

March 2021





Financial Centre Futures









In March 2007, Z/Yen and the City Of London released the first edition of the GFCI, which continues to provide evaluations of competitiveness and rankings for the major financial centres around the world. We are pleased to present the twenty-ninth edition of the Global Financial Centres Index (GFCI 29).

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

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

Z/Yen is the City of London's leading commercial think-tank. Z/Yen was founded in 1994 to promote societal advance through better finance and technology. Z/Yen has built its practice around a core of high-powered project managers, supported by experienced technical specialists so that clients get expertise they need, rather than just resources available.

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

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



Foreword

Congratulations to Z/Yen on the successful launch of another edition of Global Financial Centres Index (GFCI), especially in the light of all the challenges in the current times.

I do not need to detail how challenging this past year has been to the world and to the financial services community. Companies have needed to adopt new approaches to operate; and practitioners have strived hard to deliver productivity in the remote work setting. Fortunately, despite all the hurdles, global financial markets have demonstrated resilience - and I am glad to share that Hong Kong's has also remained robust and dynamic.

The GFCI has been an important indicator for financial centres, including Hong Kong, to gauge where they stand globally and how they can improve further. We are encouraged by the fact that Hong Kong has consistently been ranked among the top financial centres in the world since GFCI's debut in 2007. In this latest GFCI 29, Hong Kong is again recognised for its strong connectivity with mainland China and other Asian markets, its business-friendly environment (with sound legal and regulatory framework as well as ease of doing business), and its efficient financial infrastructure, among other strengths. On areas where we are yet to be seen as among the top centres, we are humbled and will continue to learn from our peers with the goal to improve further.

In a global ranking, the relationship among markets is often seen as zero-sum. But the synergy which can be achieved through collaboration is what we intend to highlight further. While the pandemic has yet to permit full resumption of close physical connectivity through ease of business travel, this does not stop us from working together – in financial innovations, sustainability, and so many other aspects. Indeed, exactly because of our strength in connectivity, Hong Kong stands ready to join hands with other financial markets so that we can all scale to new heights, locally, regionally, and globally.

Mr Laurence Li Chairman, Hong Kong Financial Services Development Council



GFCI 29 Summary And Headlines

Overview

- We researched 126 centres for this edition of the Global Financial Centres Index (GFCI 29). The number of financial centres in the main index has increased from 111 to 114 with the addition of Berlin, Trinidad & Tobago, and Bogota. There are 12 associate centres awaiting potential inclusion in the main index.
- GFCI 29 shows a relatively high level of stability in the top half of the index, with few centres changing 10 or more places in the rankings. In the lower half of the index, there was more volatility, perhaps reflecting some uncertainty about the resilience of emerging and smaller centres.
- The average rating of centres in the index dropped only 3.5 points (-0.55%) from GFCI 28 (41 points from GFCI 27 to GFCI 28), which may indicate more confidence in the financial system than in the first stages of the covid-19 pandemic.
- The fact that overall ratings have not recovered to the levels that we saw in 2019 reflects the continuing uncertainty around international trade, the impact of the covid-19 pandemic, and geopolitical and local unrest.
- Nine of the top 10 centres in the index fell in the ratings, with London and Tokyo falling over 10 points. With the top centres dropping, might this be due to central banks taking the reins during covid-19?

GFCI 29 Results

Leading Centres

- New York retains first place in the index. London fell to only one point ahead of third place Shanghai.
- Hong Kong moved up a place to fourth, one point behind Shanghai, with Singapore in fifth position. Tokyo dropped three places from fourth to seventh.
- Frankfurt replaced San Francisco in the top 10 in this edition, gaining seven rank places, perhaps benefiting from the exit of the UK from the European Union.
- Within the top 30 centres, Vancouver, Seoul, Sydney, Milan, and Stuttgart rose by more than five places.

Western Europe

- As in GFCI 28, centres in Western Europe had mixed fortunes in GFCI 29, with 12 centres rising in the rankings and 16 falling. However, the average drop in ratings was just 0.63 points (-0.1%) in this region.
- Berlin entered the index for the first time, ranked 45th.

Asia/Pacific

- Asia/Pacific Centres also had a mixed performance in GFCI 29, with 14 centres falling in the rankings and 14 rising. The change in average ratings for the region was 2.9 points (0.46%).
- Globally, Asia/Pacific centres continue to perform well, with six centres in the top 10 globally. Seoul and Sydney rejoined the top 20 in GFCI 29.

North America

- North American centres showed the least change in the average rating across the regions, falling on average just 0.18 points (-0.03%).
- Vancouver, Washington DC, Chicago, and San Diego all improved five or more places in the rankings.

Eastern Europe & Central Asia

- Overall, this region saw average rating increase by 8.5 points (1.51%), with nine of the 16 centres in the region improving their ratings.
- Moscow, Vilnius, Bratislava, Budapest, and St Petersburg rose five places or more in the rankings.

Middle East & Africa

- Seven centres in the Middle East & Africa improved their ratings in GFCI 29 with Bahrain, Kuwait City, and Tehran improving five or more rank places.
- The average rating in the region rose 9.92 points (1.67%).

Latin America & The Caribbean

- Nine centres rose in the ratings in Latin America & The Caribbean after significant falls in GFCI 28. The average rating in the region rose 11.2 points (1.97%).
- British Virgin Islands, Barbados, and Santiago gained more than 10 places in the rankings.
- Trinidad & Tobago and Bogota entered the index, ranking 97th and 100th respectively.

FinTech

- We are able to rate 105 centres on their Fintech offering.
- New York continues to lead the FinTech ranking, followed by Shanghai, Beijing, Shenzhen, and London.
- Tel Aviv and Los Angeles enter the top 10.

GFCI 29

- GFCI 29 was compiled using 143 instrumental factors. These quantitative measures are provided by third parties including the World Bank, The Economist Intelligence Unit, the OECD, and the UN. Details can be found in Appendix 4.
- The instrumental factors were combined with 65,507 assessments of financial centres provided by 10,774 respondents to the GFCI online questionnaire. A breakdown of the respondents is shown in Appendix 2.
- Further details of the methodology behind GFCI 29 are in Appendix 3.

Table 1 | GFCI 29 Top 57 Ranks And Ratings

	GI	-CI 29	G	FCI 28	Change in	Change in
Centre	Rank	Rating	Rank	Rating	Rank	Rating
New York	1	764	1	770	0	▼6
London	2	743	2	766	0	▼23
Shanghai	3	742	3	748	0	▼6
Hong Kong	4	741	5	743	▲ 1	▼2
Singapore	5	740	6	742	▲ 1	▼2
Beijing	6	737	7	741	 ▲1	▼4
Tokyo	7	736	4	747	▼3	▼11
Shenzhen	8	731	9	732	1	▼1
Frankfurt	9	727	16	715	▲7	▲ 12
Zurich	10	720	10	724	0	▼4
Vancouver	11	719	24	698	13	▲ 21
San Francisco	12	718	8	738	▼4	▼20
Los Angeles	13	716	11	720	▼2	▼4
Washington DC	14	715	19	712	▲5	▲3
Chicago	15	714	20	712	▲5	▲3
Seoul	15	713	25	695	▲9	▲18
	10	713	12	719	▼5	▼7
Luxembourg	17	712	32	682	▲14	▲ 29
Sydney	18	711	32	714	▲ 14 ▼ 2	₹29
Dubai	-	-				▼4
Geneva	20	709	14	717	▼6	
Edinburgh	21	708	13	718	▼8	▼10
Guangzhou	22	706	21	710	▼1	▼4
Melbourne	23	705	27	693	▲ 4	▲ 12
Boston	24	703	15	716	▼9	▼13
Paris	25	699	18	713	▼7	▼14
Milan	26	698	38	670	▲12	▲ 28
Montreal	27	696	26	694	▼1	▲2
Amsterdam	28	695	22	701	▼6	▼6
Toronto	29	694	31	684	▲2	▲ 10
Stuttgart	30	689	37	672	▲7	▲ 17
Stockholm	31	688	23	700	▼8	▼12
Osaka	32	684	39	665	▲7	▲ 19
Madrid	33	683	28	692	▼5	▼9
Copenhagen	34	680	36	674	▲2	▲6
Chengdu	35	678	43	659	▲8	▲ 19
Busan	36	677	40	664	▲ 4	▲13
Brussels	37	676	30	686	₹7	▼10
Abu Dhabi	38	675	33	681	▼5	▼6
Jersey	39	673	55	637	▲16	▲ 36
Taipei	40	668	42	662	▲2	▲6
Tel Aviv	41	666	45	656	▲ 4	▲ 10
Qingdao	42	665	47	654	▲5	▲ 11
Hamburg	43	664	29	690	▼14	▼26
San Diego	44	663	60	605	▲16	▲ 58
Berlin	45	662	New	New	New	New
Wellington	46	660	44	657	▼2	▲3
Kuala Lumpur	47	652	41	663	▼6	▼11
Dublin	48	650	34	679	▼14	▼29
Munich	49	647	48	653	▼1	▼6
Lisbon	50	641	59	608	▲9	▲ 33
Liechtenstein	51	638	68	591	▲17	▲ 47
Rome	52	636	53	643	▲1/ ▲1	▼7
Casablanca	53	632	46	655	▼7	▼23
Vienna	54	629	54	640	0	▼23
Doha	55	629	56	627	1	▼ 11 ▲ 1
	56	628	65	594		
Helsinki					▲9	▲ 26
Moscow	57	615	62	600	▲5	▲ 15

Table 1 (Continued)	GFCI 29 Remaining Ranks And Ratings
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	GF	CI 29	GI	-CI 28	Change in	Change in
Centre	Rank	Rating	Rank	Rating	Rank	Rating
British Virgin Islands	58	614	72	587	▲14	▲ 27
Bangkok	59	610	58	617	▼1	▼7
Monaco	60	609	75	580	▲15	▲ 29
Warsaw	61	607	57	618	▼4	▼11
Vilnius	62	606	76	578	▲14	▲ 28
Malta	63	603	73	586	▲10	▲ 17
Barbados	64	600	86	559	▲22	▲ 41
Mumbai	65	599	35	678	▼30	▼79
Bratislava	66	598	87	552	▲21	4 6
Santiago	67	597	93	546	▲26	▲ 51
Bahrain	68	596	83	562	▲15	▲ 34
Mexico City	69	595	70	589	▲1	▲6
Oslo	70	594	50	651	▼20	▼ 57
Calgary	71	593	51	649	▼20	▼56
Cayman Islands	72	592	78	575	▲6	▲ 17
Bahamas	73	591	69	590	▼4	▲1
Istanbul	74	590	64	595	▼10	▼5
Guernsey	75	589	79	574	▲ 4	▲ 15
Prague	76	588	66	593	▼10	▼5
Rio de Janeiro	77	587	85	560	▲8	▲ 27
Nur-Sultan	78	586	74	585	▼4	▲1
Manila	79	585	106	491	▲27	▲ 94
New Delhi	80	584	49	652	▼31	▼68
Glasgow	81	583	52	648	₹29	▼ 65
Cape Town	82	582	67	592	▼15	▼10
Kuwait City	83	581	103	524	▲ 20	▲ 57
Bermuda	84	580	61	601	₹23	▼21
Budapest	85	577	101	531	▲16	4 6
Isle of Man	86	576	77	577	▼9	▼1
Tallinn	87	575	88	551	▲1	▲ 24
St Petersburg	88	574	104	523	▲16	▲ 51
Mauritius	89	573	63	598	₹26	▼25
Johannesburg	90	572	90	549	0	▲ 23
Buenos Aires	91	571	94	543	▲3	▲ 28
GIFT City-Gujarat	92	568	82	563	▼10	▲5
Jakarta	93	567	81	568	▼12	▼1
Panama	94	566	91	548	▼3	▲ 18
Sofia	95	565	95	540	0	▲ 25
Tehran	96	564	102	528	▲6	▲ 36
Trinidad & Tobago	97	563	New	New	New	New
Cyprus	98	561	71	588	▼27	▼27
Gibraltar	99	559	84	561	▼15	₹2
Bogota	100	554	New	New	New	New
Almaty	101	553	99	536	₹2	▲ 17
Reykjavik	102	549	100	535	₹2	▲ 14
Athens	103	545	92	547	▼11	₹2
Sao Paulo	104	542	80	569	▼24	▼27
Riyadh	105	541	107	486	▲2	▲ 55
Nairobi	106	520	96	539	▼10	▼19
Baku	107	515	98	537	▼9	▼22
Hangzhou	108	501	109	463	▲1	▲ 38
Riga	109	493	97	538	▼12	▼45
Tianjin	110	492	108	477	₹2	▲ 15
Dalian	111	491	110	455	▼1	▲ 36
Xi'an	112	485	105	506	▼7	▼21
Nanjing	113	484	89	550	▼24	▼66
	114	469	111	420	▼3	4 9

We track centres that have yet to achieve the number of assessments required to be listed in the main GFCI index. Table 2 lists the 12 centres which fall into this 'associate centres' category.

Centre	Number Of Assessments In The Last 24 Months	Mean Of Assessments
Lagos	132	517
Lugano	126	660
Ho Chi Minh City	124	561
Andorra	84	607
Chisinau	77	621
Karachi	72	565
Turks and Caicos	70	583
Kaunas	54	561
Atlanta	43	588
Kigali	30	553
Minneapolis / St Paul	23	609
Gothenburg	9	655

Table 2 | GFCI 29 Associate Centres

Regional Performance

The mean of the top five Asia/Pacific centres remains higher than other regions, with North America fractionally ahead of Western Europe on this measure. While the average ratings for the leading regions fell slightly in GFCI 29, the average for the leading Latin American & Caribbean and Eastern European & central Asian centres improved from GFCI 28.

