



The Global Financial Centres Index 8

SEPTEMBER 2010





We are very pleased to announce that the Qatar Financial Centre Authority has become the latest sponsor of the 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.

The Z/Yen Group thanks the City of London Corporation for its cooperation in the development of the Global Financial Centres Index (GFCI) and the commissioning of GFCI 1 – 7, and for the use of the related data still used in the GFCI.

The author of this report, Mark Yeandle, is very grateful to other members of the GFCI team – in particular Jeremy Horne, Nick Danev, Ben Morris and Richard Leeds.

Foreword

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. Our goal is a Long Finance movement that submits challenging ideas and options to rigorous analysis and vigorous debate. Along the way we hope to have some intellectual fun.

The future of financial centres is integral to any long-term perspective. Over the time period Long Finance addresses, roughly the next 100 years, we anticipate large changes to the structure of the entire global financial system. Will financial centres need to exist in 100 years?

Financial Centre Futures is a Long Finance ‘theme’ that explores how finance might work in future. The theme consists of publications, events, workshops and seminars. We have planned research on topics such as clustering, Islamic finance, the affects of technology and outsourcing on future workplaces, all aimed at helping us know when our financial system is working.

The Global Financial Centres Index (GFCI) is an important part of the Financial Centre Futures theme. The GFCI began as a joint venture between the City of London Corporation and Z/Yen Group back in 2005. Since its first publication in March 2007, each of the seven editions has increased our knowledge of financial centres, as well as generating growing interest in the results.

We are very grateful to the City of London Corporation for its immense partnership with us on the first seven editions of the GFCI. Without their support, both as sponsors and intellectual partners, the GFCI would not be the highly regarded index it is today. We now welcome new sponsors for Financial Centre Futures, most recently the Qatar Financial Centre Authority.

Professor Michael Mainelli
Executive Chairman, Z/Yen Group Limited

Executive Summary

The Global Financial Centres Index (GFCI) was first published in March 2007. The GFCI approach provides profiles, ratings and rankings for 75 financial centres, drawing on two separate sources of data – instrumental factors (external indices) and assessments by financial services professionals to an online survey.

The main headlines of GFCI 8 are:

- there remains no significant difference between London and New York in the GFCI 8 ratings. Respondents continue to believe that these centres work together for mutual benefit;
- Hong Kong (in 3rd place) is now within ten points of New York and London (having been 84 points behind in March 2009). Ten points on a scale of 1,000 is not significant and that Hong Kong has joined London and New York as a genuinely global financial centre. Singapore may well join this trio soon;
- confidence amongst financial services professionals has fallen since GFCI 7, as shown by lower overall ratings – 53 centres have lower ratings in GFCI 8 compared with just 17 centres having higher ratings (five have the same ratings as in GFCI 7);
- Asia continues to exhibit enhanced competitiveness with Shanghai entering the top ten and Seoul moving into the top 25;
- when questioned about which financial centres are likely to become more significant in the next few years, the top five centres mentioned are all Asian – Shenzhen, Shanghai, Singapore, Seoul and Beijing;
- all offshore centres show larger falls than average, continuing a trend since the financial crisis began;
- Dubai no longer features in the top five financial centres likely to become more significant in the next few years, but despite Dubai's publicised problems it still holds top position in the Middle East, followed by Qatar, then Bahrain.

The Business Environment is still viewed as the key area of competitiveness – it is now mentioned in responses far more often than People or Infrastructure. One of the themes that emerges from the GFCI 8 responses is the need for predictability and stability of regulation and taxation. When asked about areas of concern, business professionals state that uncertainty about regulation and tax levels is the issue that worries them the most.





When asked which single change can affect the competitiveness of a financial centre the most, the four changes mentioned most frequently all fall into the Business Environment area:

- taxation;
- economic and business freedom;
- government support for the finance sector;
- transparency and predictability of regulation.

The reputation of financial centres is a key determinant of their likely success. In the GFCI model, we examine the difference between the mean of assessments given to a centre and that

centre's overall rating (which is the mean of assessments adjusted to reflect the instrumental factors). If a centre has a higher average assessment than the GFCI 8 rating this indicates that respondents' perceptions of a centre are more favourable than the quantitative data-based measures alone would suggest. The three centres with the highest reputational advantage are Shenzhen, Shanghai and Beijing.

The GFCI model continues to grow and reflect changes in financial centres globally. Please make your views known by participating in the GFCI and rating the financial centres with which you are familiar at:

www.financialcentrefutures.net

Introduction

The GFCI provides profiles, ratings and rankings for 75 financial centres, drawing on two separate sources of data – instrumental factors (external indices) and responses to an online survey. The GFCI was first published in March 2007. The GFCI has subsequently been updated every six months and successive growth in the number of respondents and data has enabled us to highlight the changing priorities and concerns of finance professionals, particularly since financial crises began to unfold in 2007 and 2008. This is the eighth edition of GFCI (GFCI 8).

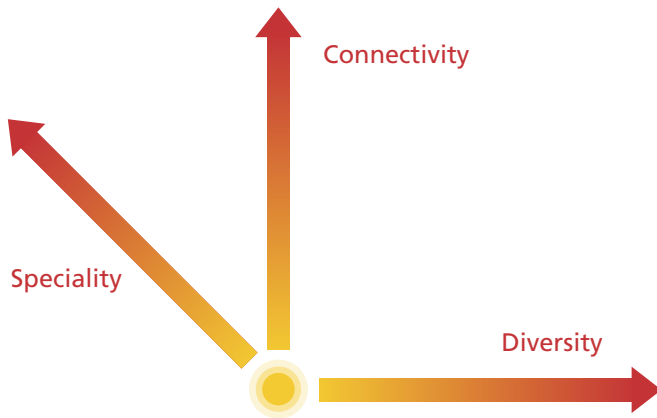
Instrumental factors: previous research indicates that there are many factors that combine to make a financial centre competitive. These can be grouped into five over-arching ‘areas of competitiveness’ – People, Business Environment, Infrastructure, Market Access and General Competitiveness. Evidence of a centre’s performance in these areas is drawn from a range of external measures. For example, evidence about a fair and just business environment is drawn from a corruption perception index and an opacity index. 75 factors have been used in GFCI 8, of which 29 have been updated since GFCI 7 and 21 are new to the GFCI model (see pages 37 to 39 for full details on external measures used for the purpose of GFCI 8).

Financial centre assessments: GFCI uses responses to an ongoing online questionnaire 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. Since GFCI 7, 531 new respondents have been included within the GFCI model, providing 7,270 new assessments¹ from financial services respondents globally from January 2010 to June 2010 inclusive. Overall, 33,023 financial centre assessments from 1,876 financial services professionals were used to compute GFCI 8, with older assessments discounted according to age.

Full details of the methodology behind GFCI 8 can be found on page 32. The ratings and rankings are calculated using a ‘factor assessment model’, which combines the instrumental factors and questionnaire assessments. The full list of the 75 financial centres rated and profiled in GFCI 8 is shown on pages 9 and 10.

¹ Foreign assessments only – assessments given for each respondent’s home centre are excluded

Financial Centre Profiles



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

'Connectivity' – this represents how well known a centre is 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 which respondents from a particular centre assess). 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 50% of other centres, this centre is deemed to be 'Transnational'.

'Diversity' – the breadth of industry sectors that flourish in a financial centre. We consider this 'richness' of the business environment to be similar to biodiversity and use a combination of biodiversity indices (calculated on the 75 instrumental factors) to measure this. A high score in this measure means that a centre is well diversified. Conversely a low score in this measure reflects a less rich financial services diversity.

'Speciality' – the depth of industry sectors asset management, investment banking, insurance, professional services and wealth management within a financial centre. A centre's performance on this dimension is calculated from the difference between the GFCI rating and the industry sector ratings.

In Table 1 overleaf, 'Diversity' (Breadth) and 'Speciality' (Depth) are combined on one axis to create a two dimensional table of financial centre profiles. The 75 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 rating for each centre and the range for each profile category are given in brackets for reference.

