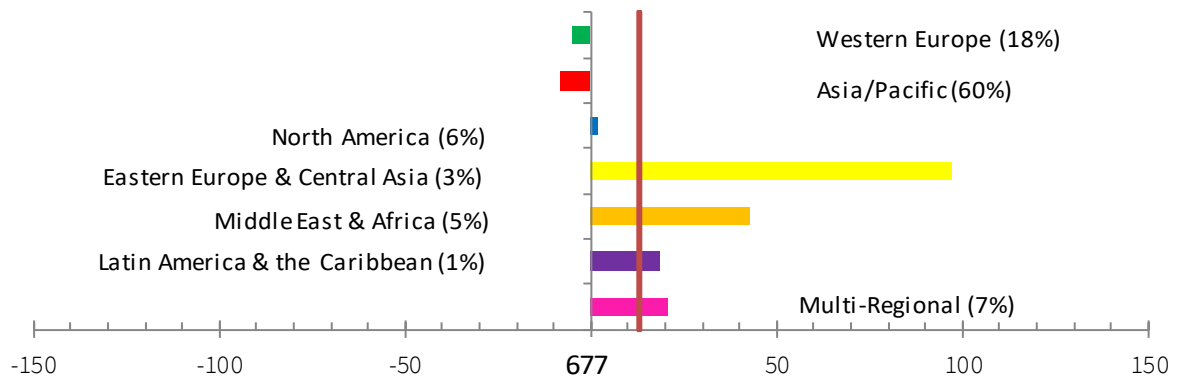
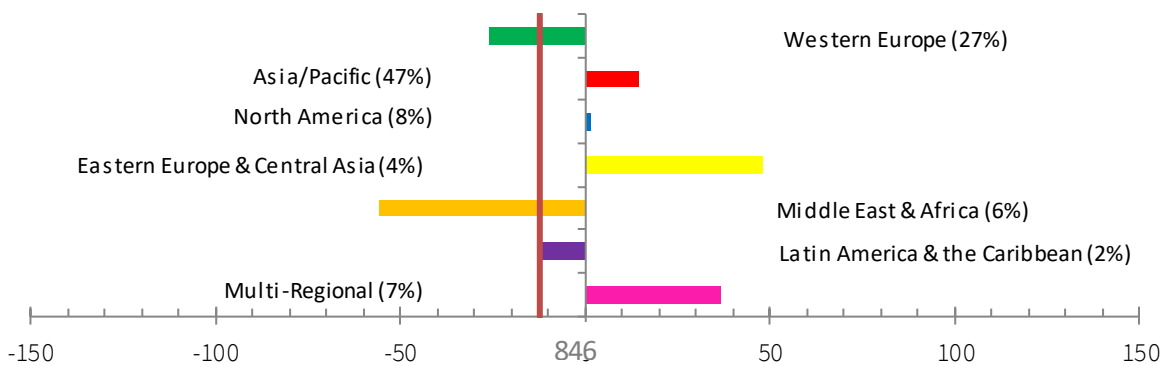
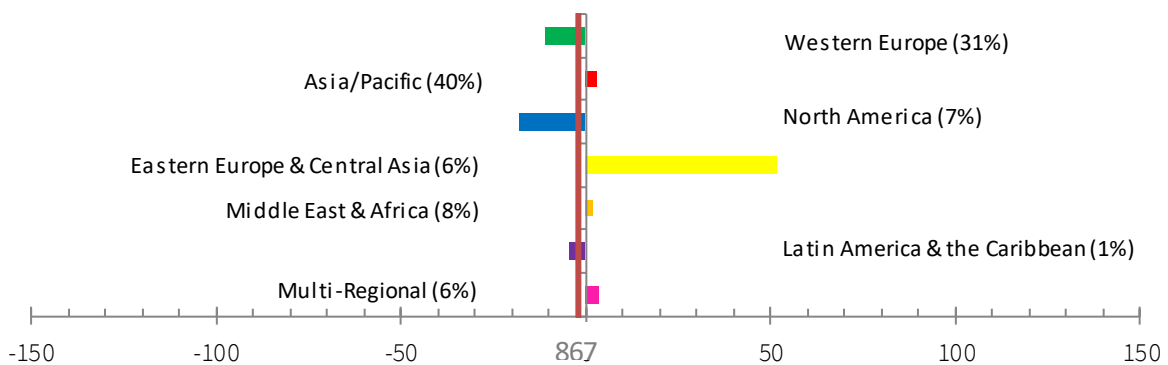
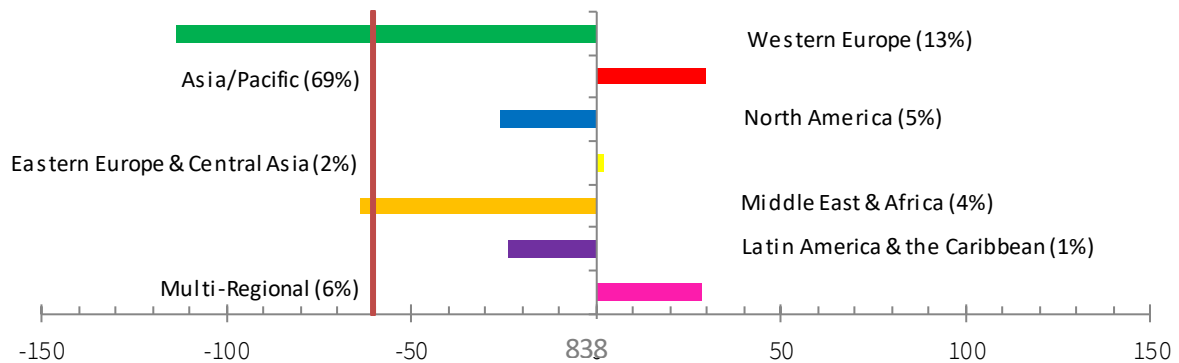
**Table 8 | Asia/Pacific Top 20 Centres In GFCI 25**

Centre	GFCI 25		GFCI 24		Change in	
	Rank	Rating	Rank	Rating	Rank	Rating
Hong Kong	3	783	3	783	0	0
Singapore	4	772	4	769	0	▲3
Shanghai	5	770	5	766	0	▲4
Tokyo	6	756	6	746	0	▲10
Beijing	9	738	8	733	▼1	▲5
Sydney	11	736	7	734	▼4	▲2
Shenzhen	14	730	12	726	▼2	▲4
Melbourne	15	729	20	699	▲5	▲30
Guangzhou	24	708	19	708	▼5	0
Qingdao	29	694	31	679	▲2	▲15
Osaka	31	690	22	693	▼9	▼3
Taipei	34	676	32	670	▼2	▲6
Seoul	36	668	33	668	▼3	0
Kuala Lumpur	39	652	40	638	▲1	▲14
Wellington	40	647	45	630	▲5	▲17
Busan	46	636	44	631	▼2	▲5
Bangkok	53	629	48	626	▼5	▲3
Jakarta	68	607	76	579	▲8	▲28
GIFT City-Gujarat	69	606	77	578	▲8	▲28
Tianjin	81	589	78	577	▼3	▲12

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





**Chart 17 | GFCI 24 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

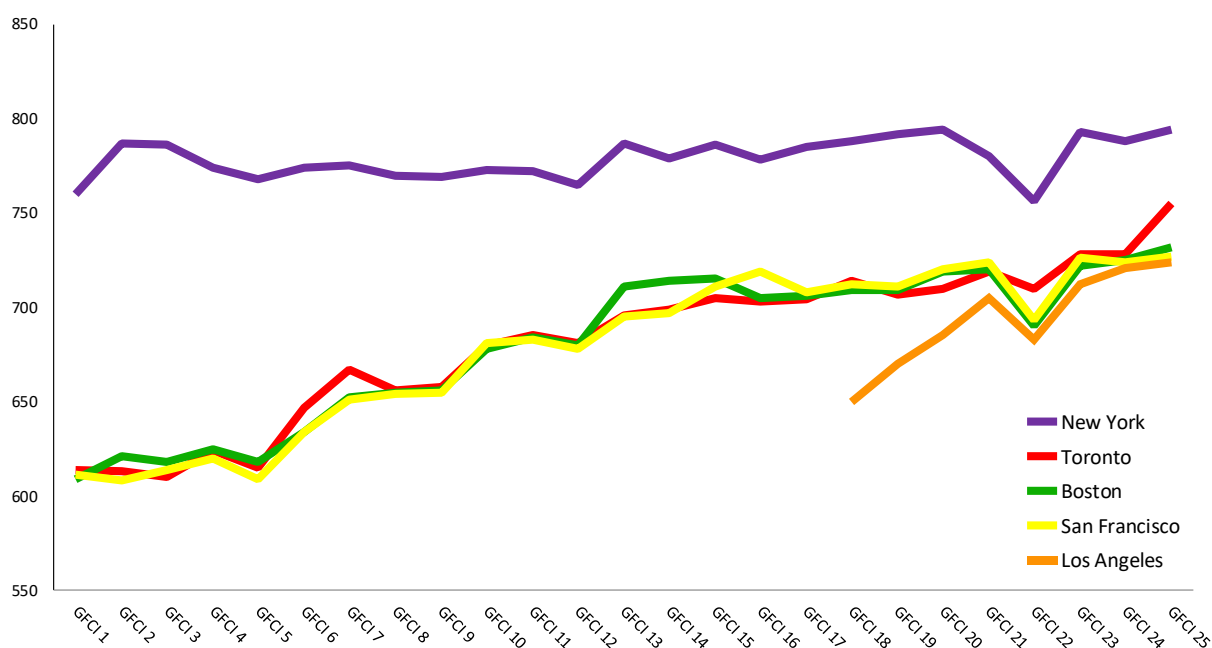
North American centres also did well in GFCI 25 with most centres rising in the ratings. Of particular note is the performance of Toronto, Montreal and Vancouver the three leading Canadian centres. All three showed strong increases in the ratings. Toronto rose four places to seventh overall and Montreal is now in 18<sup>th</sup> place.