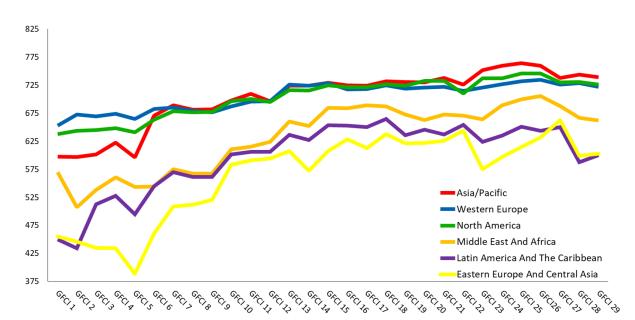
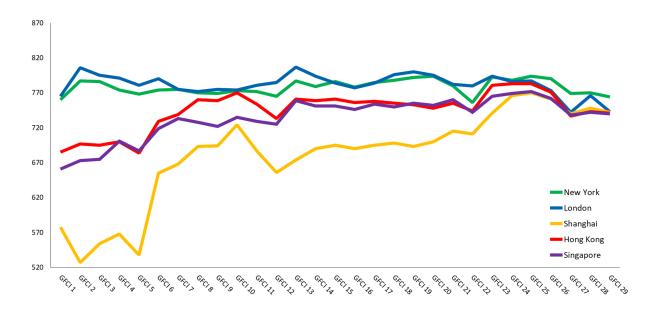


Chart 1 | Average Ratings Of The Top Five Centres In Each Region

The Top Five Centres

New York retained its first place in the index, and London hung on to second place, but fell back in the ratings after improvements in GFCI 28. Shanghai, Hong Kong and Singapore rank third, fourth and fifth, with only one point separating Shanghai from London, Hong Kong from Shanghai and Singapore from Hong Kong.

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



"The ease of communication with the local regulator is a big advantage in Liechtenstein. The time to market to launch products/ start business is extremely fast. Starting Fintech businesses is openly promoted by the government and supported by the regulator."



SUPERVISION OFFICER, REGULATOR, LIECHTENSTEIN

Future Prospects

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

Centre	Mentions in last 24 months
GIFT City - Gujarat	371
Seoul	217
Stuttgart	217
Shanghai	199
Qingdao	186
Singapore	164
Beijing	123
Shenzhen	92
Guangzhou	87
Hong Kong	87
New York	68
Paris	63
London	58
Dubai	46
Frankfurt	46

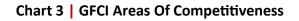
Table 3 | The 15 Centres Likely To Become More Significant

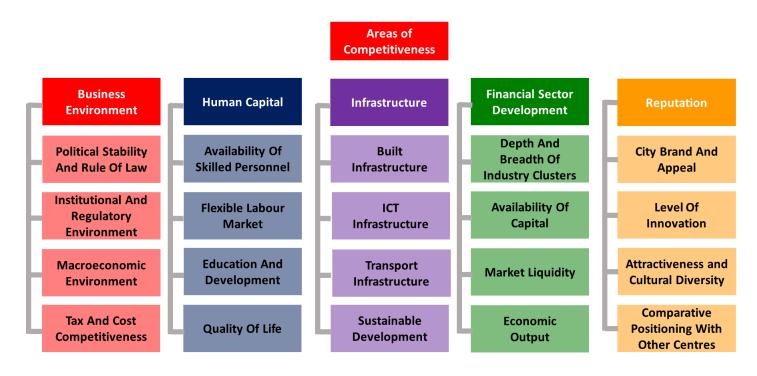
"Location is now less important, because working processes have become more and more digital. I can recruit professionals everywhere without needing to move them."

REGIONAL DIRECTOR, INSURANCE FIRM, HAMBURG

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.





"Regulation plays a big part in changing the landscape of any sector. The rule of law will force people to change habits sooner than being forced to change by environment or circumstances. Corruption is big risk when all work is done on line, this needs to be mitigated with stronger controls and security."

HEAD - GLOBAL MARKETS & TREASURY, BANKING, SINGAPORE

To assess how financial centres perform in each of these areas, the GFCI factor assessment model is run separately for each of the five areas of competitiveness. The top 15 ranked centres in each of these sub-indices are shown in Table 4. New York takes the lead position in four out of the five areas, with London top for financial sector development. Singapore, Hong Kong, Beijing, Shanghai, Shenzhen, and Zurich feature in the top five centres in one or more areas.

Rank	Business Environment	Human Capital	Infrastructure	Financial Sector Development	Reputational & General
1	New York	New York	New York	London	New York
2	Singapore	London	London	New York	Singapore
3	London	Singapore	Shanghai	Singapore	London
4	Hong Kong	Hong Kong	Hong Kong	Shenzhen	Hong Kong
5	Beijing	Shanghai	Singapore	Hong Kong	Zurich
6	Shanghai	Tokyo	Tokyo	Shanghai	Shanghai
7	San Francisco	Beijing	Beijing	Zurich	Beijing
8	Tokyo	Paris	Amsterdam	Frankfurt	Tokyo
9	Chicago	Brussels	Zurich	Seoul	Geneva
10	Frankfurt	Luxembourg	Boston	Los Angeles	Edinburgh
11	Edinburgh	Los Angeles	Frankfurt	Luxembourg	Glasgow
12	Luxembourg	San Francisco	Edinburgh	San Francisco	Dublin
13	Amsterdam	Chicago	Geneva	Beijing	Seoul
14	Zurich	Shenzhen	Guangzhou	Geneva	Hamburg
15	Washington DC	Frankfurt	Seoul	Edinburgh	Paris

Table 4 | GFCI 29 Top 15 Centres By Area Of Competitiveness

"The regulatory environment is probably the most important factor in selecting a financial centre. It needs to have approachable regulators who work with the banking and financial sectors to provide guidance and to act as mentors to FinTechs. A regulator who will listen and discuss is of more help than a regulator which administers with a rod of iron."

DIRECTOR, FINTECH FIRM, DUBLIN

Industry Sectors

We investigate the differing assessments for relevant industry sectors by building the index separately using only the responses provided by people working in those industries. This creates separate sub-indices for Banking, Investment Management, Insurance, Professional Services, Government & Regulatory, Finance, FinTech, and Trading sectors. Table 5 shows the top 15 financial centres in these eight industry sectors.

New York has consolidated its leading position, ranking first in every category except insurance, where Shanghai leads the way. Zurich and Geneva show particular strength in the Government & Regulatory sub-index.

Rank	Banking	Investment Management	Insurance	Professional Services	Government & Regulatory	Finance	FinTech	Trading
1	New York	New York	Shanghai	New York	New York	New York	New York	New York
2	Shanghai	London	Singapore	London	London	Shanghai	Singapore	London
3	Hong Kong	Hong Kong	Beijing	Singapore	Zurich	Beijing	Shanghai	Singapore
4	London	Singapore	New York	Hong Kong	Singapore	London	Hong Kong	Hong Kong
5	Beijing	Shanghai	Hong Kong	Shenzhen	Geneva	Luxembourg	London	Shanghai
6	Shenzhen	Beijing	London	Shanghai	Hong Kong	Hong Kong	Seoul	Beijing
7	Tokyo	Shenzhen	Luxembourg	Vancouver	Shanghai	Shenzhen	Beijing	Shenzhen
8	Singapore	Frankfurt	Shenzhen	Tokyo	Shenzhen	Tokyo	Tokyo	Zurich
9	Zurich	Luxembourg	Stockholm	Beijing	Tokyo	Edinburgh	Shenzhen	Frankfurt
10	Melbourne	Sydney	Frankfurt	Luxembourg	Seoul	GIFT City- Gujarat	San Francisco	Luxembourg
11	Paris	Zurich	Zurich	San Francisco	Luxembourg	Singapore	Amsterdam	Tokyo
12	Washington DC	San Francisco	Seoul	Seoul	Tehran	Frankfurt	Los Angeles	Geneva
13	Sydney	Boston	Tokyo	Zurich	Dubai	Milan	Boston	Chicago
14	Guangzhou	Tokyo	Paris	Frankfurt	Beijing	Paris	Chicago	Los Angeles
15	Vienna	Dubai	Boston	Geneva	Wellington	Brussels	Luxembourg	San Francisco

Table 5 | GFCI 29 Industry Sector Sub-Indices — Top Fifteen

"Distribution channels in the insurance industry and the way they are organized and regulated are important. Essential is the ability to use international reinsurance markets."

DIRECTOR - RISK COMPLIANCE, INSURANCE, PARIS

Profile Of Strengths

We can use the sub-indices by areas of competitiveness and industry sector to show the relative strengths of a financial centre over time, as shown in charts 4 to 7 below for Frankfurt and Sydney, two centres that have improved their position in GFCI 29. We also show a comparison with GFCI 23 - which provides a reasonable comparison over three years.

Taking Frankfurt's results, the diagrams show that in the areas of competitiveness subindices, Frankfurt scores well in financial sector development but scores less well in human capital and reputation. Over time, it has improved its rank in all areas other than reputation. By industry sector, Frankfurt is well-regarded by those working in investment management and insurance and has improved its position in both sectors, but is less well thought of by those from a banking or government & regulatory background.

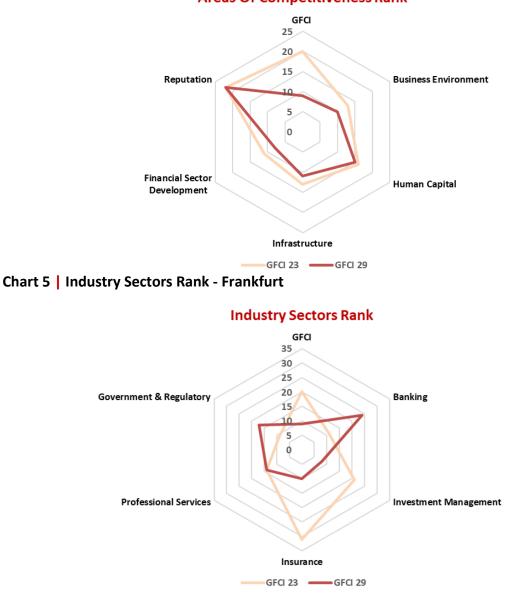


Chart 4 | Areas Of Competitiveness Rank - Frankfurt Areas Of Competitiveness Rank

Turning to Sydney, the range of rankings for areas of competitiveness is much wider, with financial sector development being an area of comparative weakness compared with the other areas. Over time, Sydney has improved in human capital but worsened in other areas. Looking at industry sectors, Sydney scores highly when considered by those working in investment management and banking, but is scored lower by those working in insurance, professional services, and government & regulatory functions, each areas where its rank has fallen since GFCI 23.

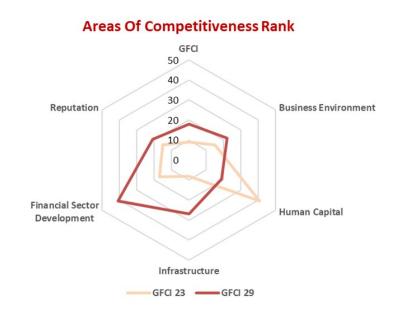
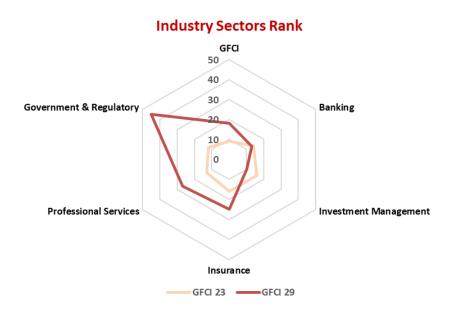


Chart 6 | Areas Of Competitiveness Rank - Sydney

Chart 7 | Industry Sectors Rank - Sydney



Size Of Organisation

We have analysed how the leading centres in the index are viewed by respondents working for organisations of different sizes. New York leads across respondents from all sizes of organisation other than those with 50 to 100 staff, where Singapore leads. Singapore is second in all other categories, other than in organisations with 1,000 to 2,000 staff, where London takes second place.

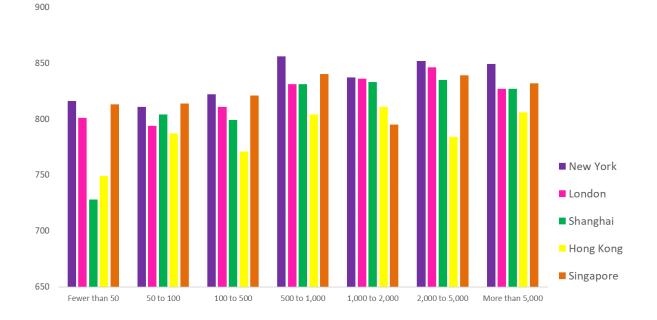


Chart 8 | GFCI 29 Average Assessments By Respondents' Organisation Size (Number Of Employees)

"Business environment has proved to be the most important factor deciding the attractiveness of a financial centre. Regulation and law should be strong and predictable but adaptable to changing circumstances. Regulators must be educated on new technologies."

STRATEGY AND COMPLIANCE OFFICER, ECONOMIC PROMOTION AGENCY, KIGALI

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 6.

Table 6	GFCI 29 Main Areas Of Competitiveness
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Area Of Competitiveness	Number Of Mentions	Main Issues
Business Environment	509	The regulatory environment is still seen as the central pillar needed for a successful financial centre. Strong support for regulation which reduces corruption without stifling innovation and development; and with greater transparency. FinTech regulation is a hot topic, with a need to find a balanced approach to regulation of emerging business.
Human Capital	305	Remote working has made cross-border work easier, reducing the need to have employees that live and work in the same city. The labour market needs to be flexible, allowing free movement and ease of employment for talented staff. The need for IT skills has continued to grow as FinTech and Al become mainstream.
Infrastructure	365	The importance of digital infrastructure has been highlighted by the covid-19 pandemic and the need for virtual working. It is essential to build working environments which cater to the social as well as business needs of people
Taxation	454	Tax is seen as one of the areas in which financial centres can compete. In general, reasonable levels of taxation are seen as better for businesses. Tax incentives are a key way to attract investment business and top talent.
Reputation	406	Reputation gives confidence to investors and is a leading factor when selecting a financial centre. A city's reputation is useful for attracting human capital to the centre, particularly when coupled with good branding and marketing.
Financial Sector Development	343	Physical access to customers is becoming less of an issue due to the accelerated acceptance of remote working and increased digital connectivity between centres. Business has changed permanently following Covid-19, with a move to online meetings.

"City reputation plays a vital role in investment decisions. People tend to choose popular places without major social and political risks."

LEGAL PROFESSIONAL, DEVELOPMENT INVESTMENT, WASHINGTON DC

Political Stability And Regulatory Quality

Reputational and Business Environment measures have a significant correlation with financial centre competitiveness. Chart 9 plots GFCI ratings against the World Bank's Control Of Corruption indicator and Chart 10 plots GFCI ratings against the World Bank's measure of Regulatory Quality. These charts demonstrate the correlation of these factors with the GFCI 29 ratings (the size of the bubble indicates the relative GDP of each centre).

