



SEPTEMBER 2013







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 Oatar 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 for the use of the related data still used in the GFCI. The authors of this report, Mark Yeandle and Nick Danev would like to thank Chiara von Gunten and Michael Mainelli for their contributions with research, modelling and ideas, along with other members of the GFCI team.

#### Foreword

The Global Financial Centres Index (GFCI) was launched in March 2007, a mere 18 months before the onset of the global financial crisis, as marked by the collapse of Lehman Brothers, in September 2008. In the seven years since, the GFCI has become a hugely respected measure of the state of competitiveness between over 75 International Finance Centres (IFC's) and in particular, it has highlighted the importance of niche IFC's such as Jersey.

A British Crown Dependency located almost equidistantly between London and Paris, Jersey has a financial services track record spanning more than 50 years and, as its consistently high rankings in the GFCI demonstrate, has grown to become one of the world's leading offshore jurisdictions in the fields of wealth management, banking, funds and capital markets.

Despite the economic turmoil of recent years, the recovery from which we are only now starting to see solid evidence of, Jersey has been able to weather the storm better than most due to its high levels of economic and political stability, its world-class legal and regulatory frameworks and a highly educated and expert workforce, all of which act to cement and maintain its reputation among a truly global client base.

In addition, Jersey's long-established tax neutrality and close proximity and ties to the City of London have made it a compelling platform for the efficient allocation of capital flows, attracting investment from both international corporate institutions and private clients.

Indeed, the symbiotic relationship with the United Kingdom and London in particular, has always been an important element in Jersey's competitiveness. This year we undertook the most detailed quantitative analysis ever of

Jersey's value to the UK economy and the report findings were significant. They concluded, for example, that Jersey accounts for around £500bn of foreign investment into the UK (around 5% of the UK's total); generates up to £2.3bn in tax receipts for the UK Exchequer and supports over 100,000 British jobs.

On the global stage, Jersey has demonstrated its commitment to meeting international standards and our regulatory regime has been endorsed by independent assessments from some of the world's leading bodies including the World Bank, the OECD and the IMF.

Jersey's independent government has committed to numerous transparency and information exchange programmes and are participating fully in the debate on tax transparency, with a view to achieving a level playing field.

Looking to the future, and in common with other leading jurisdictions, Jersey is now fully engaged in enhancing its presence and developing business in key international markets including China, India, the Gulf, Russia and the African Continent. To succeed in these growth activities, we understand that reputation is a key ingredient in attracting new business and believe that the best reputation will stem from stability, experience, quality, innovation, an adherence to global standards and respect for client privacy, all features that Jersey is proud to embrace.

**Geoff Cook** 

Chief Executive, Jersey Finance

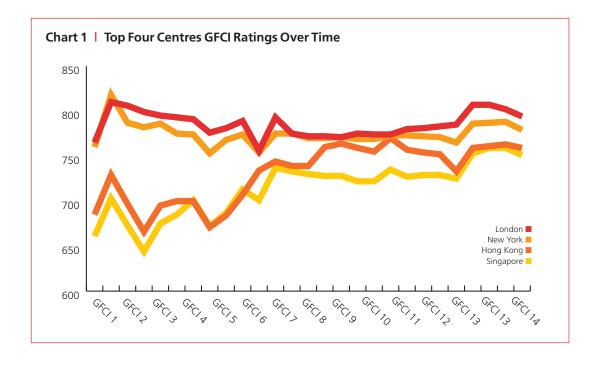
### GFCI 14 – Summary and Headlines

The Global Financial Centres Index (GFCI) provides profiles, ratings and rankings for 80 financial centres, drawing on two separate sources of data – instrumental factors (third party measures and indices) and responses to an online questionnaire. The GFCI was first published by Z/Yen Group in March 2007 and has subsequently been updated every six months. Successive growth in the number of respondents and data has enabled us to highlight the changing priorities and concerns of financial professionals over time, particularly since financial crises began to unfold in 2007 and 2008. This is the fourteenth edition of GFCI (GFCI 14).

**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 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 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). 102 of these factors have been used in GFCI 14, of which 37 have been updated since GFCI 13. There are 6 new factors in the GFCI (see page 46 for details on all external factors used in the GFCI model).

Financial centre assessments: GFCI uses responses to an ongoing online guestionnaire1 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 2,786 financial services professionals were collected in the 24 months to June 2013. These responses provided 25,749 financial centre



assessments which were used to compute GFCI 14. with older assessments discounted according to age.

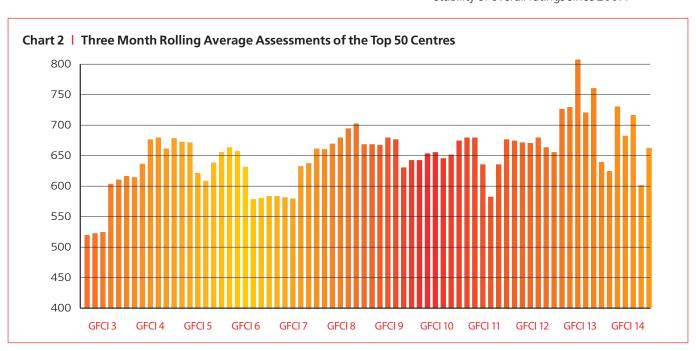
Full details of the methodology behind GFCI 14 can be found on page 42. The ratings and rankings are calculated using a 'factor assessment model', which combines the instrumental factors and questionnaire assessments.

The main headlines of GFCI 14 are:

- London, New York, Hong Kong and Singapore remain the top four centres with a gap of 43 points between London in first and Singapore in fourth. There is then a gap of 31 points to Tokyo in fifth place. The top four centres have seen their ratings decline slightly. London's ratings have fallen by more than any other centre in the top 25.
- Frankfurt, Zurich and Geneva remain in the GFCI top ten and Luxembourg has climbed five places to 13th. Most of the remaining financial centres in Europe are still suffering from uncertainty in the Eurozone. Paris is down by 14 points, Munich by 18, Amsterdam by 26, Milan by 34, Madrid by 28 and Brussels by 44 points. Lisbon and Athens also fall and Athens remains at the bottom of the index.

- There is a mixed picture from Asia at the moment. Tokyo, Sydney, Shanghai and Shenzhen all climb in the ratings but other centres including Hong Kong, Singapore, Seoul and Beijing all lose points.
- There is another mixed picture in North America with Boston and San Francisco each climbing by one place but New York, Chicago and Washington DC falling slightly. With the exception of Toronto, the Canadian centres all saw slight reversals to the rapid rises they have shown recently.
- Latin America continues to grow in importance with Rio de Janeiro, Sao Paulo and Buenos Aires all climbing in the ranks. Rio de Janeiro in particular performed well and climbed 17 places.
- In the Middle East, Qatar, Bahrain and Istanbul see significant increases in their rankings whilst other centres fall slightly.

Confidence amongst financial services professionals, indicated by average assessments given to the top centres, was relatively stable during 2011 and the first half of 2012. The second half of 2012 saw higher but more volatile assessments. This volatility persisted for the first half of 2013. Chart 2 below shows the stability of overall ratings since 2007.



In GFCI 14, 32 financial centres made improvements in their rankings, 40 centres declined in the rankings, seven centres experienced no change, and one new centre – Tel Aviv – entered the GFCI. The full set of GFCI 14 ranks and ratings are shown in Table 1.

Sofia and Nairobi have been added to the GFCI questionnaire recently and we track their progress with interest. They join other cities that have yet to acquire sufficient assessments to be included in the index (Almaty, Busan, Guangzhou, Liechtenstein, New Delhi, Riga, Santiago and Tianjin).

Other notable features of GFCI 14 include:

- The largest risers in the ranks include Rio de Janeiro, Malta, Monaco, and Istanbul;
- Chicago and Toronto fall into 14th and 11th places respectively;
- Beijing continues its decline in the ranks and has been declining steadily since GFCI 10;
- Tel Aviv enters the GFCI for the first time in 32nd place.

Table 1 | GFCI 14 Ranks and Ratings

		GFCI 14		CEC  43		CHANGES	
Centre	GF( Rank	CI 14 Rating	GF0 Rank	CI 13 Rating	CHA Rank	NGES Rating	
London	1	794	1	807	_	▼ 13	
New York	2	779	2	787	_	▼8	
Hong Kong	3	759	3	761	_	▼2	
Singapore	4	751	4	759	_	▼8	
Tokyo	5	720	6	718	<b>A</b> 1	<b>A</b> 2	
Zurich	6	718	5	723	▼ 1	▼5	
Boston	7	714	8	711	<b>A</b> 1	<b>A</b> 3	
Geneva	8	710	7	712	▼ 1	▼2	
Frankfurt	9	702	10	703	<b>A</b> 1	▼ 1	
Seoul	10	701	9	710	▼ 1	▼9	
Toronto	11	699	12	696	<b>A</b> 1	<b>A</b> 3	
San Francisco	12	697	13	695	<b>A</b> 1	<b>A</b> 2	
Luxembourg	13	696	18	687	<b>A</b> 5	<b>A</b> 9	
Chicago	14	695	11	698	▼3	▼3	
Sydney	15	692	19	686	<b>A</b> 4	<b>A</b> 6	
Shanghai	16	690	24	674	<b>&amp;</b> 8	<b>1</b> 6	
Washington DC	17	689	14	692	▼3	▼3	
Montreal	18	688	16	689	▼ 2	▼ 1	
Vancouver	19	686	15	690	▼4	▼4	
Vienna	20	685	20	685	_	_	
Calgary	21	684	17	688	▼4	▼4	
Kuala Lumpur	22	675	21	681	▼ 1	▼6	
Monaco	23	674	35	654	<b>▲</b> 12	<b>2</b> 0	
Qatar	24	672	30	661	<b>A</b> 6	<b>A</b> 11	
Dubai	25	671	23	675	<b>▼</b> 2	▼4	
Oslo	26	669	29	667	<b>A</b> 3	<b>A</b> 2	
Shenzhen	27	660	38	650	<b>A</b> 11	<b>1</b> 0	
Jersey	28	657	28	668	_	▼ 11	
Paris	29	656	26	670	▼3	▼ 14	
Osaka	30	655	22	676	▼8	▼21	
Rio de Janeiro	31	654	48	639	<b>1</b> 7	<b>1</b> 5	
Tel Aviv	32	653	-	-	New	New	
Melbourne	33	652	25	672	▼8	▼ 20	
Munich	34	651	27	669	▼ 7	▼ 18	
Rome	35	650	40	648	<b>A</b> 5	<b>A</b> 2	
Guernsey	36	649	31	660	▼ 5	▼11	
Stockholm	37	644	32	657	▼ 5	▼ 13	
Sao Paulo	38	643	44	644	<b>A</b> 6	▼1	
Cayman Islands	39	642	41	647	<b>A</b> 2	▼ 5	
Hamilton	40	641	49	638	<b>A</b> 9	<b>A</b> 3	

