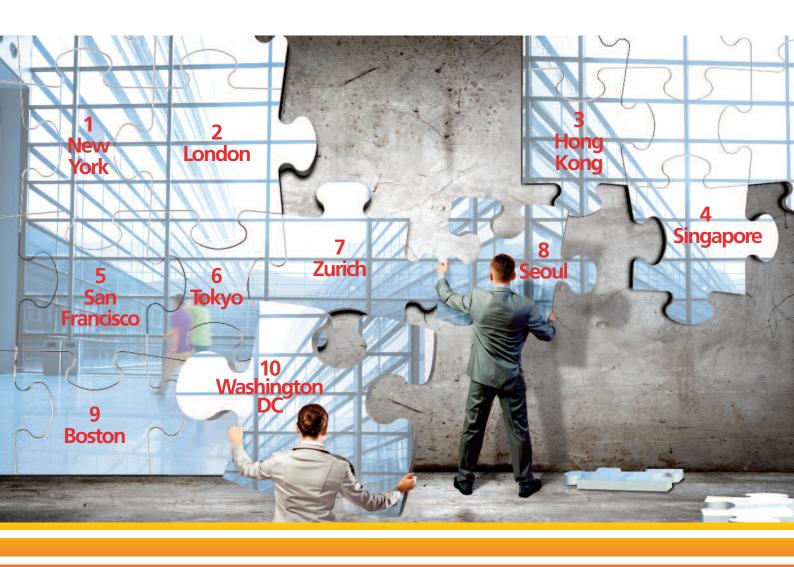






The Global Financial Centres Index **16**

SEPTEMBER 2014







The Qatar Financial Centre Authority sponsors Long Finance's 'Financial Centre Futures' programme.

Qatar Financial Centre (QFC) is a financial and business centre established by the government of Qatar in 2005 to attract international financial services and multinational corporations to grow and develop the market for financial services in the region.

QFC consists of a commercial arm, the QFC Authority; and an independent financial regulator, the QFC Regulatory Authority. It also has an independent judiciary which comprises a civil and commercial court and a regulatory tribunal.

QFC aims to help all QFC licensed firms generate new and sustainable revenue streams. It provides access to local and regional investment opportunities. Business can be transacted inside or outside Qatar, in local or foreign currency. Uniquely, this allows businesses to operate both locally and internationally. Furthermore, QFC allows 100% ownership by foreign companies, and all profits can be remitted outside of Qatar.

The QFC Authority is responsible for the organisation's commercial strategy and for developing relationships with the global financial community and other key institutions both within and outside Qatar. One of the most important roles of QFCA is to approve and issue licences to individuals, businesses and other entities that wish to incorporate or establish themselves in Qatar with the Centre.

The QFC Regulatory Authority is an independent statutory body and authorises and supervises businesses that conduct financial services activities in, or from, the QFC. It has powers to authorise, supervise and, where necessary, discipline regulated firms and individuals.

Z/Yen Group thanks the City of London Corporation for its cooperation in the development of the GFCI and sponsorship of GFCI 1 to GFCI 7. The author of this report, Mark Yeandle, would like to thank Xueyi Jiang, Michael Mainelli and the rest of the GFCI team for their contributions with research, modelling and ideas.

Foreword

While mature and BRICS economies remain under pressure, Africa rises as the last frontier to be conquered.

Long seen as a 'natural resources' Eldorado, African history is actually more complex: demographic dividend, improved governance, structural reforms, economic diversification, emerging middle-class, abundant arable lands. Driven by diverse factors, Africa is gradually and surely transforming from aid to trade, offering foreign investors higher rates of return than most emerging markets and being home to eight out of fifteen of the world's fastest growing economies over the last decade.

The African economic momentum and the emergence of leading financial centers on the continent, are mutually fostering each other in a virtuous circle, as suggested by the Global Financial Center Index, an established and wellrecognized benchmark assessing the attractiveness and competitiveness of international financial hubs.

Stability and rising economic power. Morocco has ambitions to be the leading business and financial gateway to Africa, offering unique access to the continent's untapped potential. The kingdom holds a strong position as a hub thanks to intrinsic advantages: political stability, solid macroeconomic fundamentals (it is an investment grade country), unshaken commitment to reforms, ambitious sectorial strategies, privileged historical ties with African countries, unique geography at the crossroads of the continents, unparalleled air connectivity, world-class infrastructure.

The second financial hub in Africa, capitalizes on the kingdom's robust financial sector which is considered a benchmark in the region, and relies on Moroccan companies with their sound presence and leadership, Casablanca positions itself as the pan-African hub by excellence.

Casablanca Finance City (CFC), a flagship initiative launched in 2010 is instrumental in accomplishing this vision. By offering openness to trade and investments, streamlined administrative procedures, strengthened legal and regulatory frameworks, attractive corporate and income tax incentives, skilled talent pool and premier real-estate offer, CFC answers the need for an entry point to Africa. Through its comprehensive one-stop-shop ecosystem, CFC ensures economies of scale, optimal resource allocation, market proximity and improved risk management.

As Africa rises from the 'hopeless continent' to the 'hopeful' one, I believe Afro-optimism to be a profound and lasting trend in the international landscape. The African future looks bright and thanks to its competitive advantages, I have the strong conviction that Casablanca is well positioned to play a key role.

Mr Said Ibrahimi

Chief Executive Officer, Casablanca Finance City Authority

GFCI 16 – Summary and Headlines

The Global Financial Centres Index provides profiles, ratings and rankings for 83 financial centres, drawing on two separate sources of data – instrumental factors and responses to an online survey. The GFCI was first published by Z/Yen Group in March 2007 and has subsequently been updated every six months. This is the sixteenth edition of GFCI (GFCI 16).

Instrumental factors: previous research indicates that many factors combine to make a financial centre competitive. We group these factors into five broad 'areas of competitiveness': Business Environment, Financial Sector Development, Infrastructure, Human Capital and Reputational and General Factors. Evidence of a centre's performance in these areas is drawn from a range of external measures. For example, evidence about the telecommunications infrastructure competitiveness of a financial centre is drawn from a global digital economy ranking (supplied by the Economist Intelligence Unit), a telecommunication infrastructure index (by the United Nations) and an IT industry competitiveness survey (by the World Economic Forum). 105 factors have been used in GFCI 16.

Financial centre assessments: GFCI uses responses to an ongoing online questionnaire¹ completed by international financial services professionals. Respondents are asked to rate those centres with which they are familiar and to answer a number of questions relating to their perceptions of competitiveness. Responses from 3.633 financial services professionals were collected in the 24 months to June 2014. These responses provided 29,226 financial centre assessments which were used to compute GFCI 16, with older assessments discounted according to age. Full details of the methodology behind GFCI 16 can be found on page 43.

The main headlines of GFCI 16 are:

New York, London, Hong Kong and Singapore remain the top four global financial centres. All four centres lose points in the GFCI ratings but retain their relative ranks. New York remains the top centre but by only one point on a scale of 1,000. Following GFCI 15, London remains just behind New York due to uncertainty over the UK's position in Europe, regulatory creep and the UK appearing to be less welcoming to foreigners all being contributing factors.

GFCI ratings are down overall and volatility in ratings is down. The top financial centres have performed poorly in GFCI 16. Of the top 15 centres only two increased their ratings – San Francisco is up eight points and Vancouver is up two. Only seven of the top 30 centres saw an increase in their ratings.

The top ten Western European centres all saw a decline in their ratings. Leading centers in the region all fell in the ratings, with Zurich, Geneva, Luxembourg and Frankfurt joining London in losing ground.

Leading Centres in Eastern Europe and Central Asia saw ratings improve. Istanbul, Almaty and Prague all saw their ratings (and ranks) improve although Moscow continues to languish with another large drop in the ratings and a decline to 80th place in the GFCI.

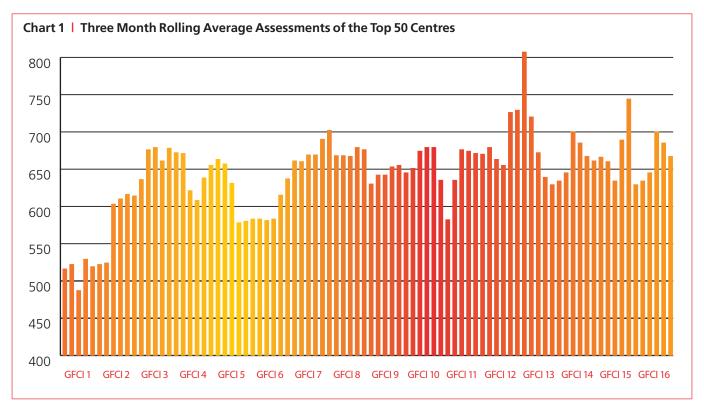
Eight of the top ten Asia/Pacific centres saw a decline in their ratings. The progress made by the leading Asia/Pacific centres in GFCI 15 was reversed with Hong Kong, Singapore, Tokyo, Seoul and Shanghai dropping in the ratings. Significant gains were however made by Taipei, Beijing, Manila and Mumbai.

Most North American centres were down but with smaller drops than in other regions. Boston, Washington DC, Toronto and Chicago saw small declines. San Francisco saw a rise of eight points but with other centres declining. this led to a rise from 10th to 5th in the GFCI.

Middle East centres continue to rise in the index. There was significant upheaval in the Middle East and Africa. Dubai, Abu Dhabi and Riyadh all saw improved ratings. Qatar saw a small fall in its rating but climbed in the ranks. The African centres of Johannesburg and Casablanca both saw an improvement in their ratings which led to Johannesburg moving up 12 places to 38th and Casablanca moving up 11 places to 51st.

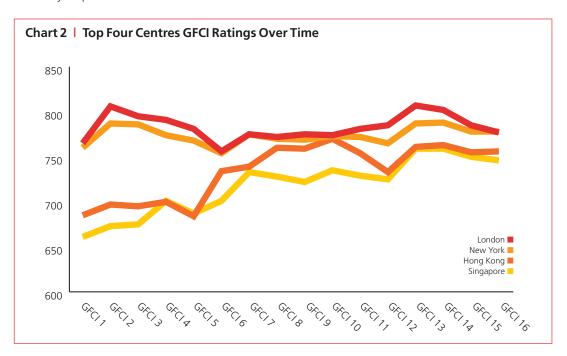
Latin American centres are making slow progress. Both Brazilian centres Sao Paulo and Rio de Janeiro fell very slightly in the ratings, but Mexico and Panama made strong gains with Mexico up 26 places to 44th and Panama up ten to 49th.

Offshore centres continue to struggle with reputation and regulation. Whilst the Offshore centres are well ahead of their position several years ago, all Offshore centres have seen their ratings decline since GFCI 15. In particular the British Crown Dependencies of Jersey, Guernsey and the Isle of Man have dropped significantly in the ranks. The British Overseas Territories (four of these Territories, out of 14 offshore centres, are tracked in the GFCI) have also declined but less severely than the Dependencies.



2014 has seen slightly less volatile assessments for most centres. Average assessments were similar, but the volatility which rose in 2012 and persisted throughout 2013 has diminished slightly.

New York and London remain the top two centres but Hong Kong in third is now only 21 points behind.



In GFCI 16, 33 financial centres climbed in the ranks, 37 centres declined and 13 centres experienced no change. Taipei saw the biggest climb, 28 places to 27th in GFCI 16. Other notable rises include Mexico (up 26 places) and Glasgow (up 24 places).