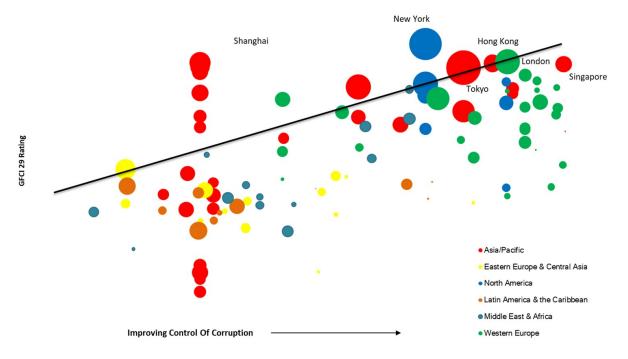
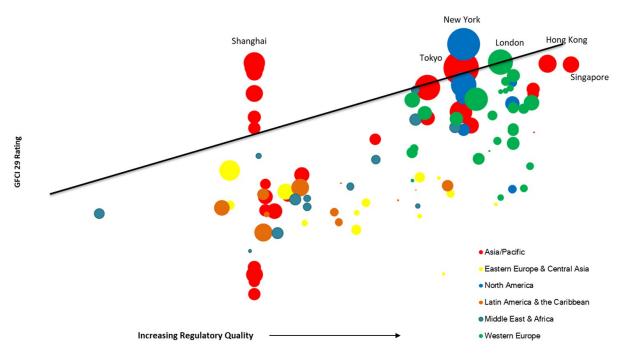


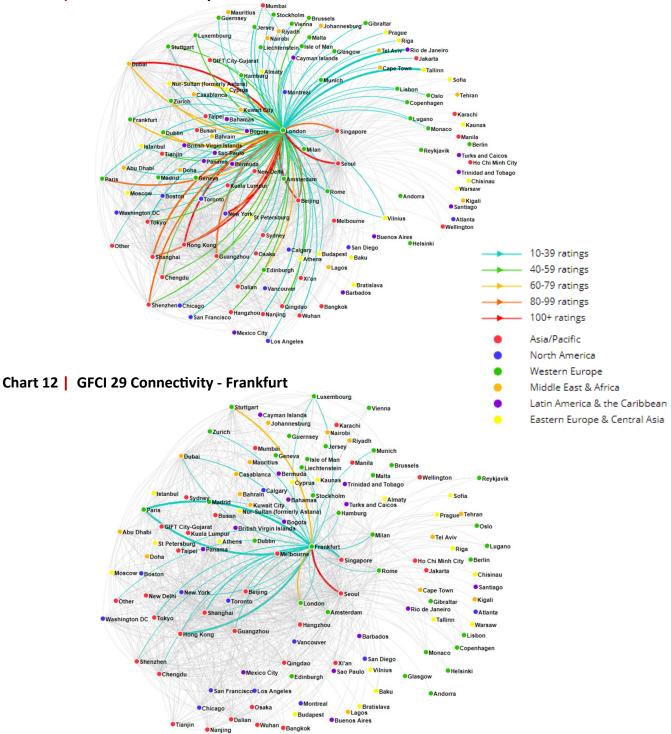
Chart 9 | GFCI 29 Rating Against Control Of Corruption (Supplied By The World Bank)

Chart 10 | GFCI 29 Rating Against Regulatory Quality (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 11 and 12 show the different levels of connectivity enjoyed by London and Frankfurt to demonstrate the contrast, with London having connections with a wider spread of centres than Frankfurt. Both are well connected with other European centres; but London is much better connected to the other leading centres in the GFCI.



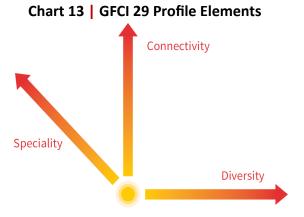


Nanjing

Financial Centre Profiles

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

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



A centre's connectivity is assessed using a combination of 'inbound' assessment locations (the number of locations from which a particular centre receives assessments) and 'outbound' assessment locations (the number of other centres assessed by respondents from a particular centre). If the weighted assessments for a centre are provided by over 63% of other centres, this centre is deemed to be 'Global'. If the ratings are provided by over 45% 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.

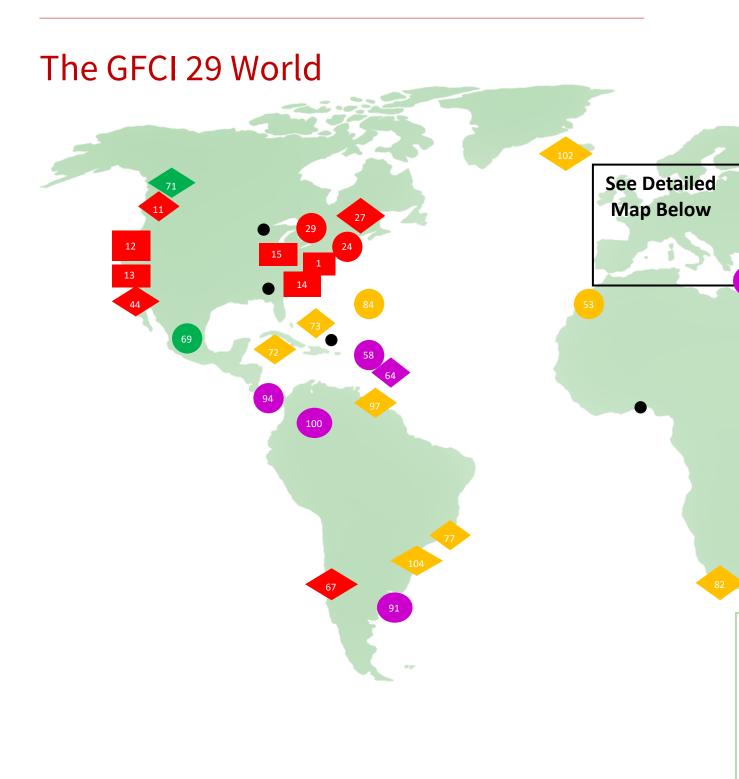
In Table 7, 'Diversity' (Breadth) and 'Speciality' (Depth) are combined on one axis to create a two dimensional table of financial centre profiles. The 114 centres in GFCI 29 are assigned a profile on the basis of a set of rules for the three measures: how well connected a centre is, how broad its services are, and how specialised it is.

The 17 Global Leaders (in the top left of the table) have both broad and deep financial services activities and are connected with many other financial centres. This list includes eight of the top 10 global financial centres in GFCI 29.

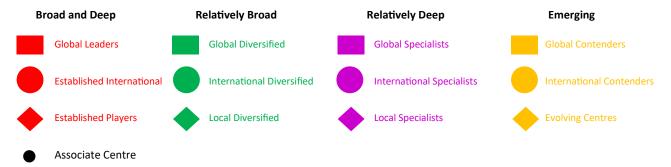
Significant changes in GFCI 29 include Beijing and Shenzhen exiting the Global Leaders in this edition, with Amsterdam, Brussels, Chicago, Frankfurt, Los Angeles, Paris, Washington DC, and Zurich moving into this category.

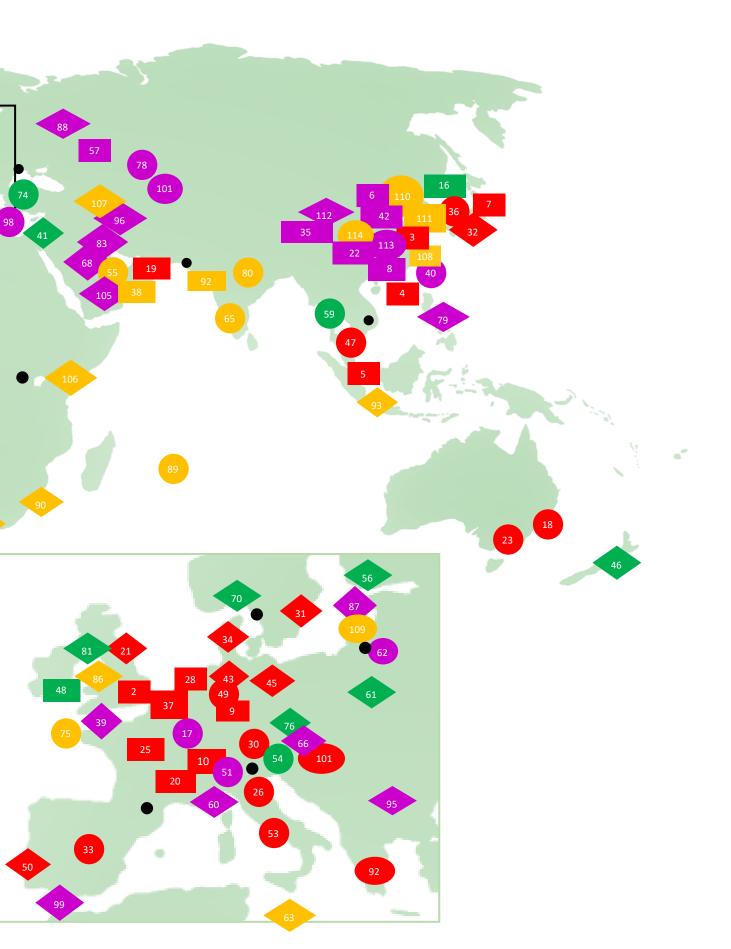
Table 7 GFCI 29 Financial Centre Profiles

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









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 14 and 15 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.

"People always travel to a better place for living, not because people want to live in a financial centre. With the development of many inland cities in China, a number of people have returned to their home town/area to find jobs and opportunities. Skilled people and flexibility of labour markets are the basic conditions to ensure a competitive financial centre, but how to retain people within the local market is quite challenging."

SENIOR COMPLIANCE OFFICER, INSURANCE FIRM, SHANGHAI

Chart 14 | Example 1: Assessments Compared With The Mean For Region 6

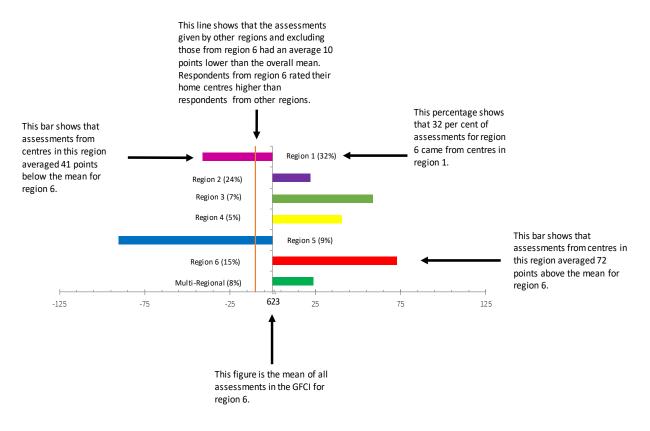
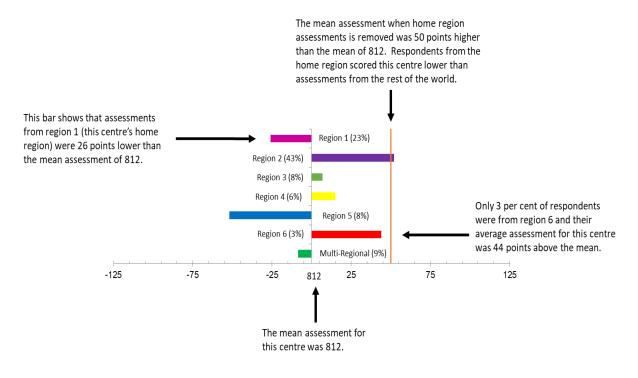


Chart 15 | Example 2: Assessments Compared With The Mean For An Individual Centre



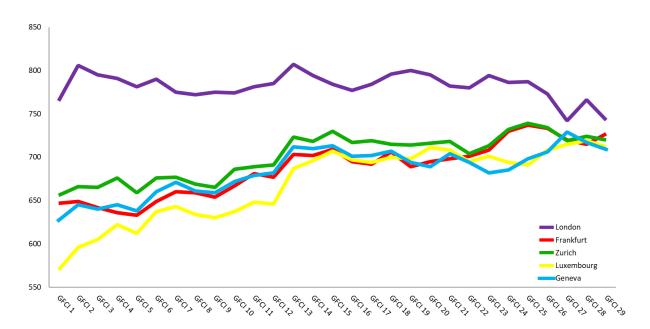
Western Europe

London held onto second place in the index, but its rating dropped 23 points following an increase of 24 points in GFCI 28. Frankfurt moved up 7 ranking places to take second place in the region. Most centres in the region fell in the ratings, although Milan and Jersey rose more than 10 places in the rankings and Copenhagen also improved. Berlin entered the index for the first time, ranking 45th.