	GF	CI 14	GF	CI 13	CHANGES	
Centre	Rank	Rating	Rank	Rating	Rank	Rating
Isle of Man	41	638	43	645	<b>▲</b> 2	▼7
Abu Dhabi	42	637	39	649	▼3	▼ 12
Wellington	43	636	42	646	▼1	▼ 10
Istanbul	44	633	57	626	<b>▲</b> 13	<b>▲</b> 7
Amsterdam	45	629	34	655	▼ 11	▼ 26
Buenos Aires	46	628	53	633	<b>▲</b> 7	▼ 5
Riyadh	47	627	33	656	▼ 14	▼ 29
British Virgin Islands	48	626	47	640	▼1	▼ 14
Copenhagen	49	625	45	643	▼4	▼ 18
Taipei	50	619	36	653	▼ 14	▼ 34
Milan	51	618	37	652	▼ 14	▼ 34
Bahrain	52	610	64	607	<b>▲</b> 12	▲3
Malta	53	608	68	595	<b>▲</b> 15	<b>▲</b> 13
Madrid	54	607	51	635	▼3	▼ 28
Jakarta	55	606	69	592	<b>1</b> 4	<b>1</b> 4
Dublin	56	605	56	627	-	▼ 22
Helsinki	57	604	52	634	▼ 5	▼ 30
Bangkok	58	600	59	619	<b>A</b> 1	▼ 19
Beijing	59	598	58	622	▼1	▼ 24
Brussels	60	597	46	641	▼ 14	▼ 44
Johannesburg	61	592	62	610	<b>A</b> 1	▼ 18
Edinburgh	62	590	54	632	▼8	▼ 42
Panama	63	589	67	597	<b>4</b>	▼8
Manila	64	587	72	588	<b>&amp;</b> 8	▼1
Glasgow	65	586	50	636	▼ 15	▼ 50
Mexico City	66	584	55	628	▼11	▼ 44
Bahamas	67	583	73	587	<b>A</b> 6	▼4
Mauritius	68	581	70	590	<b>▲</b> 2	▼9
Moscow	69	580	65	606	▼4	▼ 26
Gibraltar	70	572	60	615	▼ 10	▼ 43
Warsaw	71	571	63	608	▼8	▼ 37
Mumbai	72	570	66	605	▼6	▼ 35
Prague	73	565	61	611	▼ 12	▼ 46
Cyprus	74	536	75	576	<b>A</b> 1	▼ 40
Lisbon	75	535	76	552	<b>A</b> 1	▼ 17
St Petersburg	76	522	74	585	▼2	▼ 63
Budapest	77	515	78	541	<b>A</b> 1	▼ 26
Tallinn	78	495	71	589	▼7	▼ 94
Reykjavik	79	479	77	546	▼2	▼ 67
Athens	80	469	79	473	▼1	▼4

"London is great because you can see all the core shareholders in one morning"

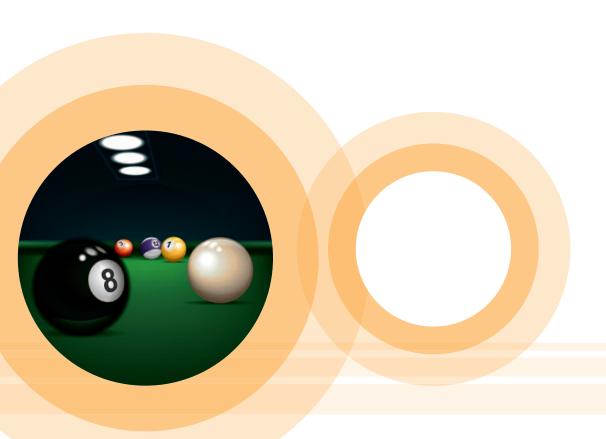
President of a Global Investment Bank based in London

# Areas of Competitiveness

The GFCI questionnaire asks respondents to indicate which factors of competitiveness they consider the most important. The number of times that each area is mentioned is summarised in Table 2:

Table 2 | Main Areas of Competitiveness

Area of competitiveness N	umber of mentions	Main concerns
Business environment	337	Rising regulatory burden; Efficiency and simplicity of regulations; Stable and predictable environment.
Taxation	300	Lower, competitive tax regime; Stability and transparency.
People	294	Rising availability of skilled labour (especially in EU); Flexibility and mobility.
Infrastructure	271	Focus on airports and trains (physical connectivity); ICT infrastructure is also critical
Reputation	265	Quality of life and safety Emphasis on promotional bodies & urban authorities
Market Access	233	Largely taken for granted



The GFCI questionnaire asks respondents which centres they consider likely to become more significant in the next few years. As with previous editions of GFCI, Asia-Pacific centres continue to dominate expectations with Singapore in the lead and Shanghai second. Luxembourg and Gibraltar, two European offshore centres that ranked 6th and 7th, are the only non-Asian centres that seem to feature strongly:

Table 3 | The Ten Centres likely to become more significant

Centres likely to become more significant	Number of mentions
Singapore	62
Shanghai	60
Busan	57
Hong Kong	36
Seoul	35
Gibraltar	27
Luxembourg	26
Beijing	17
Dubai	15
Shenzhen	15
Istanbul	11

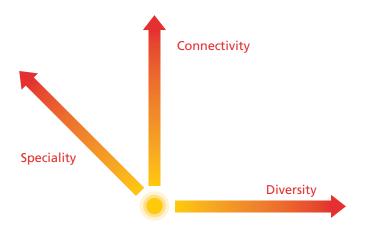
"I think Hong Kong and Singapore are poised to challenge London and New York as the leading global centres"

Investment Banker based in Frankfurt



#### **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).

'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 4 opposite, 'Diversity' (breadth) and 'Speciality' (depth) are combined on one axis to create a two dimensional table of financial centre profiles. The 80 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.

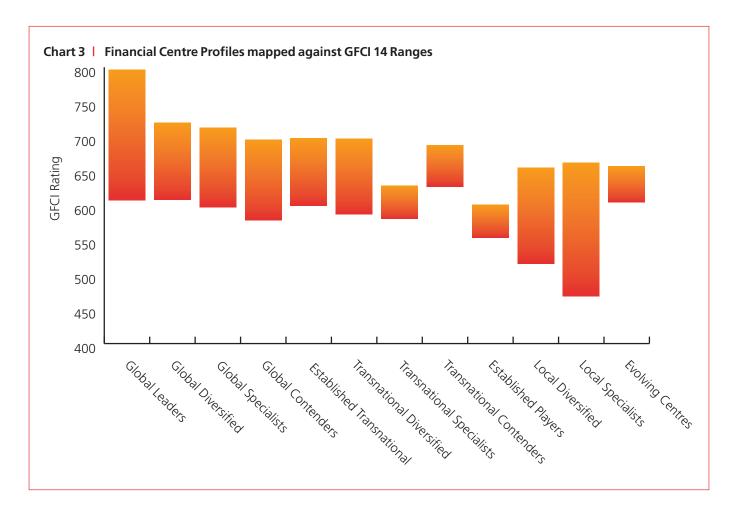
The 11 Global Leaders (in the top left of the table) have both broad and deep financial services activities and are connected with many other financial centres. This list includes London, New York, Hong Kong and Singapore, the leading global financial centres. A significant number of centres have moved profile since GFCI 13:



Table 4 | GFCI 14 Financial Centre Profiles

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

The Chart 3 below shows the profiles mapped against the range of GFCI 14 ratings:



"Moscow is a global city but has a long way to go to become a global financial centre"

Asset Manager based in London



# Europe

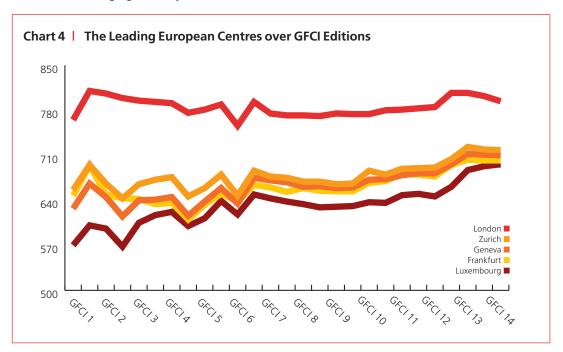
Table 5 shows the top 20 European financial centres in the GFCI. The leading centres in Europe are London, Zurich and Geneva. London has seen a significant drop in rating but has managed to retain its leadership. Zurich and Geneva remain in the top 10 but Zurich has

been overtaken by Tokyo and Geneva by Boston. Frankfurt has climbed one place to ninth but Luxembourg has seen the largest rise – up five places to 13th. Glasgow, Milan and Brussels have seen the largest falls in their ranking:

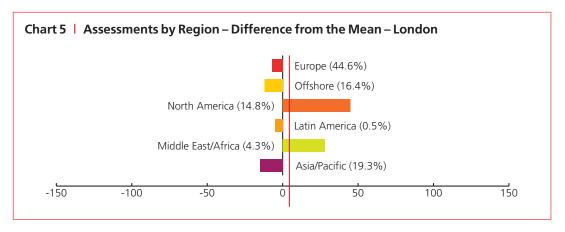
Table 5 | Top 20 European Centres in GFCI 14

	GFCI 14 rank	GFCI 14 rating	GFCI 13 rank	GFCI 13 rating	Change in rank	Change in rating
London	1	794	1	807	-	▼ 13
Zurich	6	718	5	723	▼ 1	▼ 5
Geneva	8	710	7	712	▼ 1	▼ 2
Frankfurt	9	702	10	703	<b>A</b> 1	▼ 1
Luxembourg	13	696	18	687	<b>A</b> 5	<b>A</b> 9
Vienna	20	685	20	685	-	-
Monaco	23	674	35	654	<b>▲</b> 12	<b>1</b> 20
Oslo	26	669	29	667	<b>A</b> 3	<b>▲</b> 2
Paris	29	656	26	670	▼ 3	▼ 14
Munich	34	651	27	669	▼ 7	▼ 18
Rome	35	650	40	648	<b>A</b> 5	<b>▲</b> 2
Stockholm	37	644	32	657	▼ 5	▼ 13
Amsterdam	45	629	34	655	▼ 11	▼ 26
Copenhagen	49	625	45	643	▼ 4	▼ 18
Milan	51	618	37	652	▼ 14	▼ 34
Madrid	54	607	51	635	▼ 3	▼ 28
Dublin	56	605	56	627	-	▼ 22
Helsinki	57	604	52	634	▼ 5	▼ 30
Brussels	60	597	46	641	▼ 14	▼ 44
Edinburgh	62	590	54	632	▼ 8	▼ 42
Glasgow	65	586	50	636	▼ 15	▼ 50