27 centres experienced a rise in their ratings and 55 saw a decline; Brussels was the only centre whose rating was unchanged. The biggest rate rise was Athens (up 58 points after a 46 point fall in GFCI 15). Wellington saw the biggest decline (down by 72). The full set of GFCI 16 ranks and ratings are shown in Table 1:

Table 1 | GFCI 16 Ranks and Ratings

Centre	GFCI 16 Rank Rating		GF0 Rank	I 15 Rating	CHANGES Rank Rating		
New York	1	778	1	786	-	▼ 8	
London	2	777	2	784	-	▼ 7	
Hong Kong	3	756	3	761	-	▼ 5	
Singapore	4	746	4	751	-	▼ 5	
San Francisco	5	719	10	711	A 5	A 8	
Tokyo	6	718	6	722	-	▼ 4	
Zurich	7	717	5	730	▼ 2	▼ 13	
Seoul	8	715	7	718	▼ 1	▼ 3	
Boston	9	705	8	715	▼ 1	▼ 10	
Washington DC	10	704	13	706	A 3	▼ 2	
Toronto	11	703	14	705	A 3	▼ 2	
Chicago	12	702	15	704	A 3	▼ 2	
Geneva	13	701	9	713	▼ 4	▼ 12	
Vancouver	14	700	17	698	A 3	A 2	
Luxembourg	15	697	12	707	▼ 3	▼ 10	
Frankfurt	16	695	11	709	▼ 5	▼ 14	
Dubai	17	694	29	684	1 2	1 0	
Montreal	18	693	16	699	▼ 2	▼ 6	
Abu Dhabi	19	692	32	678	1 3	1 4	
Shanghai	20	690	20	695	-	▼ 5	
Riyadh	21	685	31	682	1 0	A 3	
Qatar	22	684	26	687	4	▼ 3	
Sydney	23	682	23	690	-	▼ 8	
Melbourne	24	681	37	670	1 3	1 1	
Shenzhen	25	680	18	697	▼ 7	▼ 17	
Calgary	26	678	22	691	▼ 4	▼ 13	
Taipei	27	677	55	636	A 28	4 1	
Busan	28	676	27	686	▼ 1	▼ 10	
Monaco	29	674	24	689	▼ 5	▼ 15	
Vienna	30	673	19	696	▼ 11	2 3	
Paris	31	669	36	672	A 5	▼ 3	
Beijing	32	668	49	649	1 7	1 9	
Osaka	33	667	34	676	1	▼ 9	
Sao Paulo	34	666	38	667	A 4	▼ 1	
Stockholm	35	665	30	683	▼ 5	▼ 18	
Tel Aviv	36	664	21	692	▼ 15	V 28	
Munich	37	663	28	685	▼ 9	V 22	
Johannesburg	38	659	50	647	1 2	1 2	
Amsterdam	39	658	46	652	A 7	A 6	
Buenos Aires	40	657	25	688	▼ 15	▼31	
Kuala Lumpur	41	656	35	675	▼ 6	▼ 19	
Istanbul	42	655	47	651	A 5	A 4	

Table 1 | GFCI 16 Ranks and Ratings continued

Centre	GF0 Rank	CI 16 Rating	GF0 Rank	CI 15 Rating	CHANGES Rank Rating		
Almaty	43	653	58	629	▲ 15		
Mexico City	44	652	70	605	▲ 26	▲ 47	
Rio de Janeiro	45	650	45		-		
Bangkok	45	646	52	653 640		▼ 3 ▲ 6	
	47	639	44	654		▼ 15	
British Virgin Islands Milan	47	638	48	650	▼ 3	▼ 15	
	49	637	59		A 10		
Panama			74	628	▲ 10	A 9	
Glasgow	50	636		590	▲ 24	▲ 46	
Casablanca	51	635	62	622	▲ 11	▲ 13	
Bahrain	52	634	40	660	▼ 12	▼ 26	
Gibraltar	53	633	53	639		▼ 6	
Cayman Islands	54	632	43	655	▼11	▼ 23	
Rome	55	631	54	637	1	▼ 6	
Brussels	56	630	57	630	A 1	-	
Oslo	57	629	33	677	▼24	▼ 48	
Hamilton	58	628	56	631	▼ 2	▼ 3	
Manila	59	627	68	610	A 9	1 7	
Copenhagen	60	626	61	623	A 1	A 3	
Mumbai	61	625	76	584	1 5	4 1	
Jersey	62	624	41	657	▼ 21	▼ 33	
Prague	63	623	75	589	1 2	A 34	
Isle of Man	64	622	51	642	▼ 13	▼ 20	
Edinburgh	65	621	64	620	▼ 1	1	
Jakarta	66	620	69	606	A 3	1 4	
Guernsey	67	619	42	656	▼ 25	▼ 37	
Warsaw	68	612	60	626	▼ 8	▼ 14	
Mauritius	69	608	63	621	▼ 6	▼ 13	
Dublin	70	607	66	616	▼ 4	▼ 9	
Bahamas	71	603	65	618	▼ 6	▼ 15	
St Petersburg	72	600	78	543	A 6	▲ 57	
Wellington	73	594	39	666	▼34	▼ 72	
Madrid	74	585	71	604	▼ 3	▼ 19	
Helsinki	75	582	72	592	▼ 3	▼ 10	
Malta	76	581	67	614	▼ 9	▼ 33	
Budapest	77	566	77	560	-	A 6	
Lisbon	78	555	80	536	A 2	1 9	
Cyprus	79	540	79	541	-	▼ 1	
Moscow	80	536	73	591	▼ 7	▼ 55	
Tallinn	81	498	81	510	-	▼ 12	
Athens	82	481	83	423	A 1	▲ 58	
Reykjavik	83	465	82	505	▼ 1	▼ 40	

The following centres are included within the GFCI questionnaire but have yet to acquire the 200 assessments necessary to be included in the GFCI:

Table 2 | Centres awaiting inclusion in the GFCI

Centre	Assessments to date
Guangzhou	133
New Delhi	129
Tianjin	110
Dalian	109
Liechtenstein	106
Baku	79
Nairobi	70
Los Angeles	68
Riga	68
Santiago	58
Sofia	37
Trinidad and Tobago	23
Bratislava	21



Areas of Competitiveness

The GFCI questionnaire asks respondents to indicate which factors for competitiveness they consider the most important. The number of times that each area is mentioned is summarised in Table 3:

Table 3 | Main Areas of Competitiveness

Area of Competitiveness	Number of Mentions	Main Issues
Business environment	232	Rule of law and Corruption are mentioned even more frequently than in the past. The danger of over-regulation and ineffective regulation is seen as a real danger.
Human Capital	212	Availability of skilled staff is regaining importance as skilled people become scarcer. Some centres will suffer from an ageing population within the next decade or so.
Taxation	204	A balanced approach is needed and stability is important. So called 'tax havens' will find life harder in future.
Infrastructure	201	Long distance transport routes (i.e. air and sea) are particularly important as well as ICT speed and reliability.
Reputation	169	Rising in importance but often neglected.
Financial Sector Development	162	Seen as less important by some and taken for granted by others.

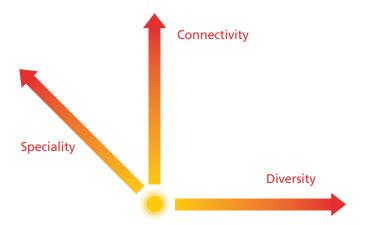
The GFCI questionnaire asks respondents which centres they consider are likely to become more significant in the next few years. Five of the top ten are in the Asia-Pacific region. However, Casablanca a recent addition to the GFCI received the most mentions since GFCI 15:

Table 4 | The Ten Centres Likely to Become More Significant

Centres Likely to Become More Significant	Mentions to date
Casablanca	46
Shanghai	32
Singapore	28
Hong Kong	22
Luxembourg	22
Dalian	14
Beijing	11
Gibraltar	10
Dubai	10
Abu Dhabi	9

Financial Centre Profiles

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



'Connectivity' – the extent to which a centre is well known around the world, and how much non-resident professionals believe it is connected to other financial centres. Respondents are asked to assess only those centres with which they are personally familiar. 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 70% of other centres, this centre is deemed to be 'Global'. If the ratings are provided by over 55% of other centres, this centre is deemed to be 'Transnational'.

'Diversity' – the breadth of financial industry sectors that flourish in a financial centre. We consider this sector 'richness' to be measurable in a similar way to that of the natural environment and therefore, use a combination of biodiversity indices (calculated on the instrumental factors) to assess a centre's diversity. 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 government and regulatory. A centre's 'speciality' performance is calculated from the difference between the GFCI rating and the industry sector ratings.

In Table 5 below, 'Diversity' (Breadth) and 'Speciality' (Depth) are combined on one axis to create a two dimensional table of financial centre profiles. The 83 centres 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:



Table 5 | GFCI 16 Financial Centre Profiles

	Broad & deep	Relatively broad	Relatively deep	Emerging
	Global Leaders	Global Diversified	Global Specialists	Global Contenders
	Amsterdam	Brussels	Beijing	
	Boston	Dublin	Dubai	
	Frankfurt	Milan	Geneva	
	Hong Kong	Moscow	Luxembourg	
	London			
Global	New York			
	Paris			
	Seoul			
	Singapore			
	Tokyo			
	Toronto			
	Zurich			
	Established Transnational	Transnational Diversified	Transnational Specialists	Transnational Contenders
	Chicago	Istanbul	Abu Dhabi	Copenhagen
	Madrid	Kuala Lumpur	Almaty	Edinburgh
	Montreal	Prague	Casablanca	Jakarta
Transpational	Munich	Rome	Cayman Islands	
Transnational	San Francisco		Gibraltar	
	Shanghai		Isle of Man	
	Sydney		Jersey	
	Vancouver		Monaco	
	Vienna		Qatar	
	Washington DC		Shenzhen	
	Established Players	Local Diversified	Local Specialists	Evolving Centres
	Busan	Budapest	Bahamas	Athens
	Johannesburg	Lisbon	Bahrain	Bangkok
	Melbourne	Mexico City	British Virgin Islands	Cyprus
	Sao Paulo	Osaka	Buenos Aires	Glasgow
	Stockholm	Warsaw	Calgary	Hamilton
			Guernsey	Helsinki
			Mauritius	Malta
Local			Panama	Manila
			Riyadh	Mumbai
			Taipei	Oslo
				Reykjavik
				Rio de Janeiro
				St Petersburg
				Tallinn
				Tel Aviv
				Wellington

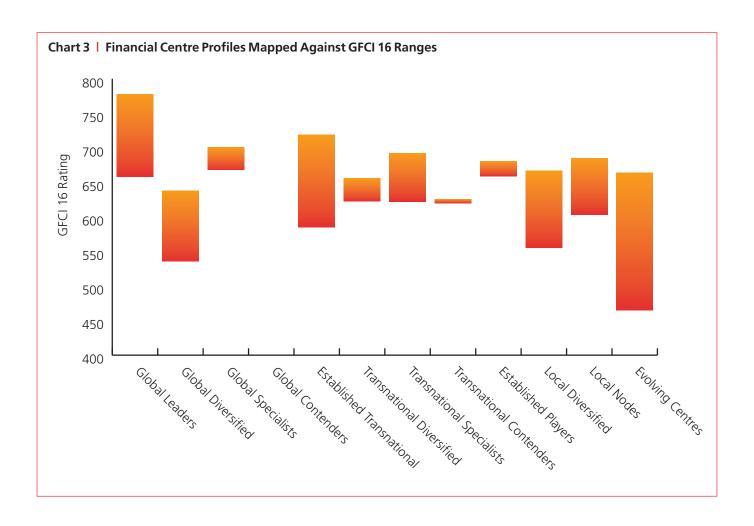
The 12 Global Leaders (in the top left of the table) have both broad and deep financial services activities and are connected with many other financial centres. This list includes London, New York, Hong Kong and Singapore, the top four global financial centres. A number of centres have moved profile since GFCI 15 including:

- Seoul has become a Global Leader having been a Global Diversified centre previously;
- Shanghai has become an Established Transnational centre having been a Transnational Diversified centre:
- Madrid has become an Established Transnational centre having been a Global Diversified centre.

The Chart 3 below shows the profiles mapped against the range of GFCI 16 ratings:

"Great to see New York and London retaining their places as global leaders but Asia seems to continue to challenge."