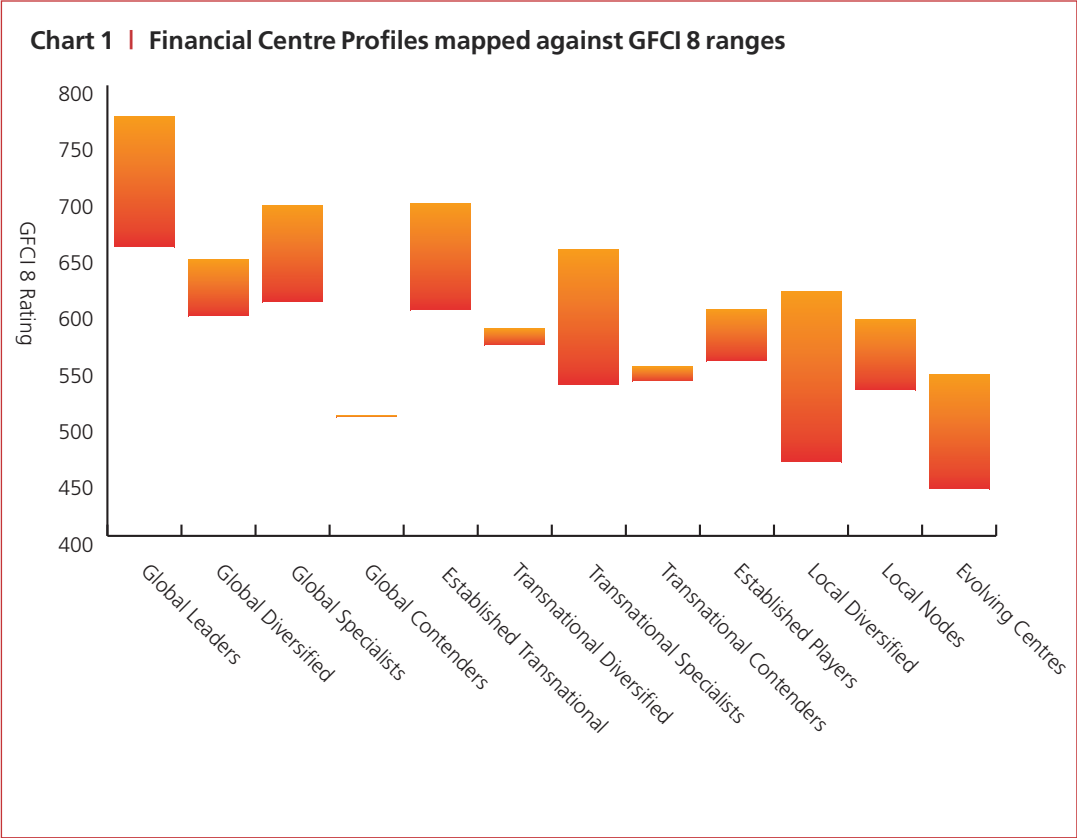
Table 1 | GFCI 8 Financial Centre Profiles

	Broad & Deep	Relatively Broad	Relatively Deep	Emerging
Global	Global Leaders <i>GFCI 8 Range 656–772</i>	Global Diversified <i>GFCI 8 Range 595–645</i>	Global Specialists <i>GFCI 8 Range 607–693</i>	Global Contenders <i>GFCI 8 Range 506</i>
	Chicago (678)	Amsterdam (595)	Beijing (653)	Moscow (506)
	Frankfurt (659)	Dublin (605)	Dubai (607)	
	Hong Kong (760)	Paris (645)	Geneva (661)	
	London (772)		Shanghai (693)	
	New York (770)			
	Singapore (728)			
	Toronto (656)			
	Zurich (669)			
Transnational	Established Transnational <i>GFCI 8 Range 600–697</i>	Transnational Diversified <i>GFCI 8 Range 569–584</i>	Transnational Specialists <i>GFCI 8 Range 554–654</i>	Transnational Contenders <i>GFCI 8 Range 537–550</i>
	Boston (655)	Brussels (582)	Bahrain (578)	Bangkok (537)
	Edinburgh (600)	Copenhagen (573)	British Virgin Islands(582)	Mumbai (550)
	Melbourne (622)	Kuala Lumpur (569)	Gibraltar (554)	
	San Francisco (654)	Madrid (584)	Guernsey (616)	
	Seoul (621)		Hamilton (592)	
	Sydney (660)		Isle of Man (598)	
	Tokyo (697)		Jersey (626)	
	Vancouver (627)		Luxembourg (634)	
	Washington D.C. (649)		Shenzhen (654)	
Local	Established Players <i>GFCI 8 Range 555–601</i>	Local Diversified <i>GFCI 8 Range 465–617</i>	Local Nodes <i>GFCI 8 Range 529–592</i>	Evolving Centres <i>GFCI 8 Range 441–543</i>
	Johannesburg (555)	Athens (465)	Bahamas (529)	Budapest (467)
	Osaka (601)	Glasgow (572)	Cayman Islands (592)	Buenos Aires (528)
	Sao Paulo (573)	Helsinki (549)	Malta (554)	Istanbul (496)
		Lisbon (534)	Mauritius (535)	Jakarta (534)
		Mexico City (563)	Monaco (567)	Manila (523)
		Milan (577)	Qatar (592)	Prague (543)
		Montreal (617)	Rio de Janeiro (561)	Reykjavik (441)
		Munich (610)	Wellington (585)	Riyadh (503)
		Oslo (557)		St. Petersburg (491)
		Rome (563)		Tallinn (451)
		Stockholm (587)		
		Vienna (571)		
		Warsaw (517)		

This profiling ‘map’ shows the eight Global Leaders (in the top left of the table) which 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, centres that have been identified as the leading global financial centres in previous editions of the GFCI. Paris, Dublin and Amsterdam are Global Diversified centres as they are equally well connected but do not exhibit the same depth in different activities to be considered Global Leaders. Similarly, Geneva, Shanghai, and Dubai are

Global Specialists (specialising primarily in Asset Management) but do not have sufficiently broad ranges of financial services activities to be Global Leaders. The only Global Contender is now Moscow which is assigned a global profile because there is widespread awareness of its activities, but its financial services are not currently sufficiently broad and deep for it to be considered a leader. Chart 1 below shows the profiles mapped against the GFCI 8 ranges.

The profiles shown in Chart 1 are used in our geographical analyses later in this report.



The Main Headlines of GFCI 8

The main headlines of GFCI 8 are:

- there is no significant difference between London and New York in GFCI 8 ratings. Respondents continue to believe that these centres exhibit good levels of co-operation;
- Hong Kong in 3rd place is now just ten points below New York having been 81 points behind in March 2009. We believe that ten points on a scale of 1,000 is not a significant difference and that Hong Kong has joined London and New York as a genuinely global financial centre. Singapore is 32 points behind Hong Kong in 4th place;
- less confidence amongst financial services professionals since GFCI 7 (March 2010) is shown by a fall in overall assessments – 53 centres have lower ratings in GFCI 8 compared with just 17 centres having higher ratings (while the remaining five received the same ratings as in GFCI 7), see chart 2 below.
- Asian centres continue to exhibit good growth with Shanghai entering the top ten and Seoul gaining four places and moving into the top 25 for the first time;

- offshore centres have again lost ground in the ratings with all centres showing larger falls than average;
- in the Middle East, Dubai and Bahrain continue to slip, while Qatar has moved up two places to 34th.

The full set of GFCI 8 ranks and ratings are shown on page 9 and 10.

GFCI 8 shows a general decline in ratings but this decline is variable, with the change in ratings varying from minus 37 points (Tallinn) to plus 26 (Istanbul) with an average movement of minus 7 points.

Other notable changes include a rise of 25 for Shanghai, a rise of 21 for Hong Kong and declines of 23 for the Cayman Islands, of 28 for the Bahamas and of 20 each for the Isle of Man and Hamilton.