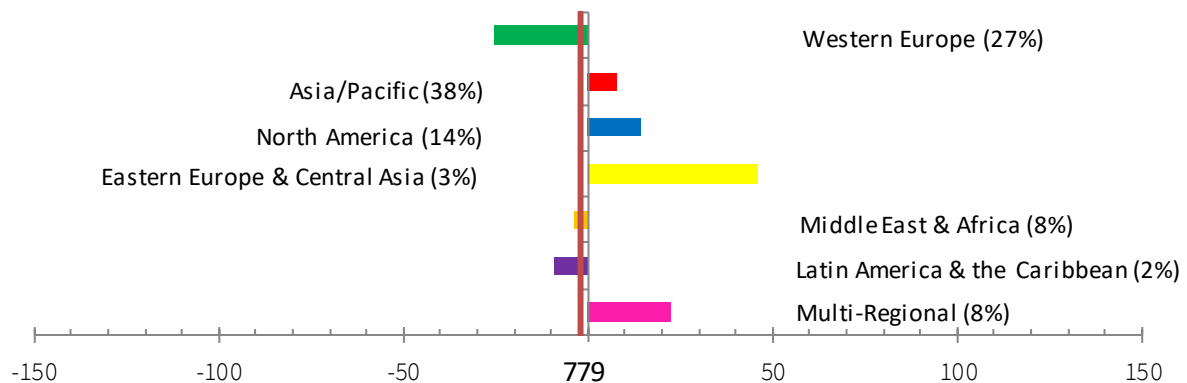
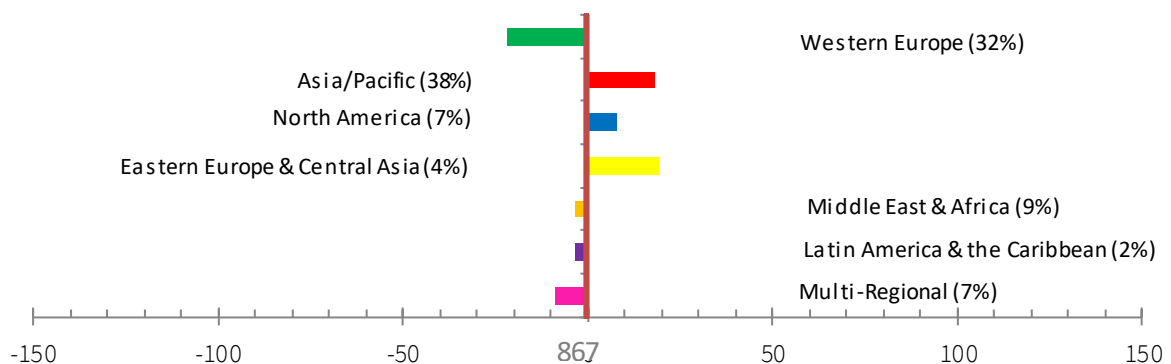
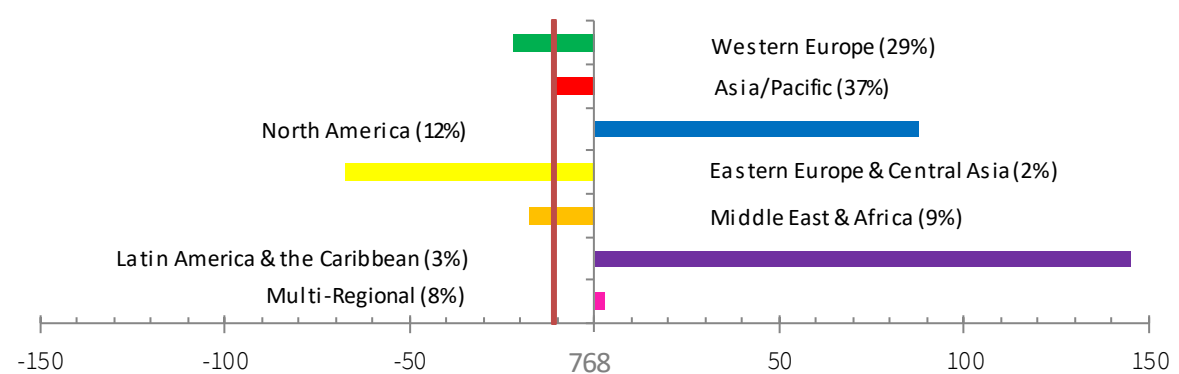
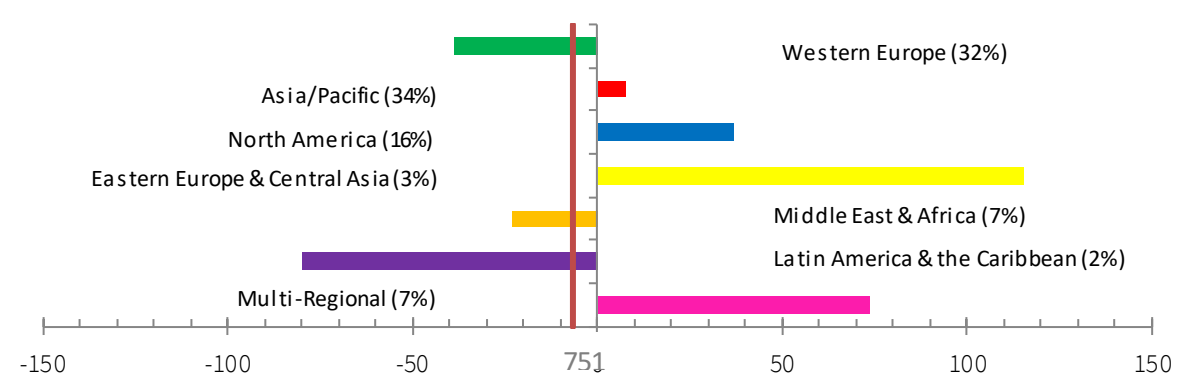
Washington DC regained the ground that it lost in GFCI 24 with a rise of 34 points. This rise resulted in it climbing four places to 32<sup>nd</sup> overall.

**Table 9 | North American Centres In GFCI 25**

Centre	GFCI 25		GFCI 24		Change in	
	Rank	Rating	Rank	Rating	Rank	Rating
New York	1	794	1	788	0	▲6
Toronto	7	755	11	728	▲4	▲27
Boston	13	732	13	725	0	▲7
San Francisco	16	727	14	724	▼2	▲3
Los Angeles	17	724	16	721	▼1	▲3
Montreal	18	722	24	690	▲6	▲32
Vancouver	19	721	18	709	▼1	▲12
Chicago	20	717	17	717	▼3	0
Washington DC	32	689	36	655	▲4	▲34
Calgary	58	621	42	635	▼16	▼14

**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 Boston — Difference From The Overall Mean**

## Eastern Europe And Central Asia

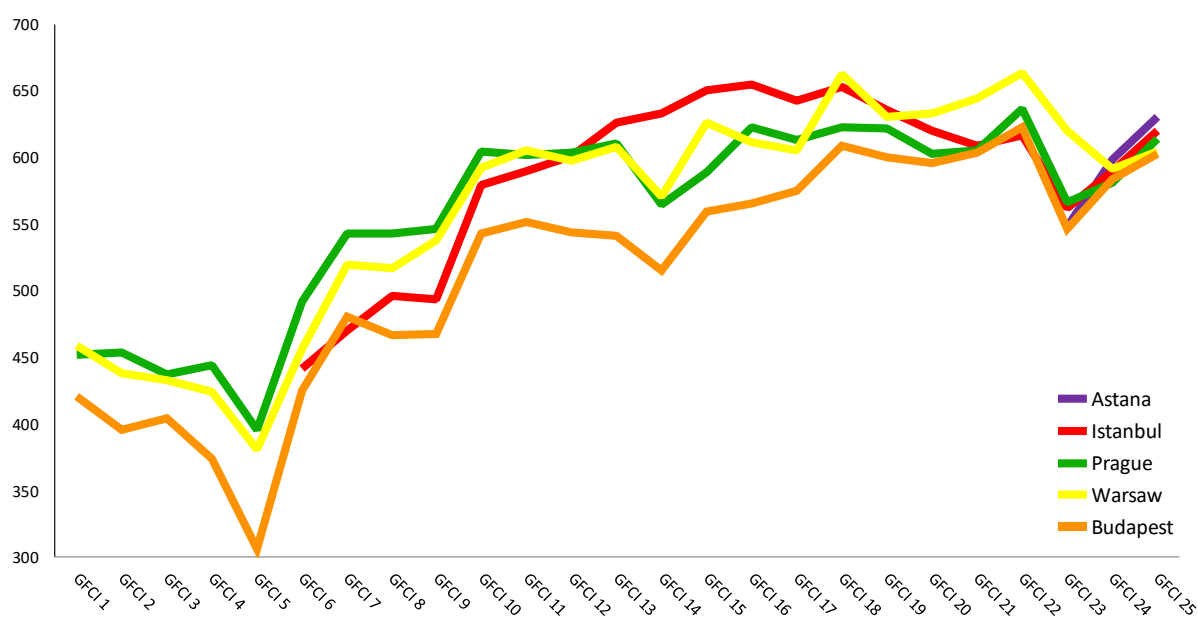
In this region there were significant gains for Astana, Istanbul and Prague. Astana only officially launched its financial centre in 2018, and it is unusual for such a new centre to perform so strongly.

Tallinn made a lot of ground in GFCI 24 but fell back this time despite a growing reputation as a strong FinTech centre.

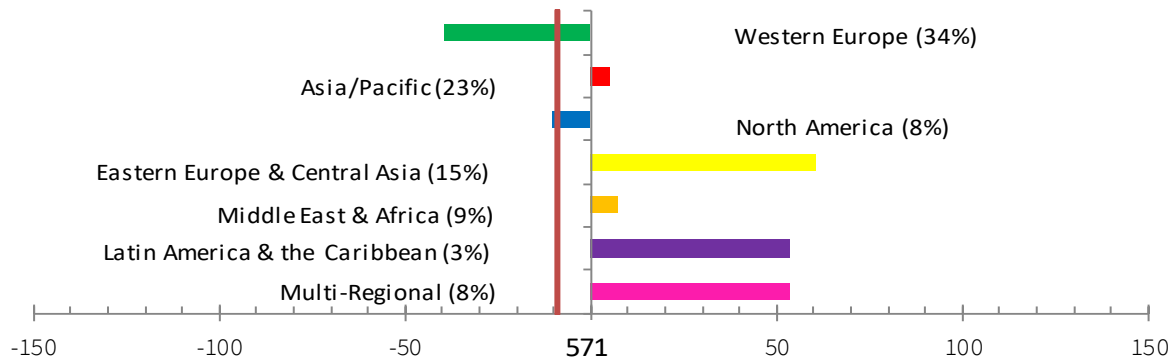
**Table 10 | Eastern European And Central Asian Centres In GFCI 25**

Centre	GFCI 25		GFCI 24		Change in	
	Rank	Rating	Rank	Rating	Rank	Rating
Astana	51	631	61	599	▲ 10	▲ 32
Istanbul	59	620	68	590	▲ 9	▲ 30
Prague	62	614	74	581	▲ 12	▲ 33
Warsaw	70	605	66	592	▼ 4	▲ 13
Budapest	71	603	71	584	0	▲ 19
St Petersburg	73	601	80	575	▲ 7	▲ 26
Riga	78	595	87	565	▲ 9	▲ 30
Sofia	79	593	97	544	▲ 18	▲ 49
Moscow	88	582	83	571	▼ 5	▲ 11
Cyprus	93	572	91	560	▼ 2	▲ 12
Tallinn	94	569	52	620	▼ 42	▼ 51
Baku	95	567	95	555	0	▲ 12
Almaty	100	560	96	550	▼ 4	▲ 10
Athens	102	519	98	518	▼ 4	▲ 1

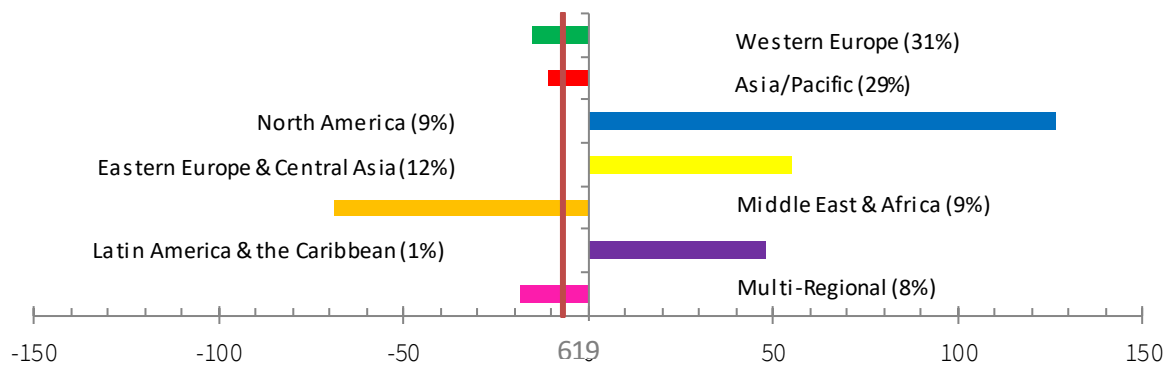
**Chart 26 | GFCI 25 Top Five Eastern European And Central Asian Centres Over Time**