Investment Bank Director based in New York



Western Europe

Table 6 shows the Western European financial centres in GFCI 16. The leading centres in Europe are London, Zurich and Geneva as in GFCI 15 although all three saw a drop in their ratings. Of the 23 Western European centres, 17 dropped in the ratings and as a result 15 fell in the ranks.

Of the few centres that saw a rise, Glasgow saw a very strong improvement moving up by 46 points. This is, in part, a correction from a large decline during the past two years' movements and is likely to be an effect of increased publicity due to the recent Commonwealth Games and the upcoming Scottish independence referendum. Other centres that improved in the ranks are Paris (up five places to 31st), Amsterdam (up seven places to 39th), Brussels (up one place to 56th) and Lisbon (up two places to 78th). Four Western European Centres appear in the GFCI top 15.

Table 6 | Top 20 Western European Centres in GFCI 16

	GFCI 16 rank	GFCI 16 rating	GFCI 15 rank	GFCI 15 rating	Change in rank	Change in rating
London	2	777	2	784	-	▼ 7
Zurich	7	717	5	730	▼ 2	▼ 13
Geneva	13	701	9	713	▼ 4	▼ 12
Luxembourg	15	697	12	707	▼ 3	▼ 10
Frankfurt	16	695	11	709	▼ 5	▼ 14
Monaco	29	674	24	689	▼ 5	▼ 15
Vienna	30	673	19	696	▼ 11	▼ 23
Paris	31	669	36	672	A 5	▼ 3
Stockholm	35	665	30	683	▼ 5	▼ 18
Munich	37	663	28	685	▼ 9	▼ 22
Amsterdam	39	658	46	652	A 7	A 6
Milan	48	638	48	650	-	▼ 12
Glasgow	50	636	74	590	▲ 24	4 6
Rome	55	631	54	637	▼ 1	▼ 6
Brussels	56	630	57	630	A 1	-
Oslo	57	629	33	677	▼ 24	▼ 48
Copenhagen	60	626	61	623	A 1	A 3
Edinburgh	65	621	64	620	▼ 1	A 1
Dublin	70	607	66	616	▼ 4	▼ 9
Madrid	74	585	71	604	▼ 3	▼ 19
Helsinki	75	582	72	592	▼ 3	▼ 10
Lisbon	78	555	80	536	A 2	1 9
Reykjavik	83	465	82	505	▼ 1	▼ 40

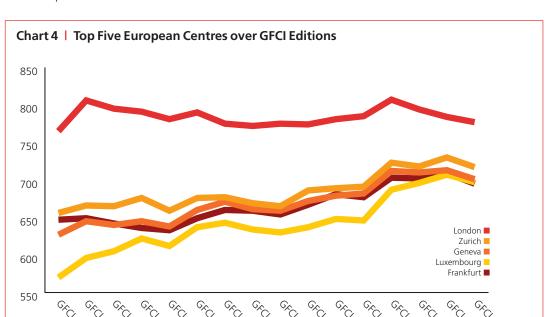
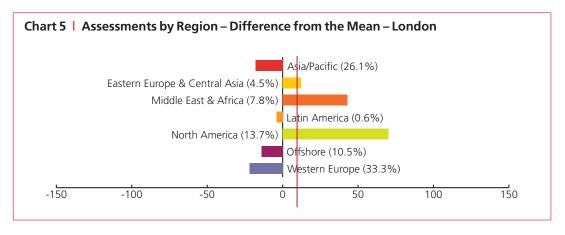
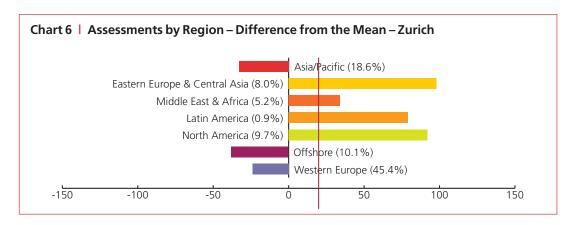


Chart 4 below shows that the Top Five European centres have shown a decline in their competitiveness since GFCI 15:

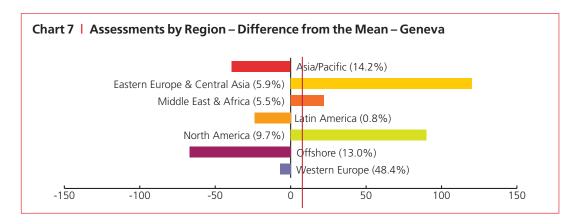
Examining the assessments given to each major centre is a useful means of assessing the relative strength and weakness of their reputations in different regions. It is important to note that assessments given to a centre by people based in that centre are excluded from the GFCI model to eliminate 'home preference'. The charts below show the difference between the overall mean and the mean of assessments by region. The additional vertical line shows the mean when assessments from the home region are removed:



London's overall average assessment (foreign assessments only) is 829, down from 836 in GFCI 15. Respondents from the Asia/Pacific region and Western Europe are the least favourable to London, while North Americans are by far the most favourable.



Zurich's overall average assessment is 764 up from 758 in GFCI 15. European respondents represent the largest respondent group by far and are less favourable than the mean. Respondents from North and Latin America, Eastern Europe and Central Asia are all significantly more favourable to Zurich than the mean.



Geneva's overall average assessment is 741, up slightly from 739 in GFCI 15. Western Europeans are the largest regional group of respondents (48% of the total) and their assessments are slightly less favourable than the average. North American and Eastern European respondents are the most favourably disposed to Geneva.

"I split my time between Zurich and London.

Despite all the recent troubles London is still a
great place to operate a business from."

Fund Manager based in London

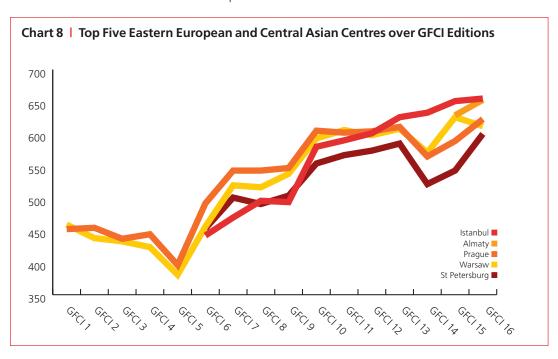
Eastern Europe and Central Asia

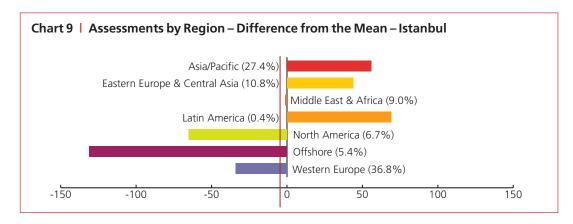
Table 7 shows the Eastern European and Central Asian financial centres in GFCI 16. The leading centre in this region is Istanbul. The top three centres all saw a climb in their ranks and ratings. St Petersburg and Athens both show significant recovery from recent losses both improving their ratings by over 50 points. Warsaw, Moscow and Tallinn were the only centres in the region to see a fall in their ratings. There are no centres in this region within the GFCI top 40.

Table 7 | Eastern European and Central Asian Centres in GFCI 16

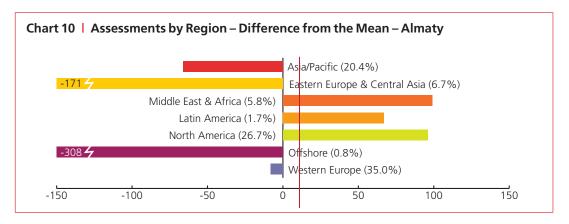
	GFCI 16 rank	GFCI 16 rating	GFCI 15 rank	GFCI 15 rating	Change in rank	Change in rating
Istanbul	42	655	47	651	A 5	A 4
Almaty	43	653	58	629	1 5	A 24
Prague	63	623	75	589	1 2	▲ 34
Warsaw	68	612	60	626	▼ 8	▼ 14
St Petersburg	72	600	78	543	A 6	▲ 57
Budapest	77	566	77	560	-	A 6
Moscow	80	536	73	591	▼ 7	▼ 55
Tallinn	81	498	81	510	-	▼ 12
Athens	82	481	83	423	A 1	\$ 58

Chart 8 below shows that the Top Five Eastern European and Central Asian centres have shown a decline in their competitiveness since GFCI 15:

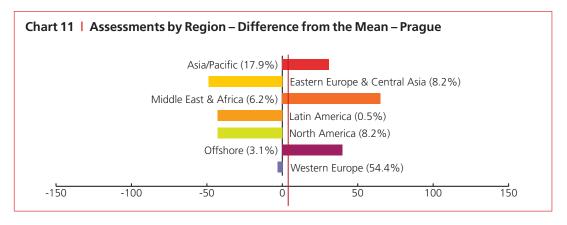




Istanbul's overall average assessment is 631, the same as in GFCI 15. Western European and North American respondents are less favourable than the mean. Respondents from Asia/Pacific and Eastern Europe and Central Asia are significantly more favourable to Istanbul than the mean.



Almaty's overall average assessment is 653 up from 629 in GFCI 15. Western European respondents and those from Asia/Pacific are less favourable than the mean. Respondents from the Americas and the Middle East and Africa are more favourable to Almaty than the mean.



Prague's overall average assessment is 543 up from 503 in GFCI 15. Western European respondents and those from Asia/Pacific are less favourable than the mean. Respondents from the Americas and the Middle East and Africa are more favourable to Almaty than the mean.

Asia/Pacific

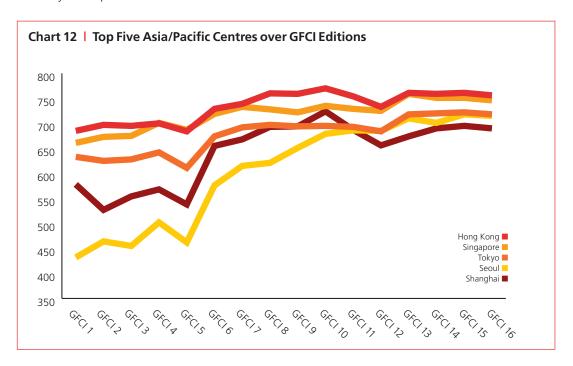
The top Asia/Pacific financial centres have seen their ratings decline in GFCI 16. Hong Kong, Singapore, Tokyo and Seoul remain in the GFCI Top 10 with Seoul slipping one place to 8th whilst the other top centres in the region retained their ranks.

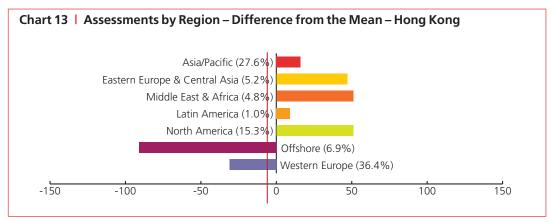
Table 8 | Asia/Pacific Centres in GFCI 16

	GFCI 16 rank	GFCI 16 rating	GFCI 15 rank	GFCI 15 rating	Change in rank	Change in rating
Hong Kong	3	756	3	761	-	▼ 5
Singapore	4	746	4	751	-	▼ 5
Tokyo	6	718	6	722	-	▼ 4
Seoul	8	715	7	718	▼ 1	▼ 3
Shanghai	20	690	20	695	-	▼ 5
Sydney	23	682	23	690	-	▼ 8
Melbourne	24	681	37	670	1 3	A 11
Shenzhen	25	680	18	697	▼ 7	▼ 17
Taipei	27	677	55	636	▲ 28	A 41
Busan	28	676	27	686	▼ 1	▼ 10
Beijing	32	668	49	649	▲ 17	1 9
Osaka	33	667	34	676	A 1	▼ 9
Kuala Lumpur	41	656	35	675	▼ 6	▼ 19
Bangkok	46	646	52	640	A 6	A 6
Manila	59	627	68	610	A 9	1 7
Mumbai	61	625	76	584	▲ 15	A 41
Jakarta	66	620	69	606	A 3	1 4
Wellington	73	594	39	666	▼ 34	▼ 72

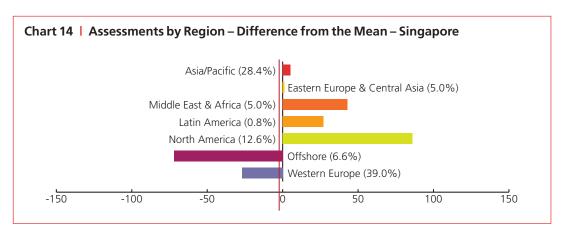
Taipei and Mumbai both increased their ratings by 41 points in GFCI 16, reversing recent falls. The top six Asia/Pacific centres all saw small reductions in their ratings. Eight of the lower ranked centres moved up in the ranks with Taipei climbing 28 places and Beijing climbing 17 places. Four Asia/Pacific centres are in the GFCI top eight.