Chart 2 | Three month rolling average assessments of the top 25 Centres

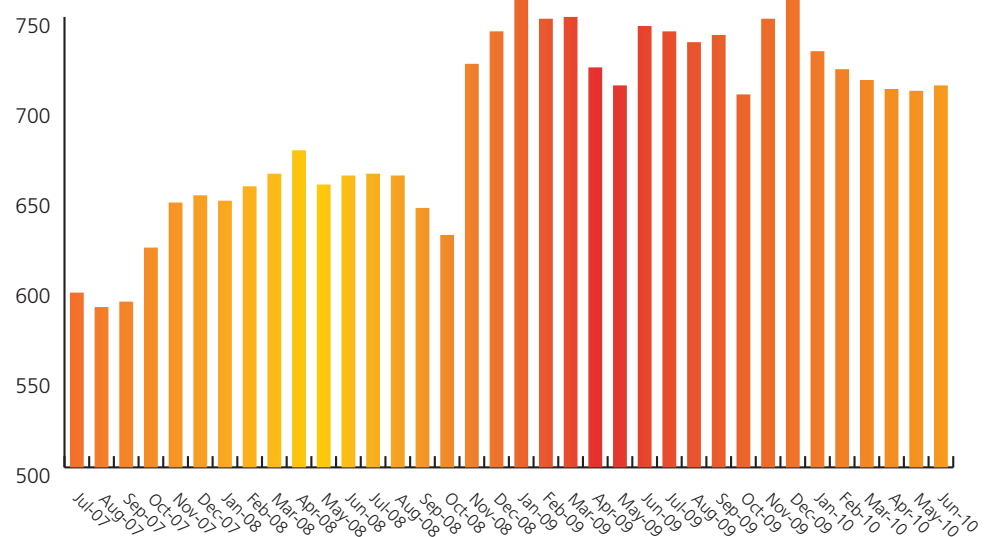


Table 2 | GFCI 8 Ranks and Ratings 1–44

	GFCI 8 Rank	GFCI 8 Rating	GFCI 7 Rank	GFCI 7 Rating	Change in Rank	Change in Rating
London	1	772	=1	775	-	▼ 3
New York	2	770	=1	775	▼ 1	▼ 5
Hong Kong	3	760	3	739	-	▲ 21
Singapore	4	728	4	733	-	▼ 5
Tokyo	5	697	5	692	-	▲ 5
Shanghai	6	693	11	668	▲ 5	▲ 25
Chicago	7	678	6	678	▼ 1	-
Zurich	8	669	7	677	▼ 1	▼ 8
Geneva	9	661	8	671	▼ 1	▼ 10
Sydney	10	660	=9	670	▼ 1	▼ 10
Frankfurt	11	659	13	660	▲ 2	▼ 1
Toronto	12	656	12	667	-	▼ 11
Boston	13	655	14	652	▲ 1	▲ 3
Shenzhen	=14	654	=9	670	▼ 5	▼ 16
San Francisco	=14	654	=15	651	▲ 1	▲ 3
Beijing	16	653	=15	651	▼ 1	▲ 2
Washington D.C.	17	649	17	647	-	▲ 2
Paris	18	645	20	642	▲ 2	▲ 3
Taipei	19	639	21	638	▲ 2	▲ 1
Luxembourg	20	634	=18	643	▼ 2	▼ 9
Vancouver	21	627	23	623	▲ 2	▲ 4
Jersey	22	626	=18	643	▼ 4	▼ 17
Melbourne	23	622	=26	617	▲ 3	▲ 5
Seoul	24	621	=28	615	▲ 4	▲ 6
Montreal	25	617	=26	617	▲ 1	-
Guernsey	26	616	22	632	▼ 4	▼ 16
Munich	27	610	33	610	▲ 6	-
Dubai	28	607	=24	618	▼ 4	▼ 11
Dublin	29	605	=31	612	▲ 2	▼ 7
Osaka	30	601	34	606	▲ 4	▼ 5
Edinburgh	31	600	=28	615	▼ 3	▼ 15
Isle of Man	32	598	=24	618	▼ 8	▼ 20
Amsterdam	33	595	35	604	▲ 2	▼ 9
Qatar	=34	592	36	600	▲ 2	▼ 8
Hamilton	=34	592	=31	612	▼ 3	▼ 20
Cayman Islands	=34	592	=28	615	▼ 6	▼ 23
Stockholm	37	587	38	595	▲ 1	▼ 8
Wellington	38	585	44	582	▲ 6	▲ 3
Madrid	39	584	=45	581	▲ 6	▲ 3
British Virgin Islands	=40	582	37	596	▼ 3	▼ 14
Brussels	=40	582	39	591	▼ 1	▼ 9
Bahrain	42	578	=41	587	▼ 1	▼ 9
Milan	43	577	47	579	▲ 4	▼ 2
Sao Paulo	=44	573	40	590	▼ 4	▼ 17

Table 2 (continued) | GFCI 8 Ranks and Ratings 44–75

	GFCI 8 Rank	GFCI 8 Rating	GFCI 7 Rank	GFCI 7 Rating	Change in Rank	Change in Rating
Copenhagen	=44	573	=41	587	▼ 3	▼ 14
Glasgow	46	572	52	570	▲ 6	▲ 2
Vienna	47	571	43	583	▼ 4	▼ 12
Kuala Lumpur	48	569	51	571	▲ 3	▼ 2
Monaco	49	567	48	578	▼ 1	▼ 11
Rome	=50	563	49	574	▼ 1	▼ 11
Mexico City	=50	563	57	563	▲ 7	-
Rio de Janeiro	52	561	=54	566	▲ 2	▼ 5
Oslo	53	557	=45	581	▼ 8	▼ 24
Johannesburg	54	555	=54	566	-	▼ 11
Gibraltar	=55	554	53	568	▼ 2	▼ 14
Malta	=55	554	56	565	▲ 1	▼ 11
Mumbai	57	550	58	562	▲ 1	▼ 12
Helsinki	58	549	50	573	▼ 8	▼ 24
Prague	59	543	62	543	▲ 3	-
Bangkok	60	537	61	549	▲ 1	▼ 12
Mauritius	61	535	60	552	▼ 1	▼ 17
Jakarta	=62	534	=63	535	▲ 1	▼ 1
Lisbon	=62	534	65	529	▲ 3	▲ 5
Bahamas	64	529	59	557	▼ 5	▼ 28
Buenos Aires	65	528	=63	535	▼ 2	▼ 7
Manila	66	523	66	527	-	▼ 4
Warsaw	67	517	67	520	-	▼ 3
Moscow	68	506	68	516	-	▼ 10
Riyadh	69	503	69	507	-	▼ 4
Istanbul	70	496	74	470	▲ 4	▲ 26
St. Petersburg	71	491	70	501	▼ 1	▼ 10
Budapest	72	467	72	481	-	▼ 14
Athens	73	465	73	480	-	▼ 15
Tallinn	74	451	71	488	▼ 3	▼ 37
Reykjavik	75	441	75	447	-	▼ 6

Clearly evident in Chart 3 (page 11) are two trends:

- London and New York exhibit a gentle decline in competitiveness from a peak of 815 in GFCI 2 (September 2007) to 770 now;
- Hong Kong and Singapore have steadily gained competitiveness since GFCI 2.

Hong Kong is only ten points behind New York and twelve behind London. Ten points on a scale of 1,000 is insignificant and we now consider Hong Kong to be on a par with the other two leading centres. The top four centres control a large proportion of financial transactions (over 70% of equity trading). The top financial centres are likely to remain powerful financial centres for the foreseeable future.

“Hong Kong has been a great place to live and work in the past but it has really built a critical mass now and can challenge New York and London.”

Investment Banker based in Hong Kong

We have long argued that the relationship between London and New York is mutually supportive and a gain for one does not mean a loss for the other. Whilst many industry professionals still see a great deal of competition, policymakers appear to recognise that working together on certain elements of regulatory reform is likely to enhance the competitiveness of both centres.

Asian financial centres continue to perform well and Tokyo is joined by Shanghai in the top ten.

The GFCI questionnaire asks which centres are likely to become more significant in the next few years. As in the past, Asia features very strongly and is where respondents expect to observe the most significant improvements in performance:

Table 3 | Centres likely to become more significant

Financial Centre	Number of Mentions
Shenzhen	121
Shanghai	119
Singapore	71
Seoul	61
Beijing	52
Hong Kong	48

The GFCI questionnaire also asks in which centres the respondents' organisations are most likely to open offices over the next few years:

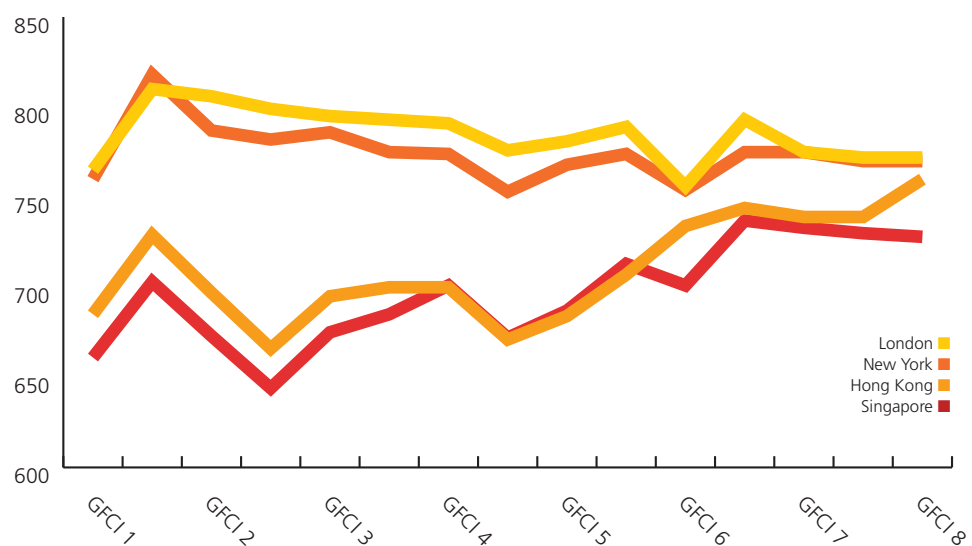
Table 4 | Centres where new offices will be opened

Financial Centre	Number of Mentions
Shenzhen	73
Shanghai	57
Singapore	49
Seoul	31
Beijing	29
Hong Kong	21

Again, Asia dominates this list. GFCI respondents have been predicting the rise to prominence of Shanghai for the past two years. Shanghai and Shenzhen are centres that we will continue to monitor closely.