Chart 4 below shows that the competitiveness of the four European leaders has declined after rising significantly between GFCI 12 and GFCI 13:

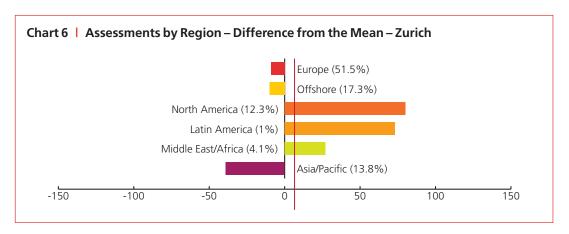


Examining the assessments given to each major centre is a useful means of assessing the relative strength and weakness of their reputations in different regions. It is important to note that assessments given to a centre by people based there are excluded from the GFCI model to eliminate 'home preference'.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

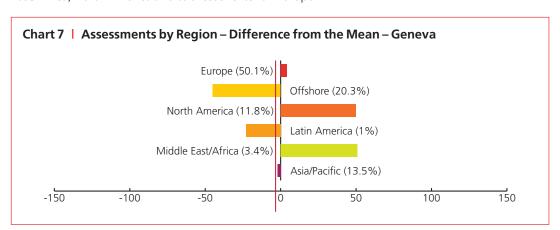


London's overall average assessment is 834, down from 839 in GFCI 13. It is worth noting that assessments from Europe are, on average, lower than assessments from elsewhere. In most cases, assessments from within a centre's own region tend to be higher than average. As in the past, London continues to be well regarded in the Americas and the Middle East but less well rated by respondents from Asia/Pacific and Offshore centres – respectively the second and third largest groups of professionals who rated London.

Zurich's overall average assessment is 756 down from 762 in GFCI 13. As in GFCI 13 the Americas and Middle East/Africa regions assess Zurich, higher than average.

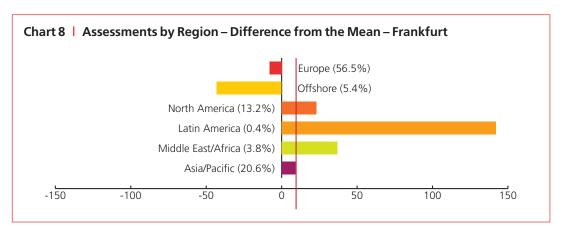


Geneva's overall average assessment is 737, slightly down from 739 in GFCI 13. Geneva is well regarded by respondents based in Middle East/Africa, North America and to a lesser extent – Europe.

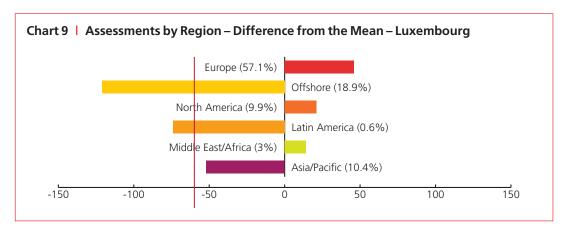




Frankfurt's overall average assessment is 724, slightly down from 727 in GFCI 13 and is given lower assessments by people based in Offshore centres and in other European centres.



Luxembourg's GFCI score is 774, significantly up from 736 in GFCI 13. The centre is well regarded in Europe, the source of 57% of its assessments, and in North America and Middle East/Africa regions.



"London and Frankfurt are still the most powerful centres in Europe and I think they will be for a long time to come" Investment Banker based in Zurich



#### Asia/Pacific

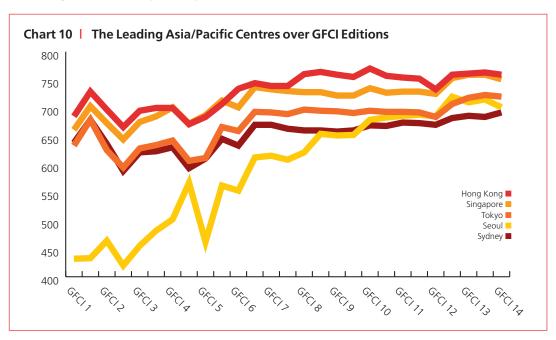
GFCI 14 sees significant gains and losses of rankings amongst Asia/Pacific centres. Tokyo, Sydney, Shanghai and Shenzhen all climb in the ratings but other centres including Hong Kong, Singapore, Seoul and Beijing all lose points.

Table 6 | The Top 10 Asia/Pacific Centres in GFCI 14

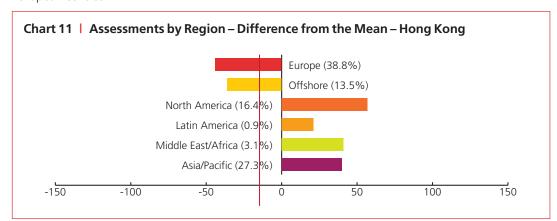
	GFCI 14 rank	GFCI 14 rating	GFCI 13 rank	GFCI 13 rating	Change in rank	Change in rating
Hong Kong	3	759	3	761	-	▼ 2
Singapore	4	751	4	759	-	▼ 8
Tokyo	5	720	6	718	<b>A</b> 1	<b>A</b> 2
Seoul	10	701	9	710	▼ 1	▼ 9
Sydney	15	692	19	686	<b>4</b>	<b>A</b> 6
Shanghai	16	690	24	674	▲ 8	<b>1</b> 6
Kuala Lumpur	22	675	21	681	▼ 1	▼ 6
Shenzhen	27	660	38	650	<b>1</b> 1	<b>1</b> 0
Osaka	30	655	22	676	▼ 8	<b>▼</b> 21
Melbourne	33	652	25	672	▼ 8	▼ 20

Hong Kong and Singapore retain their leadership in Asia and their top four positions in GFCI 14. Tokyo is still well behind the two Asian leaders but has made progress and has climbed one position to fifth. Seoul has lost nine points but remains in GFCI's top 10.

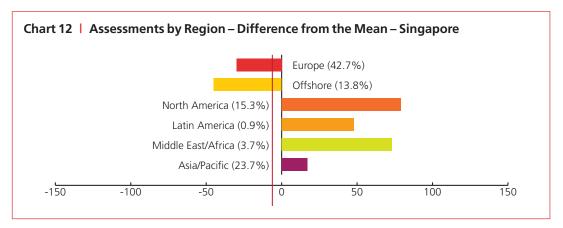
Chart 10 below shows some stabilisation of competitiveness for Asia/Pacific centres. Seoul seems to be the only centre of the top 5 to experience a marked decline:



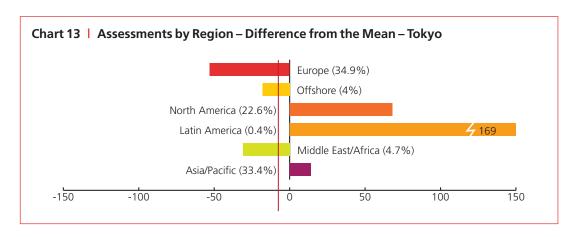
Hong Kong has an average assessment of 816 up from 811 in GFCI 13. It continues to attract higher than average assessments from Asia and the Americas but it is less well perceived by respondents based in Offshore and European centres.



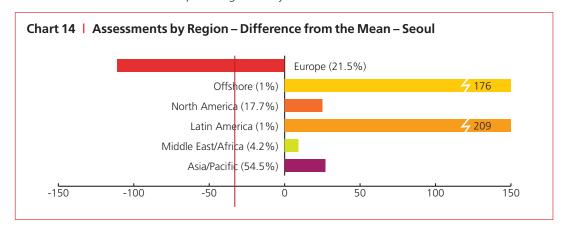
Singapore's average assessment is 810, slightly down from 816 in GFCI 13. It continues to attract higher than average assessments from Asia and the Americas.



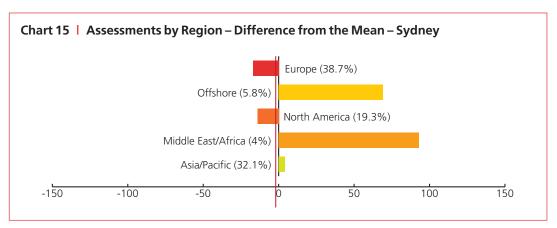
The average assessment for Tokyo is 781 up from 770 in GFCI 13. Asia/Pacific responses are slightly more favourable than average while responses from North America are significantly more positive. Responses from Europe and the Offshore centres are less positive than average for all Asian centres.



Seoul's average assessment for GFCI 14 is 757 slightly down from 759 in GFCI 13. Assessments from Europe are significantly lower than in GFCI 13.



Sydney's average assessment in GFCI 14 is 725, up from 715 in GFCI 13.



#### "Sydney doesn't seem to attract much attention as a financial centre and I struggle to see why"

Investment Banker based in Sydney



#### The Americas

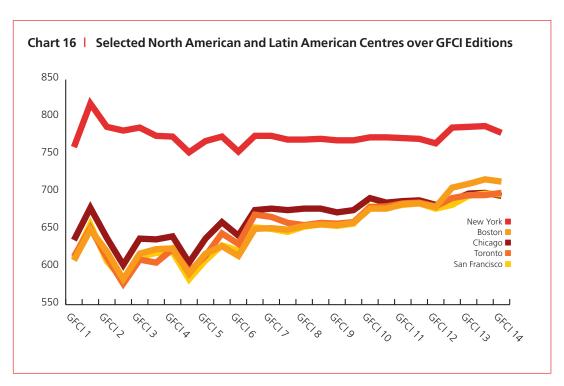
New York remains second in GFCI 14. All major North American financial centres, except Chicago have seen improvements in both ratings and ranks. Boston, Toronto and San Francisco move up one place to 7th, 11th and 12th places respectively, while Chicago falls by three places to 14th. Latin America continues to grow in importance with Rio de Janeiro, Sao Paulo and Buenos Aires all climbing in the ranks. Rio de Janeiro in particular performed well and climbed 17 places.