Chart 12 below shows a stable performance for Asia/Pacific centres over the past four years. Seoul continues its long term positive trend and is now almost level with Tokyo. The graph shows a rapid but turbulent rise in these centres from 2007 (GFCI 1) to 2009 (GFCI 6) followed by a period of relatively stable performance which continues in 2014.

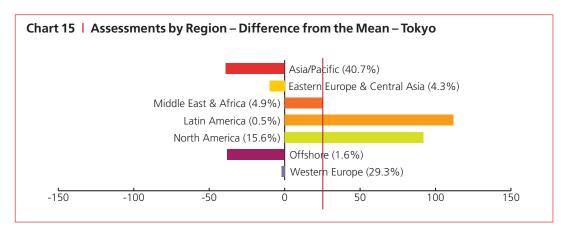




Hong Kong has an average assessment of 827 up from 820 in GFCI 15. Its ex-regional average is 814. North Americans gave the most favourable assessments. Western Europeans, the largest group of respondents, were less positive.



Singapore's average assessment is 830, up from 821 in GFCI 15. North Americans' ratings were by far the most favourable; Western European responses, the largest group of respondents gave lower than average assessments.



Tokyo is the third highest centre in Asia/Pacific and has an average assessment of 788, up from 788 in GFCI 15. Asia/Pacific and Europe, respectively the first and second largest groups of respondents gave slightly lower than average assessments for Tokyo.

"There seems to be a lot more business going on in Tokyo at the moment. Is Japan finally waking up?"

Asset Manager based in Hong Kong

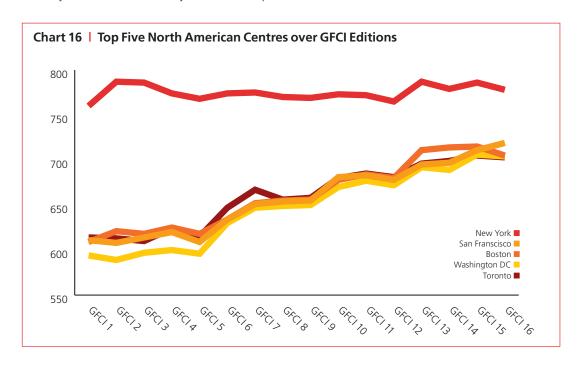
North America

New York suffered a small loss in ratings but retains its position as the top global centre just one point ahead of London. This single point difference is statistically insignificant on a scale of 1,000. San Francisco entered GFCI's top five for the first time with an increase of eight points. Boston lost a single place to 9th, but Washington DC, Toronto, Chicago and Vancouver all gained three places in the rankings. Eight North American financial centres are within the top 20 GFCI ranks.

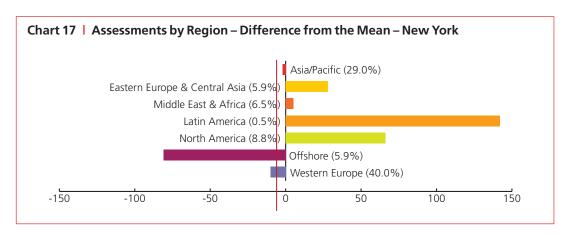
Table 9 | North American Centres in GFCI 16

	GFCI 16 rank	GFCI 16 rating	GFCI 15 rank	GFCI 15 rating	Change in rank	Change in rating
New York	1	778	1	786	-	▼ 8
San Francisco	5	719	10	711	A 5	A 8
Boston	9	705	8	715	▼ 1	▼ 10
Washington DC	10	704	13	706	A 3	▼ 2
Toronto	11	703	14	705	A 3	▼ 2
Chicago	12	702	15	704	A 3	▼ 2
Vancouver	14	700	17	698	A 3	A 2
Montreal	18	693	16	699	▼ 2	▼ 6
Calgary	26	678	22	691	▼ 4	▼ 13

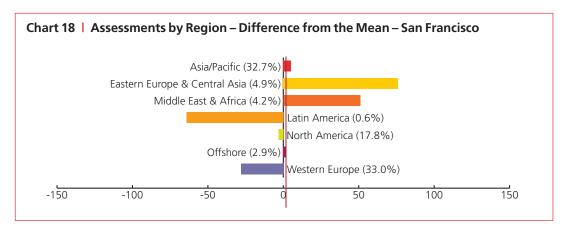
Chart 16 below shows leading American centres' performance declining since GFCI 15. New York is still well ahead of the rest although San Francisco closed the gap by 16 points in GFCI 16. Boston and Calgary are the only centres that decline by more than 10 points in GFCI 16.



The difference between regional assessments for the leading North American centres is shown below:

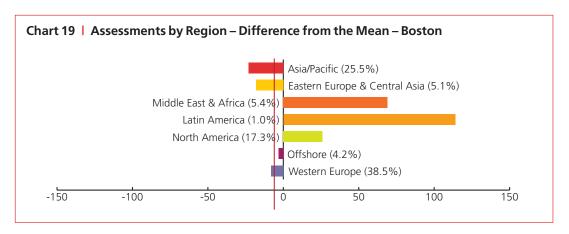


New York's overall average assessment is 841, up from 839 in GFCI 15. Respondents from the Americas were favourable in their ratings. Offshore centre respondents were by far the least favourable to New York.



San Francisco has a global average score of 764, up from 749. Unlike New York, North American respondents are less favourable than the mean to San Francisco. Assessments from Western Europe are also lower than the mean. In contrast Asian respondents are more favourable than the mean to San Francisco.





Boston's overall average assessment is 770 down from 783 in GFCI 15. Respondents from the Americas and the Middle East & Africa were most positive in their ratings.

"We are doing far more business with San Francisco this year – business seems quite easy over there."

Investment Banker based in New York



Latin America

Sao Paulo (34th place) is now the top Latin American centre in GFCI 16 following a significant drop of 15 places by Buenos Aires from 25th to 40th. Rio de Janeiro stays in 45th place.

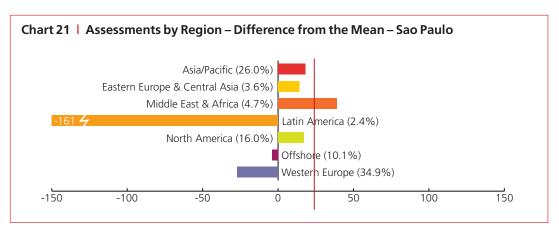
Table 10 | Latin American Centres

	GFCI 16 rank	GFCI 16 rating	GFCI 15 rank	GFCI 15 rating	Change in rank	Change in rating
Sao Paulo	34	666	38	667	4	▼ 1
Buenos Aires	40	657	25	688	▼ 15	▼ 31
Mexico City	44	652	70	605	A 26	4 7
Rio de Janeiro	45	650	45	653	-	▼ 3
Panama	49	637	59	628	1 0	A 9

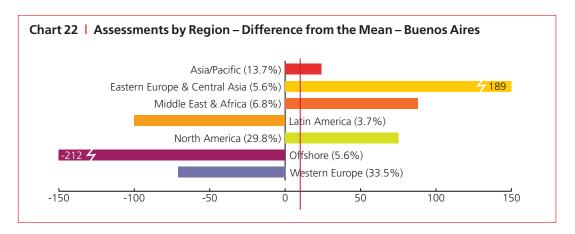
Chart 20 below shows the Latin American centres' performance since they joined the index.



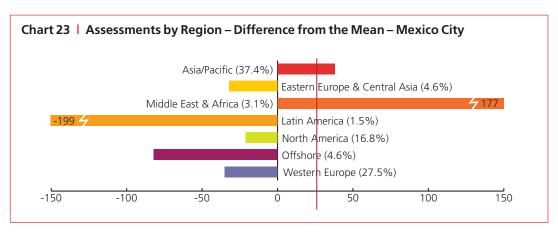
The difference between regional assessments for the top three Latin American centres is shown below. Sao Paulo entered the index in 2007, and apart from a sharp drop during the global financial crisis, has made steady progress since. Other Latin American centres have joined the index more recently and generally made good progress as a result of the growth of their national economies.



Sao Paulo has a global average score of 686, up from 660. North American respondents and those from Asia/Pacific are more positive in their assessments than the mean. Respondents from Western Europe give average assessments significantly lower than the mean.



Buenos Aires has a global average score of 667, up from 650. North American respondents and those from Asia/Pacific are more positive in their assessments than the mean. Respondents from Western Europe, Latin America and the Offshore centres give average assessments significantly lower than the mean.



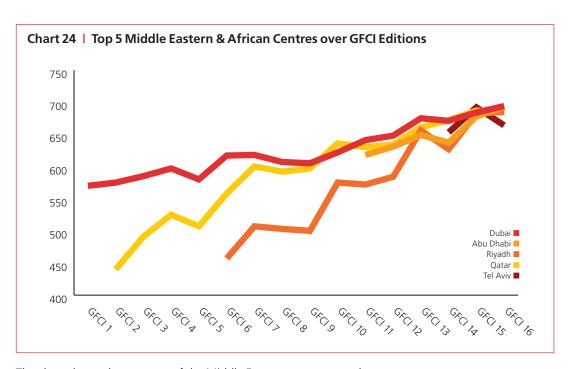
Mexico City has a global average score of 598, up from 531. Respondents from the Middle East and Central Asia are more positive in their assessments than the mean. Respondents from all other regions give average assessments lower than the mean.

The Middle East and Africa

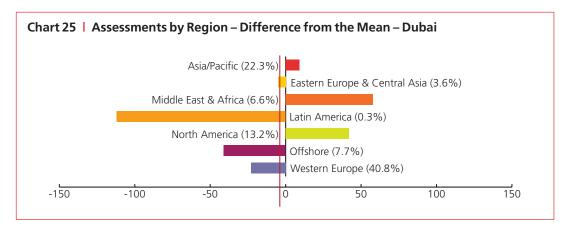
The biggest gains in this competitive region were seen by Abu Dhabi although six of the eight centres in this region went up in the rankings. Dubai has re-taken the top place in the Middle East although the top four centres are within an insignificant ten points of each other. Tel Aviv saw the largest decline (down 28 points and 15 places) and Manama also fell sharply. Casablanca and Johannesburg, the two African centres in the GFCI, both did very well, climbing 11 and 12 places respectively.

Table 11 | The Middle Eastern and African Centres in GFCI 16

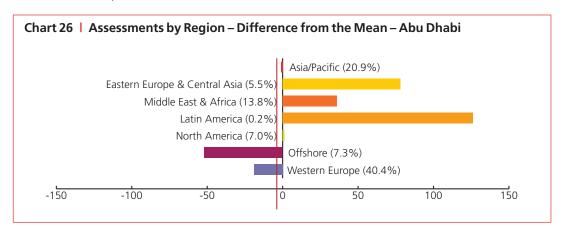
	GFCI 16 rank	GFCI 16 rating	GFCI 15 rank	GFCI 15 rating	Change in rank	Change in rating
Dubai	17	694	29	684	▲ 12	1 0
Abu Dhabi	19	692	32	678	1 3	1 4
Riyadh	21	685	31	682	1 0	A 3
Qatar	22	684	26	687	A 4	▼ 3
Tel Aviv	36	664	21	692	▼ 15	▼ 28
Johannesburg	38	659	50	647	1 2	1 2
Casablanca	51	635	62	622	▲ 11	▲ 13
Manama	52	634	40	660	▼ 12	▼ 26



The chart shows the progress of the Middle Eastern centres over the past seven years. Qatar in particular has made steady but rapid progress from being 135 points behind Dubai to within ten points now.