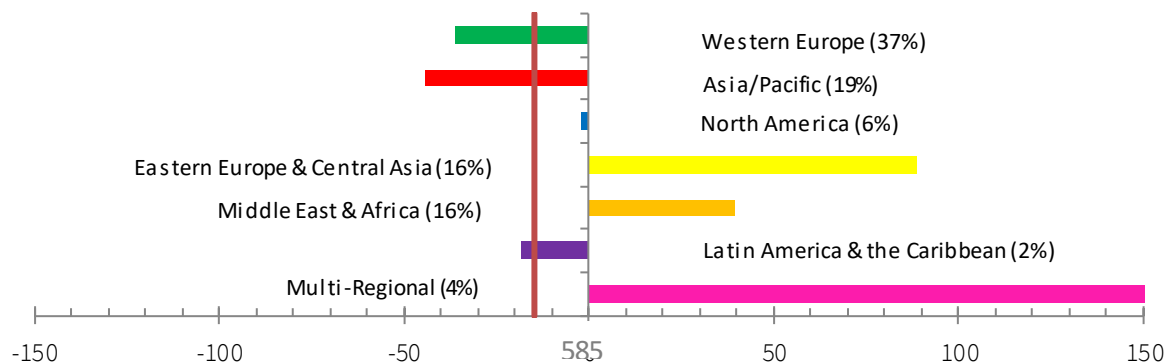
**Chart 27 | Average Assessments By Region For Eastern Europe And Central Asia — Difference From The Overall Mean**



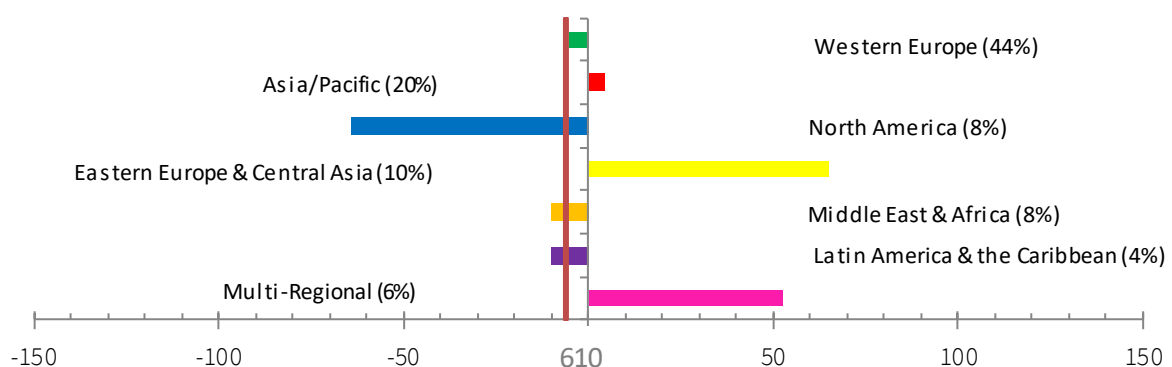
**Chart 28 | Assessments By Region For Astana — Difference From The Overall Mean**



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



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



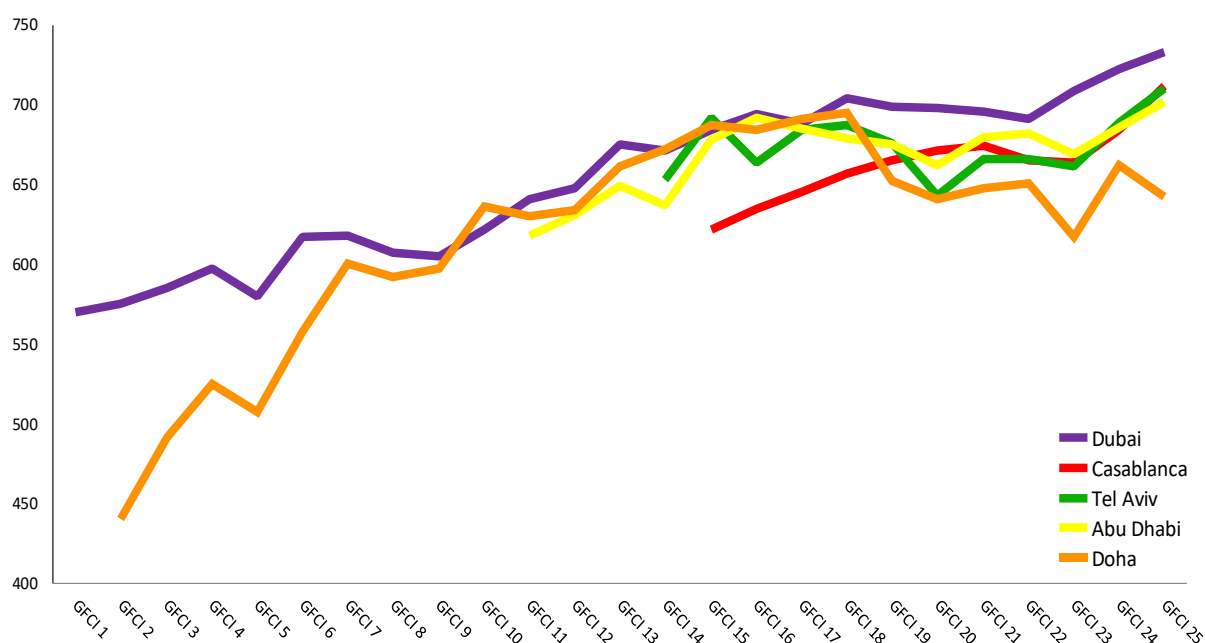
## The Middle East And Africa

In this region Dubai, Casablanca, and Abu Dhabi continued to rise in the index. Doha lost some of the ground it made in GFCI 24. Kuwait City and Nairobi were new entrants to the index, with Kuwait ranking 57<sup>th</sup> in its first entry. Respondents from centres in the Middle East and Africa scored other regional centres lower than the mean, as did respondents from Western Europe and Latin America & the Caribbean.

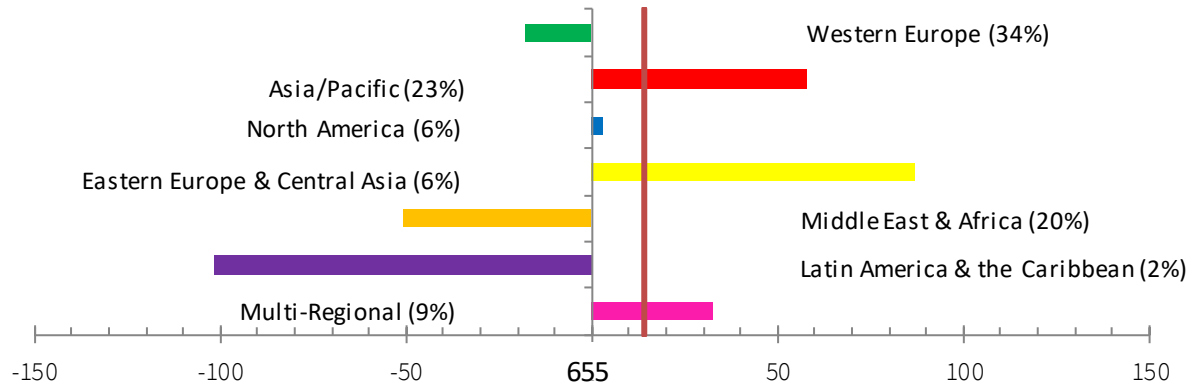
**Table 11 | Middle East And African Centres In GFCI 25**

Centre	GFCI 25		GFCI 24		Change in	
	Rank	Rating	Rank	Rating	Rank	Rating
Dubai	12	733	15	722	▲3	▲11
Casablanca	22	712	28	684	▲6	▲28
Tel Aviv	23	710	25	689	▲2	▲21
Abu Dhabi	26	702	26	686	0	▲16
Doha	42	642	34	662	▼8	▼20
Johannesburg	48	634	57	612	▲9	▲22
Mauritius	54	628	49	625	▼5	▲3
Cape Town	56	626	38	651	▼18	▼25
Kuwait City	57	625	New	New	New	New
Bahrain	67	608	59	607	▼8	▲1
Riyadh	91	575	69	588	▼22	▼13
Nairobi	97	564	New	New	New	New

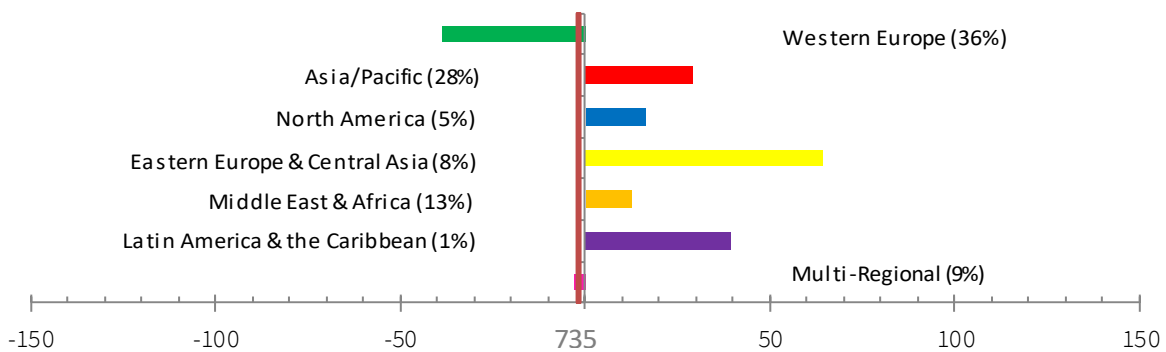
**Chart 31 | GFCI 25 Top Five Middle East And African Centres Over Time**



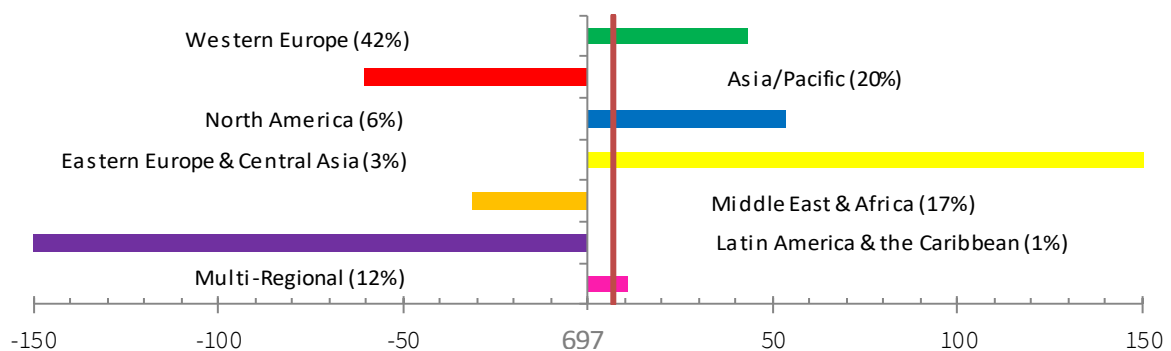
**Chart 32 | Average Assessments By Region For The Middle East And Africa — Difference From The Overall Mean**