In past editions of the GFCI, Dubai has been repeatedly mentioned as a centre both likely to become more significant and where new offices will be opened. Dubai now features in neither category, probably as a result of its recent, widely reported, financial difficulties.

Chart 3 | Top four Centres GFCI Ratings over time



Main Areas of Competitiveness

The GFCI questionnaire asks about the most important factors of competitiveness. The number of times that each area is mentioned is summarised in Table 5:

Table 5 | Main areas of competitiveness

Area of Competitiveness	Number of mentions by respondents	Main concerns raised
Business Environment	78	Regulation and taxation. Tax issues account for 25% of comments
People	35	Quality of staff
Infrastructure	25	IT and transport infrastructure
Market Access	19	Dilution of clustering

The GFCI questionnaire asks respondents to name the single regulatory change that would improve a financial centre's competitiveness. Although a large number of possible changes were named, the four most mentioned are shown in Table 6 below:

Table 6 | Top four single regulatory changes

Area of Competitiveness	Number of mentions by respondents	Particular Issues
Taxation	78	Corporate and personal taxes
Economic and business freedom	35	Business regulation
Government support for the sector	25	Understanding the industry and signalling long term support
Transparency and predictability of regulation	19	Predictability of regulation

We asked respondents to name the single taxation change that would improve a financial centre's competitiveness. Although a large number of possible changes were named (and everyone wants lower taxation in general) the three most mentioned changes are shown in Table 7 below:

Table 7 | Top three single taxation changes

Area of Competitiveness	Number of mentions by respondents
Corporate taxation	56
Personal taxation	36
Withholding tax on dividends and capital gains	16

The GFCI questionnaire also asks respondents how financial centres can best signal their long term commitment to financial services. Again there were a large number of 'signals' mentioned but the four most common are shown in Table 8 below:

Table 8 | Best signals of commitment to financial services

Area of Competitiveness	Number of mentions by respondents
Corporate taxation	56
Personal taxation	36
Withholding tax on dividends and capital gains	16

"The UK must not be complacent – JP Morgan's decision² is just a start – taxation is now approaching a tipping point and I really fear a 'brain-drain' if the Treasury doesn't take note."

Asset Manager based in London



² JP Morgan made a conscious decision in June to base the new president of its international business, Heidi Miller, in New York rather than London, amid the growing tax and regulatory burden on the UK financial industry – Daily Telegraph - 19 July 2010

European Centres

Table 9 shows the top 20 European financial centres. Nearly all have declined in the ratings since GFCI 7 with the exception of Madrid and Glasgow.

Despite the concerns over London's competitiveness, it seems to be maintaining its predominance over other leading European centres. Chart 4 illustrates this clearly.

Looking at the profiles, London, Zurich and Frankfurt are assigned the profile of Global Leaders. They are well known globally, and have a rich environment of different types of financial services institutions. Geneva, whilst being well-connected, is seen as a high quality specialist in the field of Asset Management, rather than

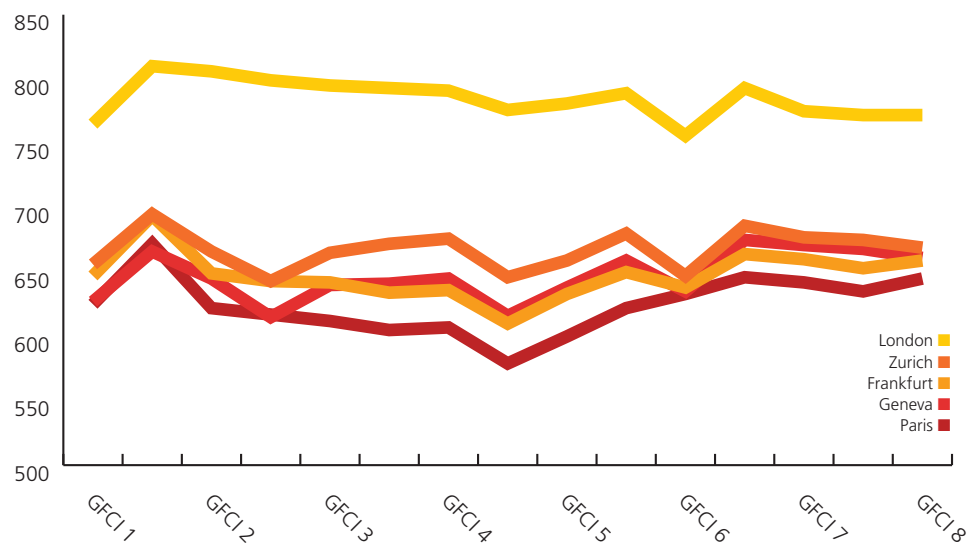
offering a fully diversified service, and is hence assigned a profile of Global Specialist.

Amsterdam, Dublin and Paris are Global centres with strong international connections. They do not however exhibit sufficient depth in financial services to be considered as Global Leaders, but as Global Diversified Centres.

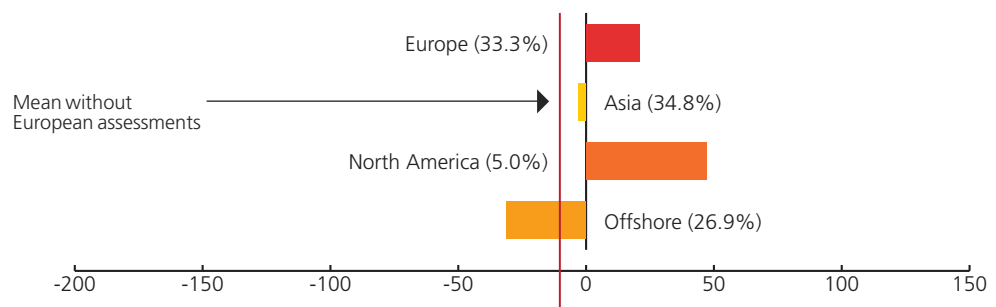
Examining the assessments given to each major centre is a useful means of assessing the relative strength and weakness of their reputations in different regions. It is important to note that assessments given to a centre by people based there are excluded from the GFCI 8 model to eliminate 'home preference'.

Table 9 | Top 20 European Centres

	GFCI 8 Rank	GFCI 8 Rating	GFCI 7 Rank	GFCI 7 Rating	Change in Rank	Change in Rating
London	1	772	=1	775	-	▼ 3
Zurich	8	669	7	677	▼ 1	▼ 8
Geneva	9	661	8	671	▼ 1	▼ 10
Frankfurt	11	659	13	660	▲ 2	▼ 1
Paris	18	645	20	642	▲ 2	▲ 3
Luxembourg	20	634	=18	643	▼ 2	▼ 9
Munich	27	610	33	610	▲ 6	-
Dublin	29	605	=31	612	▲ 2	▼ 7
Edinburgh	31	600	=28	615	▼ 3	▼ 15
Amsterdam	33	595	35	604	▲ 2	▼ 9
Stockholm	37	587	38	595	▲ 1	▼ 8
Madrid	39	584	=45	581	▲ 6	▲ 3
Brussels	=40	582	39	591	▼ 1	▼ 9
Milan	43	577	47	579	▲ 4	▼ 2
Copenhagen	=44	573	=41	587	▼ 3	▼ 14
Glasgow	46	572	52	570	▲ 6	▲ 2
Vienna	47	571	43	583	▼ 4	▼ 12
Monaco	49	567	48	578	▼ 1	▼ 11
Rome	=50	563	49	574	▼ 1	▼ 11
Oslo	53	557	=45	581	▼ 8	▼ 24

Chart 4 | Leading European Centres over GFCI editions

In the charts below the difference between overall mean assessments by region is shown. The additional vertical line shows the mean if all assessments from the home region are removed. The percentage figure in brackets after each region is the percentage of the total number of respondents

Chart 5 | Assessments by region – difference from the mean – London

London's overall average assessment is 807. The chart indicates that London is well regarded in North America but less well rated by offshore centres. Assessments from Europe and Asia are fairly close to the mean (Chart 5).