Table 7 North American and Latin American Centres in GFCI 14

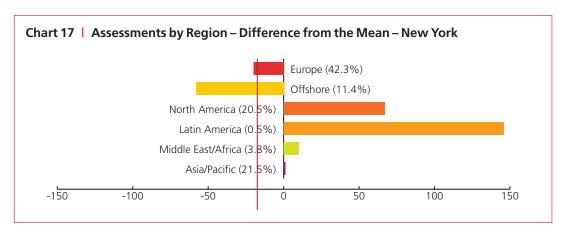
	GFCI 14 rank	GFCI 14 rating	GFCI 13 rank	GFCI 13 rating	Change in rank	Change in rating
New York	2	779	2	787	-	▼ 8
Boston	7	714	8	711	<b>A</b> 1	<b>A</b> 3
Toronto	11	699	12	696	<b>A</b> 1	<b>A</b> 3
San Francisco	12	697	13	695	<b>A</b> 1	<b>A</b> 2
Chicago	14	695	11	698	▼ 3	▼ 3
Washington D.C.	17	689	14	692	▼ 3	▼ 3
Montreal	18	688	16	689	▼ 2	▼ 1
Vancouver	19	686	15	690	▼ 4	▼ 4
Calgary	21	684	17	688	▼ 4	▼ 4
Rio de Janeiro	31	654	48	639	<b>▲</b> 17	<b>▲</b> 15
Sao Paulo	38	643	44	644	<b>A</b> 6	▼ 1
Buenos Aires	46	628	53	633	<b>▲</b> 7	▼ 5
Panama	63	589	67	597	<b>4</b>	▼ 8
Mexico City	66	584	55	628	▼ 11	▼ 44

Chart 16 opposite shows leading American centres stabilising their ratings since GFCI 13. New York is the only one experiencing a noteworthy decline in rating but it is hard to see any of the American centres challenging its leadership in North America:





The difference between regional assessments for some of the major North American centres is shown below:

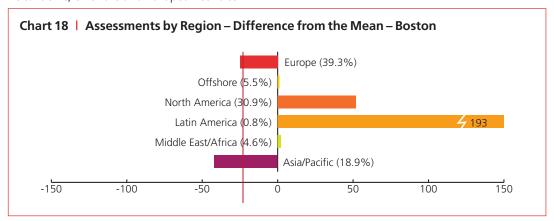


New York's overall average assessment is 834 the same as in GFCI 13. New York continues to benefit from strong support from both North and Latin America. Asia/Pacific's assessments however are markedly less favourable on New York compared to GFCI 13. European and Offshore centres remain negative.

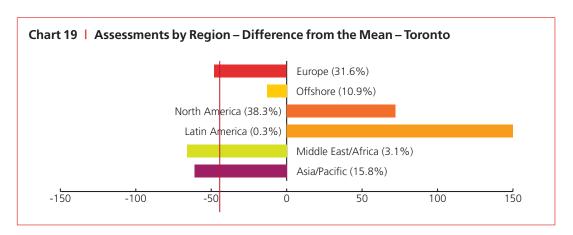
"Boston seems to operate in New York's shadow but it is a great place to do business and I find myself going there more often"

Asset Manager based in New York

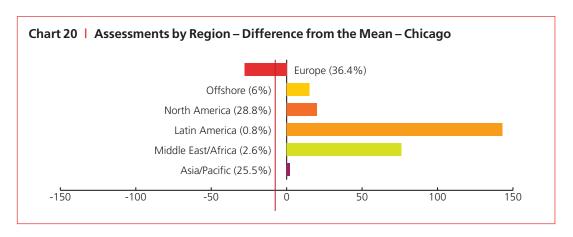
Boston's overall average assessment is 782, up from 768 in GFCI 13. Like New York, Boston enjoys strong support from respondents in North America and Latin America. It is less well rated by respondents from Asia/Pacific, Offshore and European centres.



Toronto's average assessment is 766, down from 773 in GFCI 13. As is evident from the chart respondents from North and Latin America give by far the most favourable assessments.



Chicago's overall average assessment is 724, slightly down from 725 in GFCI 13. Respondents from everywhere except Europe gave Chicago above average assessments.



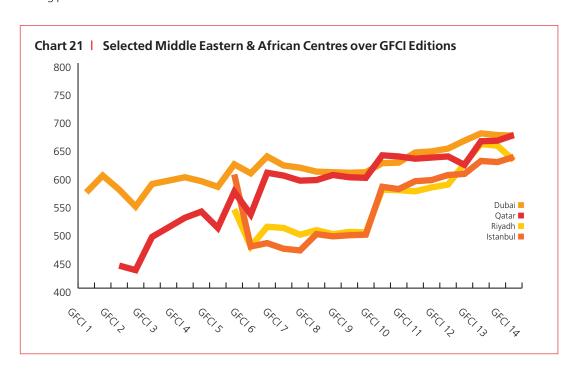
#### The Middle East and Africa

The GFCI shows that Qatar and Dubai are only one point apart as the most competitive centres in the region. Qatar's rating rose by 11 points, which helped it move up the ranks to 24th place. Dubai on the other hand has declined by two places. Tel Aviv makes a strong entry in the GFCI as the third place in the Middle East/Africa group and 32nd place globally. Istanbul continues its strong performance and overtakes Riyadh whose position has deteriorated since GFCI 13.

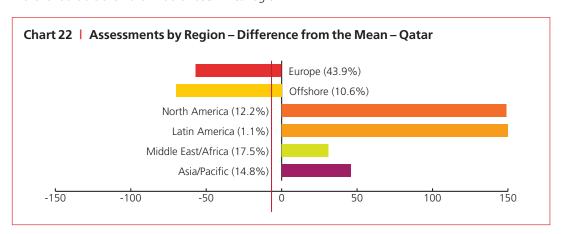
Table 8 | The Middle Eastern and African Centres in GFCI 14

	GFCI 14 rank	GFCI 14 rating	GFCI 13 rank	GFCI 13 rating	Change in rank	Change in rating
Qatar	24	672	30	661	<b>A</b> 6	<b>1</b> 1
Dubai	25	671	23	675	▼ 2	▼ 4
Tel Aviv	32	653	New	New	New	New
Abu Dhabi	42	637	39	649	▼3	<b>▼</b> 12
Istanbul	44	633	57	626	<b>▲</b> 13	<b>A</b> 7
Riyadh	47	627	33	656	▼ 14	▼ 29
Bahrain	52	610	64	607	<b>▲</b> 12	<b>A</b> 3
Johannesburg	61	592	62	610	<b>A</b> 1	▼ 18

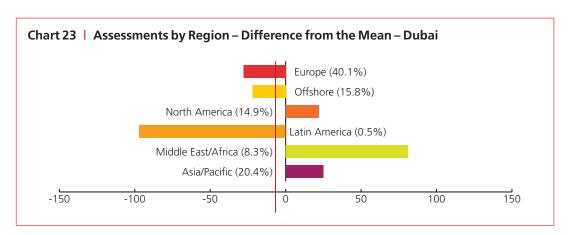
The chart shows Riyadh's steep decline as well as Istanbul's continued strong performance.

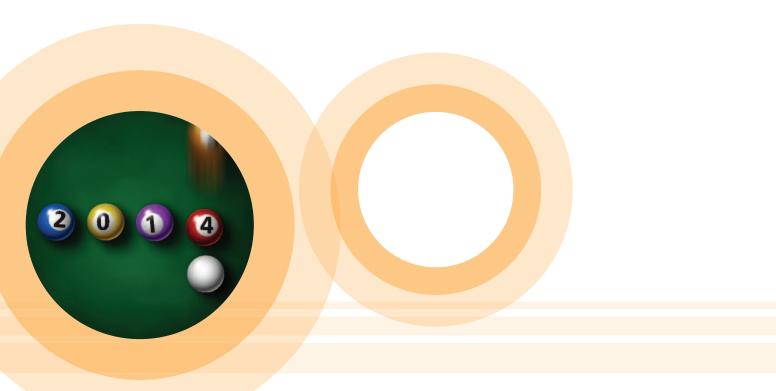


Qatar has achieved an average global assessment of 690, up from 682 in GFCI 13. All regions except Europe and the Offshore centres have given favourable assessments to Qatar with the Americas and Asia/Pacific being more favourable then the Middle East/Africa region.

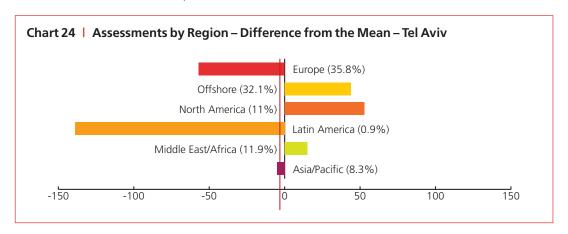


Dubai's overall average assessment is 697, slightly up from 692 in GFCI 13 with strong support from other centres in the region.

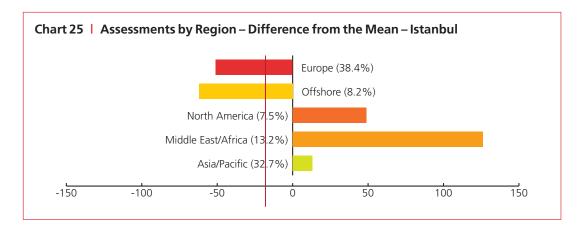




Tel Aviv makes a strong entrance in GFCI 14 compared to its regional peers. Its overall average assessment is 639. The North American, Offshore and Middle East/Africa centres have been favourable in their assessments to Tel Aviv, while Asia/Pacific and Europe have been less so.



Istanbul's overall average assessment is 593, slightly up from 590 in GFCI 13. Istanbul is well supported by respondents based in Middle East/Africa, North America and Asia/Pacific but has a lower reputation amongst respondents in European and Offshore financial centres:



"Qatar is becoming a more important international hub and starting to challenge the **UAE** centres"

Investment Banker based in Dubai



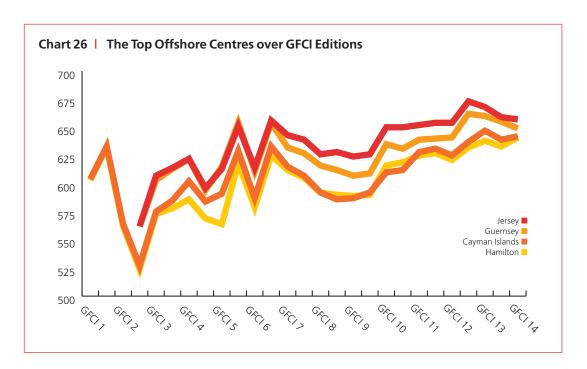
### Offshore Centres

Offshore centres have fared better in the rankings than in GFCI 13. Despite some of them seeing declines in their ratings most have risen in rank. Jersey has maintained its GFCI rank despite a decline of 11 points in its rating. Guernsey also saw an 11 points decline in its rating but because of stronger competition that meant it fell by five places to 36th. Malta was a strong performer rising by 13 points and 15 places to 53rd. Gibraltar saw the biggest decline in both ratings and ranking.