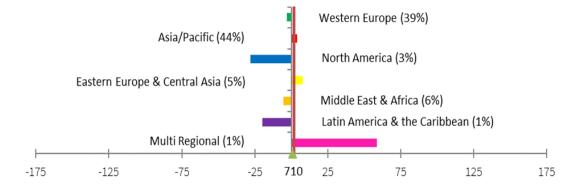
Contro	GF	CI 29	GF	GFCI 28		Change in
Centre	Rank	Rating	Rank	Rating	Rank	Rating
London	2	743	2	766	0	▼23
Frankfurt	9	727	16	715	▲7	▲12
Zurich	10	720	10	724	0	▼4
Luxembourg	17	712	12	719	▼5	▼7
Geneva	20	709	14	717	▼6	▼8
Edinburgh	21	708	13	718	▼8	▼10
Paris	25	699	18	713	▼7	▼14
Milan	26	698	38	670	▲ 12	▲ 28
Amsterdam	28	695	22	701	▼6	▼6
Stuttgart	30	689	37	672	▲7	▲ 17
Stockholm	31	688	23	700	▼8	▼12
Madrid	33	683	28	692	▼5	▼9
Copenhagen	34	680	36	674	▲2	▲6
Brussels	37	676	30	686	₹7	▼10
Jersey	39	673	55	637	▲ 16	▲ 36

Table 8 | Western European Top 15 Centres In GFCI 29

Chart 16 | Top Five Western European Centres Over Time









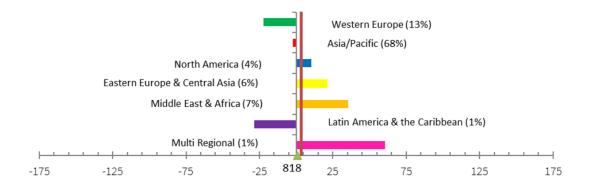


Chart 19 Assessments By Region For Frankfurt - Difference From The Overall Mean

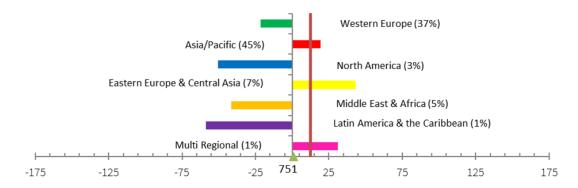
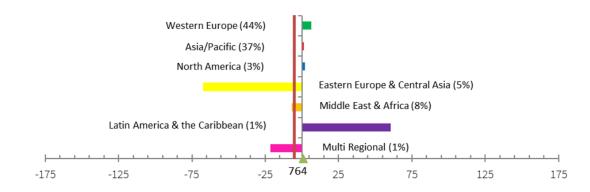


Chart 20 Assessments By Region For Zurich - Difference From The Overall Mean



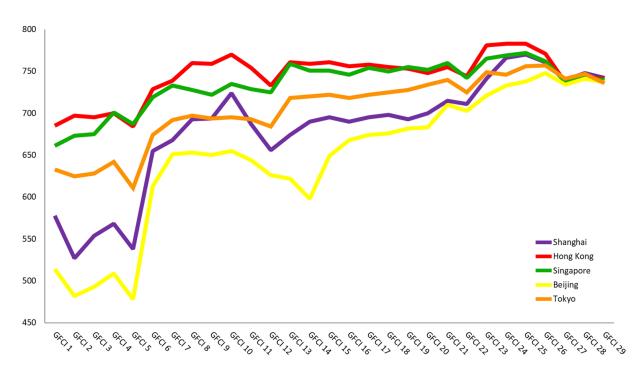
Asia/Pacific

Asia/Pacific centres overall performed well in GFCI 29. Hong Kong, Singapore, and Beijing improved their rank position slightly while Tokyo fell to seventh place. Seoul, Sydney, and Manila improved their ranking more than five places. The top six centres in the region are firmly embedded in the top 10 centres in the overall index.

Construc	GFC	I 29	GFC	GFCI 28		Change in
Centre	Rank	Rating	Rank	Rating	Rank	Rating
Shanghai	3	742	3	748	0	▼6
Hong Kong	4	741	5	743	▲ 1	₹2
Singapore	5	740	6	742	▲ 1	₹2
Beijing	6	737	7	741	▲ 1	▼4
Токуо	7	736	4	747	▼3	▼11
Shenzhen	8	731	9	732	▲ 1	▼1
Seoul	16	713	25	695	▲9	▲ 18
Sydney	18	711	32	682	▲ 14	▲ 29
Guangzhou	22	706	21	710	▼1	▼4
Melbourne	23	705	27	693	▲4	▲ 12
Osaka	32	684	39	665	▲7	▲ 19
Chengdu	35	678	43	659	▲8	▲19
Busan	36	677	40	664	▲ 4	▲13
Taipei	40	668	42	662	▲2	▲6
Qingdao	42	665	47	654	▲5	▲ 11

Table 9 | Asia/Pacific Top 15 Centres In GFCI 29





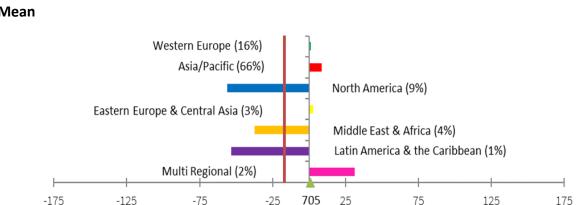
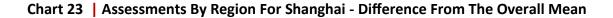
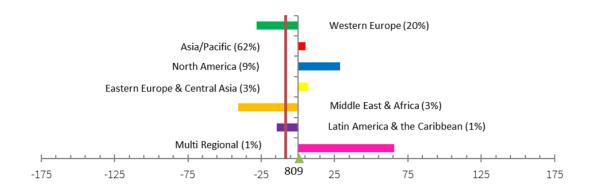
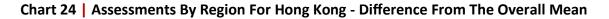


Chart 22 | Average Assessments By Region For Asia/Pacific – Difference From The Overall Mean







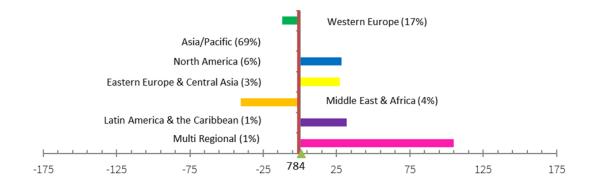
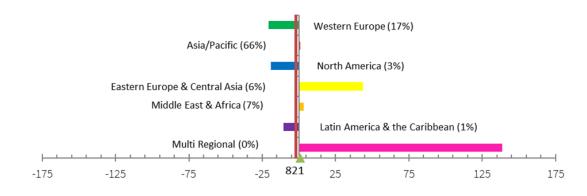


Chart 25 | Assessments By Region For Singapore - Difference From The Overall Mean



North America

New York retained its leading place in the index, increasing one point in the ratings. Vancouver, Washington DC, Chicago, Toronto, and San Diego improved their rankings. The ratings are very close between the leading centres in North America outside New York. Only five points separate Vancouver in second place in the region from Chicago at sixth place.

Centre	GFCI 29		GFCI 28		Change In	Change In
	Rank	Rating	Rank	Rating	Rank	Rating
New York	1	764	1	770	0	▼6
Vancouver	11	719	24	698	▲13	▲21
San Francisco	12	718	8	738	▼4	▼20
Los Angeles	13	716	11	720	₹2	▼4
Washington DC	14	715	19	712	▲ 5	▲3
Chicago	15	714	20	711	▲ 5	▲3
Boston	24	703	15	716	▼9	▼13
Montreal	27	696	26	694	▼1	▲ 2
Toronto	29	694	31	684	▲2	▲ 10
San Diego	44	663	60	605	▲16	▲ 58
Calgary	71	593	51	649	▼20	▼56

Table 10 North American Centres In GFCI 29

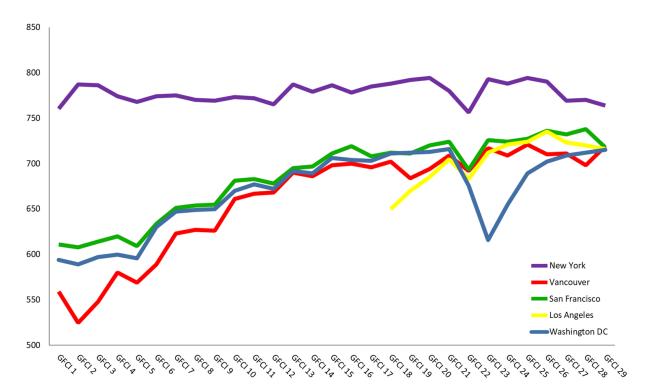
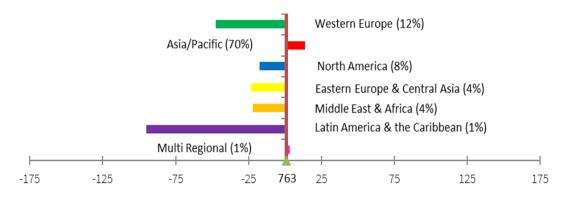


Chart 26 | Top Five North American Centres Over Time







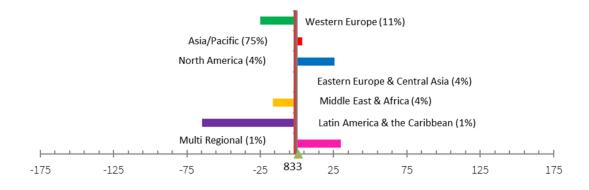


Chart 29 Assessments By Region for Vancouver - Difference From The Overall Mean

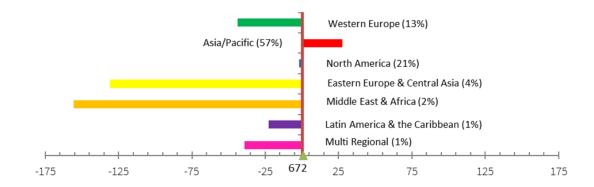
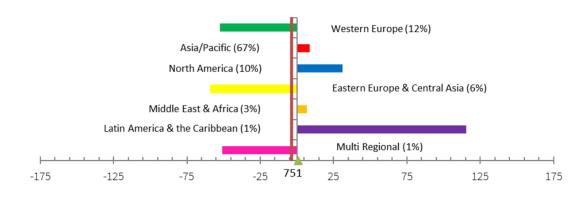


Chart 30 Assessments By Region For San Francisco - Difference From The Overall Mean



Eastern Europe & Central Asia

This region has seen mixed results in GFCI 29. Moscow takes the lead in the region, with Vilnius, Bratislava, Budapest, and St Petersburg rising more than 10 places in the rankings. Istanbul, Prague, Cyprus, Athens, and Riga fell 10 places or more, while Warsaw, Nur-Sultan, and Almaty rose in the ratings while falling slightly in the rankings.

Centre	GFCI 29		GFCI 28		Change In	Change In
	Rank	Rating	Rank	Rating	Rank	Rating
Moscow	57	615	62	600	▲ 5	▲15
Warsaw	61	607	57	618	▼4	▼11
Vilnius	62	606	76	578	▲14	▲28
Bratislava	66	598	87	552	▲21	▲46
Istanbul	74	590	64	595	▼10	▼5
Prague	76	588	66	593	▼10	▼5
Nur-Sultan	78	586	74	585	▼4	▲ 1
Budapest	85	577	101	531	▲16	▲46
Tallinn	87	575	88	551	▲1	▲24
St Petersburg	88	574	104	523	▲16	▲51
Sofia	95	565	95	540	0	▲ 25
Cyprus	98	561	71	588	▼27	▼27
Almaty	101	553	99	536	▼2	▲17
Athens	103	545	92	547	▼11	▼2
Baku	107	515	98	537	▼9	▼22
Riga	109	493	97	538	▼12	▼45

Table 11 | Eastern European & Central Asian Centres In GFCI 29

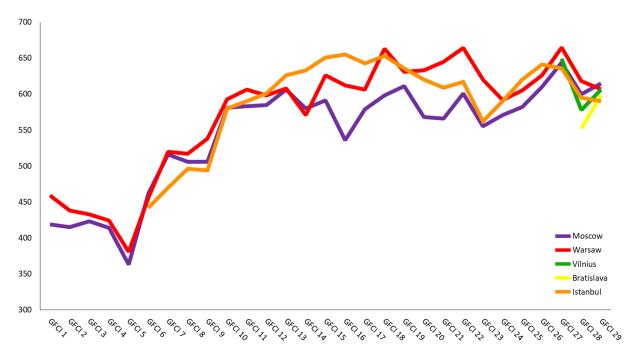


Chart 31 | Top Five Eastern European & Central Asian Centres Over Time



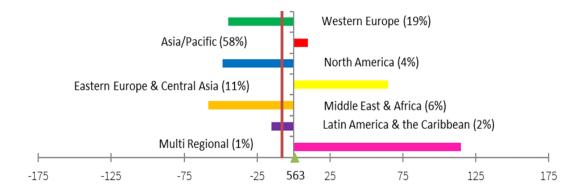


Chart 33 Assessments By Region For Moscow - Difference From The Overall Mean

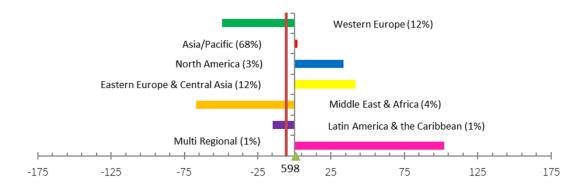


Chart 34 Assessments By Region For Warsaw - Difference From The Overall Mean

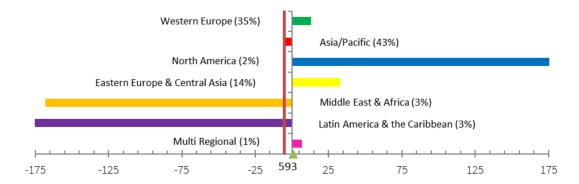
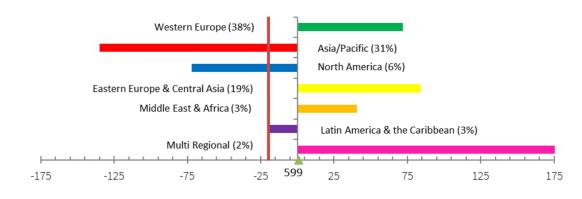


Chart 35 | Assessments By Region For Vilnius - Difference From The Overall Mean



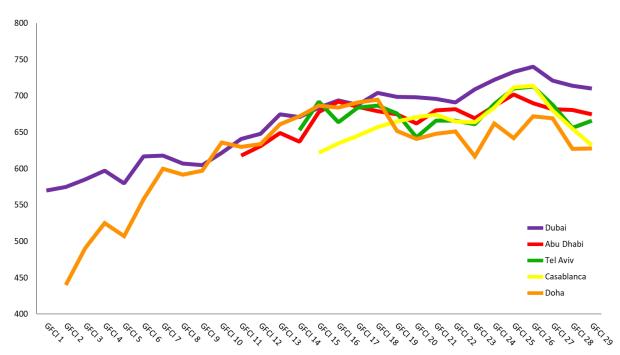
The Middle East & Africa

There was a balance of results in this region, with around half of centres rising and half falling in the rankings. Dubai continues to lead the table in the region and Casablanca continues to take first place in Africa. Bahrain has recovered after falling in the rankings in GFCI 28, while Abu Dhabi lost much of the improvement it gained in GFCI 28. Other centres fell back and in particular, Cape Town and Mauritius fell back sharply in the ratings and rankings.