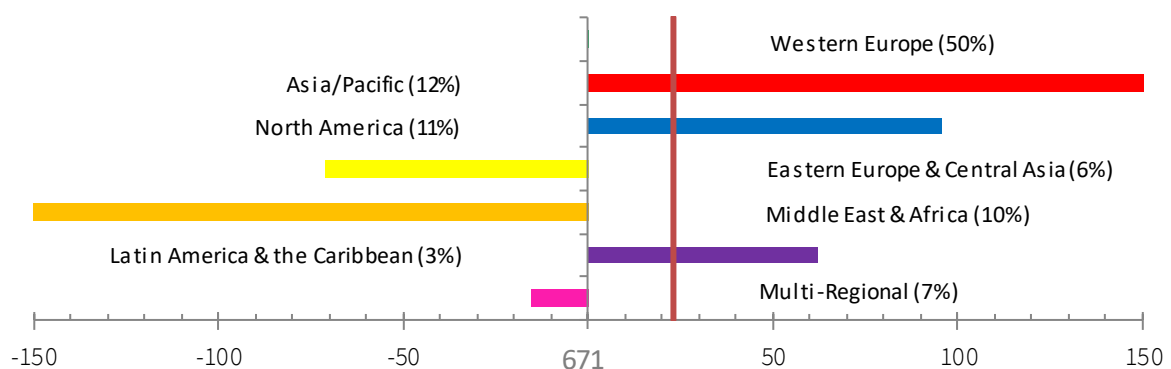
**Chart 33 | Assessments By Region For Dubai — Difference From The Overall Mean**



**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**



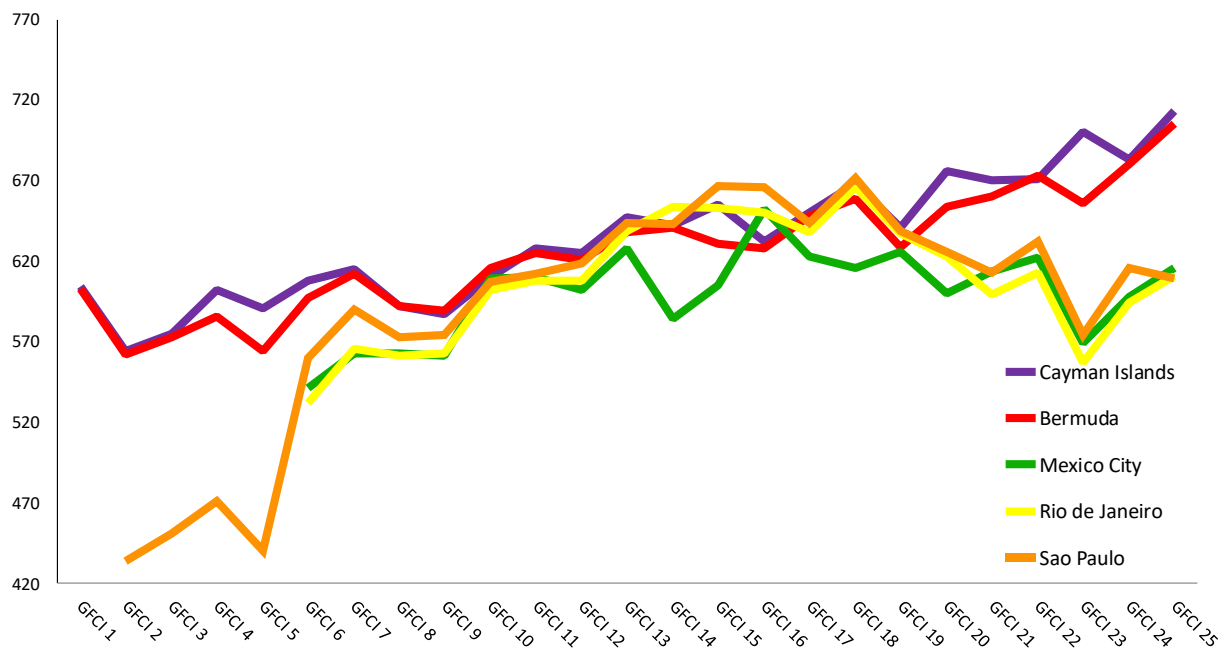
## Latin America And The Caribbean

There were mixed results in the region with five centres rising in the ranks and three declining. The Cayman Islands, Panama, and Bermuda performed strongly.

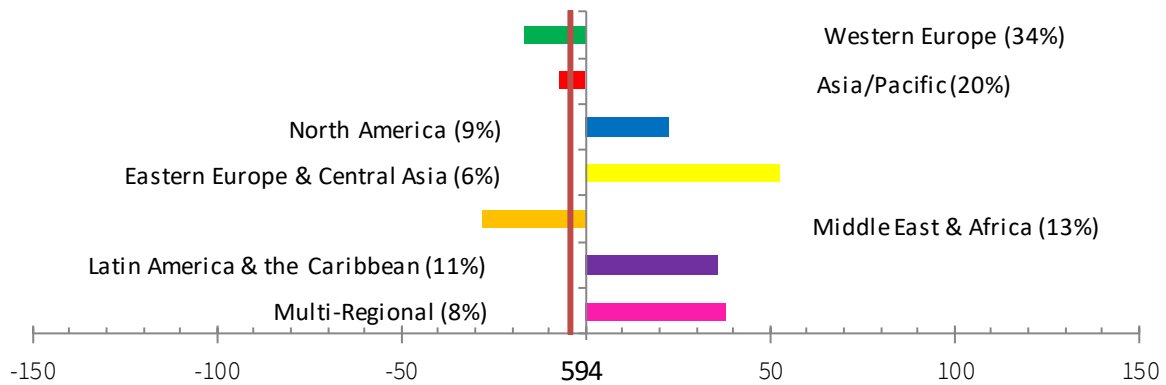
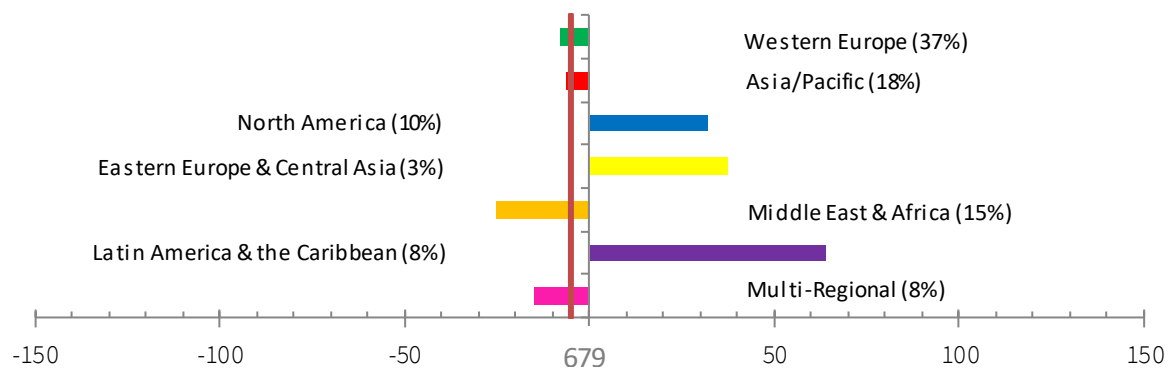
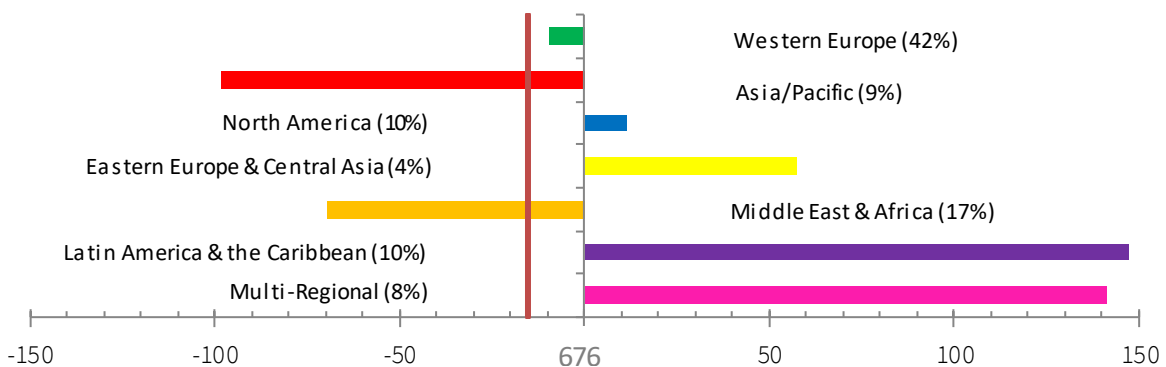
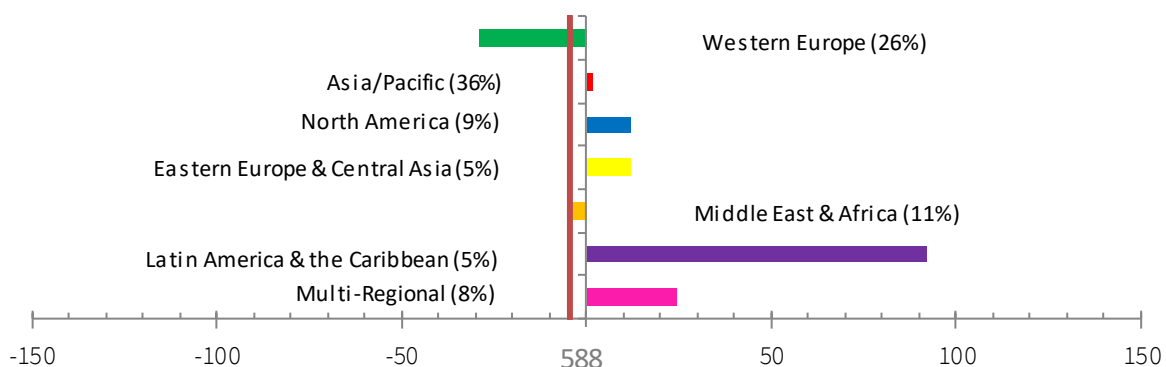
**Table 12 | Latin American And Caribbean Centres In GFCI 25**

Centre	GFCI 25		GFCI 24		Change in	
	Rank	Rating	Rank	Rating	Rank	Rating
Cayman Islands	21	713	29	683	▲ 8	▲ 30
Bermuda	25	705	30	680	▲ 5	▲ 25
Mexico City	61	616	62	598	▲ 1	▲ 18
Rio de Janeiro	65	611	65	594	0	▲ 17
Sao Paulo	66	609	55	616	▼ 11	▼ 7
British Virgin Islands	72	602	63	597	▼ 9	▲ 5
Panama	82	588	90	562	▲ 8	▲ 26
Bahamas	85	585	67	591	▼ 18	▼ 6
Buenos Aires	90	580	93	557	▲ 3	▲ 23