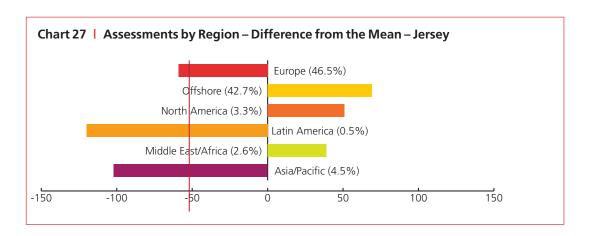
Table 9 | Top Offshore Centres in GFCI 14

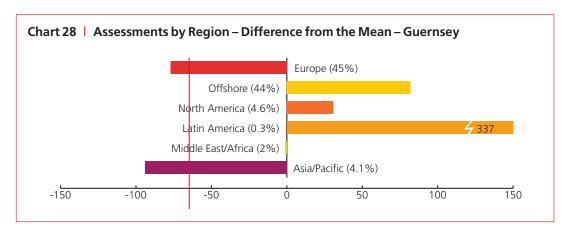
	GFCI 13 rank	GFCI 13 rating	GFCI 12 rank	GFCI 12 rating	Change in rank	Change in rating
Jersey	28	657	28	668	-	▼ 11
Guernsey	36	649	31	660	▼ 5	▼ 11
Cayman Islands	39	642	41	647	<b>A</b> 2	▼ 5
Hamilton	40	641	49	638	<b>A</b> 9	<b>A</b> 3
Isle of Man	41	638	43	645	<b>A</b> 2	▼ 7
British Virgin Islands	48	626	47	640	▼ 1	▼ 14
Malta	53	608	68	595	<b>1</b> 5	<b>1</b> 3
Bahamas	67	583	73	587	<b>A</b> 6	▼ 4
Mauritius	68	581	70	590	<b>A</b> 2	▼ 9
Gibraltar	70	572	60	615	▼ 10	<b>▼</b> 43
Cyprus	74	536	75	576	<b>A</b> 1	▼ 40



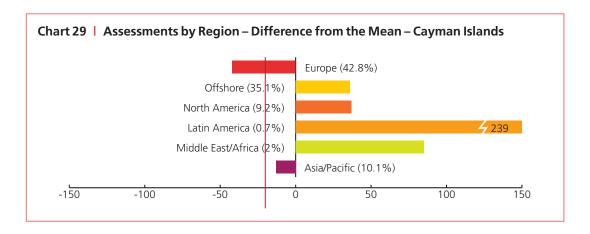


The global average assessment for Jersey is 670, down from 693 in GFCI 13. Other Offshore centres along with North America and the Middle East/Africa region rate Jersey more favourably than they have in GFCI 13.



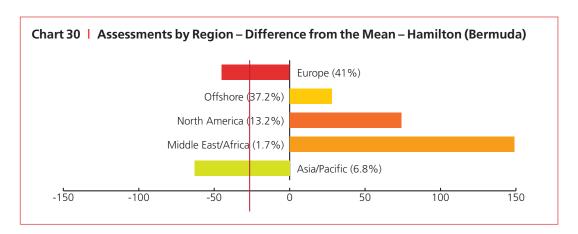


The global average assessment of Guernsey is 663, significantly lower than the 707 it received in GFCI 13. Respondents from other Offshore centres and North America rate Guernsey more favourably than average, while Europe and Asia/Pacific rate it lower than the global average.



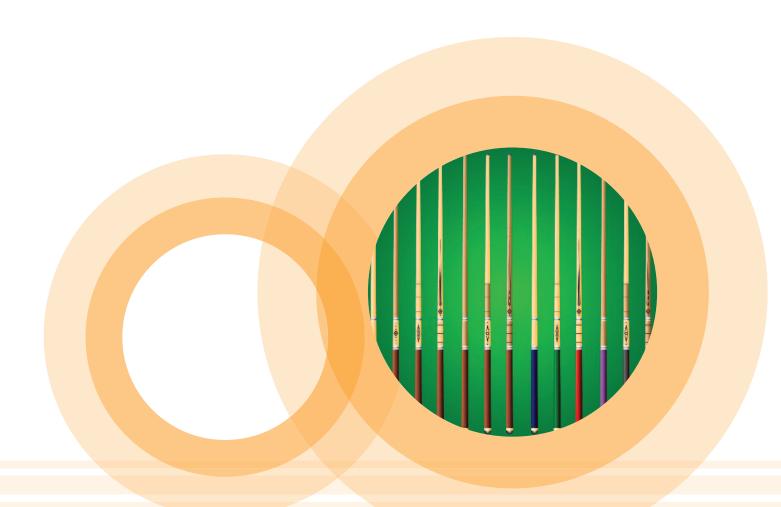
The average assessment for Cayman Islands is 628, down from 639 in GFCI 13. Most regions, including Offshore centres have a more favourable assessment. Europe and Asia/Pacific were less favourable.

Hamilton's average assessment is 626, slightly down from 629 in GFCI 13. Hamilton is favoured by respondents from the Middle East/Africa, North America and the Offshore centres.

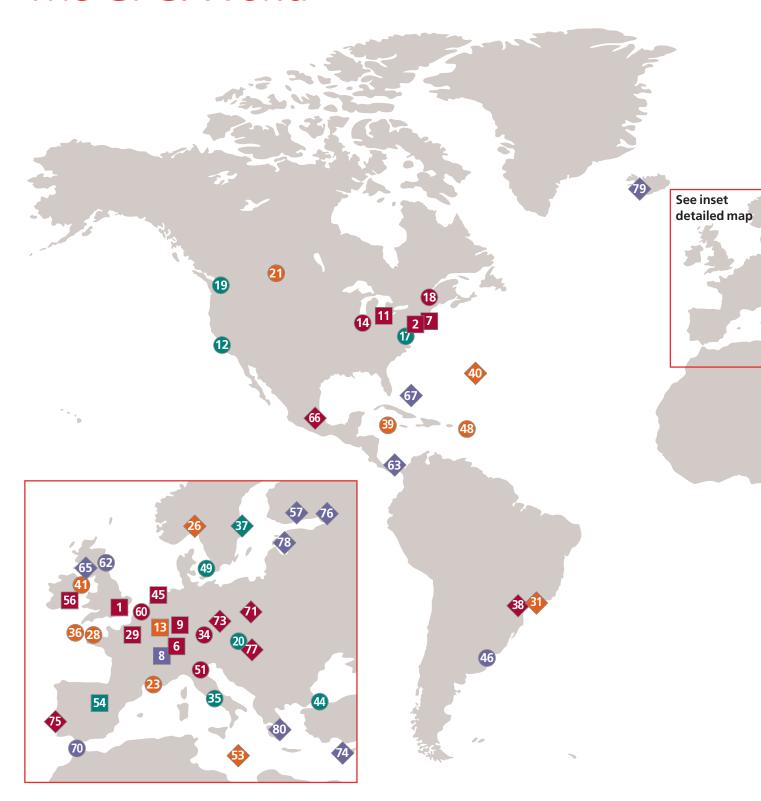


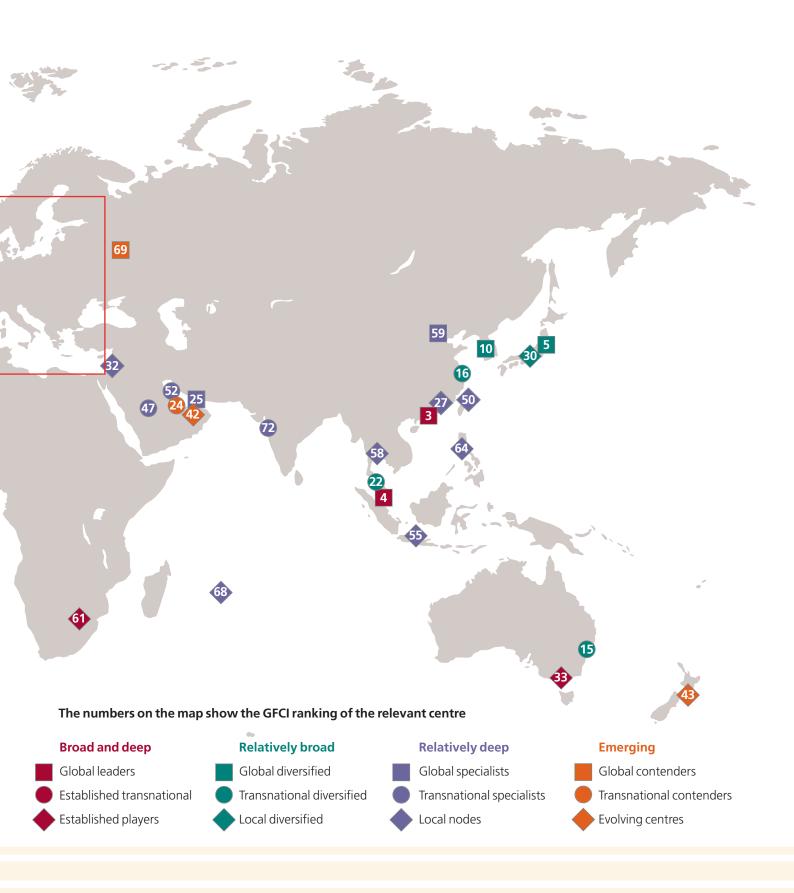
"The Crown Dependencies continue to dominate the Offshore world in my book"

Asset Manager based in London



## The GFCI World





### **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 14 dataset has been used to produce separate sub-indices for the Investment Management, Banking, Government & Regulatory, Insurance and Professional Services sectors.

Table 10 below shows the top ten ranked financial centres in the industry sector sub-indices:

Table 10   GFCI 14 Industr	y Sector Sub-Indices Top 10
----------------------------	-----------------------------

Rank	Investment Management	Banking	Government & regulatory	Insurance	Professional services
1	New York (+1)	New York (-)	London (-)	London (+2)	London (-)
2	London (-1)	Hong Kong (+1)	New York (-)	Hong Kong (-)	New York (-)
3	Singapore (-)	London (-1)	Hong Kong (-)	New York (-2)	Hong Kong (-)
4	Hong Kong (-)	Singapore (-)	Zurich (+2)	Singapore (-)	Singapore (-)
5	Tokyo (-)	Seoul (-)	Geneva (-)	Zurich (-)	Zurich (-)
6	Boston (+1)	Tokyo (-)	Singapore (-2)	Boston (-)	Geneva (-)
7	Zurich (-1)	Boston (-)	Tokyo (-)	Monaco (+4)	Boston (+1)
8	Toronto (+4)	Zurich (-)	Frankfurt (+2)	Geneva (-1)	Sydney (+3)
9	Sydney (+11)	Geneva (+2)	Paris (-1)	Luxembourg (+13)	Tokyo (-)
10	Geneva (-2)	San Francisco (-)	San Francisco (+2)	Oslo (+4)	Toronto (-)

The top four centres in the GFCI 14 overall index are once again at the top of all industry sectors except Government & Regulatory where Singapore was overtaken by Zurich and Geneva and is now ranked 6th. London is at the top of three out of five sub-indices. It has regained its leadership in Insurance but has lost ground to New York in Investment Management. Its position has weakened further in Banking where it now ranks 3rd.