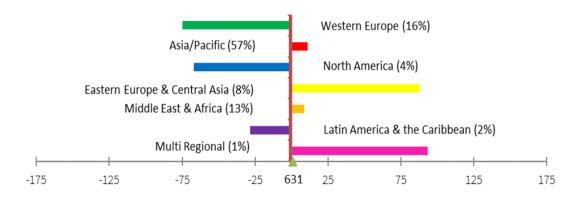
Centre	GFCI 29		GFCI 28		Change in	Change in
	Rank	Rating	Rank	Rating	Rank	Rating
Dubai	19	710	17	714	▼2	▼4
Abu Dhabi	38	675	33	681	▼5	▼6
Tel Aviv	41	666	45	656	▲ 4	1 0
Casablanca	53	632	46	655	▼7	▼23
Doha	55	628	56	627	▲1	▲ 1
Bahrain	68	596	83	562	▲ 15	▲ 34
Cape Town	82	582	67	592	▼15	▼10
Kuwait City	83	581	103	524	▲ 20	▲ 57
Mauritius	89	573	63	598	▼26	▼25
Johannesburg	90	572	90	549	0	▲ 23
Tehran	96	564	102	528	▲6	▲ 36
Riyadh	105	541	107	486	▲2	▲ 55
Nairobi	106	520	96	539	▼10	▼19

Table 12 | Middle Eastern & African Centres In GFCI 29

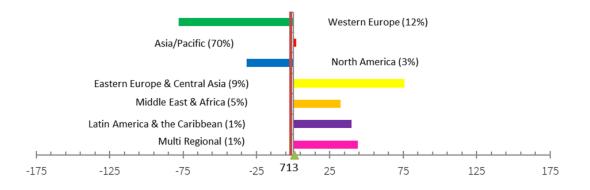














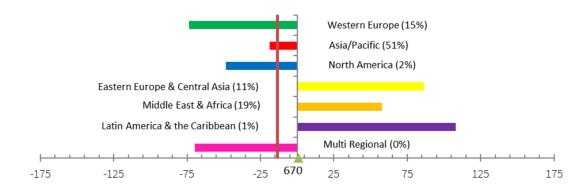
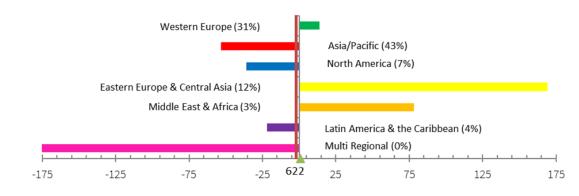


Chart 40 | Assessments By Region For Tel Aviv - Difference From The Overall Mean



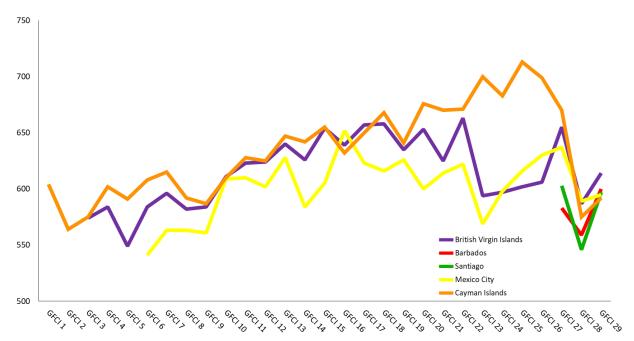
Latin America & The Caribbean

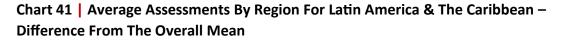
Centres in Latin America & The Caribbean again made improvements in GFCI 29 with seven centres improving their ranking since GFCI 28, and all but two centres rising in the ratings. Barbados continued the improvement it saw in GFCI 28, and the British Virgin Islands, and Santiago also saw big improvements. Trinidad & Tobago and Bogota are new entrants to the index.

Contro	GFCI 29		GFCI 28		Change in	Change in
Centre	Rank	Rating	Rank	Rating	Rank	Rating
British Virgin Islands	58	614	72	587	▲14	▲27
Barbados	64	600	86	559	▲ 22	▲41
Santiago	67	597	93	546	▲ 26	▲51
Mexico City	69	595	70	589	▲ 1	▲ 6
Cayman Islands	72	592	78	575	▲6	▲17
Bahamas	73	591	69	590	▼4	▲1
Rio de Janeiro	77	587	85	560	▲8	▲27
Bermuda	84	580	61	601	▼23	▼21
Buenos Aires	91	571	94	543	▲3	▲28
Panama	94	566	91	548	▼3	▲ 18
Trinidad & Tobago	97	563	New	New	New	New
Bogota	100	554	New	New	New	New
Sao Paulo	104	542	80	569	₹24	▼27

Table 13 | Latin American & Caribbean Centres In GFCI 29







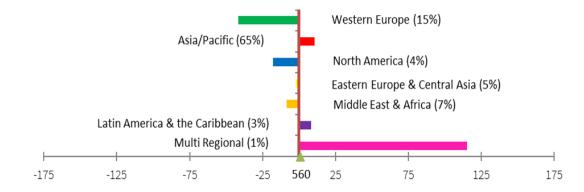


Chart 42 | Assessments By Region For British Virgin Islands - Difference From The Overall Mean

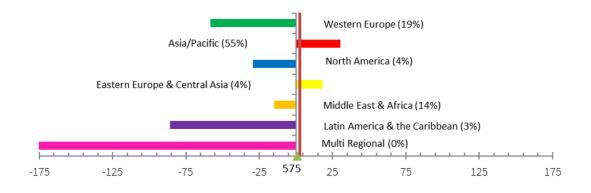


Chart 44 Assessments By Region For Barbados - Difference From The Overall Mean

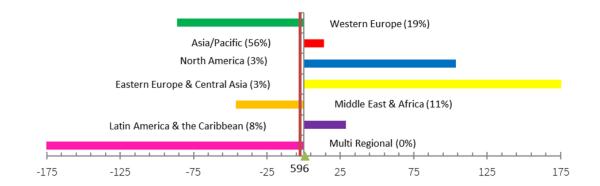
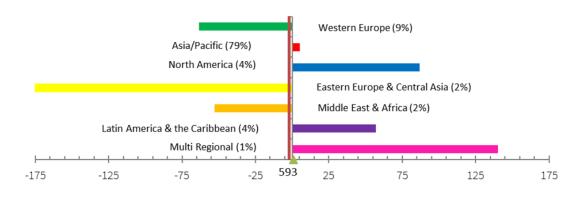


Chart 45 Assessments By Region For Santiago - Difference From The Overall Mean



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. Respondents from Shanghai are particularly optimistic. However, a greater proportion of respondents in London are less certain than those in other centres, reflecting the continuing uncertainty about future trading relations with the European Union and the rest of the world. New Yorkers largely believed their city's performance would remain the same.

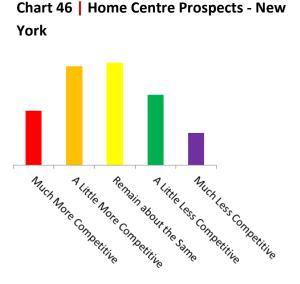
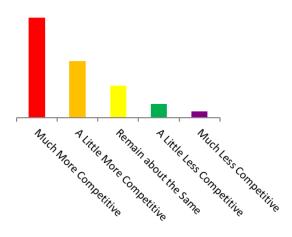


Chart 48 | Home Centre Prospects -Shanghai





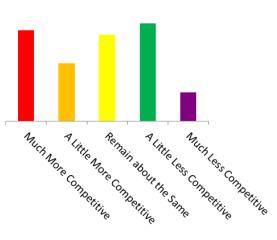
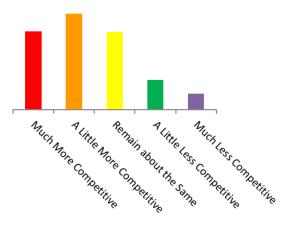


Chart 49 | Home Centre Prospects -Hong Kong



Stability

Chart 50 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. Eight of the top 10 centres in the index are in the stable area.

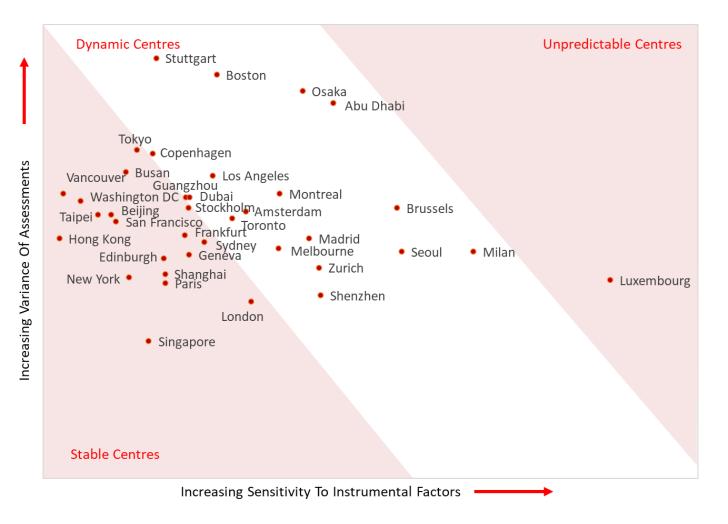
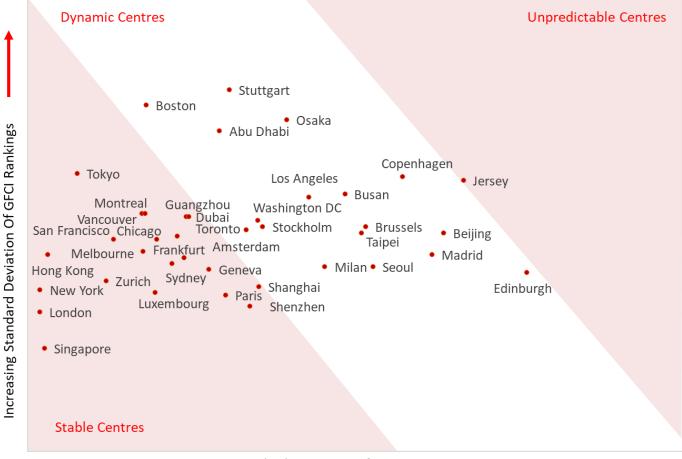


Chart 50 Stability Of The Top 40 Centres In GFCI 29

In addition, we look at the stability of rankings in the index over time. Chart 51 shows the standard deviation of index rankings against the variance in assessments over the last 24 months. Some of the centres in the dynamic or unpredictable table area in the most recent analysis in Chart 45 move into the stable area when their rankings and assessments are considered over time, for example, Luxembourg, Shenzhen, and Melbourne.





Increasing Standard Deviation Of Assessments

"London must compete on regulation, no matter what levelling measures are agreed in Brexit negotiations. Corruption at all levels must be rigorously stamped on. This will require a SEC-style whistle-blower regime with substantial rewards attached."

ADVISOR, PROFESSIONAL SERVICES FIRM, LONDON

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 14 shows the top 15 centres with the greatest positive difference between the average assessment and the GFCI rating. Nine of the top 15 centres in terms of reputational advantage are in the Asia/Pacific region. Alongside New York and London, a number of Western European centres feature in the list. This may be due to strong marketing, or awareness of a centre's existing or emerging strengths.

'Reputational advantage' can become a weakness. These centres need to support their successful marketing with genuine improvements in their underlying competitiveness. GIFT City-Gujarat stands out as needing to address this urgently.

Centre	Weighted Average Assessment	GFCI 29 Rating	GFCI 29 Reputational Advantage
GIFT City-Gujarat	922	568	354
Qingdao	844	665	179
Stuttgart	811	689	122
Shenzhen	817	731	86
Guangzhou	786	706	80
Singapore	819	740	79
London	816	743	73
New York	831	764	67
Shanghai	806	742	64
Beijing	792	737	55
Rome	688	636	52
Zurich	762	720	42
Hong Kong	782	741	41
Luxembourg	753	712	41
Melbourne	743	705	38

Table 14 GFCI 29 Top 15 Centres Assessments And Ratings — Reputational Advantage

Table 15 shows the 15 centres with the greatest reputational disadvantage. This indicates that respondents' perceptions of a centre are less favourable than the quantitative measures alone would suggest. The centres featured might benefit from a stronger marketing effort as well as tackling some core issues relating to the centre.

Table 15 GFCI 29 Bottom 15 Centres Assessments And Ratings — Reputational
Disadvantage

Centre	Weighted Average Assessment	GFCI 29 Rating	GFCI 29 Reputational Advantage
Dalian	444	491	-47
Vancouver	669	719	-50
Tel Aviv	616	666	-50
Sofia	514	565	-51
Jakarta	513	567	-54
Tianjin	436	492	-56
Wellington	598	660	-62
Casablanca	567	632	-65
Rio de Janeiro	521	587	-66
Johannesburg	502	572	-70
Wuhan	398	469	-71
Hamburg	587	664	-77
Mumbai	520	599	-79
Calgary	501	593	-92
New Delhi	460	584	-124

"The availability of skilled people and flexibility of the labour markets is a major consideration when global asset management companies choose their branch location. Shanghai is working hard to attract talented professionals by providing a preferential taxation policy and a settled city policy."

VICE PRESIDENT, INVESTMENT MANAGEMENT FIRM, SHANGHAI

Working Patterns Post Covid-19

Over the last year, we have included in the GFCI questionnaire a section on working patterns before and after the covid-19 pandemic. Chart 52 shows the pattern of former and expected future work patterns, divided between spending time in clients' premises, at home, and in the office, with Chart 53 showing the data by region.

Overall, respondents are projecting a shift in working from office to home of more than 20% of their time in the future, with home working reaching 40% of working time. Time spent with clients is expected to remain similar.

Most respondents expected to be spending 30% to 40% of their time working from home, but in Western Europe, this figure rose to around 55%.

Chart 52 | Percentage Of Time Spent With Clients, At Home, And In The Office Before Covid-19 And Moving Forward

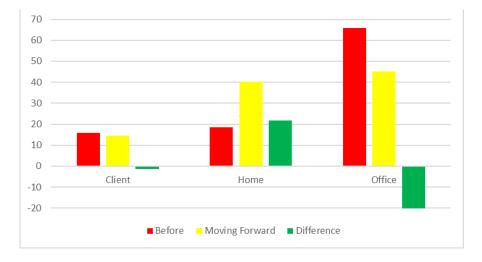
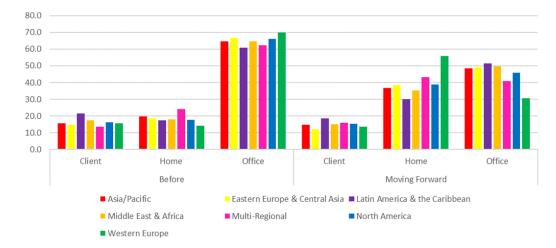


Chart 53 | Expected Change In Working Pattern By Region Before Covid-19 And Moving Forward



There is an expectation in organisations of all sizes that there will be a shift from office to home working. Smaller organisations, with fewer that 50 staff expect to work the most in an office going forward, with an expectation of 50% of time in the office.