Zurich's overall average assessment is 700. Zurich's assessments show a more 'balanced' pattern than London with regional responses closer to the mean (Chart 6).

Frankfurt's overall average assessment is 684. In a similar pattern to London, Frankfurt is given lower assessments by people based in the offshore locations than elsewhere (Chart 7).

Chart 6 | Assessments by region – difference from the mean – Zurich

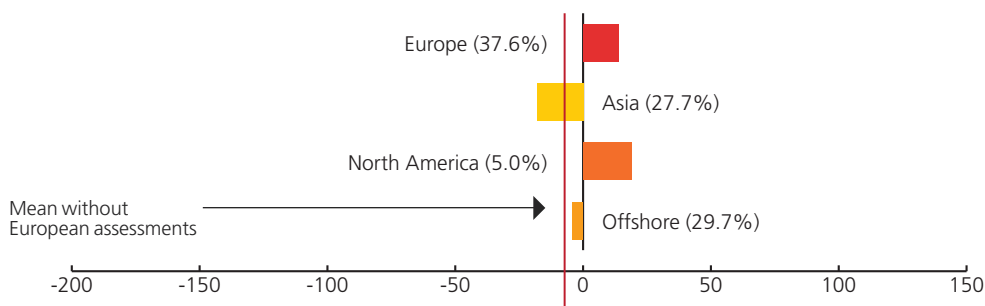
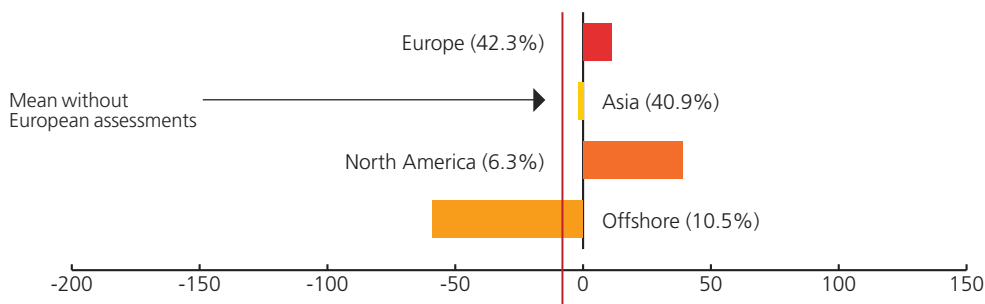


Chart 7 | Assessments by region – difference from the mean – Frankfurt



“In our business Zurich and Geneva are where the action is at the moment. Our Swiss offices are the busiest at the moment for new business.”

Private Banking Director based in London

Asian Centres

Although GFCI 8 ratings have generally declined since GFCI 7, Asia is the one region to buck this trend. As can be seen in Table 11 below, of the top ten Asian centres, six have shown rating improvements with Hong Kong and Shanghai both showing significant improvements.

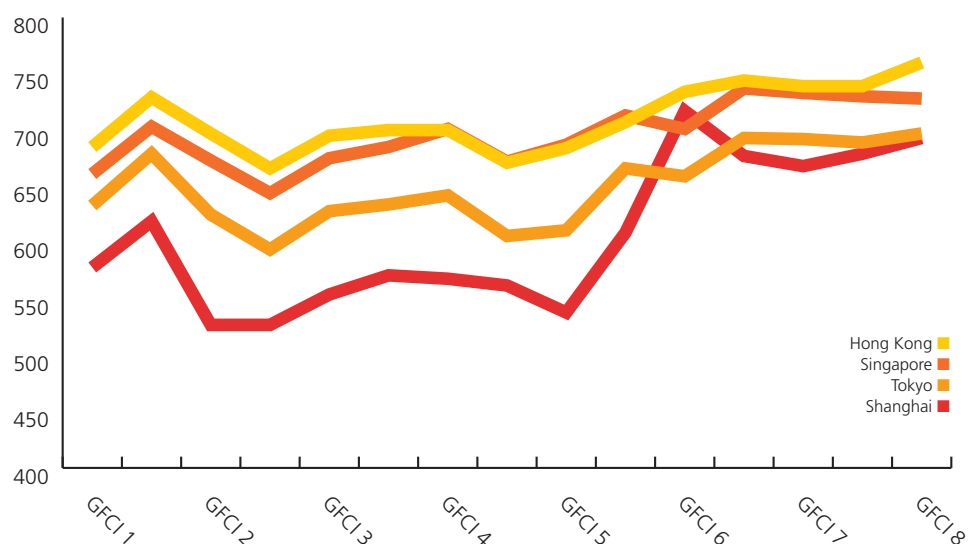
Singapore was six points behind Hong Kong in GFCI 7 and there is now a significant gap of 32 points. Tokyo, despite gaining five points in the ratings has slipped further behind Hong Kong. These changes are shown clearly in Chart 8.

Regarding profiles, Hong Kong and Singapore are Global Leaders. They are well known globally, and have a rich environment of different types of financial services institutions. Beijing and Shanghai are well connected and are assigned the profile of Global Specialists – they do not yet offer a sufficiently developed and diversified service to be Global Leaders. Seoul and Tokyo are assigned the profile of Transnational Leaders although Tokyo is very close to becoming a Global Leader and we would expect them to attain that status soon.

Table 10 | Top 10 Asian Centres

	GFCI 8 Rank	GFCI 8 Rating	GFCI 7 Rank	GFCI 7 Rating	Change in Rank	Change in Rating
Hong Kong	3	760	3	739	-	▲ 21
Singapore	4	728	4	733	-	▼ 5
Tokyo	5	697	5	692	-	▲ 5
Shanghai	6	693	11	668	▲ 5	▲ 25
Shenzhen	=14	654	=9	670	▼ 5	▼ 16
Beijing	16	653	=15	651	▼ 1	▲ 2
Taipei	19	639	21	638	▲ 2	▲ 1
Seoul	24	621	=28	615	▲ 4	▲ 6
Osaka	30	601	34	606	▲ 4	▼ 5
Kuala Lumpur	48	569	51	571	▲ 3	▼ 2

Chart 8 | Leading Asian Centres over GFCI editions



In general, fellow Asian centres are particularly well-supported by Asian respondents in both the number of assessments and the average assessment given. Outside Asia, the North American responses are more positive than average about Asia. The number of assessments given to Asian centres by European based

respondents is low, suggesting that Asian centres are less well known, and, probably as a consequence, less highly regarded than from within Asia. Respondents from the offshore centres also rate Asian centres less positively than average. This pattern can be seen in the following charts:

Chart 9 | Assessments by region – difference from the mean – Hong Kong

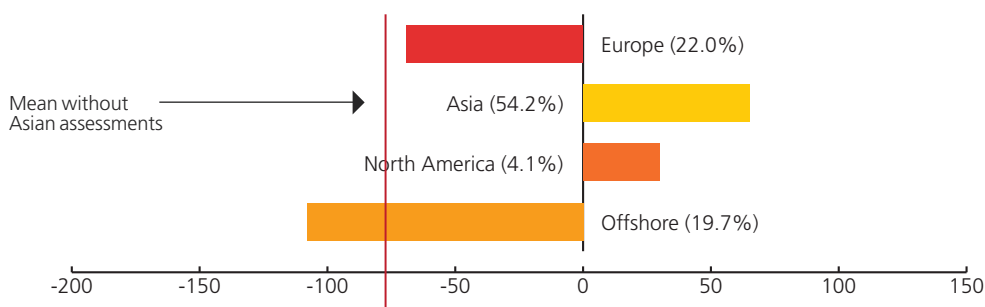


Chart 10 | Assessments by region – difference from the mean – Shanghai

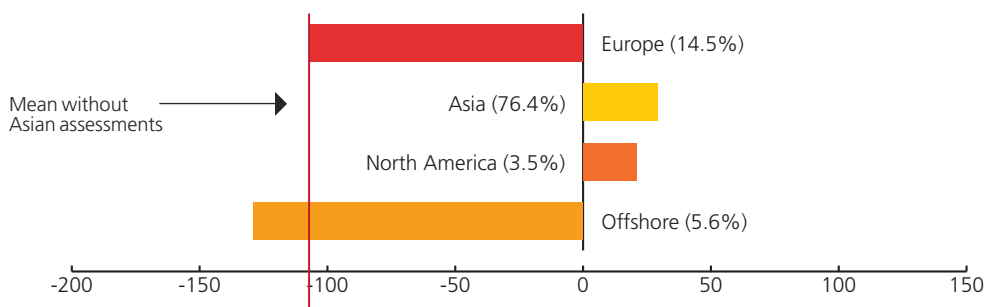
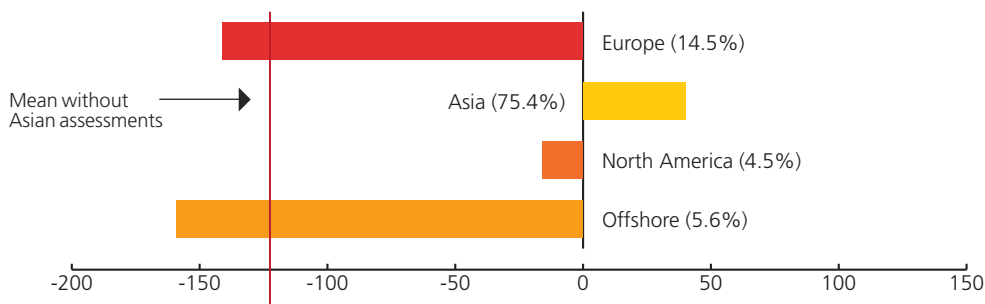


Chart 11 | Assessments by region – difference from the mean – Beijing



“Hong Kong, Singapore and Shanghai are all crucial centres now – we wouldn’t be a global firm if we didn’t have offices in all three.”

Investment Banking President based in New York

North American Centres

North American Centres have performed comparatively well in GFCI 8 with only two centres – New York and Toronto – showing small declines in their ratings from GFCI 7:

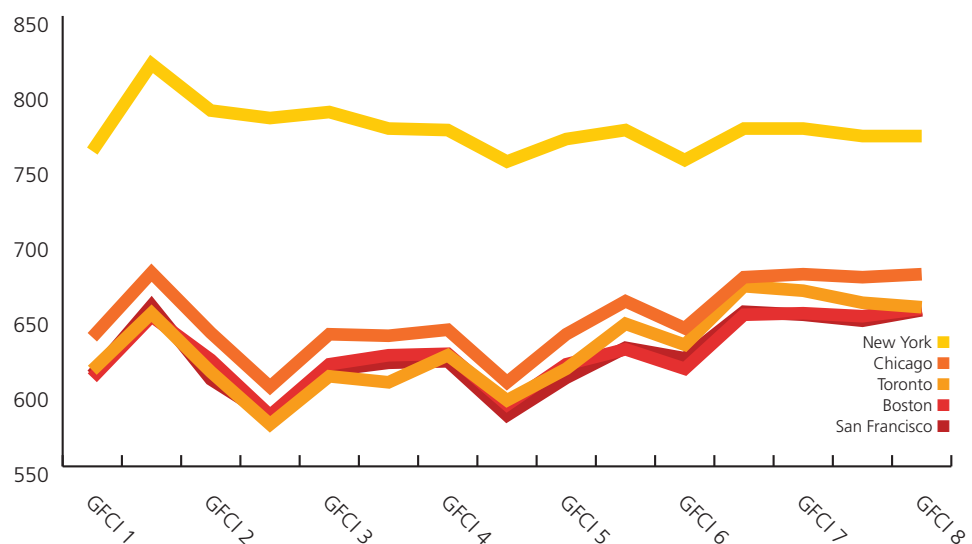
Table 11 | Top North American Centres in GFCI 8

	GFCI 8 Rank	GFCI 8 Rating	GFCI 7 Rank	GFCI 7 Rating	Change in Rank	Change in Rating
New York	2	770	=1	775	▼ 1	▼ 5
Chicago	7	678	6	678	▼ 1	-
Toronto	12	656	12	667	-	▼ 11
Boston	13	655	14	652	▲ 1	▲ 3
San Francisco	=14	654	=15	651	▲ 1	▲ 3
Washington D.C.	17	649	17	647	-	▲ 2
Vancouver	21	627	23	623	▲ 2	▲ 4
Montreal	25	617	=26	617	▲ 1	-

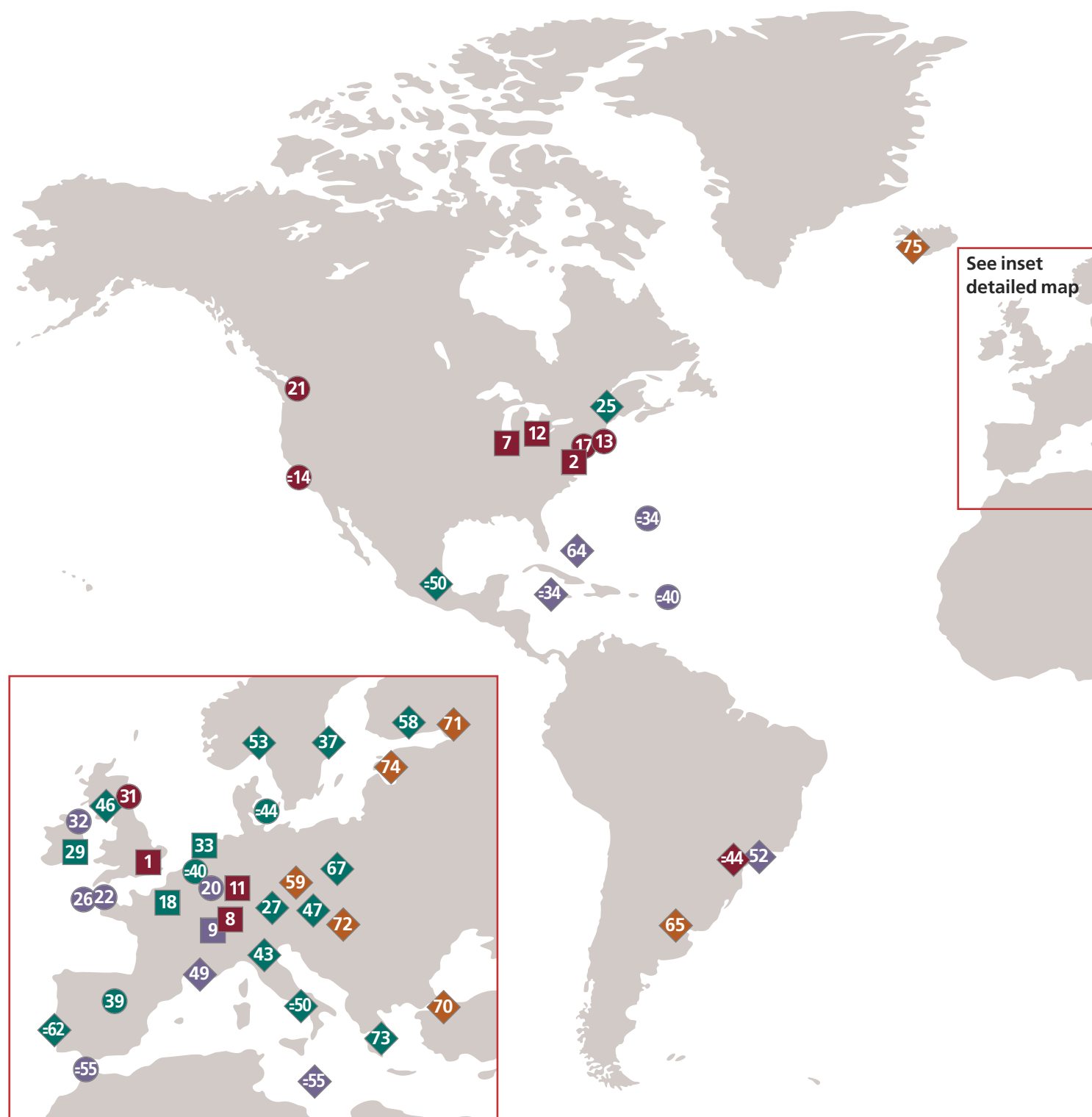
Chicago retains its position in the GFCI 8 top ten and remains the second North American financial centre, after New York. Chicago is not just strong in derivatives trading, for which it is probably best known, but is a real 'all-rounder' featuring in the top ten in the Asset Management, Banking, Insurance, Professional Services and Government & Regulatory sub-indices (see page 28).