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





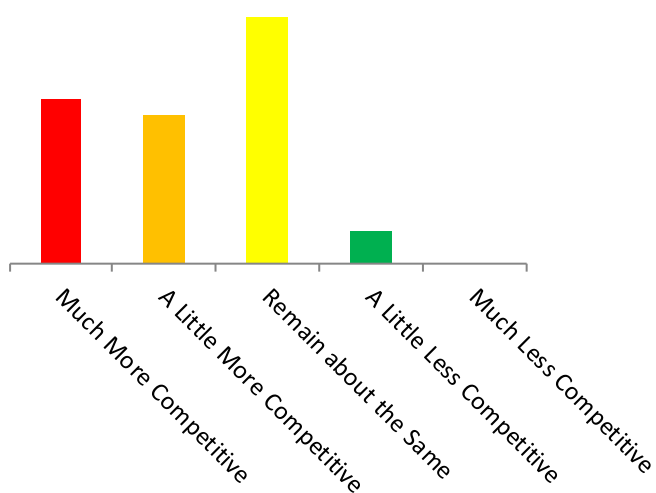
**Chart 37 | Average Assessments By Region For Latin America And The Caribbean – Difference From The Overall Mean****Chart 38 | Assessments By Region For The Cayman Islands — Difference From The Overall Mean****Chart 39 | Assessments By Region For Bermuda — Difference From The Overall Mean****Chart 40 | Assessments By Region For Mexico City — Difference From The Overall Mean**

## Home Centre Prospects

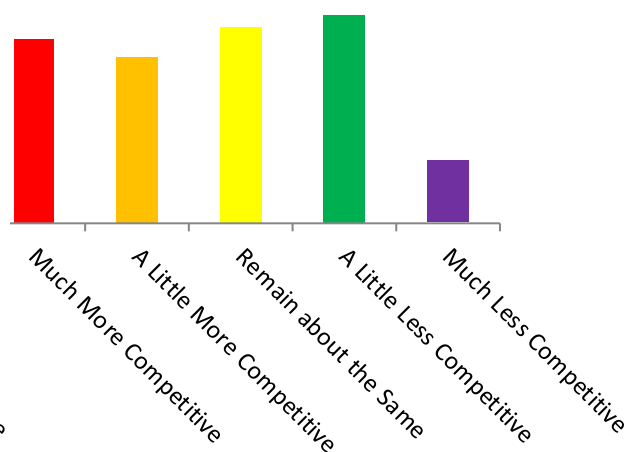
While the GFCI is calculated using only assessments from other centres, we ask respondents about the prospects of the centre in which they are based; and specifically whether their 'home' centre will become more or less competitive.

In general, people are more optimistic about the future of their own centre than people outside that centre. However, respondents in London are 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.

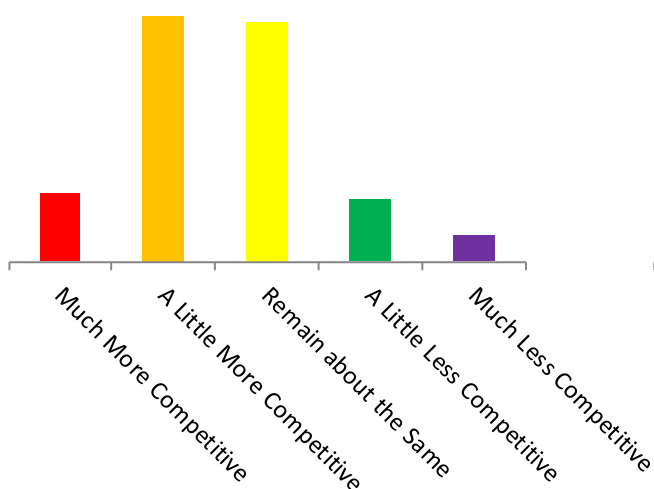
**Chart 41 | Home Centre Prospects — New York**



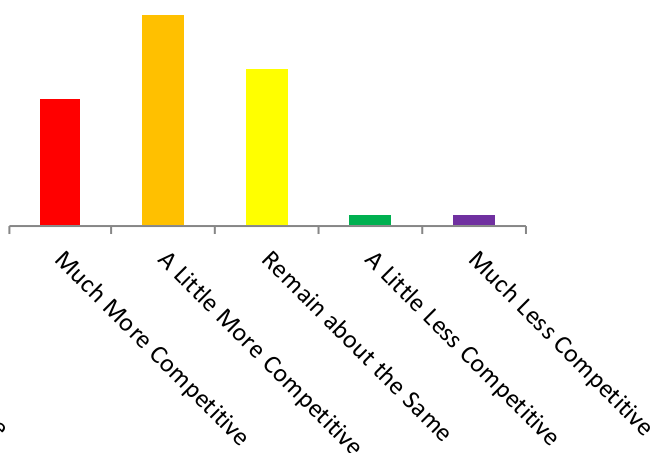
**Chart 42 | Home Centre Prospects — London**



**Chart 43 | Home Centre Prospects — Hong Kong**



**Chart 44 | Home Centre Prospects — Singapore**



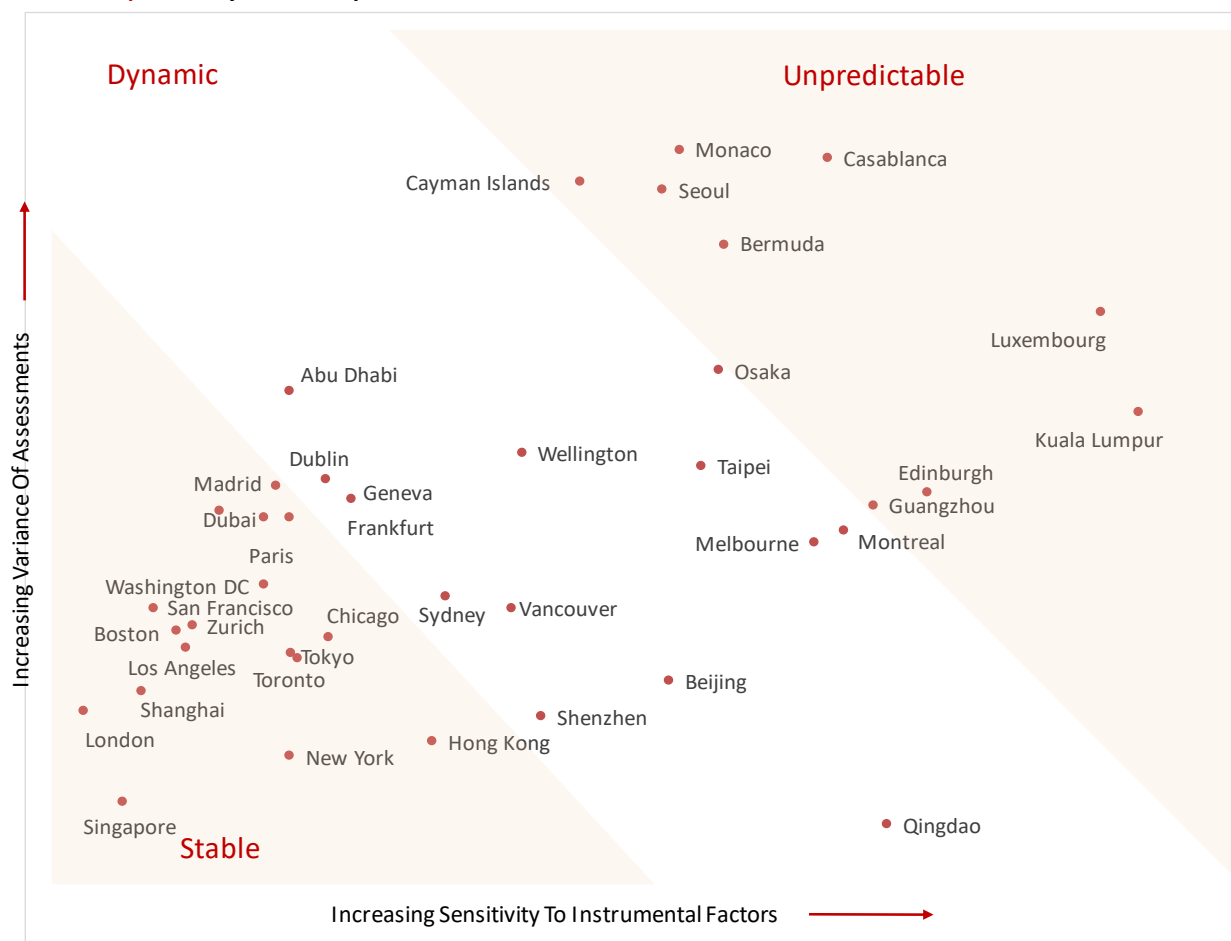
# Stability

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.

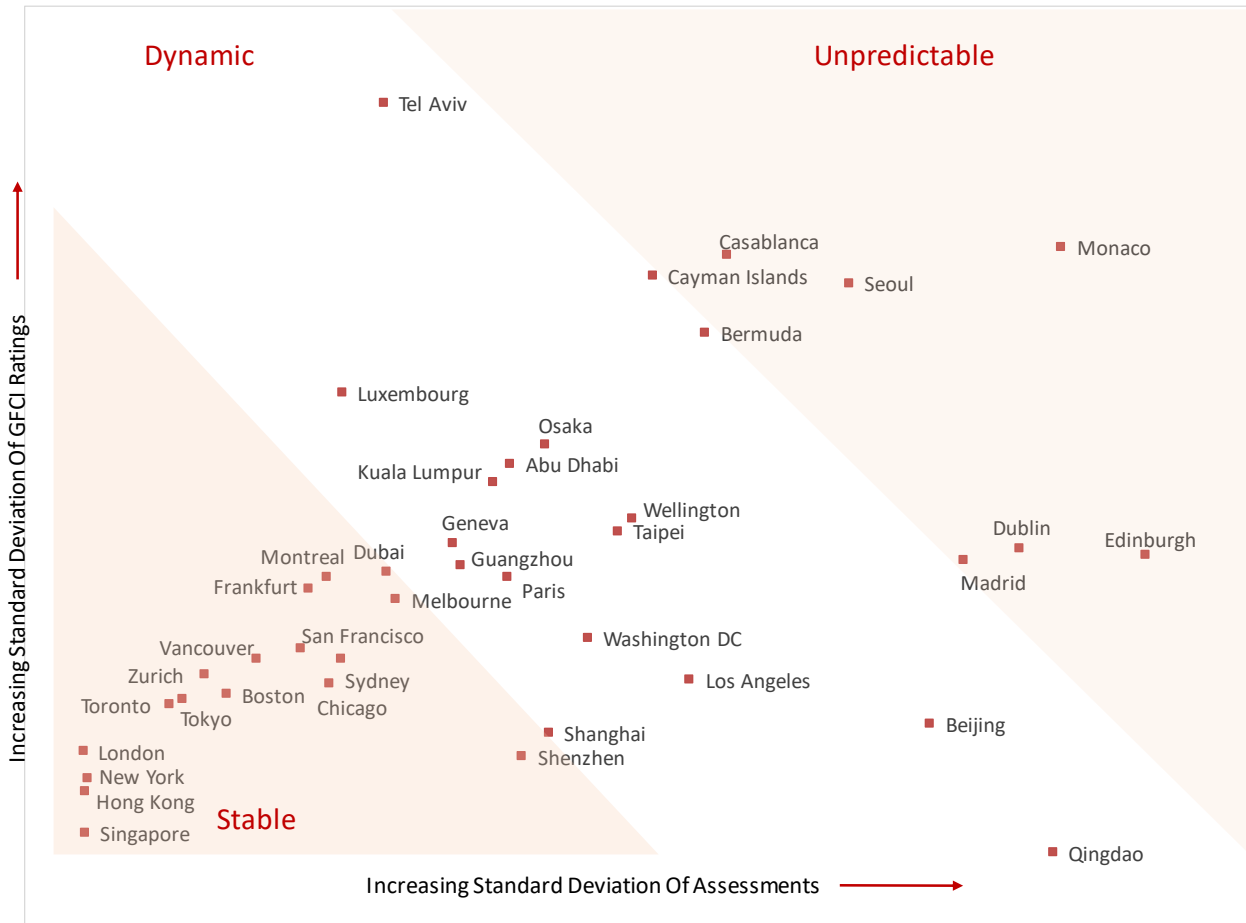
We have only plotted the top 40 centres (for clarity) but it is worth noting that most of the centres lower in the index would be in the dynamic and unpredictable areas of the chart if plotted.