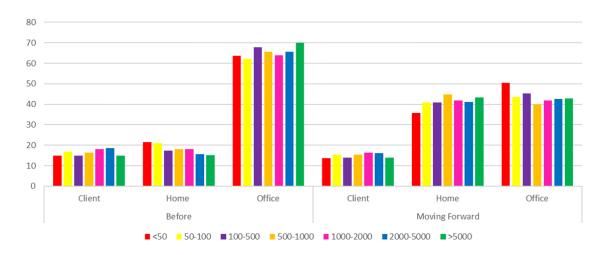


Chart 54 | Expected Change In Working Pattern By Region Before Covid-19 And Moving Forward

We asked respondents to comment on future working patterns. The main issues raised were:

- The shift to online working and video conferencing is set to continue.
- Staggered hours will become the norm and employment routines are likely to be more flexible.
- Processes were being digitized at a faster pace than before, with AI and machine learning applications used more extensively.
- Reduction in travel, especially long-haul, but with increased international connectivity through digital means.
- Financial centres will remain important, differentiated by regulatory structures, ethics and values, although they may be organised as a looser network across a wider geographical area.



FinTech

Alongside the main GFCI index, we analyse financial centres in terms of their FinTech offering. Table 16 shows the centres that received sufficient assessments to feature in the Fintech index, together with the change in their rank and ratings since GFCI 28. Chinese and USA centres feature strongly, reflecting their focus on technology development. Tel Aviv is a new entrant to the FinTech Ranking, and has entered in 10th place. Looking at centres in the top 45 in the main GFCI index, Guangzhou, Chengdu, Tel Aviv, Qingdao, and San Diego are more than 10 places higher in the FinTech rankings. Frankfurt, Zurich, Luxembourg, Edinburgh, Melbourne, Stuttgart, Madrid, and Jersey are more than 10 places lower in Fintech.

. .	GF	CI 29	GF	CI 28		
Centre	FinTech Rank				Change In Rank	Change In Rating
New York	1	731	1	735	0	▼4
Shanghai	2	722	3	719	▲ 1	▲3
Beijing	3	719	2	725	▼1	▼6
Shenzhen	4	716	5	713	▲1	▲3
London	5	712	4	716	▼1	▼4
Hong Kong	6	711	6	707	0	▲4
Singapore	7	710	9	698	▲2	▲ 12
Los Angeles	8	692	12	693	▲ 4	▼1
San Francisco	9	691	7	706	₹2	▼15
Tel Aviv	10	688	New	New	New	New
Guangzhou	11	684	8	701	▼3	▼17
Washington DC	12	681	10	696	₹2	▼15
Seoul	13	679	18	661	▲5	▲ 18
Vancouver	14	678	20	659	▲6	▲ 19
Sydney	15	677	21	655	▲6	▲ 22
Tokyo	16	676	14	677	▼2	▼1
Paris	17	675	15	674	▼2	▲ 1
Boston	18	674	11	694	▼7	▼20
Chicago	19	670	13	685	▼6	▼15
Frankfurt	20	669	19	660	▼1	▲9
Zurich	21	668	30	643	▲9	▲ 25
Toronto	22	667	22	654	0	▲ 13
Amsterdam	23	666	17	665	▼6	1
Dubai	24	665	28	645	▲ 4	▲ 20
Chengdu	25	664	32	641	▲7	▲ 23
Geneva	26	663	40	632	▲14	▲ 31
Busan	27	662	37	636	▲10	▲ 26
San Diego	28	661	53	593	▲ 25	▲ 68
Abu Dhabi	29	660	35	638	▲6	▲ 22
Qingdao	30	659	33	640	▲3	▲ 19
Stockholm	31	654	New	New	New	New
Vilnius	32	650	26	648	▼6	▲2
Montreal	33	649	27	646	▼6	▲3
Milan	34	648	36	637	▲2	▲ 11
Taipei	35	647	43	621	▲8	▲ 26
Melbourne	36	646	New	New	New	New
Copenhagen	37	643	38	635	▲ 1	▲8
Brussels	38	642	23	653	▼15	▼11
Edinburgh	39	635	16	669	₹23	▼34
Dublin	40	633	42	623	▲2	▲10
Osaka	41	631	51	598	▲ 10	▲33
Luxembourg	42	630	52	595	▲ 10	▲ 35
Berlin	43	629	New	New	New	New
Lisbon	44	627	48	604	▲4	▲23
Hamburg	45	624	24	650	▼21	▼26

Table 16 | GFCI 29 FinTech Ranks And Ratings - Top 45 Centres

	GFCI 29 GFCI 28					
Centre	FinTech Rank	FinTech Rating	FinTech Rank	FinTech Rating	Change In Rank	Change In Rating
Helsinki	46	621	New	New	New	New
Stuttgart	47	620	25	649	▼22	▼29
Oslo	48	619	41	631	▼7	▼12
Munich	49	616	29	644	▼20	▼28
Rome	50	615	39	633	▼11	▼18
Madrid	51	609	31	642	▼20	▼ 33
Moscow	52	608	45	619	▼7	▼11
Manila	53	599	New	New	New	New
Santiago	54	595	58	569	▲ 4	▲ 26
Mumbai	55	594	34	639	▼21	▼45
Doha	56	591	57	571	▲ 1	▲ 20
Bangkok	57	587	47	605	▼10	▼18
Kuala Lumpur	58	586	New	New	New	New
New Delhi	59	584	New	New	New	New
Monaco	60	583	74	459	▲ 14	▲ 124
Cape Town	61	582	New	New	New	New
GIFT City-Gujarat	62	581	63	546	▲1	▲ 35
Jersey	63	580	73	489	▲ 10	▲91
Mexico City	64	579	50	599	▼14	▼20
Istanbul	65	578	49	602	▼16	▼24
Vienna	66	577	44	620	₹22	▼43
Liechtenstein	67	576	76	454	▲ 9	▲ 122
Tallinn	68	575	New	New	New	New
Prague	69	574	55	587	▼14	▼13
Rio de Janeiro	70	572	54	592	▼16	▼20
Buenos Aires	71	571	New	New	New	New
Calgary	72	570	New	New	New	New
Tehran	73	569	New	New	New	New
Bogota	74	567	New	New	New	New
Bahrain	75	562	70	506	▼5	▲ 56
Malta	76	561	New	New	New	New
Budapest	77	560	62	550	▼15	▲ 10
Kuwait City	78	559	New	New	New	New
Isle of Man	79	556	75	457	▼4	▲ 99
Casablanca	80	555	71	505	▼9	▲ 50
Panama	81	554	72	499	▼9	▲ 55
Bahamas	82	550	69	510	▼13	▲ 40
St. Petersburg	83	547	New	New	New	New
Bermuda	84	546	78	433	▼6	▲113
Sofia	85	545	New	New	New	New
British Virgin Islands	86	544	77	443	▼9	▲ 101
Johannesburg	87	541	New	New	New	New
Almaty	88	535	67	537	▼21	▼2
Athens	89	533	56	578	▼33	▼45
Sao Paulo	90	531	46	608	▼44	▼77
Jakarta	91	528	New	New	New	New
Riyadh	92	527	New	New	New	New
Mauritius	93	526	New	New	New	New
Baku	94	525	New	New	New	New
Guernsey	95	522	New	New	New	New
Cayman Islands	96	520	79	427	▼17	▲ 93
Hangzhou	97	516	66	539	▼31	₹23
Nur-Sultan	98	515	New	New	New	New
Dalian	99	514	65	540	▼34	▼26
Tianjin	100	512	59	567	▼41	▼ 55
Riga	101	509	New	New	New	New
Cyprus	102	504	68	536	▼34	▼ 32
Xi'an	103	501	61	556	▼42	▼ 55
Nanjing	104	497	60	559	▼44	▼ 62
Wuhan	105	471	64	544	▼41	▼73

Table 16 (Continued) GFCI 29 FinTech Ranks And Ratings - Remaining Centres

We asked survey respondents to identify:

- The four most important elements in generating a competitive environment for FinTech providers and
- The most important areas of current FinTech activity.

Charts 55 and 56 show the results, with access to finance and the availability of skilled people seen as the leading elements, and with big data analytics and payment transaction

Chart 55 | Most Important Elements In Generating A Competitive Environment For FinTech Providers

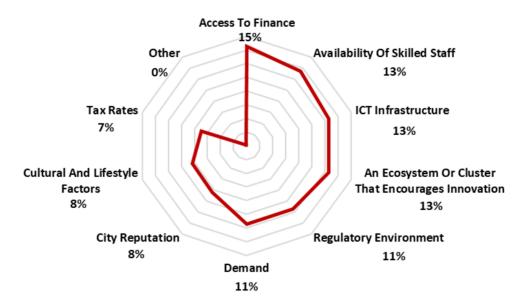
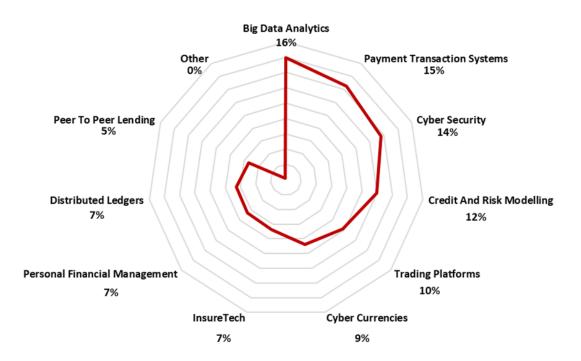


Chart 56 | Most Important Areas Of FinTech Activity



Appendix 1: Assessment Details

Table 17 GFCI 29 Details Of Assessments By Centre

	GF	CI 29	A	sessments			GF	CI 29	A	ssessments	
Centre	Rank	Rating	Number	Average	St. Dev	Centre	Rank	Rating	Number	Average	St. Dev
New York	1	764	4,067	833	172	Bangkok	59	610	360	605	196
London	2	743	2,415	818	164	Monaco	60	609	268	609	220
Shanghai	3	742	2,462	809	173	Warsaw	61	607	136	593	199
Hong Kong	4	741	3,231	784	184	Vilnius	62	606	197	599	271
Singapore	5	740	1,581	821	150	Malta	63	603	191	587	210
Beijing	6	737	2,557	797	191	Barbados	64	600	105	596	234
Tokyo	7	736	1,638	736	209	Mumbai	65	599	323	529	274
Shenzhen	8	731	1,467	815	166	Bratislava	66	598	104	602	221
Frankfurt	9	727	872	751	185	Santiago	67	597	285	593	195
Zurich	10	720	645	764	175	Bahrain	68	596	263	564	241
Vancouver	11	719	276	672	197	Mexico City	69	595	555	574	199
San Francisco	12	718	609	751	189	Oslo	70	594	218	574	235
Los Angeles	13	716	1,082	727	202	Calgary	71	593	181	514	255
Washington DC	14	715	755	751	195	Cayman	72	502	200	E 9 0	251
Chicago	15	714	869	734	189	Islands	72	592	290	580	251
Seoul	16	713	355	735	180	Bahamas	73	591	226	556	231
Luxembourg	17	712	515	753	171	Istanbul	74	590	466	560	192
Sydney	18	711	566	746	183	Guernsey	75	589	169	556	249
Dubai	19	710	1,733	713	196	Prague	76	588	262	569	208
Geneva	20	709	497	728	179	Rio de Janeiro	77	587	229	524	213
Edinburgh	21	708	288	692	178	Nur-Sultan	78	586	232	609	235
Guangzhou	22	706	1,919	794	196	Manila	79	585	174	606	21:
Melbourne	23	705	207	747	181	New Delhi	80	584	241	473	290
Boston	24	703	740	695	228	Glasgow	81	583	97	621	230
Paris	25	699	1,203	730	170	Cape Town	82	582	123	593	199
Milan	26	698	467	730	180	Kuwait City	83	581	123	564	24
Montreal	20	696	240	662	197	Bermuda	84	580	251	557	24
Amsterdam	27	695	615	709	197	Budapest	85	577	342	546	206
	28	695					86	576	208		200
Toronto			488	721	190	Isle of Man				578	
Stuttgart	30	689	387	837	232	Tallinn St Datasshurra	87	575	155	538	252
Stockholm	31	688	250	668	193	St Petersburg	88	574	205	557	219
Osaka	32	684	528	654	224	Mauritius	89	573	173	537	230
Madrid	33	683	319	664	184	Johannesburg	90	572	181	504	210
Copenhagen	34	680	242	680	208	Buenos Aires	91	571	218	553	225
Qingdao	35	678	1,272	831	183	GIFT City-	92	568	568	921	21:
Busan	36	677	1,373	691	203	Gujarat					
Brussels	37	676	352	664	193	Jakarta	93	567	164	521	224
Abu Dhabi	38	675	811	670	221	Panama	94	566	325	529	230
Jersey	39	673	228	647	207	Sofia	95	565	167	514	233
Taipei	40	668	570	661	191	Tehran	96	564	184	535	233
Tel Aviv	41	666	192	622	233	Trinidad &	97	563	52	573	22
Chengdu	42	665	2,488	700	282	Tobago					
Hamburg	43	664	270	586	224	Cyprus	98	561	201	525	22
San Diego	44	663	245	630	224	Gibraltar	99	559	122	556	252
Berlin	45	662	231	676	200	Bogota	100	554	213	526	23
Wellington	46	660	102	624	288	Almaty	101	553	227	557	26
Kuala Lumpur	47	652	215	611	188	Reykjavik	102	549	102	542	280
Dublin	48	650	446	665	206	Athens	103	545	218	525	232
Munich	49	647	377	676	184	Sao Paulo	104	542	371	550	198
Lisbon	50	641	226	630	174	Riyadh	105	541	187	509	243
Liechtenstein	51	638	207	621	246	Nairobi	106	520	124	487	234
Rome	52	636	634	685	199	Baku	107	515	154	501	23
Casablanca	53	632	218	563	264	Hangzhou	107	501	1,090	501	25
						Riga	100	493	156	506	22
Vienna	54	629	307	600	225	Tianjin	110	493	887	430	20
Doha	55	628	450	614	210	Dalian	110	492	971	430	200
Helsinki	56	620	175	609	196	-					
Moscow	57	615	708	598	200	Xi'an	112	485	473	438	210
British Virgin	58	614	314	575	250	Nanjing	113	484	917	441	208
Islands	50	014	314	575	250	Wuhan	114	469	685	397	239

Appendix 2: Respondents' Details

Table 18 | GFCI 29 Respondents By Industry Sector

Industry Sector	Number of Respondents	% of Respondents
Banking	2,516	23%
Finance	856	8%
FinTech	655	6%
Government & Regulatory	632	6%
Insurance	621	6%
Investment Management	984	9%
Professional Services	1,300	12%
Trade Association	429	4%
Trading	686	6%
Not Specified	2,095	19%
Total	10,774	100%

Table 19 | GFCI 29 Respondents By Region

Region	Number of Respondents	% of Respondents
Western Europe	1,796	17%
Asia/Pacific	7,188	67%
North America	608	6%
Middle East & Africa	421	4%
Eastern Europe & Central Asia	486	5%
Latin America & the Caribbean	147	1%
Multi-Regional	128	1%
Total	10,774	100%

Table 20 | GFCI 29 Respondents By Size Of Organisation

Size of Organisation	Number of Respondents	% of Respondents
Fewer than 50	2,671	25%
50 to 100	1,125	10%
100 to 500	1,664	15%
500 to 1,000	879	8%
1,000 to 2,000	1,122	10%
2,000 to 5,000	901	8%
More than 5,000	2,412	22%
Total	10,774	100%

Note: Percentages may not add to 100% due to rounding.