New York is still at the top of the Banking sector and in GFCI 14 it takes the first place in Investment Management. It has lost its top rank in Insurance. Hong Kong is in the top three of all sectors except Investment Management where third place is held by Singapore as in GFCI 13.

There are four new centres in the top 10 of the sector sub-indices:

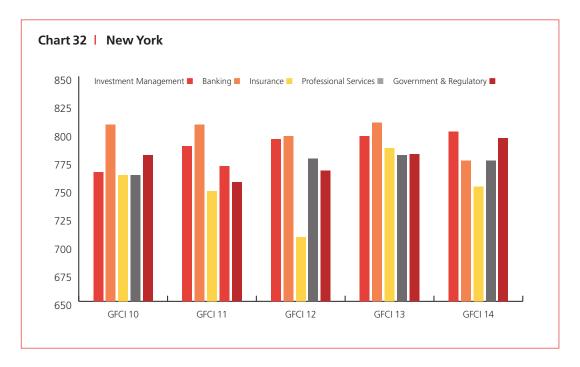
- Sydney has gained 11 places to 9th in Investment Management and three places to 8th in Professional Services;
- Luxembourg has gained 13 places and is now 9th in Insurance;
- Monaco gains four places to 7th in Insurance;
- Oslo also enters the top 10 in Insurance with a gain of four places;
- Chicago has lost its presence in the top 10.

The graphs below show how the GFCI 14's top five centres fared in the various industry sectors over the past five GFCI editions.

London has traditionally been well rated by the professional services industry. In the last two editions however investment managers and government and regulatory professionals have been at least as favourable. Insurers and bankers are slightly less favourable in their assessments of London.



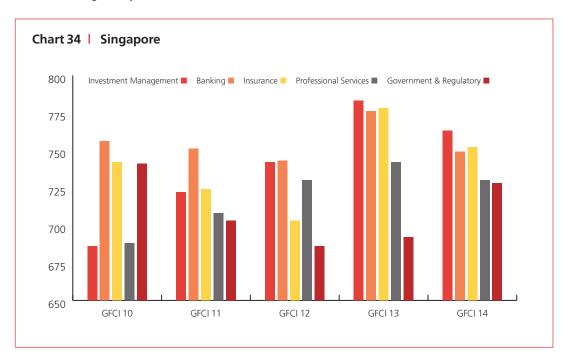
New York has been at the top of the banking industry sector in all GFCI editions. The investment management and government & regulatory sectors score New York higher for the first time in GFCI 14. Although New York's banking scores declined significantly, it remains the leader in this sector.



Hong Kong is well regarded by respondents from the insurance sector. It is noteworthy that Hong Kong's sector scores have been converging over the past five GFCI editions: insurance and banking have been generally declining while investment management and government and regulatory have been generally rising.

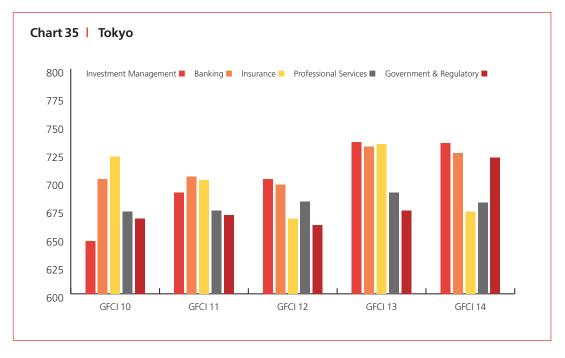


Singapore scores better in the core financial services industry sectors – investment management, banking and insurance and less well in the services and regulatory sectors.



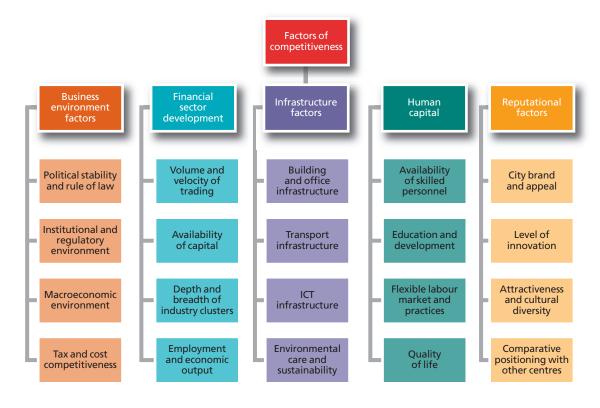
Tokyo exhibits a rising trend in its investment management and banking ratings. Professional services and government & regulatory ratings have been generally stable. In GFCI 14 government & regulatory ratings overtake professional services and insurance. It will be interesting to monitor whether this trend will continue.

"Tokyo is regaining its reputation – our office there is our fastest growing of all" Insurance Broker based in Sydney



## Five Areas of Competitiveness

We have redefined the taxonomy of the areas of competitiveness used in the GFCI. The instrumental factors used in the GFCI model are grouped into five key areas of competitiveness (Human Capital, Business Environment, Financial Sector Development, Infrastructure and Reputational Factors):





To assess how financial centres rank in each of these areas, the GFCI 14 factor assessment model is run with one of the five groups of instrumental factors at a time. Table 11 shows the top ten ranked centres in each subindex:

Table 11 | GFCI 14 Area of Competitiveness Sub-Indices – Top 10

Rank	Human capital	Business environment	Financial sector development	Infrastructure	Reputational factors
1	London (-)	London (-)	London (-)	London (-)	London (-)
2	New York (-)	New York (-)	New York (-)	New York (-)	New York (-)
3	Hong Kong (-)	Hong Kong (-)	Hong Kong (-)	Hong Kong (-)	Hong Kong (-)
4	Singapore (-)	Singapore (-)	Singapore (-)	Singapore (-)	Singapore (-)
5	Tokyo (+1)	Zurich (-)	Tokyo (+3)	Tokyo (+1)	Tokyo (+2)
6	Zurich (-1)	Tokyo (+2)	Zurich (-1)	Zurich (-1)	Zurich (-1)
7	Boston (-)	Geneva (-1)	Boston (-)	Boston (-1)	Boston (-)
8	Geneva (-)	Boston (-1)	Seoul (+7)	Geneva (-)	Geneva (-)
9	Frankfurt (-)	Chicago (+1)	Geneva (-3)	Washington DC (+5)	Toronto (+4)
10	Chicago (+2)	Frankfurt (-1)	Chicago (+1)	Chicago (+1)	Chicago (+1)

The top six financial centres in GFCI 14 – London, New York, Hong Kong, Singapore, Tokyo and Zurich – also share the top six places in each of these sub indices (except for Business Environment where Zurich and Tokyo are 5th and 6th). This confirms their strength in all five areas of competitiveness. It also confirms our belief that a genuinely top global centre is competitive in all areas – successful people like to live and work in successful centres. Boston, Geneva and Chicago maintain a strong presence in the top 10 of all five areas of competitiveness. Frankfurt is present in Human Capital and Business Environment. Seoul, Washington and Toronto are now in the top 10 of the other three areas.

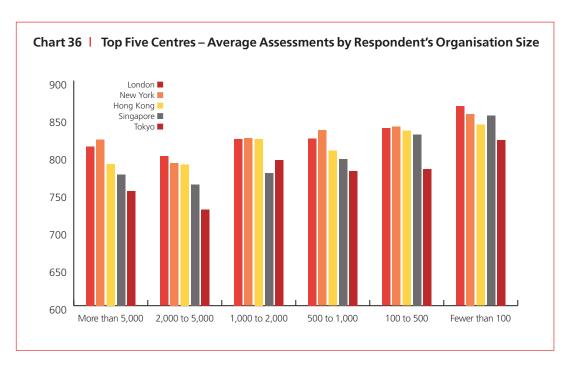
"I'm lucky to travel between here and London regularly – it is not hard to see why both cities are so successful"

Private Banking Director based in New York

2 'The Competitive Position of London as a Global Financial Centre', Z/Yen Limited, The Corporation of London, 2005



### 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 respondents from smaller organisations generally give higher assessments than respondents from larger organisations. Singapore and Tokyo exhibit larger divergences between the different size groups than the other three centres.

"If you want to be in on the M and A action, then you need to be in London""

A Director of a Mergers and Acquisitions Boutique based in London



#### Reputation

In the GFCI model, one way to look at reputation is to examine 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 the passage of time with latest assessments having the most 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 the GFCI 14 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 12 below shows the 20 centres with the greatest positive difference between average assessment and the GFCI rating:

Table 12 | GFCI 14 Top 20 Centres Assessments and Ratings – Reputational Advantage

Centre	Weighted average assessment	GFCI 14 rating	Reputational advantage
Tokyo	783	720	63
Singapore	808	751	57
Boston	769	714	55
Seoul	754	701	53
Hong Kong	809	759	50
New York	828	779	49
Osaka	693	655	38
San Francisco	734	697	37
Toronto	733	699	34
Kuala Lumpur	709	675	34
Zurich	751	718	33
Sydney	724	692	32
London	823	794	29
Chicago	723	695	28
Vancouver	713	686	27
Geneva	734	710	24
Frankfurt	724	702	22
Dubai	693	671	22
Melbourne	672	652	20
Washington DC	705	689	16

In GFCI 13 we saw the entrance of Vienna, Monaco, Qatar and Oslo into this top 20 but neither of them has retained its place there (though Qatar comes close in 21st place). Tokyo, Singapore and Boston remain the top three centres. Dubai, Melbourne and Washington DC also enter the top 20 at 18th, 19th and 20th place respectively.

Table 13 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 13 | GFCI 14 Bottom 10 Centres Assessments and Ratings – Reputational Advantage

Centre	Average assessment	GFCI 14 rating	Reputational advantage
Athens	328	469	-141
Reykjavik	372	479	-107
Budapest	411	515	-104
Tallinn	419	495	-76
Mauritius	511	581	-70
Lisbon	469	536	-67
Moscow	518	580	-62
St Petersburg	460	522	-62
Mexico City	523	583	-60
Gibraltar	512	572	-60

It is noteworthy that eight out of the bottom ten centres by reputational advantage are in Europe's periphery. Europe has been (and continues to be) severely affected by the global financial crisis and the euro-zone crisis.