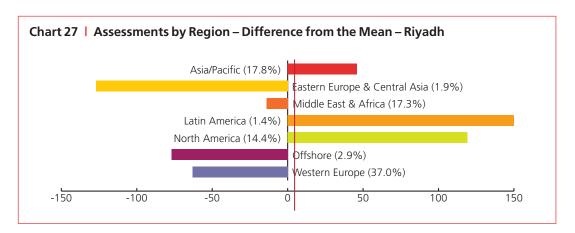
Dubai's global average assessment is 712, up from 705 in GFCI 15. Respondents from Western Europe gave below average assessments. North American and Middle Eastern respondents were the most positive about Dubai's competitiveness.



Abu Dhabi's average global assessment is 674, up significantly from 637 in GFCI 15. Western Europe and Asia/Pacific gave below average assessments.

"I am a New Yorker but enjoy being here. Such a rapidly growing and changing city provides great opportunities."

Commercial Banker based in Dubai



Riyadh's overall average assessment is 627 up from 610 in GFCI 15. North American, Latin American and Middle Eastern respondents were the most positive about Riyad's competitiveness. Europe, the largest respondent group is much less favourable than the mean.



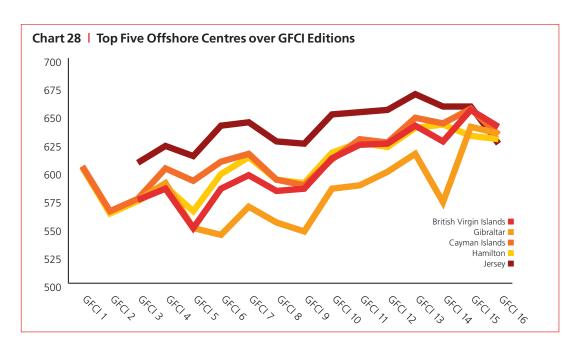
Offshore Centres

All Offshore centres have seen their ratings decline since GFCI 15. In particular the British Crown Dependencies, Jersey, Guernsey and the Isle of Man have dropped significantly in the ranks. The British Overseas Territories (we track four of the 14 in the GFCI) have also declined but less severely than the Dependencies.

The reason for the declines is that finance professionals have given the offshore centres significantly lower ratings rather than fundamental changes measured by the instrumental factors. Jersey's, average assessment in GFCI 16 is 633 (down from 666 in GFCI 15), the mean for the Isle of Man is 581 (down from 604) and the mean for Guernsey is 619 (down from 644).

Table 12 | The Offshore Centres in GFCI 16

	GFCI 16 rank	GFCI 16 rating	GFCI 15 rank	GFCI 15 rating	Change in rank	Change in rating
British Virgin Islands	47	639	44	654	▼ 3	▼ 15
Gibraltar	53	633	53	639	-	▼ 6
Cayman Islands	54	632	43	655	▼ 11	▼ 23
Hamilton	58	628	56	631	▼ 2	▼ 3
Jersey	62	624	41	657	▼ 21	▼ 33
Isle of Man	64	622	51	642	▼ 13	▼ 20
Guernsey	67	619	42	656	▼ 25	▼ 37
Mauritius	69	608	63	621	▼ 6	▼ 13
Bahamas	71	603	65	618	▼ 6	▼ 15
Malta	76	581	67	614	▼ 9	▼ 33
Cyprus	79	540	79	541	-	▼ 1



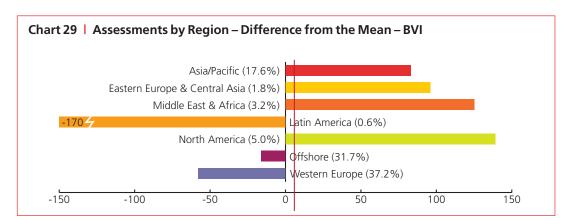
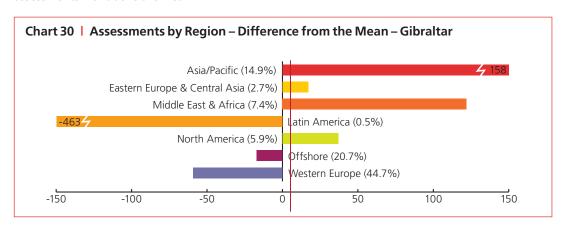
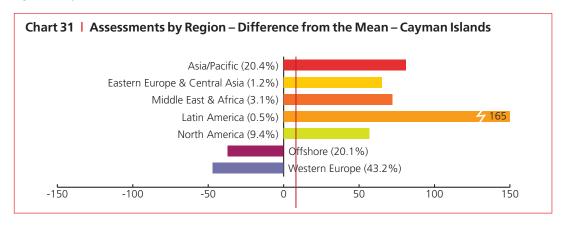


Chart 29 shows the overall decline of the offshore centres since GFCI 15.

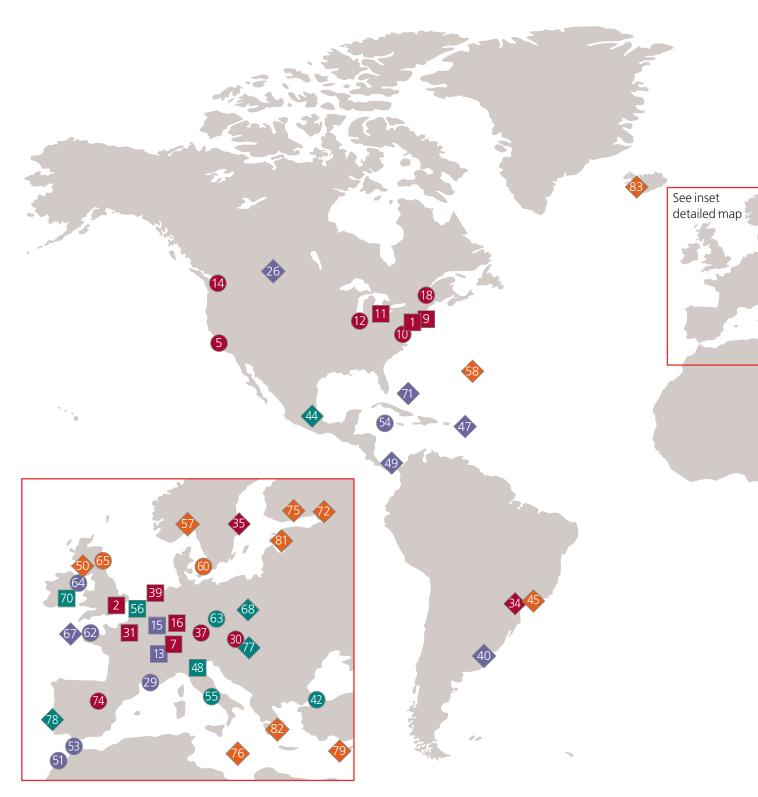
The global average assessment for the BVI is 620, one point down from 621 in GFCI 15. Western Europe and other offshore centres gave assessments well below the mean whilst most other regions gave assessments well above the mean.



Gibraltar is now the second highest ranked of the offshore centres with an average assessment of 563. Asia/Pacific, Middle Eastern and North American respondents gave assessments higher than the mean. Nearly half of Gibraltar's assessments came from Western Europe and these were significantly lower than the mean.



The global average assessment for the Cayman Islands is 635, up a little from 624 in GFCI 15. Assessments from other Offshore respondents and from Western Europe were well below the mean whilst respondents from all other areas were better than the overall mean.



Industry Sectors

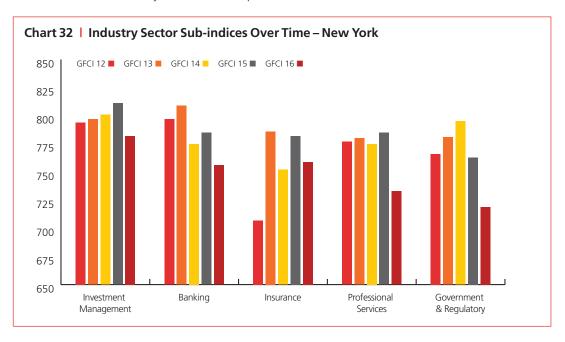
Industry sector sub-indices are created by building the GFCI statistical model using only the questionnaire responses from respondents working in the relevant industry sectors. The GFCI 16 dataset has been used to produce separate sub-indices for the Investment Management, Banking, Government & Regulatory, Insurance and Professional Services sectors.

Table 13 below shows the Top Ten ranked financial centres in the industry sector sub-indices:

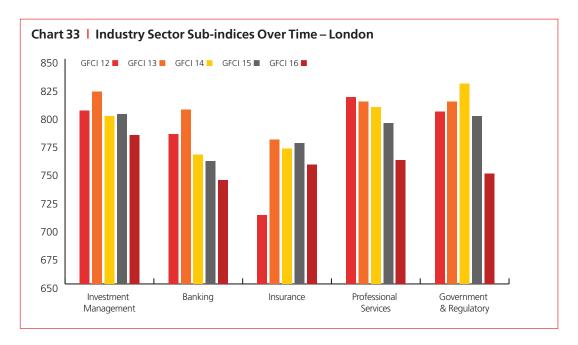
Table 13	GFCI 16 In	dustry Sector	Sub-Indices	Top Ten
----------	------------	---------------	-------------	---------

Rank	Investment Management	Banking	Government & regulatory	Insurance	Professional services
1	New York (-)	New York (-)	London (-)	New York (-)	London (-)
2	London (+1)	London (+1)	New York (-)	London (-)	New York (-)
3	Hong Kong (-)	Hong Kong (-1)	Hong Kong (-)	Busan (New)	Hong Kong (-)
4	Singapore (-)	Singapore (-)	Zurich (-)	Singapore (-1)	Singapore (-)
5	Tokyo (-)	Seoul (-)	Singapore (-)	Hong Kong (-1)	Zurich (-)
5	Zurich (+1)	Tokyo (+1)	Frankfurt (+3)	Seoul (-1)	Frankfurt (+7)
7	Boston (-1)	Shanghai (+1)	Tokyo (-)	Zurich (-1)	Geneva (-)
8	Frankfurt (+8)	Zurich (-2)	Geneva (-2)	Tokyo (+2)	Boston (+3)
9	Geneva (-)	Frankfurt (+7)	Toronto (+1)	Chicago (-2)	Toronto (-)
10	Toronto (-2)	Dubai (+5)	Seoul (-2)	Shanghai (+14)	Dubai (+10)

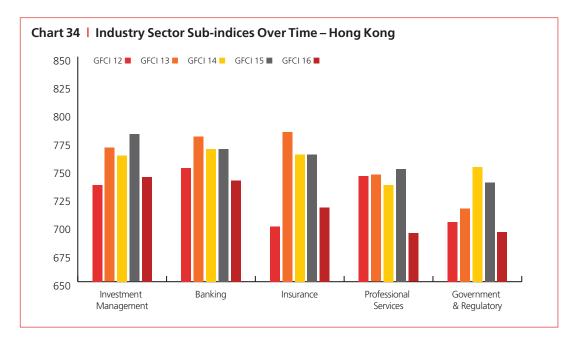
The GFCI 16 top four centres make it into the top five of all industry sector sub-indices. The graphs below show how the GFCI 16 Top Five centres fared in the various industry sectors over the past five GFCI editions:



New York's performance in all industry sectors is down in GFCI 16. Prior to this, New York saw an upward trend in Investment Management and Insurance but a downward trend in Banking. New York remains top of three of the industry sub-indices but second to London in the Professional Services and Government & Regulatory sectors.