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 143 instrumental factors are used in GFCI 29 of which 53 were updated since GFCI 28 and 9 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 11,009 responses to the questionnaire in the 24 months to December 2020. Of these 10,774 respondents provided 65,507 valid assessments of financial centres. Financial centres are added to the GFCI questionnaire when they receive five or more mentions in the online questionnaire in response to the question: 'Are there any financial centres that might become significantly more important over the next two to three years?'

A centre is only given a GFCI rating and ranking if it receives more than 150 assessments from people based in other centres over time in the online survey. Centres in the GFCI that do not receive 50 assessments in a 24 month period are removed and added to the associate list until the number of assessments increases. At the beginning of our work on the GFCI, a number of guidelines were set out. Additional Instrumental Factors are added to the GFCI model when relevant and meaningful ones are discovered:

- indices should come from a reputable body and be derived by a sound methodology;
- indices should be readily available (ideally in the public domain) and be regularly updated;
- updates to the indices are collected and collated every six months;
- no weightings are applied to indices;
- Indices are entered into the GFCI model as directly as possible, whether this is a rank, a derived score, a value, a distribution around a mean, or a distribution around a benchmark;
- if a factor is at a national level, the score will be used for all centres in that country; nation-based factors will be avoided if financial centre (city) - based factors are available;

- if an index has multiple values for a city or nation, the most relevant value is used (and the method for judging relevance is noted);
- if an index is at a regional level, the most relevant allocation of scores to each centre is made (and the method for judging relevance is noted);
- if an index does not contain a value for a particular city, a blank is entered against that centre (no average or mean is used).

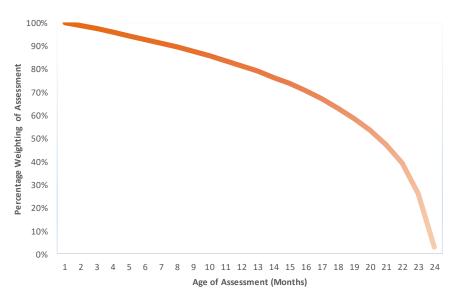
Creating the GFCI does not involve totalling or averaging scores across instrumental factors. An approach involving totalling and averaging would involve a number of difficulties:

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

The guidelines for financial centre assessments by respondents are:

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





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 and handle continuous numerical or time series data. The SVM used for the GFCI provides information about the confidence with which each specific classification is made and the likelihood of other possible classifications.

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

- If an investment banker gives Singapore and Sydney certain assessments then, based on the relevant data for Singapore, Sydney and Paris, how would that person assess Paris?
- Or
- If a pension fund manager gives Edinburgh and Munich a certain assessment then, based on the relevant data for Edinburgh, Munich and Zurich, how would that person assess Zurich?

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

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

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

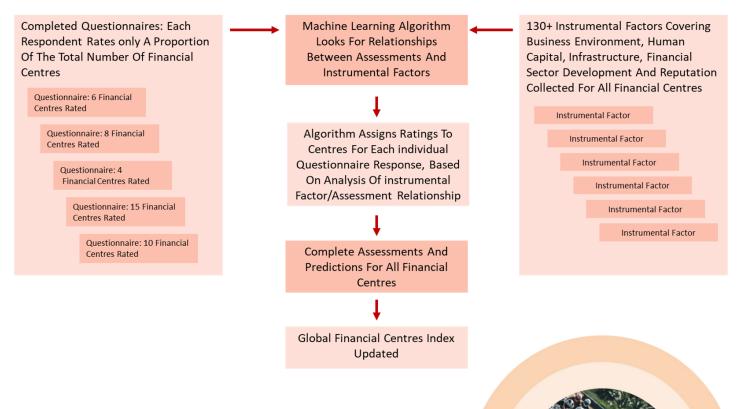
- several indices can be used for each competitive factor;
- a strong international group of 'raters' has developed as the GFCI progresses;
- sector-specific ratings are available using the business sectors represented by questionnaire respondents. This makes it possible to rate Frankfurt as competitive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

•

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

There are over 10 million data points in the current GFCI model. The accuracy of predictions given by the SVM are regularly tested against actual assessments.

Chart 58 | The GFCI Process



Appendix 4: Instrumental Factors

Table 21 Top 30 Instrumental Factors By Correlation With GFCI 29

Instrumental Factor	R-squared
Domestic Credit Provided By Banking Sector (% Of GDP)	0.591
Global Power City Index	0.509
Innovation Cities Global Index	0.498
Global Cities Index	0.490
IESE Cities In Motion Index	0.445
The Global Green Finance Index (Depth)	0.423
Sustainable Cities Index	0.422
Best Countries For Business	0.396
Quality Of Roads	0.394
Business Environment Rankings	0.390
Government Effectiveness	0.384
International IP Index	0.382
Global Competitiveness Index	0.381
The Global Green Finance Index (Quality)	0.381
Logistics Performance Index	0.378
Household Net Adjusted Disposable Income	0.366
Cost Of Living City Rankings	0.362
Quality Of Living City Rankings	0.357
Household Net Financial Wealth	0.356
Global Enabling Trade Report	0.356
Corruption Perception Index	0.352
JLL Real Estate Transparency Index	0.348
Legatum Prosperity Index	0.345
Global Innovation Index	0.343
Regulatory Enforcement	0.343
Rule Of Law	0.341
Sustainable Cities Mobility Index	0.338
Control Of Corruption	0.336
Average Wages	0.331
Networked Readiness Index	0.331



Table 22 Top 30 Instrumental Factors By Correlation With FinTech Rankings In GFCI 29

Instrumental Factor	R-squared
Innovation Cities Global Index	0.521
Domestic Credit Provided By Banking Sector (% Of GDP)	0.512
IESE Cities In Motion Index	0.486
Global Cities Index	0.473
Global Power City Index	0.457
Cost Of Living City Rankings	0.432
The Global Green Finance Index (Depth)	0.408
JLL Real Estate Transparency Index	0.395
Global Innovation Index	0.372
Household Net Financial Wealth	0.362
Logistics Performance Index	0.362
Best Countries For Business	0.360
Average Wages	0.353
Quality Of Roads	0.334
Household Net Adjusted Disposable Income	0.331
Sustainable Cities Index	0.329
Office Occupancy Cost	0.324
The Global Green Finance Index (Quality)	0.320
Government Effectiveness	0.319
Global Competitiveness Index	0.318
Business Environment Rankings	0.318
International IP Index	0.313
Sustainable Cities Mobility Index	0.309
Quality Of Domestic Transport Network	0.300
Corruption Perception Index	0.299
Networked Society Index	0.296
Global Enabling Trade Report	0.296
Legatum Prosperity Index	0.284
Purchasing Power Index	0.272
Rule Of Law	0.271

Table 23	GFCI 29 Business Environment Factors
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Instrumental Factor	Source	Website	Change Since GFCI 28
Business Environment Rankings	EIU	http://country.eiu.com/All	Updated
Ease Of Doing Business Index	The World Bank	https://www.doingbusiness.org/en/reports/global -reports/doing-business-2020	
Operational Risk Rating	EIU	http://viewswire.eiu.com/site_info.asp? info_name=VW2_RISK_nib&page=rk&page_title=R isk%20table	Updated
Real Interest Rate	The World Bank	https://databank.worldbank.org/reports.aspx? source=world-development- indicators&series=FR.INR.RINR	Updated
Global Services Location	AT Kearney	<u>https://www.atkearney.com/digital-</u> transformation/gsli	
Corruption Perception Index	Transparency International	https://www.transparency.org/en/cpi/2019/	
Average Wages	UBS	https://www.ubs.com/microsites/prices-earnings/ en/	
Corporate Tax Rates	PWC	https://www.pwc.com/payingtaxes	
Individual Income Tax Rates	KPMG	https://home.kpmg.com/xx/en/home/services/ tax/tax-tools-and-resources/tax-rates-online/ individual-income-tax-rates-table.html	
Personal Tax Rates	OECD	<u>https://stats.oecd.org/index.aspx?</u> DataSetCode=TABLE_16	
Tax Revenue As Percentage Of GDP	The World Bank	https://databank.worldbank.org/reports.aspx? source=2&series=GC.TAX.TOTL.GD.ZS&country=#	Updated
Bilateral Tax Information Exchange Agreements	OECD	http://www.oecd.org/ctp/exchange-of-tax- information/ taxinformationexchangeagreementstieas.htm	
Economic Freedom Of The World	Fraser Institute	https://www.fraserinstitute.org/economic- freedom/map? geozone=world&page=map&year=2018	Updated
Government Debt As % Of GDP	CIA	https://www.cia.gov/library/publications/the- world-factbook/rankorder/2186rank.html	
OECD Country Risk Classification	OECD	http://www.oecd.org/trade/topics/export-credits/ documents/cre-crc-current-english.pdf	Updated
Global Peace Index	Institute for Economics & Peace	https://www.visionofhumanity.org/maps/#/	
Financial Secrecy Index	Tax Justice Network	http://www.financialsecrecyindex.com/	
Government Effectiveness	The World Bank	http://info.worldbank.org/governance/wgi/	Updated
Open Government	World Justice Project	http://worldjusticeproject.org/rule-of-law-index	
Regulatory Enforcement	World Justice Project	http://worldjusticeproject.org/rule-of-law-index	
Press Freedom Index	Reporters Without Borders (RSF)	https://rsf.org/en/ranking/2020	
Currencies	Swiss Association for Standardization (SNV)	http://www.currency-iso.org/en/home/tables/ table-a1.html	Updated
Commonwealth Countries	The Commonwealth	http://thecommonwealth.org/member-countries	
Common Law Countries	CIA	<u>https://www.cia.gov/library/publications/the-</u> world-factbook/fields/308.html	
Inflation, GDP Deflator	The World Bank	<u>https://data.worldbank.org/indicator/</u> <u>NY.GDP.DEFL.KD.ZG</u>	Updated
Rule Of Law	The World Bank	http://info.worldbank.org/governance/wgi/	Updated
Political Stability And Absence Of Violence/Terrorism	The World Bank	http://info.worldbank.org/governance/wgi/	Updated
Regulatory Quality	The World Bank	http://info.worldbank.org/governance/wgi/	Updated
Control of Corruption	The World Bank	http://info.worldbank.org/governance/wgi/	Updated
Best Countries For Business	Forbes	https://www.forbes.com/best-countries-for- business/list/	
Lloyd's City Risk Index 2015-2025	Lloyd's	https://cityriskindex.lloyds.com/about/	
Global Cybersecurity Index	ITU	http://www.itu.int/en/ITU-D/Cybersecurity/Pages/ GCI.aspx	
Open Budget Survey	International Budget Partnership	http://survey.internationalbudget.org/#download	
Democracy Index	The Economist	https://www.eiu.com/topic/democracy-index	
FATF AML Effectiveness	FATF	<u>http://www.fatf-gafi.org/media/fatf/</u> documents/4th-Round-Ratings.pdf	New
		<u>accumento, ren nouna natingo.pui</u>	

Table 24 | GFCI 29 Human Capital Factors

Instrumental Factor	Source	Website	Change Since GFCI 28
Graduates In Social Science, Business And Law (As % Of Total Graduates)	The World Bank	http://databank.worldbank.org/data/reports.aspx? source=Education% 20Statistics&series=UIS.FOSGP.5T8.F400	Updated
Gross Tertiary Graduation Ratio	The World Bank	http://databank.worldbank.org/data/reports.aspx? source=Education% 20Statistics&series=SE.TER.CMPL.ZS	Updated
Henley Passport Index	Henley Partners	https://www.henleypassportindex.com/passport	Updated
Human Development Index	UN Development Programme	http://hdr.undp.org/en/2019-report/download	Updated
Purchasing Power Index	Numbeo	https://www.numbeo.com/quality-of-life/ rankings.jsp?title=2021&displayColumn=1	New
Number Of High Net Worth Individuals	Capgemini	https://www.worldwealthreport.com/	
Homicide Rates	UN Office Of Drugs & Crime	https://dataunodc.un.org/content/data/homicide/ homicide-rate	
Top Tourism Destinations	Euromonitor	https://go.euromonitor.com/white-paper-travel- 2019-100-cities.html	
Average Precipitation In Depth (Mm Per Year)	The World Bank	http://databank.worldbank.org/data/reports.aspx? source=world-development- indicators&series=AG.LND.PRCP.MM	
Quality Of Living City Rankings	Mercer	<u>https://mobilityexchange.mercer.com/Insights/</u> <u>quality-of-living-rankings</u>	
Health Care Index	Numbeo	http://www.numbeo.com/health-care/rankings.jsp	Updated
Global Skills Index	Hays	http://www.hays-index.com/	
Linguistic Diversity	Ethnologue	https://www.ethnologue.com/guides/countries- most-languages	
Global Terrorism Index	Institute For Economics & Peace	http://visionofhumanity.org/indexes/terrorism- index/	Updated
World Talent Rankings	IMD	https://www.imd.org/wcc/world-competitiveness- center-rankings/world-talent-ranking-2019/	Updated
Cost Of Living City Rankings	Mercer	<u>https://www.mercer.com/our-thinking/career/cost</u> -of-living.html	
Quality Of Life Index	Numbeo	<u>http://www.numbeo.com/quality-of-life/</u> rankings.jsp	Updated
Crime Index	Numbeo	http://www.numbeo.com/crime/rankings.jsp#	Updated
Household Net Adjusted Disposable Income	OECD	<u>https://stats.oecd.org/Index.aspx?</u> <u>DataSetCode=BLI</u>	
Household Net Financial Wealth	OECD	<u>https://stats.oecd.org/Index.aspx?</u> DataSetCode=BLI	
Educational Attainment	OECD	<u>https://stats.oecd.org/Index.aspx?</u> DataSetCode=BLI	
Life Expectancy	OECD	https://stats.oecd.org/Index.aspx? DataSetCode=BLI	
Employees Working Very Long Hours	OECD	https://stats.oecd.org/Index.aspx? DataSetCode=BLI	
Human Freedom Index	Cato Institute	https://www.cato.org/human-freedom-index	Updated