**Chart 45 | Stability Of The Top 40 Centres In GFCI 25**



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.

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



*“The entire finance industry is so full of uncertainty at the moment. Some think that being in Australia shields us, but Sydney and Melbourne need international trade.”*

INVESTMENT BANKER BASED IN SYDNEY

## 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. Eight of the top 15 centres in terms of reputational advantage are in the Asia/Pacific region. Washington DC, New York, and London also show a strong reputational advantage. This may be due to strong marketing or general awareness.

**Table 13 | GFCI 25 Top 15 Centres Assessments And Ratings — Reputational Advantage**

Centre - Top 15	Weighted Average Assessment	GFCI 25 Rating	GFCI 25 Reputational Advantage
Qingdao	832	694	138
Singapore	867	772	95
Wellington	740	647	93
Washington DC	776	689	87
Shanghai	845	770	75
New York	866	794	72
London	856	787	69
Sydney	805	736	69
Hong Kong	847	783	64
Stuttgart	694	633	61
Tokyo	815	756	59
San Francisco	782	727	55
Zurich	788	739	49
Shenzhen	769	730	39
Frankfurt	772	737	35

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.

**Table 14 | GFCI 25 Bottom 15 Centres Assessments And Ratings — Reputational Disadvantage**

Centre - Bottom 15	Weighted Average Assessment	GFCI 25 Rating	GFCI 25 Reputational Advantage
Bahamas	546	585	-39
Cyprus	528	572	-44
Monaco	641	686	-45
Glasgow	564	613	-49
Jakarta	558	607	-49
Kuwait City	568	625	-57
Guangzhou	639	708	-69
GIFT City-Gujarat	533	606	-73
Nairobi	480	564	-84
Riga	509	595	-86
Sofia	495	593	-98
Tianjin	451	589	-138
Chengdu	426	583	-157
Busan	452	636	-184
Dalian	308	520	-212

*“I am actually feeling quite positive about the future of financial services in London. This game is all about trust and London still has a fantastic reputation.”*

ASSET MANAGER BASED IN LONDON

# Industry Sectors

We investigate the differing assessments provided by respondents working in relevant industry sectors by building the index separately using the responses provided only from 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 remains in third place in Investment Management and has dropped from second to third in Professional Services.

**Table 15 | GFCI 25 Industry Sector Sub-Indices — Top Fifteen**

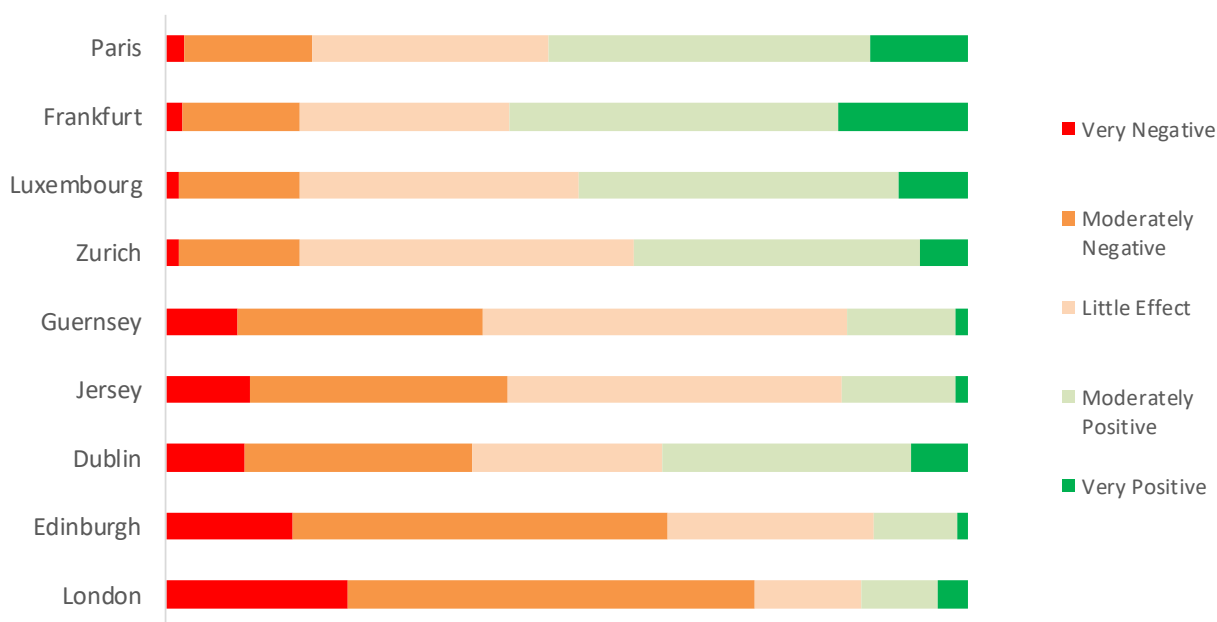
Rank	Banking	Investment Management	Insurance	Professional Services	Government & Regulatory
1	London	New York	New York	New York	London
2	Shanghai	Hong Kong	London	Hong Kong	New York
3	New York	London	Hong Kong	London	Hong Kong
4	Hong Kong	Shanghai	Singapore	Singapore	Singapore
5	Singapore	Singapore	Shanghai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



## Brexit

Since the United Kingdom voted to leave the European Union (Brexit) in June 2016, we have asked respondents to the GFCL online questionnaire about their opinions on the effect that Brexit will have on certain leading European financial centres. The results are shown in table 16 below.

**Table 16 | The Anticipated Effect Of Brexit On Certain European Financial Centres**



It is interesting, but perhaps unsurprising, that 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.

The centres that respondents believe will benefit the most from Brexit are Frankfurt, followed by Paris, Luxembourg, Zurich, and Dublin. We will follow these numbers with interest in the forthcoming months.

*“Zurich is not in the European Union but a growing number of banking friends think that we are ideally placed to gain business as a result of London losing out .”*

INVESTMENT BANKER BASED IN ZURICH



## FinTech

We have been asked by a number of finance professionals about the prospects of us producing a comparable index to the GFCI but focusing on the financial centres that are the most competitive locations for fostering a FinTech industry. We have not yet collected sufficient data to produce a full report but the questionnaire responses to date give us a few interesting clues:

**Table 17 | The Leading FinTech Centres**

Center	Rating
London	843
New York	830
Singapore	830
Shanghai	799
San Francisco	791
Tokyo	768
Shenzhen	732
Frankfurt	707
Tel Aviv	692
Paris	680
Berlin	673
Sydney	667
Toronto	660
Amsterdam	651
Dublin	630

Respondents feel that the four most important elements to attract FinTech start-ups are (in order) the regulatory environment, the availability of skilled people, access to finance and ICT Infrastructure.

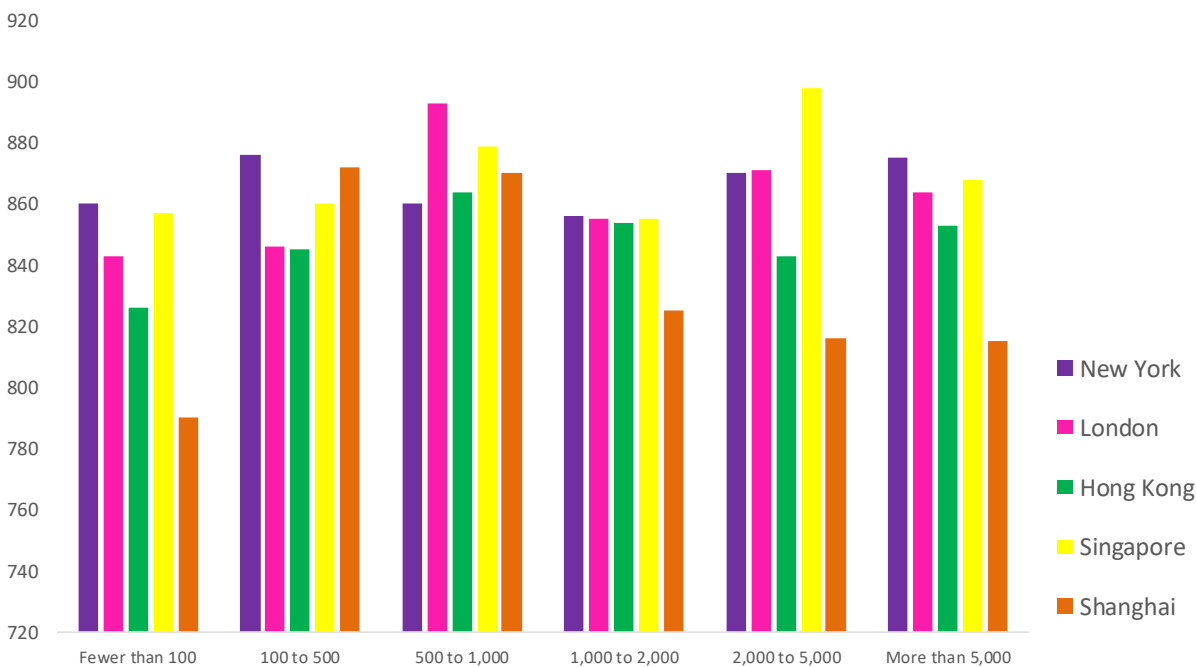
Respondents feel that the four most important areas of FinTech activity currently are (in order) Big Data Analytics, Cyber Security, Payment Transaction Systems and Trading Platforms.

We will continue to monitor responses to this areas of our online questionnaire with interest. If you would like to participate please do so at: [globalfinancialcentres.net/survey](https://globalfinancialcentres.net/survey).

# Size Of Organisation

We have analysed how the leading centres in the index are viewed by respondents working for organisations of difference sizes. New York is favoured over London in three of the size categories that we use. London has a strong lead in mid-sized organisations (500 to 1,000 employees) but remains behind New York in terms of the largest organisations. Singapore scores consistently high across all categories. Singapore scores consistently high across all categories.