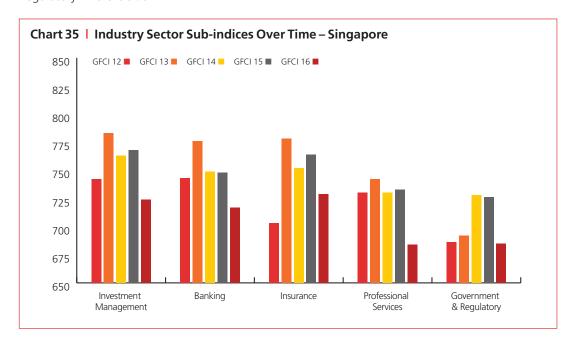


London's average ratings have decreased across all sectors. London is now second to New York in three of the sub-indices.



Hong Kong has been trending upwards in all sectors but again saw a decline in GFCI 16. The city is rated most strongly in Investment Management and Banking. Hong Kong is 3rd in four of the industry subindices but is 5th in Insurance.

Singapore's ratings in the sub-indices show a decline in Investment Management, Banking and Insurance. Singapore is 4th in the GFCI overall and 4th in all the industry sub-indices except in Government and Regulatory where it is 5th.



"Many of the accountants based here were trained in London or New York – we seem to have a steady stream of highly qualified people looking to move over here."

Managing Partner of Accountancy Practice based in Hong Kong



Five Areas of Competitiveness

The instrumental factors used in the GFCI model are grouped into five key areas of competitiveness (Business Environment, Financial Sector Development, Infrastructure, Human Capital and Reputational and General Factors). To assess how financial centres perform in each of these areas, the GFCI 16 factor assessment model is run with only one of the five groups of instrumental factors at a time.

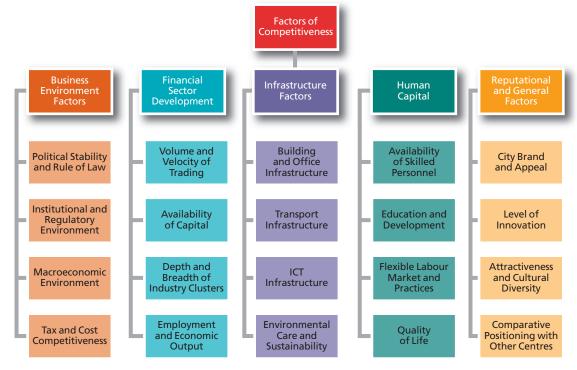


Table 14 shows the top ten ranked centres in each sub-index:

Table 14 | GFCI 16 Area of Competitiveness Sub-indices – Top Ten

Rank	Business environment	Financial sector development	Infrastructure	Human capital	Reputational and general
1	New York (-)	New York (-)	New York (-)	New York (-)	New York (-)
2	London (-)	London (-)	London (-)	London (-)	London (-)
3	Hong Kong (-)	Hong Kong (-)	Hong Kong (-)	Hong Kong (-)	Hong Kong (-)
4	Singapore (-)	Singapore (-)	Singapore (-)	Singapore (-)	Singapore (-)
5	San Francisco (+5)	Tokyo (-)	Tokyo (-)	Tokyo (-)	San Francisco (+3)
6	Tokyo (-)	Zurich (+1)	Seoul (+1)	Chicago (+1)	Chicago (+6)
7	Zurich (-2)	Seoul (+5)	Zurich (-1)	Washington DC (+3)	Tokyo (-2)
8	Seoul (-)	Chicago (-1)	Shanghai (+8)	Zurich (-2)	Zurich (-3)
9	Washington DC (+4)	San Francisco (+1)	Sydney (+3)	Seoul (-)	Boston (-2)
10	Chicago (+3)	Boston (-3)	Washington DC (-)	San Francisco (+2)	Seoul (+1)

Size of Organisation

It is useful to look at how the leading centres are viewed by respondents working for different sizes of organisation.

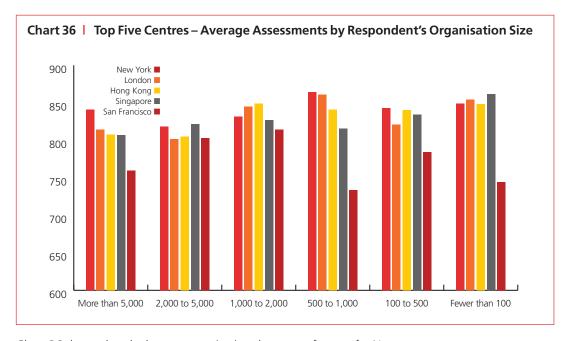


Chart 36 shows that the largest organisations have a preference for New York and London. Hong Kong is favoured by medium enterprises. Singapore, New York and London also score highly among smaller organisations.

"Singapore remains a great place for smaller consulting and professional services firms."

Partner of small consulting practice based in Singapore

Reputation

In the GFCI model, we look at reputation by examining the difference between the weighted average assessment given to a centre and its overall rating. The first measure reflects the average score a centre receives from financial professionals across the world, adjusted for time with more recent assessments having more weight (see Appendix 3 for details). The second measure is the GFCI score itself, which represents the average assessment adjusted to reflect the instrumental factors.

If a centre has a higher average assessment than its GFCI 16 rating this indicates that respondents' perceptions of a centre are more favourable than the quantitative measures alone would suggest. This may be due to strong marketing or general awareness. Table 15 below shows the 20 centres with the greatest positive difference between average assessment and the GFCI rating:

Table 15 | GFCI 16 Top Ten Centres Assessments & Ratings – Reputational Advantage

Centre – Top Ten	Average assessment	GFCI 16 rating	Reputational advantage
Casablanca	803	635	168
Wellington	751	594	157
Busan	825	676	149
Seoul	798	715	83
Singapore	814	746	68
Sydney	750	682	68
Hong Kong	815	756	59
New York	832	778	54
San Francisco	767	719	48
Tokyo	766	718	48

Of the top four financial centres in the GFCI, only London is outside the top ten for reputational advantage. The top seven centres for reputational advantage in GFCI 16 are all Asia/Pacific centres with the single exception of Casablanca. New York is in 8th place just ahead of San Francisco and Tokyo. No European centres are in the Top Ten.

Table 16 below shows the ten centres with the greatest reputational disadvantage – an indication that respondents' perceptions of a centre are less favourable than the quantitative measures alone would suggest:

Table 16 | GFCI 16 Bottom 10 Centres Assessments and Ratings – Reputational Advantage

Centre – Bottom Ten	Average assessment	GFCI 16 rating	Reputational advantage
Copenhagen	570	626	-56
Stockholm	604	665	-61
Gibraltar	571	633	-62
Buenos Aires	592	657	-65
Monaco	606	674	-68
Athens	401	481	-80
Rome	548	631	-83
Glasgow	548	636	-88
Riyadh	572	685	-113
St Petersburg	480	600	-120

Athens, Rome, Riyadh and St Petersburg suffer from strong reputational disadvantages. Glasgow's reputation, by this measure, is also well down from GFCI 15.

"Your measure of reputation does a good job at picking out the villains - Russia still has a bad name and Reykjavik and Riyadh are on the list."

Investment Banker based in London



Stability

The GFCI 16 model allows for analysis of the financial centres with the most volatile competitiveness. Chart 37 below 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:

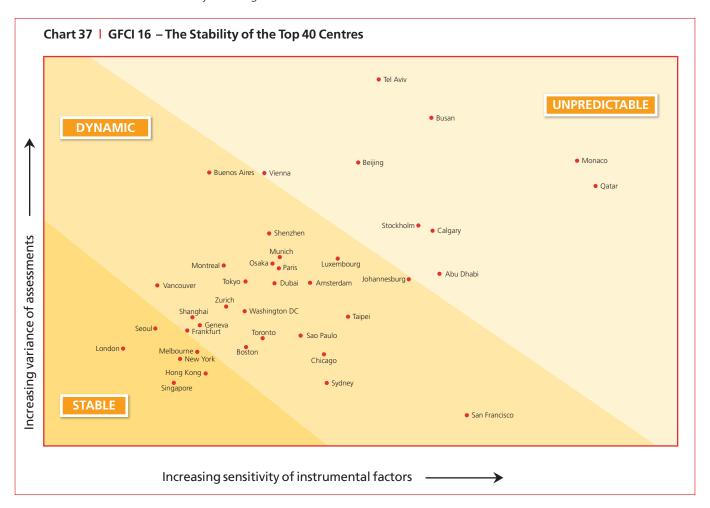


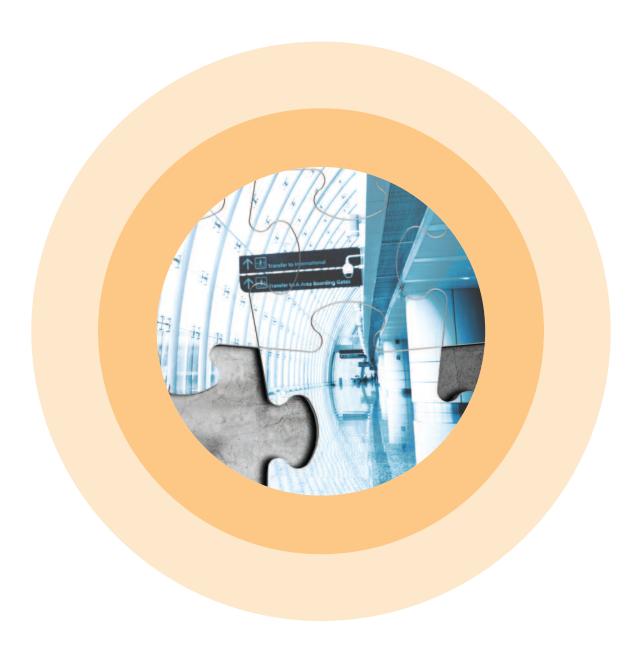
Chart 37 shows three bands of financial centres. The 'unpredictable' centres in the top right of the chart have a high sensitivity to changes in the instrumental factors and a high variance of assessments. These centres have the highest potential volatility of the top GFCI centres.

The 'stable' centres in the bottom left of the chart (including the top four centres) have a relatively low sensitivity to changes in the instrumental factors and a low variance of assessments. These centres are likely to exhibit the lowest volatility in future GFCI ratings. Looking back at recent GFCI ratings, the stable centres are fairly consistently towards the top of the GFCI ratings.

The chart only shows the top 40 centres in the GFCI but several of the largest movers in the index (e.g. Glasgow and Almaty) have been and remain unpredictable. Tel Aviv, Busan and Abu Dhabi are all still fairly volatile and are in the unpredictable zone. San Francisco, the largest climber of the leading centres has moved to the right of the diagram indicating that it is becoming more volatile. It will be interesting to track the progress of San Francisco in GFCI 17.

"The top centres seem very stable and resilient to changes – it seems that London and New York will never be overtaken."