Table 25 GFCI 29 Infrastructure Factors

Instrumental Factor	Source	Website	Change Since GFCI 28
Office Occupancy Cost	CBRE Research	https://www.cbre.com/research-and-reports/ Global-Prime-Office-Occupancy-Costs-2019	
Prime International Residential Index	Knight Frank	http://www.knightfrank.com/wealthreport	
JLL Real Estate Transparency Index	Jones Lang LaSalle	https://www.jll.co.uk/en/trends-and-insights/	
ICT Development Index	United Nations	research/global-real-estate-transparency-index http://www.itu.int/net4/ITU-D/idi/2017/ index.html	
Telecommunication Infrastructure Index	United Nations	https://publicadministration.un.org/egovkb/en-	
Quality Of Domestic Transport Network	World Economic Forum	us/Data-Center http://reports.weforum.org/travel-and-tourism -competitiveness-report-2019/rankings/ #series=TRSPEFFICY	
Quality Of Roads	World Economic Forum	http://reports.weforum.org/travel-and-tourism -competitiveness-report-2019/rankings/ #series=EOSQ057	
Roadways Per Land Area	CIA	https://www.cia.gov/library/publications/the- world-factbook/rankorder/2085rank.html	Updated
Railways Per Land Area	CIA	https://www.cia.gov/library/publications/the- world-factbook/rankorder/2121rank.html	Updated
Networked Readiness Index	World Economic Forum	http://reports.weforum.org/global-information -technology-report-2016/	
Energy Sustainability Index	World Energy Council	https://trilemma.worldenergy.org/	Updated
Metro Network Length	Metro Bits	http://mic-ro.com/metro/table.html	
Open Data Barometer	World Wide Web Foundation	https://opendatabarometer.org/4thedition/? year=2016&indicator=ODB	
Environmental Performance Index	Yale University	https://epi.yale.edu/epi-results/2020/ component/epi	
Global Sustainable Competitiveness Index	Solability	<u>http://solability.com/the-global-sustainable-</u> competitiveness-index/the-index	Updated
Logistics Performance Index	The World Bank	http://lpi.worldbank.org/international/global	
Networked Society Index	Ericsson	https://www.ericsson.com/en/reports-and- papers/networked-society-insights/city-index	
TomTom Traffic Index	TomTom	https://www.tomtom.com/en_gb/traffic-index/ ranking/	Updated
Sustainable Cities Mobility Index	Arcadis	https://www.arcadis.com/en/global/our- perspectives/sustainable-cities-mobility-index- 2017/	
Water Quality	OECD	https://stats.oecd.org/Index.aspx? DataSetCode=BLI	
INRIX Traffic Scorecard	INRIX	http://inrix.com/scorecard/	
Concentrations Of Fine Particulate Matter (PM2.5)	WHO	<u>https://www.who.int/data/gho/data/</u> indicators/indicator-details/GHO/ concentrations-of-fine-particulate-matter-(pm2 -5)	New
Forestry Area	World Bank	<u>http://databank.worldbank.org/data/</u> <u>reports.aspx?</u> source=2&series=AG.LND.FRST.ZS&country=	
CO2 Emissions Per Capita	World Bank	https://databank.worldbank.org/reports.aspx? source=2&series=EN.ATM.CO2E.PC&country=#	
Buildings Energy Efficiency Policies Database (Y/N)	IEA	https://www.iea.org/policies	
4G Availability	Open Signal	https://www.opensignal.com/reports/2020/05/ global-state-of-the-mobile-network	
Worldwide Broadband Speed League	Cable	https://www.cable.co.uk/broadband/ speed/worldwide-speed-league/	Updated
People Near Services	ITDP	https://pedestriansfirst.itdp.org/	New
Pollution Index	Numbeo	https://www.numbeo.com/pollution/ rankings.jsp	New
Smart City Index	IMD	<u>https://www.imd.org/smart-city- observatory/smart-city-index/</u>	New
Share Of Wind And Solar In Electricity Production	Enerdata Statistical Yearbook	https://yearbook.enerdata.net/ download/	
Energy Intensity Of GDP	Enerdata Statistical Yearbook	https://yearbook.enerdata.net/ download/	
Share Of Renewables In Electricity Production	Enerdata Statistical Yearbook	https://yearbook.enerdata.net/ download/	
City Commitment To Carbon Reduction (Cooperative Action)	UNFCCC	http://climateaction.unfccc.int/views/ stakeholders.html?type=cities	Updated

Instrumental Factor	Source	Website	Change Since GFC 28
Capitalisation Of Stock Exchanges	The World Federation Of Stock Exchanges	https://focus.world-exchanges.org/issue/july- 2020/market-statistics	Updated
Value Of Share Trading	The World Federation Of Stock Exchanges	https://focus.world-exchanges.org/issue/july- 2020/market-statistics	Updated
Volume Of Share Trading	The World Federation Of Stock Exchanges	<u>https://statistics.world-exchanges.org/</u> <u>ReportGenerator/Generator#</u>	Updated
Broad Stock Index Levels	The World Federation Of Stock Exchanges	https://focus.world-exchanges.org/issue/july- 2020/market-statistics	Updated
Value Of Bond Trading	The World Federation Of Stock Exchanges	https://statistics.world-exchanges.org/ ReportGenerator/Generator#	Updated
Domestic Credit Provided By Banking Sector (% Of GDP)	The World Bank	<u>http://databank.worldbank.org/data/</u> reports.aspx?source=world-development- indicators&series=FS.AST.DOMS.GD.ZS	Updated
Percentage of Firms Using Banks to Finance Investment	The World Bank	http://databank.worldbank.org/data/ reports.aspx?source=world-development- indicators&series=IC.FRM.BNKS.ZS	Updated
Total Net Assets Of Regulated Open-End Funds	Investment Company Institute	http://www.icifactbook.org/	
Islamic Finance Country Index	Islamic Banks And Financial Institutions	http://www.gifr.net/publications	
Net External Positions Of Banks	The Bank For International Settlements	http://www.bis.org/statistics/annex_map.htm	Updated
External Positions Of Central Banks As A Share Of GDP	The Bank For International Settlements	http://www.bis.org/statistics/annex_map.htm	Updated
Liner Shipping Connectivity Index	The World Bank	http://databank.worldbank.org/data/ reports.aspx? source=2&series=IS.SHP.GCNW.XQ	
Global Connectedness Index	DHL	https://www.dhl.com/global-en/spotlight/ globalization/global-connectedness- index.html	Updated
Economic Performance Index	The Brookings Institution	https://www.brookings.edu/research/global- metro-monitor-2018/#rank	
Financial Centre Sustainability Disclosure	Corporate Knights	https://www.finance-watch.org/publication/ global-green-finance-index-3/	
Financial Centre Carbon Intensity	Corporate Knights	https://www.finance-watch.org/publication/ global-green-finance-index-3/	
Financial System Green Alignment	Corporate Knights	https://www.finance-watch.org/publication/ global-green-finance-index-3/	
Labelled Green Bonds Issued By Country Of Issuer	Corporate Knights	<u>https://www.finance-watch.org/publication/</u> global-green-finance-index-3/	
Total Issuance Of Labelled Green Bonds To December 2018, USDm	СВІ	<u>http://www.finance-watch.org/our-work/</u> dossiers?fid=192	
Sustainable Stock Exchanges (Y/N)	UN Sustainable Stock Exchange Initiative	https://sseinitiative.org/members/	Updated
Green Bond Segments On Stock Exchanges (Y/N)	СВІ	https://www.climatebonds.net/green-bond- segments-stock-exchanges	
The Global Fintech Index	Findexable	https://findexable.com/	
The Global Green Finance Index (Depth)	Z/Yen	https://www.longfinance.net/programmes/ financial-centre-futures/global-green-finance- index/	Updated
The Global Green Finance Index (Quality)	Z/Yen	https://www.longfinance.net/programmes/ financial-centre-futures/global-green-finance- index/	Updated
Climate Change Performance Index	Germanwatch, NewClimate Institute & Climate Action	https://ccpi.org/download/the-climate-change -performance-index-2021/	New

Table 26 GFCI 29 Financial Sector Development Factors

Table 27 | GFCI 29 Reputation Factors

Instrumental Factor	Source	Website	Change Since GFCI 28
World Competitiveness Scoreboard	IMD	https://www.imd.org/wcc/world- competitiveness-center-rankings/world- competitiveness-ranking-2020/	
Global Competitiveness Index	World Economic Forum	http://reports.weforum.org/global- competitiveness-report-2019/competitiveness -rankings/	
Foreign Direct Investment Inflows	UNCTAD	http://unctadstat.unctad.org/wds/ TableViewer/tableView.aspx?ReportId=96740	Updated
FDI Confidence Index	AT Kearney	https://www.atkearney.com/foreign-direct- investment-confidence-index	
GDP Per Person Employed (Constant 2017 PPP \$)	The World Bank	https://databank.worldbank.org/ reports.aspx?source=world-development- indicators&series=SL.GDP.PCAP.EM.KD	Updated
Global Innovation Index	INSEAD	http://www.globalinnovationindex.org/ content.aspx?page=GII-Home	Updated
International IP Index	GIPC	https://www.theglobalipcenter.com/ ipindex2020/	New
RPI (% Change On Year Ago)	The Economist	https://www.economist.com/economic-and- financial-indicators/2020/12/16/economic- data-commodities-and-markets	Updated
Consumer Prices	IMF	https://data.imf.org/regular.aspx? key=61545861	New
Number Of International Association Meetings	World Economic Forum	http://reports.weforum.org/travel-and- tourism-competitiveness-report-2019/ rankings/#series=NRFAIREX	
Innovation Cities Global Index	2ThinkNow Innovation Cities	https://www.innovation-cities.com/index- 2019-global-city-rankings/18842/	
Big Mac Index	The Economist	<u>https://www.economist.com/</u> news/2020/07/15/the-big-mac-index	Updated
Sustainable Economic Development	Boston Consulting Group	https://www.bcg.com/en-gb/ publications/2019/seda-measuring-well- being.aspx	
Global Enabling Trade Report	World Economic Forum	https://www.weforum.org/focus/global- enabling-trade-report-2016	
Good Country Index	Good Country Party	https://www.goodcountry.org/index/results	Updated
Legatum Prosperity Index	Legatum Institute	http://www.prosperity.com/#!/ranking	Updated
IESE Cities In Motion Index	IESE	http://citiesinmotion.iese.edu/indicecim/? lang=en	
FDI Inward Stock (In Million Dollars)	UNCTAD	http://unctad.org/en/Pages/DIAE/World% 20Investment%20Report/Annex-Tables.aspx	
Sustainable Cities Index	Arcadis	<u>https://www.arcadis.com/en/global/our-</u> perspectives/sustainable-cities-index-2018/ citizen-centric-cities/	
Global Cities Index	AT Kearney	<u>https://www.atkearney.com/global- cities/2020</u>	Updated
Quality Of Nationality Index	Henley Partners	https://nationalityindex.com/#	
Best Countries	U.S.News	https://www.usnews.com/news/best- countries/overall-rankings	
Global Power City Index	The Mori Memorial Foundation	http://mori-m-foundation.or.jp/english/ius2/ gpci2/index.shtml	Updated
TRACE Bribery Risk Matrix	Trace International	https://matrixbrowser.traceinternational.org/	Updated
Jurisdictions Participating In The Convention On Mutual Administrative Assistance In Tax Matters	OECD	http://www.oecd.org/	

 Vantage

 Financial

 Centres

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



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Please find out more at: www.vantagefinancialcentres.net

Financial or b

or by contacting Mike Wardle at mike_wardle@zyen.com

Dubai International Financial Centre

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

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

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

www.difc.ae Twitter @DIFC

🖗 AIFC

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

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

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

> Daniyar Kelbetov at <u>d.kelbetov@aifc.kz</u> <u>www.aifc.kz</u>



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 believes 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 pre-emptively gain a foothold in the Seoul financial hub. Seoul is the gateway to Northeast Asia and the world.

> Han Dong-Uk, gtddd@seoul.go.kr www.seoul.go.kr/main/index.jsp



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.

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Vantage Financial Centres

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



Approved by the China's State Council, China Development Institute (CDI) was founded in 1989 with 116 representatives from the government, academia and business in China. Being an independent think tank, CDI is committed to develop policy solutions via research and debates that help to advance China's reform and opening -up. After years of development, CDI has become one of the leading think tanks in China. CDI focuses on the studies of open economy and innovation-driven development, regional economy and regional development, industrial policies and industrial development, urbanization and urban development, business strategies and investment decision-making. Via conducting research, CDI provides policy recommendations for the Chinese governments at various levels and develops consultation for corporate sectors at home and abroad. CDI organizes events in different formats that evokes dialogue among scholars, government officials, business people and civil society members around the globe. Based in Shenzhen, Southern China, CDI has one hundred and sixty staff, with an affiliated network that consists of renowned experts from different fields.

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

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

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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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