> "Reputation is all in this business and the reputation of financial centres is vital to their success"

Investment Banker based in Frankfurt



### Stability

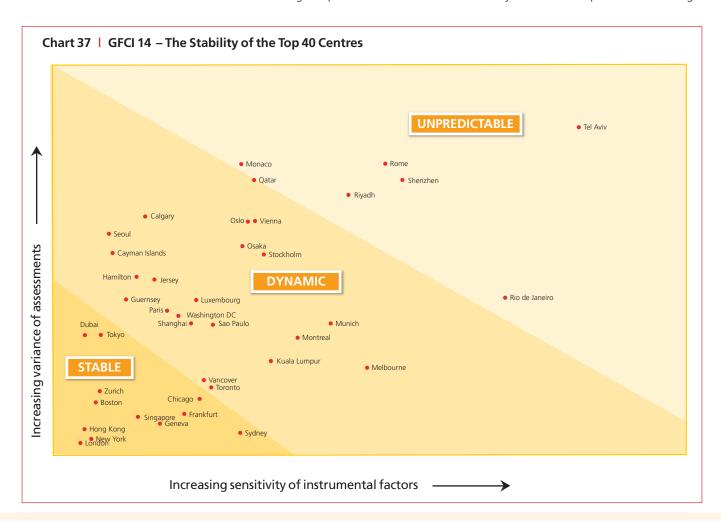
The GFCI 14 model allows for analysis of the financial centres with the most volatile competitiveness. Chart 37 below contrasts the 'spread' or variance of the individual assessments given to each of the top 40 centres with the sensitivity to changes in the instrumental factors:

Chart 37 shows three bands of financial centres. The 'unpredictable' centres in the top right of the chart; Rome, Qatar, Monaco, Oslo, Shenzhen, Tel Aviv and Rio de Janeiro; 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. It is interesting to note that the centres categorised as unpredictable in previous editions of the GFCI have shown the greatest movements in ratings over the past year.

The 'stable' centres in the bottom left of the chart; London, Hong Kong, New York, Singapore, Zurich, Geneva, Boston, Chicago, Sydney and Frankfurt; 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.



# Appendix 1: Assessment Details

Table 14 | Assessment Details

Centre	GFCI 14	Number of assessments	Total Average assessment	Standard deviation of assessments
London	794	1,277	834	1.76
New York	779	1,028	834	1.77
Hong Kong	759	902	816	1.79
Singapore	751	785	810	1.83
Tokyo	720	473	781	2.05
Zurich	718	710	756	1.87
Boston	714	524	782	1.90
Geneva	710	713	737	1.82
Frankfurt	702	681	724	1.84
Seoul	701	288	757	2.30
Toronto	699	386	766	1.93
San Francisco	697	249	733	1.67
Luxembourg	696	788	774	2.14
Chicago	695	385	724	1.94
Sydney	692	274	725	1.78
Shanghai	690	372	705	2.08
Washington DC	687	288	705	2.10
Calgary	687	192	706	2.34
Vancouver	686	236	719	1.88
Vienna	686	260	701	2.33
Montreal	685	263	681	2.05
Kuala Lumpur	675	238	717	1.99
Monaco	674	361	676	2.45
Qatar	672	189	690	2.42
Dubai	671	589	697	2.06
Oslo	669	168	660	2.33
Shenzhen	660	170	696	2.42
Jersey	657	426	670	2.19
Paris	656	670	661	2.12
Osaka	655	105	687	2.27
Rio de Janeiro	654	127	647	2.15
Tel Aviv	653	109	639	2.53
Melbourne	652	140	668	1.97
Munich	651	257	649	2.08
Rome	650	271	634	2.46
Guernsey	649	393	663	2.15
Stockholm	644	161	618	2.25
Sao Paulo	643	134	637	2.08
Cayman Islands	642	404	628	2.26
Hamilton	641	234	626	2.20

Centre	GFCI 14	Number of assessments	Total Average assessment	Standard deviation of assessments
Isle of Man	638	343	626	2.30
Abu Dhabi	637	335	620	2.08
Wellington	636	44	630	2.15
Istanbul	633	159	593	2.28
Amsterdam	629	468	634	2.04
Buenos Aires	628	163	636	2.43
Riyadh	627	131	618	2.89
British Virgin Islands	626	395	635	2.46
Copenhagen	625	208	591	2.15
Taipei	619	116	628	1.98
Milan	618	323	626	2.08
Bahrain	610	191	588	2.20
Malta	608	314	577	2.20
Madrid	607	351	597	2.10
Jakarta	607	107	593	2.12
Dublin	605	571	649	2.06
Helsinki	604	143	560	2.32
Bangkok	600	166	577	1.81
Beijing	598	418	565	2.39
Brussels	597	511	592	2.04
Johannesburg	592	135	577	1.80
Edinburgh	590	338	586	2.17
Panama	589	160	563	2.44
Manila	587	76	559	2.16
Glasgow	586	181	543	2.44
Mexico City	584	94	535	2.05
Bahamas	583	239	562	2.26
Mauritius	581	185	517	2.42
Moscow	580	409	531	2.12
Gibraltar	572	294	655	2.81
Warsaw	571	130	522	2.18
Mumbai	571	184	552	2.23
Prague	565	151	511	2.25
Cyprus	536	316	493	2.34
Lisbon	536	147	466	2.24
St Petersburg	522	108	464	2.57
Budapest	515	152	411	2.10
Tallinn	495	71	446	2.72
Reykjavik	479	71	377	2.51
Athens	469	227	326	1.90

## Appendix 2: Respondents' Details

Table 15 | Respondents by **Industry Sector** 

Sector	Respondents
Banking	445
Investment Management	286
Insurance	84
Government & Regulatory	88
Professional Services	358
Trading	37
Industry Finance	32
Other	262
Grand Total	1,592

Table 17 | Respondents by **Size of Organisation** 

Number of staff	Responses
Fewer than 100	498
100 to 500	251
500 to 1,000	119
1,000 to 2,000	101
2,000 to 5,000	142
More than 5,000	481
Grand Total	1,592

Table 16 | Respondents by Location

Regions	Responses
Europe	659
Middle East/Africa	68
Asia/Pacific	373
North America	237
Latin America	11
Offshore	244
Grand Total	1,592



### 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 an IT industry competitiveness survey (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 environment rating (from the EIU) amongst others. A total of 102 instrumental factors are used in GFCI 14. 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 25,749 financial centre assessments drawn from 2,786 respondents in GFCI 14.

The 102 instrumental factors were selected because the features they measure contribute in various ways to the fourteen competitiveness factors identified in previous research. These are shown below.

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 18 | 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;

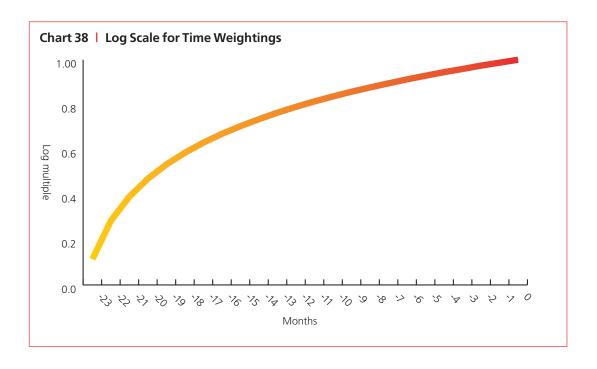
- indices are entered into the GFCI model as directly as possible, whether this is a rank, a derived score, a value, a distribution around a mean or a distribution around a benchmark:
- if a factor is at a national level, the score will be used for all centres in that country; nationbased factors will 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). Only indices which have values for at least 50% of the financial centres (currently 47) will be included.

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). The SVM used for the GFCI is PropheZy – Z/Yen's proprietary system. 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.



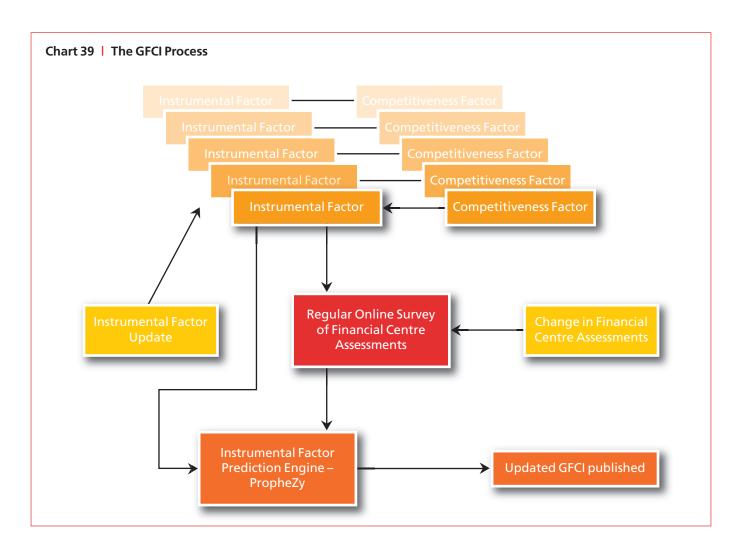
The process of creating the GFCI is outlined diagrammatically below.

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 gueried 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 19 shows how closely instrumental factor rankings correlate with the GFCI 14 rankings for the top 25 instrumental factors:

As in GFCI 13 we can see that the broader measures of competitiveness seem to act as good indicators for financial centre competitiveness. Other noteworthy indicators, which feature for the first time in the top ten are Commodity and Stock Futures, pointing to a rising importance of the availability of a sophisticated stock exchange. Global Cities Image, also in the top ten, seems to confirm the importance of a good city brand.