Chart 47 | GFCI 25 Average Assessments By Respondents' Organisation Size (Number Of Employees)



# Appendix 1: Assessment Details

**Table 18 | GFCI 25 Details Of Assessments By Centre**

Centre	GFCI 25 Rank	GFCI 25 Rating	----- Assessments Number	Average	----- St. Dev
New York	1	794	1,013	867	134
London	2	787	964	858	143
Hong Kong	3	783	957	846	137
Singapore	4	772	654	867	124
Shanghai	5	770	798	838	147
Tokyo	6	756	445	814	153
Toronto	7	755	342	768	154
Zurich	8	739	538	786	159
Beijing	9	738	819	765	149
Frankfurt	10	737	648	771	177
Sydney	11	736	366	802	162
Dubai	12	733	506	735	178
Boston	13	732	397	751	155
Shenzhen	14	730	515	769	142
Melbourne	15	729	254	753	173
San Francisco	16	727	386	782	162
Los Angeles	17	724	364	753	158
Montreal	18	722	181	716	175
Vancouver	19	721	207	744	164
Chicago	20	717	380	739	157
Cayman Islands	21	713	182	679	224
Casablanca	22	712	115	697	227
Tel Aviv	23	710	121	671	247
Guangzhou	24	708	438	649	179
Bermuda	25	705	84	676	216
Abu Dhabi	26	702	383	695	196
Paris	27	699	524	709	177
Geneva	28	698	358	713	183
Qingdao	29	694	945	828	119
Luxembourg	30	691	321	684	207
Osaka	31	690	169	713	199
Washington DC	32	689	374	777	166
Monaco	33	686	177	646	228
Taipei	34	676	162	682	185
Edinburgh	35	674	316	664	181
Seoul	36	668	359	648	223
Madrid	37	667	265	648	180
Dublin	38	658	393	663	182
Kuala Lumpur	39	652	299	638	193
Wellington	40	647	68	735	187
Amsterdam	41	646	443	665	191
Doha	42	642	171	657	217
Munich	43	641	270	672	191
Vienna	44	640	207	628	220
Milan	45	638	241	644	174
Busan	46	636	197	467	225
Jersey	47	635	218	601	212
Johannesburg	48	634	123	617	202
Stuttgart	49	633	84	692	215
Hamburg	50	632	246	644	200

Centre	GFCI 25 Rank	GFCI 25 Rating	----- Assessments Number	Average	----- St. Dev
Astana	51	631	264	619	255
Brussels	52	630	359	633	191
Bangkok	53	629	264	630	161
Mauritius	54	628	114	596	253
Stockholm	55	627	173	611	223
Cape Town	56	626	128	639	188
Kuwait City	57	625	78	562	251
Calgary	58	621	115	617	185
Istanbul	59	620	190	585	206
Lisbon	60	619	181	613	204
Mexico City	61	616	108	588	194
Prague	62	614	139	610	184
Glasgow	63	613	168	569	207
Oslo	64	612	123	593	215
Rio de Janeiro	65	611	80	598	226
Sao Paulo	66	609	109	595	221
Bahrain	67	608	136	618	201
Jakarta	68	607	129	560	215
GIFT City-Gujarat	69	606	106	525	253
Warsaw	70	605	187	601	221
Budapest	71	603	103	590	195
British Virgin Islands	72	602	162	615	244
St Petersburg	73	601	143	589	209
Helsinki	74	599	106	560	189
Guernsey	75	598	185	572	209
Copenhagen	76	597	212	595	201
Liechtenstein	77	596	143	602	222
Riga	78	595	76	512	226
Sofia	79	593	67	500	221
Gibraltar	80	591	145	570	240
Tianjin	81	589	256	477	246
Panama	82	588	118	576	255
Reykjavik	83	587	103	569	222
Isle of Man	84	586	151	575	220
Bahamas	85	585	132	551	228
Rome	86	584	208	582	195
Chengdu	87	583	905	448	213
Moscow	88	582	349	573	207
Malta	89	581	175	563	219
Buenos Aires	90	580	63	556	237
Riyadh	91	575	127	537	228
Mumbai	92	573	213	552	188
Cyprus	93	572	142	531	222
Tallinn	94	569	88	565	236
Baku	95	567	129	534	187
New Delhi	96	565	201	551	179
Nairobi	97	564	61	493	226
Manila	98	562	167	535	189
Hangzhou	99	561	141	560	220
Almaty	100	560	344	558	231
Dalian	101	520	862	319	157
Athens	102	519	111	498	234

## Appendix 2: Respondents' Details

Table 19 | GFCI 25 Respondents By Industry Sector

Industry Sector	Number of Respondents	% of Respondents
Banking	697	29%
Finance	159	7%
Government & Regulator	109	5%
Insurance	149	6%
Investment Management	308	13%
Professional Services	379	16%
Trade Association	97	4%
Trading	129	5%
Not Specified	346	15%
<b>Total</b>	<b>2373</b>	<b>100%</b>

Table 20 | GFCI 25 Respondents By Region

Region	Number of Respondents	% of Respondents
Western Europe	687	29%
Asia/Pacific	1014	43%
North America	153	6%
Middle East And Africa	194	8%
Eastern Europe And Cent	115	5%
Latin America And the Ca	44	2%
Multi-Regional	166	7%
<b>Total</b>	<b>2373</b>	<b>100%</b>

Table 21 | GFCI 25 Respondents By Size Of Organisation

Size of Organisation	Number of Respondents	% of Respondents
Fewer than 100	604	25%
100 to 500	477	20%
500 to 1,000	407	17%
1,000 to 2,000	287	12%
2,000 to 5,000	171	7%
More than 5,000	406	17%
Not Specified	21	1%
<b>Total</b>	<b>2373</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 133 instrumental factors are used in GFCI 25 of which 53 were updated since GFCI 24 and five are new to the GFCI. Not all financial centres are represented in all the external sources, and the statistical model takes account of these gaps.

**Financial centre assessments:** by means of an online questionnaire, running continuously since 2007, We received 3,708 responses to the questionnaire in the 24 months to December 2018. Of these, 2,373 respondents provided 29,065 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;

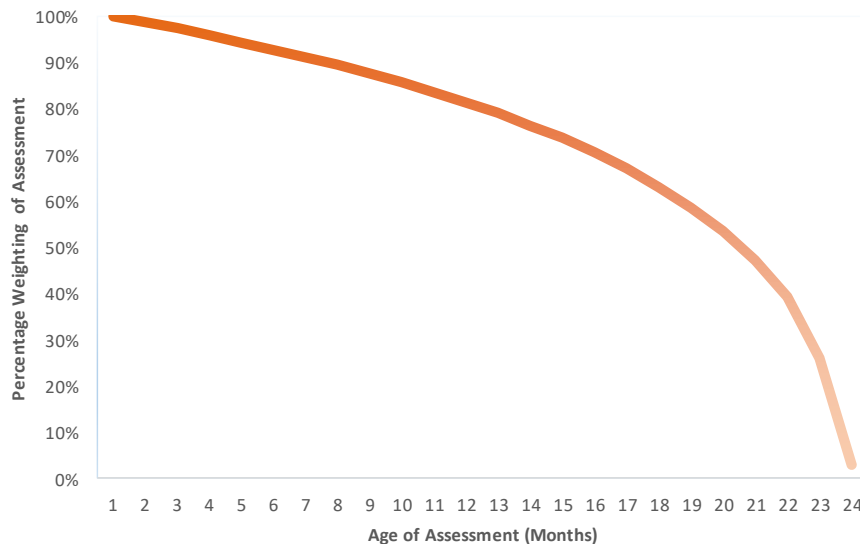
- if a factor is at a national level, the score will be used for all centres in that country; nation-based factors will be avoided if financial centre (city) - based factors are available;
- if an index has multiple values for a city or nation, the most relevant value is used (and the method for judging 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 48 | 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.

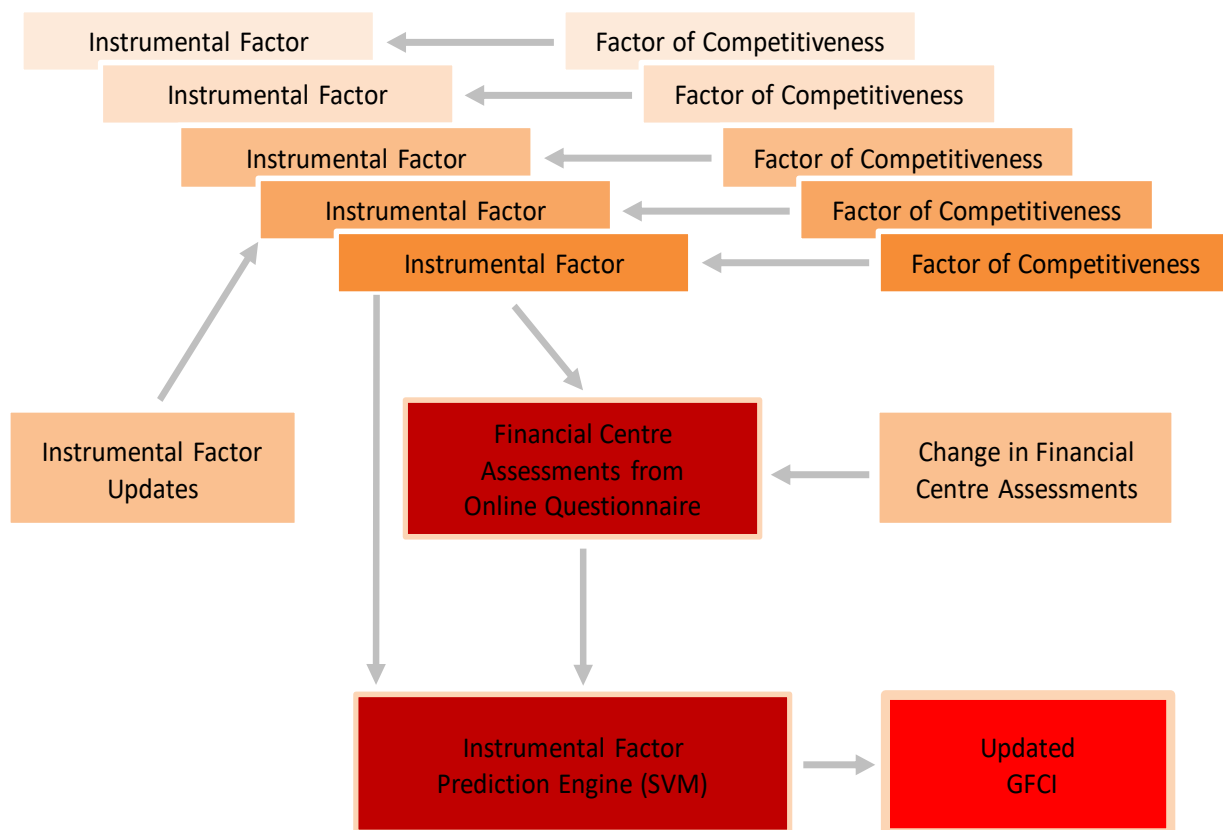
It is worth drawing attention to a few consequences of basing the GFCI on instrumental factors and questionnaire responses:

- 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 49 | The GFCI Process**





## Appendix 4: Instrumental Factors

Table 22 | Top 30 Instrumental Factors By Correlation With GFCI 25

Instrumental Factor	R-squared
Global Power City Index	0.497
Innovation Cities Global Index	0.406
Household Net Financial Wealth	0.405
Citizens Domestic Purchasing Power	0.389
Household Net Adjusted Disposable Income	0.367
Wage Comparison Index	0.362
Price Levels	0.337
World Competitiveness Scoreboard	0.333
IESE Cities In Motion Index	0.333
Global Competitiveness Index	0.333
Business Environment Rankings	0.318
Global Cities Index	0.312
Quality of Roads	0.307
Financial Secrecy Index	0.304
Best Countries for Business	0.294
Logistics Performance Index	0.290
Government Effectiveness	0.287
Global Innovation Index	0.286
Sustainable Cities Index	0.284
Best Countries	0.269
Cost of Living City Rankings	0.266
Global Enabling Trade Report	0.264
JLL Real Estate Transparency Index	0.264
Domestic Credit Provided by Banking Sector	0.244
Networked Readiness Index	0.241
Quality of Domestic Transport Network	0.237
Business Process Outsourcing Location Index	0.236
Global Cybersecurity Index	0.235
Regulatory Quality	0.224
Office Occupancy Cost	0.223