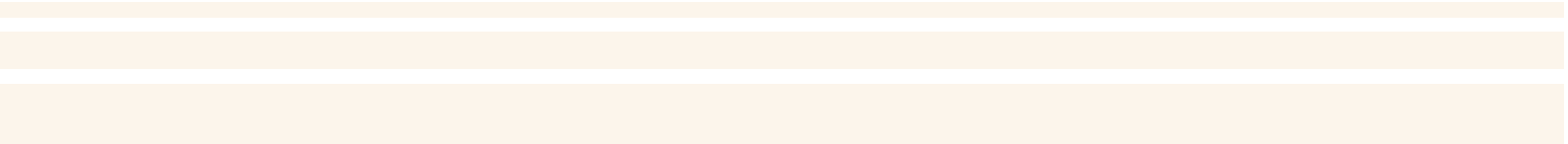
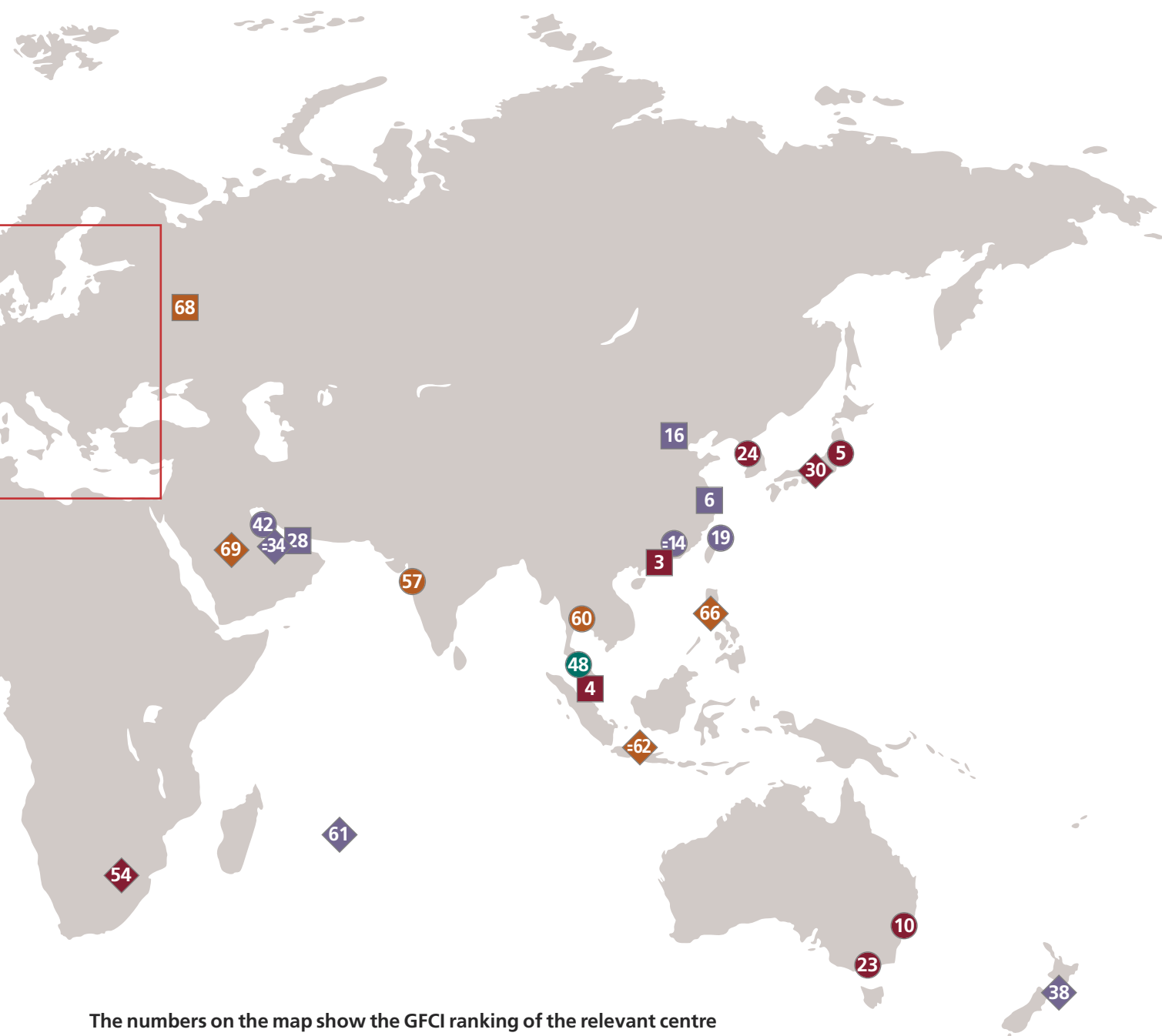
Toronto has held 12th place overall, is the 3rd North American centre and the clear leader in Canada. Calgary was recently added as a new financial centre to our online survey – it will be included in the listings when it has obtained a sufficient number of assessments.

Chart 12 | Leading North American Centres over GFCI editions



The GFCI World





New York, Chicago and Toronto are assigned the profile of Global Leaders – they are well diversified, well connected and have strength across the sectors. The Established Transnational centres are well developed but less well connected than the Global Leaders. Montreal is a not yet deeply enough involved in some industry sectors or sufficiently well connected to be an Established Transnational centre.

The difference between regional assessments for some of the major North American centres, are shown in charts 13–15 below:

Chart 13 | Assessments by region – difference from the mean – New York

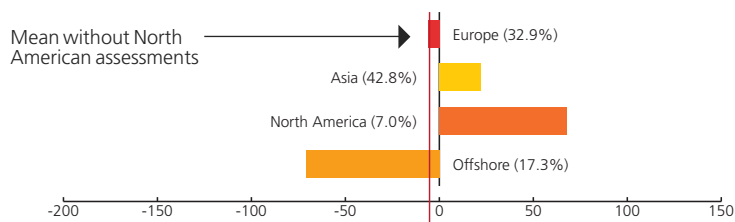


Chart 14 | Assessments by region – difference from the mean – Chicago

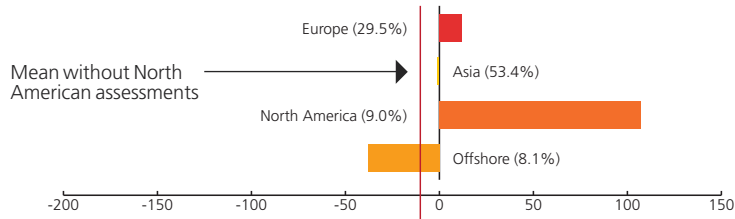
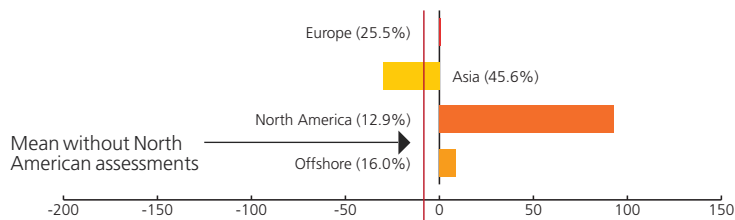


Chart 15 | Assessments by region – difference from the mean – Toronto



The overall average assessment for New York is 807. New York benefits from strong North American support. Offshore centres assess New York less positively, possibly due to US clampdowns on offshore activities. Europeans are close to the overall mean.

Chicago has an overall average assessment of 693 and shows a similar pattern to New York with regard to the offshore and North American assessments – the former being lower than average and the latter higher. A high number of assessments from Asian respondents is notable although assessments given were lower than average.

Toronto is the only North American centre to receive a higher than average score from the offshore centres; it is also well regarded by respondents based in London, although less so by the rest of Europe.

“Toronto should be proud of its achievements in recent years. They were not really considered a major financial centre about five years ago – now everyone is talking about them.”

Investment Banking President based in Boston

Middle Eastern Centres

Of the four Middle Eastern centres in the GFCI, Dubai has maintained a lead since the GFCI began. However, Qatar is closing the gap in ratings and is now only 15 points behind Dubai having been 135 points behind in GFCI 2 (three years ago). Riyadh is still a fair way back.