A full list of the instrumental factors used in the GFCI 14 model are shown opposite:

Table 18 | Top 25 Instrumental Factors by **Correlation with GFCI 14** 

Instrumental Factors	R-Sq
Global City Competitiveness	0.524
Banking Industry Country Risk Assessments	0.464
Global Power City Index	0.435
Office Occupancy Costs	0.428
World Competitiveness Scoreboard	0.418
Global Competitiveness Index	0.412
Volume of Stock Futures Trading	0.378
City Global Image	0.364
Commodity Futures Notional Turnover	0.355
Global Cities Index	0.355
Price Levels	0.311
Innovation Cities Global Index	0.308
Financial Secrecy Index	0.305
Citizens Domestic Purchasing Power	0.303
Connectivity	0.298
IT Industry Competitiveness	0.285
Institutional Effectiveness	0.281
Number of Greenfield Investments	0.256
Political Risk	0.256
Physical Capital	0.253
Global Information Technology	0.245
Wage Comparison Index	0.244
Global Talent Index	0.243
Capital Access Index	0.242
Top Tourism Destinations	0.240



Table 20 | Business Environment Related Instrumental Factors

Instrumental factor	Source	Website	Updated since GFCI 13
Business Environment	EIU	www.economist.com/markets/rankings	
Ease of Doing Business Index	The World Bank	www.doingbusiness.org/economyrankings	
Operational Risk Rating	EIU	http://www.viewswire.com/index.asp?layout=ho mePubTypeRK	✓
Real Interest Rate	World Bank	http://data.worldbank.org/indicator/FR.INR.RINR	
Projected City Economic Growth	McKinsey Global Institute	http://www.foreignpolicy.com/arti- cles/2012/08/13	
Global Services Location Index	AT Kearney	www.atkearney.com	
Corruption Perceptions Index	Transparency International	www.transparency.org/publications	
Wage Comparison Index	UBS	www.ubs.com	
Corporate Tax Rates	Price Waterhouse Coopers	n/a	
Employee Effective Tax Rates	Price Waterhouse Coopers	n/a	✓
Personal Tax Rates	OECD	www.oecd.org	✓
Total Tax Receipts (as % of GDP)	OECD	http://oberon.sourceoecd.org	
Bilateral Tax Information Exchange Agreements	OECD	http://www.oecd.org	✓
Economic Freedom of the World	Fraser Institute	www.freetheworld.com/release.html	
Banking Industry Country Risk Assessments	Standard & Poor's	http://www2.standardandpoors.com	
Government Debt as Percentage of GDP	CIA World Fact Book	https://www.cia.gov/library/publications/the- world-factbook/rankorder/2186rank.html	✓
Political Risk Index	Exclusive Analysis Ltd	http://www.exclusive-analysis.com/	
Global Peace Index	Institute for Economics and Peace	http://www.visionofhumanity.org/info- center/global-peace-index-2011/	✓
Financial Secrecy Index	Tax Justice Network	http://www.financialsecrecyindex.com/	
Institutional Effectiveness	EIU	http://www.managementthinking.eiu.com/	
City GDP Figures	Brookings Institute	http://www.brookings.edu/~/media/research/	
Number of Greenfield Investments	KPMG	http://www.kpmg.com/FR/fr/IssuesAndInsights/News/Documents/GPIA-KPMG-CIM-2012.pdf	
Open Government	The World Justice Project	http://worldjusticeproject.org/sites/default/files/ WJP_Index_Report_2012.pdf	NEW
Regulatory Enforcement	The World Justice Project	http://worldjusticeproject.org/sites/default/files/ WJP_Index_Report_2012.pdf	NEW

Table 21 | Financial Sector Development Related Instrumental Factors

Instrumental factor	Source	Website	Updated since GFCI 13
Capital Access Index	Milken Institute	www.milkeninstitute.org/research	
Securitisation	International Financial Services London (IFSL)	www.ifsl.org.uk	
Capitalisation of Stock Exchanges	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Value of Share Trading	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Volume of Share Trading	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Broad Stock Index Levels	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Value of Bond Trading	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Volume of Stock Options Trading	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Volume of Stock Futures Trading	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Domestic Credit Provided by Banks (% GDP)	World Bank	http://data.worldbank.org/indicator/FS.AST.DOM S.GD.ZS	
Percentage of Firms Using Bank Credit to Finance Investment	World Bank	http://data.worldbank.org/indicator/IC.FRM.BNK S.ZS	✓
Total Net Assets of Mutual Funds	Investment Company Institute	http://www.icifactbook.org/	✓
Islamic Finance	IFSL	http://www.thecityuk.com/what-we-do/the-re-search-centre/reports.aspx	
Net External Position of Banks	Bank for International Settlements	http://www.bis.org/statistics/bankstats.htm	✓
External Position of Central Banks (as % GDP)	Bank for International Settlements	http://www.bis.org/statistics/bankstats.htm	✓
Liner Shipping Connectivity	The World Bank	http://data.worldbank.org/indicator/IS.SHP.GCN W.XQ	✓
Commodity Options Notional Turnover	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Commodity Futures Notional Turnover	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Global Connectedness Index	DHL	http://www.dhl.com/en/about_us/logistics_insights/global_connectedness_index_2012/gci_results.html	
City GDP Composition (Business/Finance)	Brookings Institution	http://www.brookings.edu/research/interactives/global-metro-monitor-3	NEW

Table 22 | Infrastructure Related Instrumental Factors

Instrumental factor	Source	Website	Updated since GFCI 13	
Office Occupancy Costs	DTZ	http://www.dtz.com/Global/Research/	✓	
Office Space Across the World	Cushman & Wakefield	www.cushwake.com/cwglobal	✓	
Global Property Index	Investment Property Databank	http://www.ipd.com/	✓	
Real Estate Transparency Index	Jones Lang LaSalle	www.joneslanglasalle.co.uk		
Digital Economy Ranking	EIU	www.economist.com/markets/rankings		
Telecommunication Infrastructure Index	United Nations	http://www.unpan.org/egovkb/global_reports/0 8report.htm		
Quality of Ground Transport Network	World Economic Forum	http://www.weforum.org/en/initiatives/gcp/Trave landTourismReport	✓	
Quality of Roads	World Economic Forum	http://www.weforum.org/en/initiatives/gcp/Trave landTourismReport	✓	
Roadways per Land Area	CIA World Fact Book	https://www.cia.gov/library/publications/the- world-factbook/rankorder/2085rank.html	✓	
Railways per Land Area	CIA World Fact Book	https://www.cia.gov/library/publications/the- world-factbook/rankorder/2121rank.html	✓	
Physical Capital	EIU	http://www.managementthinking.eiu.com/		
Connectivity	EIU	http://pages.eiu.com/rs/eiu2/images/EIU_BestCiti es.pdf		
IT Industry Competitiveness	BSA/EIU	http://globalindex11.bsa.org/country-table/		
Energy Sustainability Index	World Energy Council	http://www.worldenergy.org/publications/3962. asp		
City Infrastructure	EIU	http://pages.eiu.com/rs/eiu2/images/EIU_BestCities.pdf		
Urban Sprawl	EIU	http://pages.eiu.com/rs/eiu2/images/EIU_BestCiti es.pdf		
Metro Network Length	Metro Bits	http://mic-ro.com/metro/table.html		
Global Information Technology	World Economic Forum	http://www.weforum.org/issues/global- information-technology/index.html		

Table 23 | Human Capital Related Instrumental Factors

Instrumental factor	Source	Website	Updated since GFCI 13	
Graduates in Social Science Business and Lav	v World Bank	www.worldbank.org/education	✓	
Gross Tertiary Education Ratio	World Bank	www.worldbank.org/education	✓	
Visa Restrictions Index	Henley & Partners	http://www.henleyglobal.com/citizenship/visa-re- strictions/		
Human Development Index	UN Development Programme	http://hdr.undp.org	✓	
Citizens Purchasing Power	UBS	http://www.ubs.com/1/e/ubs_ch/wealth_mgmt_ ch/research.html		
Quality of Living Survey	Mercer HR	www.mercerhr.com		
Happy Planet Index	New Economics Foundation (NEF)	http://www.happyplanetindex.org/explore/global /index.html		
Number of High Net Worth Individuals	City Bank & Knight Frank	http://www.knightfrank.com/wealthreport/		
Personal Safety Index	Mercer HR	www.mercerhr.com		
Homicide Rates	UN Office of Drugs and Crime	http://www.unodc.org/unodc/en/data-and- analysis/		
World's Top Tourism Destinations	Euromonitor Archive	www.euromonitor.org		
Average Days with Precipitation per Year	Sperling's Best Places	www.bestplaces.net		
Spatial Adjusted Liveability Index	EIU	http://pages.eiu.com/rs/eiu2/images/EIU_BestCities.pdf		
Human Capital	EIU	http://www.managementthinking.eiu.com/		
Global Talent Index	EIU	http://www.managementthinking.eiu.com/globa l-talent-index-2011-2015.html		
Citywide CO2 Emissions	Carbon Disclosure Project	https://www.cdproject.net/en- US/Results/Pages/reports.aspx		
Healthcare	EIU	http://pages.eiu.com/rs/eiu2/images/EIU_BestCities.pdf		
Global Skills Index	Hays	http://www.hays-index.com/	NEW	



Table 24 | Reputation Related Instrumental Factors

Instrumental factor	Source	Website	Updated since GFCI 13	
World Competitiveness Scoreboard	IMD	www.imd.ch/research	✓	
Global Competitiveness Index	World Economic Forum	www.weforum.org		
Global Business Confidence	Grant Thornton	www.grantthorntonibos.com		
Foreign Direct Investment Inflows	UNCTAD	http://www.unctad.org		
FDI Confidence	AT Kearney	http://www.atkearney.com/images/global/pdf/ln-vesting_in_a_Rebound-FDICI_2010.pdf		
City to Country GDP Ratio	World Bank Price Waterhouse Cooper	https://www.ukmediacentre.pwc.com/content/detail.aspx?releaseid=3421&newsareaid=2		
GDP per Person Employed	World Bank	http://data.worldbank.org/indicator/SL.GDP.PCA P.EM.KD		
Global Innovation Index	INSEAD/WIPO	http://www.globalinnovationindex.org/gii/		
Global Intellectual Property Index	Taylor Wessing	http://www.taylorwessing.com/ipindex/		
Retail Price Index	The Economist	www.economist.com/markets/indicators	✓	
Price Levels	UBS	http://www.ubs.com/1/e/wealthmanagement/wealth_management_research/prices_earnings.html		
Global Power City Index	Institute for Urban Strategies & Mori Memorial Foundation	http://www.mori-m- foundation.or.jp/english/index.shtml		
Global Cities Index	AT Kearney	http://www.foreignpolicy.com/story/cms.php?story_id=4509		
Number of International Fairs & Exhibitions	World Economic Forum	http://www.weforum.org/en/initiatives/gcp/TravelandTourismReport	✓	
Innovation Cities Global Index	2thinknow Innovation Cities™ Project	http://www.innovation-cities.com/innovation-cities-global-index-2010-city-rankings/	✓	
City Global Appeal	EIU	http://www.managementthinking.eiu.com/		
Global City Competitiveness	EIU	http://www.managementthinking.eiu.com/		
The Big Mac Index	The Economist	http://www.economist.com/blogs/graphicdetail/2012/01/daily-chart-3		
City Global Image	KPMG	http://www.kpmg.com/FR/fr/lssuesAndInsights/News/Documents/GPIA-KPMG-CIM-2012.pdf	✓	
City's Weight in National Incoming Investments	KPMG	http://www.kpmg.com/FR/fr/IssuesAndInsights/News/Documents/GPIA-KPMG-CIM-2012.pdf	✓	
Sustainable Economic Development	Boston Consulting Group	https://www.bcgperspectives.com/content/inter- active/public_sector_globalization_interactive_m ap_sustainable_economic_development/		
Global Enabling Trade Report	World Economic Forum	http://www.weforum.org/issues/international-trade	NEW	

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