**Table 23 | GFCI 25 Business Environment Factors**

Instrumental Factor	Source	Website	Change Since GFCI 24
Business Environment Rankings	EIU	<a href="http://www.eiu.com/public/thankyou_download.aspx?activity=download&amp;campaignid=bizenviro2014">http://www.eiu.com/public/thankyou_download.aspx?activity=download&amp;campaignid=bizenviro2014</a>	
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>	Updated
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/gсли">https://www.atkearney.com/digital-transformation/gсли</a>	
Corruption Perception Index	Transparency International	<a href="http://www.transparency.org/policy_research/surveys_indices/cpi">http://www.transparency.org/policy_research/surveys_indices/cpi</a>	
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="http://www.doingbusiness.org/reports/thematic-reports/paying-taxes/">http://www.doingbusiness.org/reports/thematic-reports/paying-taxes/</a>	
Individual Income tax rates	KPMG	<a href="https://home.kpmg.com/xx/en/home/services/tax/tax-tools-and-resources/tax-rates-online/individual-">https://home.kpmg.com/xx/en/home/services/tax/tax-tools-and-resources/tax-rates-online/individual-</a>	
Personal Tax Rates	OECD	<a href="http://www.oecd.org/tax/tax-policy/tax-database.htm">http://www.oecd.org/tax/tax-policy/tax-database.htm</a>	
Tax as Percentage 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>	
Bilateral Tax Information Exchange Agreements	OECD	<a href="http://www.eoi-tax.org/jurisdictions/LT#agreements">http://www.eoi-tax.org/jurisdictions/LT#agreements</a>	Updated
Economic Freedom of the World	Fraser Institute	<a href="http://www.freetheworld.com/release.html">http://www.freetheworld.com/release.html</a>	Updated
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>	Updated
OECD Country Risk Classification	OECD	<a href="http://www.oecd.org/tad/xcred/crc.htm">http://www.oecd.org/tad/xcred/crc.htm</a>	
Global Peace Index	Institute for Economics & Peace	<a href="http://www.visionofhumanity.org/">http://www.visionofhumanity.org/</a>	
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>	Updated
Open Government	World Justice Project	<a href="http://worldjusticeproject.org/rule-of-law-index">http://worldjusticeproject.org/rule-of-law-index</a>	
Regulatory Enforcement	World Justice Project	<a href="http://worldjusticeproject.org/rule-of-law-index">http://worldjusticeproject.org/rule-of-law-index</a>	
Press Freedom Index	Reporters Without Borders (RSF)	<a href="http://en.rsf.org/">http://en.rsf.org/</a>	
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>	
Common Law Countries	CIA	<a href="https://www.cia.gov/library/publications/the-world-factbook/fields/2100.html">https://www.cia.gov/library/publications/the-world-factbook/fields/2100.html</a>	
Inflation, GDP Deflator	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>	
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>	Updated
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>	Updated
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>	Updated
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>	Updated
Best Countries for Business	Forbes	<a href="http://www.forbes.com/best-countries-for-business/list/#tab:overall">http://www.forbes.com/best-countries-for-business/list/#tab:overall</a>	Updated
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>	
Open Budget Survey	International Budget Partnership	<a href="http://survey.internationalbudget.org/#download">http://survey.internationalbudget.org/#download</a>	

**Table 24 | GFCI 25 Human Capital Factors**

Instrumental Factor	Source	Website	Change Since GFCI 24
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>	
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>	
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>	Updated
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>	
Homicide Rates	UN Office of Drugs & Crime	<a href="https://dataunodc.un.org/crime/">https://dataunodc.un.org/crime/</a>	Updated
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>	Updated
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://www.mercer.com/newsroom/2018-quality-of-living-survey.html">https://www.mercer.com/newsroom/2018-quality-of-living-survey.html</a>	
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>	Updated
Linguistic Diversity	Ethnologue	<a href="http://www.ethnologue.com/statistics/country">http://www.ethnologue.com/statistics/country</a>	
Global Terrorism Index	Institute for Economics & Peace	<a href="http://www.visionofhumanity.org/">http://www.visionofhumanity.org/</a>	Updated
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>	Updated
Cost of Living City Rankings	Mercer	<a href="https://www.mercer.com/newsroom/cost-of-living-2018.html">https://www.mercer.com/newsroom/cost-of-living-2018.html</a>	
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>	
Household net financial wealth	OECD	<a href="https://stats.oecd.org/Index.aspx?DataSetCode=BLI">https://stats.oecd.org/Index.aspx?DataSetCode=BLI</a>	
Education attainment	OECD	<a href="https://stats.oecd.org/Index.aspx?DataSetCode=BLI">https://stats.oecd.org/Index.aspx?DataSetCode=BLI</a>	
Life Expectancy	OECD	<a href="https://stats.oecd.org/Index.aspx?DataSetCode=BLI">https://stats.oecd.org/Index.aspx?DataSetCode=BLI</a>	
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>	
Human Freedom Index	Cato Institute	<a href="https://www.cato.org/human-freedom-index">https://www.cato.org/human-freedom-index</a>	Updated



**Table 25 | GFCI 25 Infrastructure Factors**

Instrumental Factor	Source	Website	Change Since GFCI 24
Office Occupancy Cost	CBRE Research	<a href="https://www.cbre.com/research-and-reports/Global-Prime-Office-Occupancy-Costs-June-2018">https://www.cbre.com/research-and-reports/Global-Prime-Office-Occupancy-Costs-June-2018</a>	
Prime International Residential Index	Knight Frank	<a href="http://www.knightfrank.com/wealthreport">http://www.knightfrank.com/wealthreport</a>	
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/di/2017/index.html">http://www.itu.int/net4/ITU-D/di/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>	Updated
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>	
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://trilemma.worldenergy.org/">https://trilemma.worldenergy.org/</a>	Updated
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/">https://opendatabarometer.org/4thedition/</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>	Updated
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">https://www.arcadis.com/en/global/our-perspectives/sustainable-cities-mobility-index</a>	
Water Quality	OECD	<a href="https://stats.oecd.org/Index.aspx?DataSetCode=BLI">https://stats.oecd.org/Index.aspx?DataSetCode=BLI</a>	
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>	New
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>	New
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>	Updated

*“Things are getting better in China at the moment. The international media are always talking us down but we go from strength to strength in Shanghai.”*

**Table 26 | GFCI 25 Financial Sector Development Factors**

Instrumental Factor	Source	Website	Change Since GFCI 24
Capitalisation of Stock Exchanges	The World Federation of Stock Exchanges	<a href="http://www.world-exchanges.org/home/index.php/statistics/monthly-">http://www.world-exchanges.org/home/index.php/statistics/monthly-</a>	Updated
Value of Share Trading	The World Federation of Stock Exchanges	<a href="http://www.world-exchanges.org/home/index.php/statistics/monthly-">http://www.world-exchanges.org/home/index.php/statistics/monthly-</a>	Updated
Volume of Share Trading	The World Federation of Stock Exchanges	<a href="http://www.world-exchanges.org/home/index.php/statistics/monthly-">http://www.world-exchanges.org/home/index.php/statistics/monthly-</a>	Updated
Broad Stock Index Levels	The World Federation of Stock Exchanges	<a href="http://www.world-exchanges.org/home/index.php/statistics/monthly-">http://www.world-exchanges.org/home/index.php/statistics/monthly-</a>	Updated
Value of Bond Trading	The World Federation of Stock Exchanges	<a href="http://www.world-exchanges.org/home/index.php/statistics/monthly-">http://www.world-exchanges.org/home/index.php/statistics/monthly-</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>	
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>	
Total Net Assets of Regulated Open-End Funds	Investment Company Institute	<a href="http://www.icifactbook.org/">http://www.icifactbook.org/</a>	
Islamic Finance Country Index	Islamic Banks and Financial Institution	<a href="http://www.gifr.net/publications">http://www.gifr.net/publications</a>	
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.dhl.com/en/about_us/logistics_insights/studies_research/global_connectedness_index/glo">http://www.dhl.com/en/about_us/logistics_insights/studies_research/global_connectedness_index/glo</a>	
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>	New
Business Process Outsourcing Location Index	Cushman & Wakefield	<a href="http://www.cushmanwakefield.com/en/research-and-insight/2016/business-process-outsourcing-">http://www.cushmanwakefield.com/en/research-and-insight/2016/business-process-outsourcing-</a>	
Financial Centre Sustainability Disclosure	Corporate Knights	Provided by Corporate Knights	
Financial Centre Carbon Intensity	Corporate Knights	Provided by Corporate Knights	
Financial system green alignment	Corporate Knights	Provided by Corporate Knights	
Green Bond Issued by Country of Issuer	Corporate Knights	Provided by Corporate Knights	
Total issuance of labelled green bonds to July 2018, USDm	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 Exchanges (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 Exchanges (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 27 | GFCI 25 Reputation Factors**

Instrumental Factor	Source	Website	Change Since GFCI 24
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>	
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>	Updated
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>	Updated
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>	
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>	Updated
Global Intellectual Property Index	Taylor Wessing	<a href="http://www.taylorwessing.com/ipindex/">http://www.taylorwessing.com/ipindex/</a>	
RPI (% change on year ago)	The Economist	<a href="https://www.economist.com/economic-and-financial-indicators/2018/10/11/output-prices-and-take">https://www.economist.com/economic-and-financial-indicators/2018/10/11/output-prices-and-take</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>	Updated
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>	Updated
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-growth-and-well-being-report">https://www.bcg.com/en-gb/publications/2018/seda-striking-balance-between-growth-and-well-being-report</a>	Updated
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.goodcountryindex.org/results">https://www.goodcountryindex.org/results</a>	
Legatum Prosperity Index	Legatum Institute	<a href="http://www.prosperity.com/#/ranking">http://www.prosperity.com/#/ranking</a>	Updated
IESE cities in motion index	IESE	<a href="http://citiesinmotion.iese.edu/indicecim/?lang=en">http://citiesinmotion.iese.edu/indicecim/?lang=en</a>	
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>	
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>	Updated
Global Cities Index	AT Kearney	<a href="https://www.atkearney.com/2018-global-cities-report">https://www.atkearney.com/2018-global-cities-report</a>	
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>	New
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>	New



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



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.

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

Furthermore, LFF manages multiple communication channels, organises seminars in international business locations, and takes part in selected world-class trade fairs and congresses.

**[lff@lff.lu](mailto:lff@lff.lu)  
[luxembourgforfinance.com](http://luxembourgforfinance.com)**



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

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

**[www.longfinance.net](http://www.longfinance.net)**



Abu Dhabi Global Market (ADGM), an international financial centre in the capital of the UAE, opened for business in October 2015. Strategically situated in Abu Dhabi, home to one of the world's largest sovereign wealth funds, ADGM plays a vital role in positioning Abu Dhabi as a global hub for business and finance that connects the growing economies of the Middle East, Africa and South Asia. ADGM also earned industry recognition as the Financial Centre of the Year (MENA) 2016, its first year of operations, for its strategic and innovative contributions. In its second year, ADGM was recognised as the Top FinTech Hub in MENA.

With the support of three independent authorities, the Registration Authority, the Financial Services Regulatory Authority and ADGM Courts, local and global companies are able to conduct their business efficiently within an international regulatory framework that has an independent judicial system and a robust legislative infrastructure based on Common Law.

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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.

BIFC offers an attractive incentive package to global financial leaders and cooperation network of Busan Metropolitan City, Busan International Financial City Promotion Center, and Financial Hub Korea will support you to identify opportunities in Busan, one of the fastest developing cities in Asia.

**bifc@bepa.kr**  
**www.bifc.kr/eng**



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

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

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



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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/www.seoul.go.kr/main/index.jsp**



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.

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

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

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