Investment Banker based in Frankfurt



Appendix 1: Assessment Details

Table 17 | Details of Assessments by Centre

Centre	GFCI 16 Rating	Number of assessments	Total Average assessment	Standard deviation of assessments
New York	778	1,284	841	174
London	777	1,344	829	176
Hong Kong	756	1,067	827	167
Singapore	746	906	830	164
San Francisco	719	309	764	151
Tokyo	718	629	788	204
Zurich	717	784	764	197
Seoul	715	351	795	221
Boston	705	572	770	184
Washington DC	704	343	755	194
Toronto	703	369	740	183
Chicago	702	432	743	178
Geneva	701	731	741	190
Vancouver	700	218	720	205
Luxembourg	697	541	733	204
Frankfurt	695	808	736	189
Dubai	694	713	712	207
Montreal	693	244	698	213
Abu Dhabi	692	455	674	209
Shanghai	690	481	731	193
Riyadh	685	208	627	283
Qatar	684	341	680	238
Sydney	682	311	750	166
Melbourne	681	170	701	180
Shenzhen	680	256	712	221
Calgary	678	192	701	226
Taipei	677	169	684	191
Busan	676	272	827	253
Monaco	674	417	671	246
Vienna	673	318	712	244
Paris	669	840	672	211
Beijing	668	531	612	245
Osaka	667	177	698	212
Sao Paulo	666	169	686	187
Stockholm	665	171	604	227
Tel Aviv	664	187	666	269
Munich	663	281	652	216
Johannesburg	659	207	660	207
Amsterdam	658	554	648	208
Buenos Aires	657	161	667	245
Kuala Lumpur	656	282	698	194
Istanbul	655	223	631	211

Centre	GFCI 16 Rating	Number of assessments	Total Average assessment	Standard deviation of assessments
Almaty	653	240	808	229
Mexico City	652	131	598	241
Rio de Janeiro	650	155	663	226
Bangkok	646	274	629	207
British Virgin Islands	639	341	620	242
Milan	638	388	621	208
Panama	637	137	599	247
Glasgow	636	193	544	250
Casablanca	635	369	803	193
Bahrain	634	276	637	224
Gibraltar	633	188	563	271
Cayman Islands	632	417	635	228
Rome	631	324	623	245
Brussels	630	536	605	213
Oslo	629	194	646	238
Hamilton	628	210	626	230
Manila	627	114	594	235
Copenhagen	626	234	569	222
Mumbai	625	210	588	228
Jersey	624	355	633	226
Prague	623	195	543	251
Isle of Man	622	282	581	252
Edinburgh	621	320	582	223
Jakarta	620	177	581	256
Guernsey	619	337	619	228
Warsaw	612	162	578	263
Mauritius	608	215	570	242
Dublin	607	483	617	213
Bahamas	603	247	584	242
St Petersburg	600	125	470	264
Wellington	594	56	745	174
Madrid	585	403	599	222
Helsinki	582	158	537	237
Malta	581	311	587	226
Budapest	566	184	500	260
Lisbon	555	190	514	248
Cyprus	540	290	491	245
Moscow	536	368	518	225
Tallinn	498	85	454	252
Athens	481	243	400	233
Reykjavik	465	91	414	262

Appendix 2: Respondents' Details

Table 18 | Respondents by **Industry Sector**

Sector	Respondents
Banking	684
Professional Services	388
Investment	359
Insurance	174
Trading	140
Finance	123
Government & Regulatory	108
Trade Association	58
Other	177
Grand Total	2,211

Table 20 | Respondents by **Size of Organisation**

Number of staff	Respondents
Fewer than 100	570
100 to 500	273
500 to 1,000	140
1,000 to 2,000	133
2,000 to 5,000	290
More than 5,000	805
Grand Total	2,211

Table 19 | Respondents by Location

Regions	Respondents
Western Europe	801
Asia/Pacific	625
North America	259
Offshore	170
Middle East & Africa	139
Eastern Europe & Central Asia	129
Latin America	21
Other	67
Grand Total	2,211



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 a global digital economy ranking (supplied by the Economist Intelligence Unit), a telecommunication infrastructure index (by the United Nations) and a Global Information Technology Index (by the World Economic Forum). Evidence about a business-friendly regulatory environment is drawn from an Ease of Doing Business Index (supplied by the World Bank) and an Institutional Effectiveness rating (from the EIU) amongst others. A total of 105 instrumental factors are used in GFCI 16 (of which 42 were updated since GFCI 15). 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 use 29,226 financial centre assessments drawn from 3,633 respondents in GFCI 16.

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 2 to 3 years?" A centre is only given a GFCI rating and ranking if it receives more than 200 assessments from other centres in the online survey.

Table 21 | Competitiveness Factors and their Relative Importance

Competitiveness factors	Rank
The availability of skilled personnel	1
The regulatory environment	2
Access to international financial markets	3
The availability of business infrastructure	4
Access to customers	5
A fair and just business environment	6
Government responsiveness	7
The corporate tax regime	8
Operational costs	9
Access to suppliers of professional services	10
Quality of life	11
Culture & language	12
Quality / availability of commercial property	13
The personal tax regime	14

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:

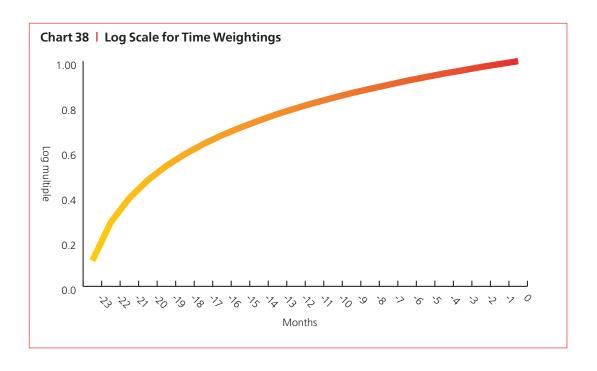
- indices should come from a reputable body and be derived by a sound methodology;
- indices should be readily available (ideally in the public domain) and be regularly updated;
- updates to the indices are collected and collated every six months;

- 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; nationbased 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 totaling or averaging scores across instrumental factors. An approach involving totaling 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 3 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 but also handle continuous numerical or time series data. The SVM used for the GFCI provides information about the confidence with which each specific classification is made and the likelihood of other possible classifications.

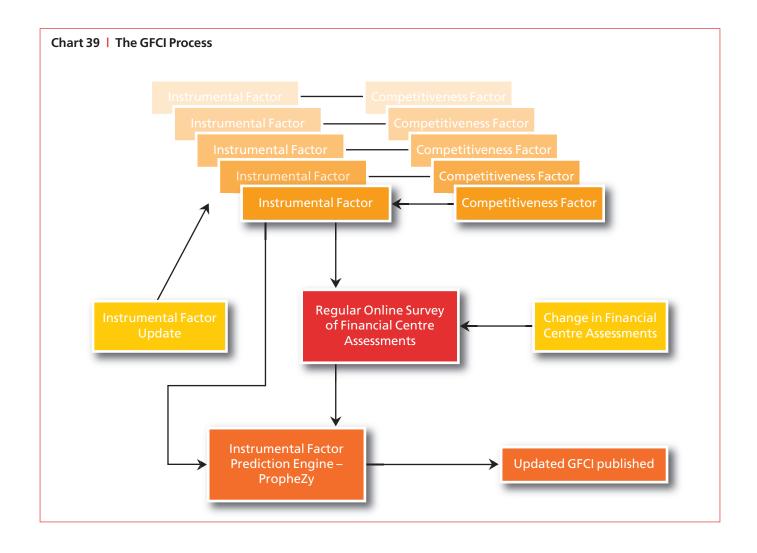
A factor assessment model is built using the centre assessments from responses to the online questionnaire. Assessments from respondents' home centres are excluded from the factor assessment model to remove home bias. The model then predicts how respondents would have assessed centres they are not familiar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

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

Or

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

Financial centre predictions from the SVM are re-combined with actual financial centre assessments (except those from the respondents' home centres) to produce the GFCI – a set of financial centre ratings. The GFCI is dynamically updated either by updating and adding to the instrumental factors or through new financial centre assessments. These updates permit, for instance, a recently changed index of rental costs to affect the competitiveness rating of the centres.



The process of creating the GFCI is outlined diagrammatically below.

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 London as competitive in Insurance (for instance) while less competitive in Asset Management (for instance);
- the factor assessment model can be queried in a 'what if' mode – "how much would London rental costs need to fall in order to increase London's ranking against New York?"

Part of the process of building the GFCI is extensive sensitivity testing to changes in factors of competitiveness and financial centre assessments. There are over ten million data points in the current model. The accuracy of predictions given by the SVM are regularly tested against actual assessments.



Appendix 4: Instrumental Factors

Table 21 shows how closely instrumental factor rankings correlate with the GFCI 16 rankings for the top 25 instrumental factors:

Table 22 | Top 25 Instrumental Factors by **Correlation with GFCI 16**

Instrumental Factors	R-Sq
City Global Image	0.3945
Banking Industry Country Risk Assessments	0.3911
Global City Competitiveness	0.3679
Global Power City Index	0.3566
Financial Secrecy Index	0.3201
World Competitiveness Scoreboard	0.3050
Global Competitiveness Index	0.2951
Office Occupancy Costs	0.2897
Liner Shipping Connectivity Index	0.2794
Global Cities Index	0.2645
FDI Confidence	0.2465
Connectivity	0.2397
IPD Global Property Index	0.2211
Business Environment Rankings	0.2164
Citywide CO2 Emissions	0.2093
Securitisation	0.2082
Institutional Effectiveness	0.2055
Office Space Around the World	0.2037
Innovation Cities Global Index	0.1977
Capitalisation of Stock Exchanges	0.1929
Total Net Assets of Mutual Funds	0.1914
Foreign Direct Investment Inflows	0.1874
Citizens Domestic Purchasing Power	0.1794
City GDP Figures	0.1793
Quality of Roads	0.1763

A full list of the instrumental factors used in the GFCI 16 model is shown overleaf:



Table 23 | Business Environment Related Instrumental Factors

Instrumental factor	Source	Website	Updated since GFCI 15
Business Environment Rankings	EIU	www.eiu.com/public/thankyou_download.aspx?activity=download&campaignid=bizenviro2014	✓
Ease of Doing Business Index	The World Bank	www.doingbusiness.org/custom-query	✓
Operational Risk Rating	EIU	www.viewswire.com/index.asp?layout=homePubTypeRK	✓
Real Interest Rate	World Bank	data.worldbank.org/indicator/FR.INR.RINR	✓
Projected City Economic Growth	McKinsey Global Institute	www.foreignpolicy.com/articles/2012/08/13/the_most_dynamic_cities_ of_2025	
Global Services Location Index	AT Kearney	www.atkearney.com/research-studies/global-services-location-index	
Corruption Perceptions Index	Transparency International	www.transparency.org/policy_research/surveys_indices/cpi	
Wage Comparison Index	UBS	www.ubs.com/1/e/wealthmanagement/wealth_management_research /prices_earnings.html	
Corporate Tax Rates	Price Waterhouse Coopers	www.doingbusiness.org/reports/thematic-reports/paying-taxes/	
Employee Effective Tax Rates	Price Waterhouse Coopers	n/a	
Personal Tax Rates	OECD	www.oecd.org/tax/tax-policy/tax-database.htm	✓
Total Tax Receipts (as % of GDP)	The World Bank	data.worldbank.org/indicator/GC.TAX.TOTL.GD.ZS	✓
Bilateral Tax Information Exchange Agreements	OECD	www.oecd.org/document/7/0,3343,en_2649_33767_38312839_1_1_ 1_1,00.html	
Economic Freedom of the World	Fraser Institute	www.freetheworld.com/release.html	
Banking Industry Country Risk Assessments	Standard & Poor's	img.en25.com/Web/StandardPoorsRatings/BICRA_Update_10_10_13.pdf	✓
Government Debt as Percentage of GDP	CIA World Fact Book	www.cia.gov/library/publications/the-world- factbook/rankorder/2186rank.html	✓
Political Risk Index	Exclusive Analysis Ltd	n/a	
Global Peace Index	Institute for Economics and Peace	www.visionofhumanity.org/	
Financial Secrecy Index	Tax Justice Network	www.financialsecrecyindex.com/	
Institutional Effectiveness	EIU	www.economistinsights.com/countries-trade-investment/analysis/hot-spots/	
City GDP Figures	Brookings Institute	www.brookings.edu/research/interactives/global-metro-monitor-3	
Number of Greenfield Investments	KPMG	www.kpmg.com/FR/fr/IssuesAndInsights/ArticlesPublications/Documents/Observatoire-des-Investissements-Internationaux-principales-metropoles-mondiales-2013.pdf	
Open Government	The World Justice Project	worldjusticeproject.org/sites/default/files/files/wjp_rule_of_law_index_2 014_report.pdf	✓
Regulatory Enforcement	The World Justice Project	worldjusticeproject.org/sites/default/files/files/wjp_rule_of_law_index_2 014_report.pdf	✓
Press Freedom	Reporters Without Borders	en.rsf.org/press-freedom-index-2013,1054.html	NEW
Currencies	Swiss Association for Standardization	www.currency-iso.org/en/home/tables/table-a1.html	NEW

Table 24 | Financial Sector Development Related Instrumental Factors

Instrumental factor	Source	Website	Updated since GFCI 15
Capital Access Index	Milken Institute	www.milkeninstitute.org/pdf/CAI2009.pdf	
Securitisation	TheCityUK	www.thecityuk.com/research/ZendSearchLuceneForm?Search=securitisation&action_ZendSearchLuceneResults=Go	
Capitalisation of Stock Exchanges	World Federation of Stock Exchanges	www.world-exchanges.org/statistics/monthly-reports	✓
Value of Share Trading	World Federation of Stock Exchanges	www.world-exchanges.org/statistics/monthly-reports	✓
Volume of Share Trading	World Federation of Stock Exchanges	www.world-exchanges.org/statistics/monthly-reports	✓
Broad Stock Index Levels	World Federation of Stock Exchanges	www.world-exchanges.org/statistics/monthly-reports	✓
Value of Bond Trading	World Federation of Stock Exchanges	www.world-exchanges.org/statistics/monthly-reports	✓
Volume of Stock Options Trading	World Federation of Stock Exchanges	www.world-exchanges.org/statistics/monthly-reports	✓
Volume of Stock Futures Trading	World Federation of Stock Exchanges	www.world-exchanges.org/statistics/monthly-reports	✓
Domestic Credit Provided by Banks (% GDP)	World Bank	data.worldbank.org/indicator/FS.AST.DOMS.GD.ZS	✓
Percentage of Firms Using Bank Credit to Finance Investment	World Bank	data.worldbank.org/indicator/IC.FRM.BNKS.ZS	✓
Total Net Assets of Mutual Funds	Investment Company Institute	www.icifactbook.org/	
Islamic Finance	TheCityUK	www.thecityuk.com/research/our-work/reports-list/islamic-finance-2013/	
Net External Position of Banks	Bank for International Settlements	www.bis.org/statistics/bankstats.htm	✓
External Position of Central Banks (as % GDP)	Bank for International Settlements	www.bis.org/statistics/bankstats.htm	✓
Liner Shipping Connectivity	The World Bank	data.worldbank.org/indicator/IS.SHP.GCNW.XQ	✓
Commodity Options Notional Turnover	World Federation of Stock Exchanges	www.world-exchanges.org/statistics/monthly-reports	✓
Commodity Futures Notional Turnover	World Federation of Stock Exchanges	www.world-exchanges.org/statistics/monthly-reports	✓
Global Connectedness Index	DHL	www.dhl.com/content/dam/flash/g0/gci_2012/download/dhl_gci_ 2012_complete_study.pdf	
City GDP Composition (Business/Finance)	Brookings Institution	www.brookings.edu/research/interactives/global-metro-monitor-3	

Table 25 | Infrastructure Related Instrumental Factors

Instrumental factor	Source	Website	Updated since GFCI 15
Office Occupancy Costs	DTZ	www.dtz.com/Global/Research/	
Office Space Across the World	Cushman & Wakefield	www.cushmanwakefield.com/en/research-and-insight/2014/office-space-across-the-world-2014/	✓
Global Property Index	Investment Property Databank	www1.ipd.com/Pages/DNNPage.aspx?DestUrl=http%3a%2f%2f www.ipd.com%2fsharepoint.aspx%3fTabld%3d425	✓
Real Estate Transparency Index	Jones Lang LaSalle	www.joneslanglasalle.com/GRETI/engb/Documents/GRETI/docs/TransparencyIndex_2012.pdf	
Digital Economy Ranking	EIU	www-935.ibm.com/services/us/gbs/bus/pdf/eiu_digital-economyrankings-2010_final_web.pdf	
Telecommunication Infrastructure Index	C United Nations	www.unpan.org/egovkb/global_reports/08report.htm	
Quality of Ground Transport Network	World Economic Forum	www.weforum.org/en/initiatives/gcp/TravelandTourismReport/CompetitivenessIndex/index.htm	
Quality of Roads	World Economic Forum	www.weforum.org/en/initiatives/gcp/TravelandTourismReport/CompetitivenessIndex/index.htm	
Roadways per Land Area	CIA World Fact Book	www.cia.gov/library/publications/the-world-factbook/rankorder/2085rank.html	√
Railways per Land Area	CIA World Fact Book	www.cia.gov/library/publications/the-world- factbook/rankorder/2121rank.html	✓
Physical Capital	EIU	www.economistinsights.com/countries-trade- investment/analysis/hot-spots/	
Connectivity	EIU	pages.eiu.com/rs/eiu2/images/EIU_BestCities.pdf	
IT Industry Competitiveness	BSA/EIU	globalindex11.bsa.org/country-table/	✓
Energy Sustainability Index	World Energy Council	www.worldenergy.org/data/sustainability-index/	
City Infrastructure	EIU	pages.eiu.com/rs/eiu2/images/EIU_BestCities.pdf	
Urban Sprawl	EIU	pages.eiu.com/rs/eiu2/images/EIU_BestCities.pdf	
Metro Network Length	Metro Bits	mic-ro.com/metro/table.html	
Global Information Technology	World Economic Forum	www.weforum.org/issues/global-information- technology/index.html	√
The Web Index	The World Wide Web Foundation	thewebindex.org/about/the-web-index/	
Citywide CO2 Emissions	Carbon Disclosure Project	www.cdpcities2013.net/#!/index/	
Environmental Performance	Yale University	epi.yale.edu//epi/country-rankings	NEW

Table 26 | Human Capital Related Instrumental Factors

Instrumental factor	Source	Website	Updated since GFCI 15
Graduates in Social Science Business and Law	World Bank	databank.worldbank.org/Data/Views/VariableSelection/SelectVariables.aspx?source=Education%20Statistics	✓
Gross Tertiary Education Ratio	World Bank	databank.worldbank.org/Data/Views/VariableSelection/SelectVariables.aspx?source=Education%20Statistics	✓
Visa Restrictions Index	Henley & Partners	www.henleyglobal.com/citizenship/visa-restrictions/	✓
Human Development Index	UN Development Programme	hdr.undp.org	
Citizens Purchasing Power	UBS	www.ubs.com/1/e/ubs_ch/wealth_mgmt_ch/research.html	
Happy Planet Index	New Economics Foundation (NEF)	www.happyplanetindex.org/data/	
Number of High Net Worth Individuals	Capgemini	www.uk.capgemini.com/thought-leadership/world-wealth-report-2013-from-capgemini-and-rbc-wealth-management	
Homicide Rates	UN Office of Drugs and Crime	www.unodc.org/gsh/en/data.html	✓
World's Top Tourism Destinations	Euromonitor Archive	blog.euromonitor.com/2014/01/euromonitor-internationals-top-city-destinations-ranking.html	√
Average Days with Precipitation per Year	Sperling's Best Places	www.bestplaces.net/climate/default.aspx	
Spatial Adjusted Liveability Index	EIU	pages.eiu.com/rs/eiu2/images/EIU_BestCities.pdf	
Human Capital	EIU	www.economistinsights.com/countries-trade- investment/analysis/hot-spots/	
Global Talent Index	EIU	www.managementthinking.eiu.com/global-talent-index-2011- 2015.html	
Healthcare	EIU	pages.eiu.com/rs/eiu2/images/EIU_BestCities.pdf	
Global Skills Index	Hays	www.hays-index.com/	
Linguistic Diversity	Ethnologue	www.ethnologue.com/statistics/country	NEW

Table 27 | Reputational and General Instrumental Factors

Instrumental factor	Source	Website	Updated since GFCI 15
World Competitiveness Scoreboard	IMD	www.imd.ch/research/publications/wcy/competitiveness_scoreboard.cfmue	✓
Global Competitiveness Index	World Economic Forum	www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.htm	
Global Business Confidence	Grant Thornton	www.grantthornton.ie/db/Attachments/Grant-Thornton-IBR-2014-Ireland-A-sense-of-place-and-pu.pdf	✓
Foreign Direct Investment Inflows	UNCTAD	unctadstat.unctad.org/ReportFolders/reportFolders.aspx?sRF_ActivePath=P,5,27&sRF_Expanded=,P,5,27	
FDI Confidence	AT Kearney	www.atkearney.com/research-studies/foreign-direct-investment-confidence-index	
City to Country GDP Ratio	World BankPrice Waterhouse Cooper	www.brookings.edu/research/interactives/global-metro-monitor-3	
GDP per Person Employed	World Bank	data.worldbank.org/indicator/SL.GDP.PCAP.EM.KD	
Global Innovation Index	INSEAD/WIPO	www.globalinnovationindex.org/content.aspx?page=GII-Home	
Global Intellectual Property Index	Taylor Wessing	www.taylorwessing.com/ipindex/	
Retail Price Index	The Economist	www.economist.com/markets/indicators	✓
Price Levels	UBS	www.ubs.com/1/e/wealthmanagement/wealth_management_resear ch/prices_earnings.html	
Global Power City Index	Institute for Urban Strategies & Mori Memorial Foundation	www.mori-m-foundation.or.jp/english/index.shtml	
Global Cities Index	AT Kearney	www.atkearney.com/research-studies/global-cities-index	✓
Number of International Fairs & Exhibitions	World Economic Forum	www.weforum.org/en/initiatives/gcp/TravelandTourismReport/CompetitivenessIndex/index.htm	
Innovation Cities Global Index	2thinknow Innovation Cities™ Project	www.innovation-cities.com/	✓
City Global Appeal	EIU	www.economistinsights.com/countries-trade- investment/analysis/hot-spots/	
Global City Competitiveness	EIU	www.economistinsights.com/countries-trade- investment/analysis/hot-spots/	
The Big Mac Index	The Economist	www.economist.com/content/big-mac-index	✓
City Global Image	KPMG	www.kpmg.com/FR/fr/IssuesAndInsights/ArticlesPublications/Documents/Observatoire-des-Investissements-Internationaux-principales-metropoles-mondiales-2013.pdf	
City's Weight in National Incoming Investments	KPMG	www.kpmg.com/FR/fr/IssuesAndInsights/ArticlesPublications/Documents/Observatoire-des-Investissements-Internationaux-principales-metropoles-mondiales-2013.pdf	
Sustainable Economic Development	Boston Consulting Group	www.bcgperspectives.com/content/interactive/public_sector_globaliz ation_interactive_map_sustainable_economic_development/	✓
Global Enabling Trade Report	World Economic Forum	www.weforum.org/issues/international-trade	✓



Long Finance

Established in 2007 by Z/Yen Group in conjunction with Gresham College, the Long Finance initiative began with a conundrum – "when would we know our financial system is working?" Long Finance aims to "improve society's understanding and use of finance over the long term" in contrast to the short-termism that defines today's financial and economic views.

Long Finance publishes papers under the Financial Centre Futures series in order to initiate discussion on the changing landscape of global finance. Financial Centre Futures consists of indepth research as well as the popular Global Financial Centres Index (GFCI). Long Finance has initiated two other publication series: Eternal Brevities and Finance Shorts. Long Finance is a community which can be explored and joined at www.longfinance.net.

FINANCIAL CENTRE FUTURES IS SPONSORED BY



www.qfc.com.qa

Established by the Government of Qatar in 2005, the Qatar Financial Centre (QFC) is an onshore centre which has become an integral part of Qatar's economy and rapid growth story.

AND PRODUCED BY



The Z/Yen Group

www.zyen.com

As the City of London's leading commercial think-tank, Z/Yen helps organisations make better choices.

Price: £10

ISBN: 987-0-9573601-5-0



www.longfinance.net