The three top Middle Eastern centres are assigned profiles of specialists. Dubai is very well connected and is hence a 'Global Specialist'. Qatar is a small step away from joining Bahrain as a 'Transnational Specialist'.

Looking at the pattern of assessments by region given to the Middle Eastern centres we see that they are particularly well supported by North American respondents. Respondents from Europe and the offshore centres rate Dubai less positively than average but are far more positive about Qatar. Nearly half of the assessments given to Qatar are from Asia and the average of these assessments is over 50 points less than the overall mean.

Table 12 | Middle Eastern Centres in GFCI 8

	GFCI 8 Rank	GFCI 8 Rating	GFCI 7 Rank	GFCI 7 Rating	Change in Rank	Change in Rating
Dubai	28	607	=24	618	▼ 4	▼ 11
Qatar	=34	592	36	600	▲ 2	▼ 8
Bahrain	42	578	=41	587	▼ 1	▼ 9
Riyadh	69	503	69	507	-	▼ 4

Chart 16 | Middle Eastern Centres over time

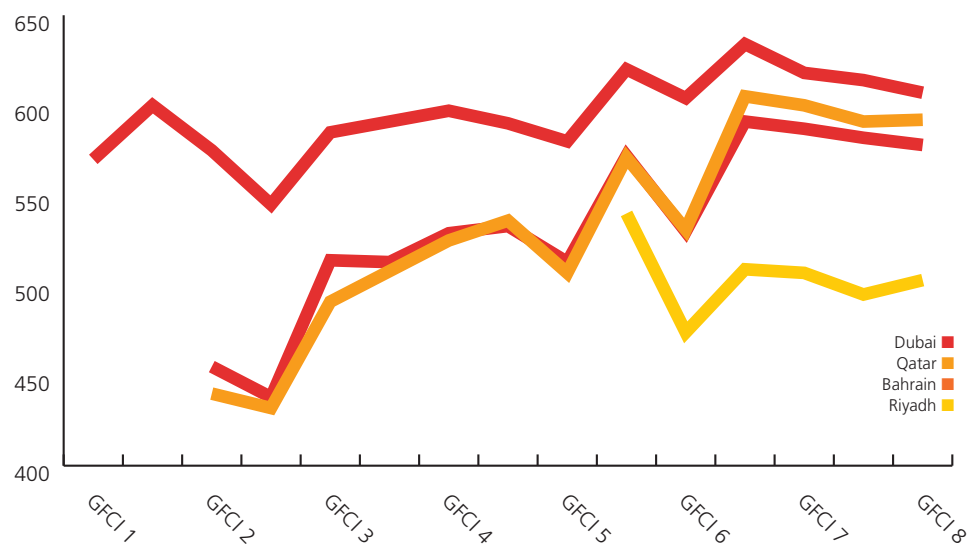


Chart 17 | Assessments by region – difference from the mean – Dubai

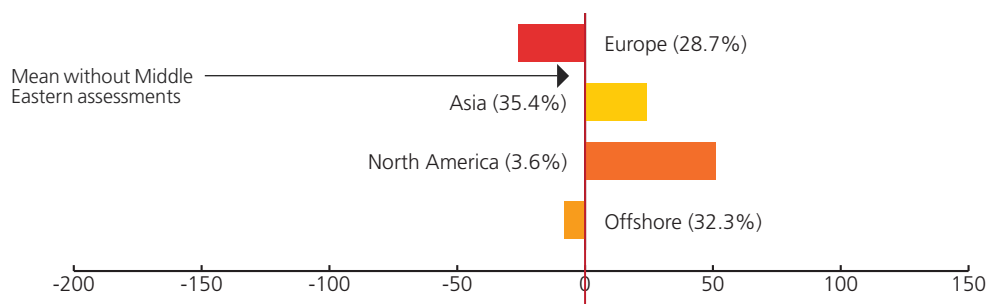
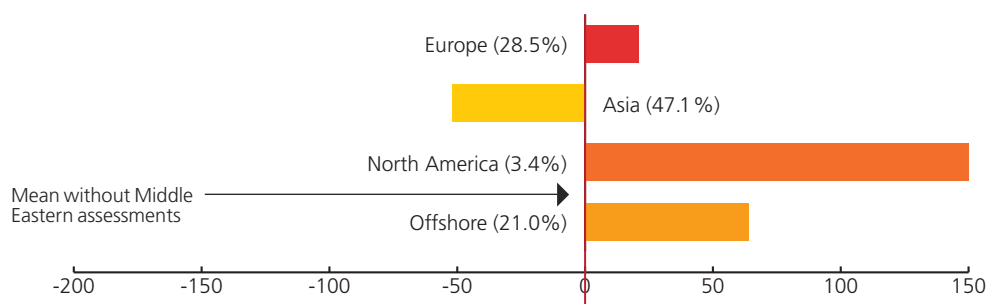


Chart 18 | Assessments by region – difference from the mean – Qatar



“Dubai is still facing a tough economic environment and that is going to hold financial services back for the next few years.”

Asset Manager based in Dubai

Offshore Centres

The offshore centres have come under a fair degree of scrutiny during the financial crisis. Many offshore centres are regarded as 'tax havens' and there has been significant pressure applied to these centres by many national regulators as well as international bodies such as the OECD. The ratings of the offshore centres have declined in GFCI 8, while their rankings have (with the exception of Malta) declined (Table 13).

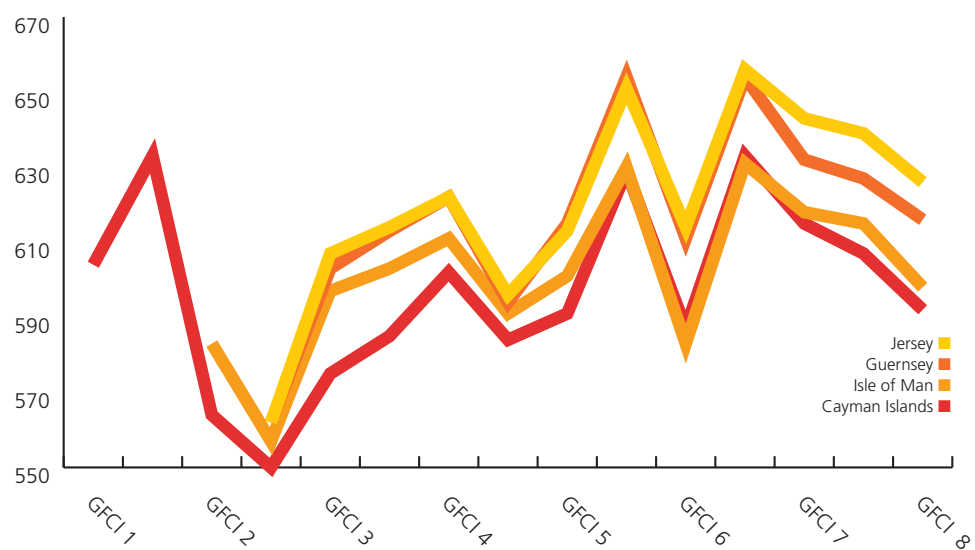
Jersey and Guernsey remain the only two offshore centres with ratings over 600.

The top offshore financial centres have all declined in competitiveness since GFCI 6 – this is demonstrated clearly in Chart 19 below.

Table 13 | Top ten Offshore Centres in GFCI 8

	GFCI 8 Rank	GFCI 8 Rating	GFCI 7 Rank	GFCI 7 Rating	Change in Rank	Change in Rating
Jersey	22	626	=18	643	-4▼	-17▼
Guernsey	26	616	22	632	-4▼	-16▼
Isle of Man	32	598	=24	618	-8▼	-20▼
Hamilton	=34	592	=31	612	-3▼	-20▼
Cayman Islands	=34	592	=28	615	-6▼	-23▼
British Virgin Islands	=40	582	37	596	-3▼	-14▼
Gibraltar	=55	554	53	568	-2▼	-14▼
Malta	=55	554	56	565	1▲	-11▼
Mauritius	61	535	60	552	-1▼	-17▼
Bahamas	64	529	59	557	-5▼	-28▼

Chart 19 | Top Offshore Centres in GFCI 8



Offshore centres are either Transnational Specialists or Local Specialists. Typically their 'specialism' is the quality and depth of their asset management sector.

For most of the offshore centres, a significant proportion of their assessments are coming from other offshore centres. Jersey and Guernsey are close to achieving the wider global awareness that would move them up to the profile of Global Specialists. Both these centres are working to change perceptions and to 'rise above' the status of offshore specialist

centres by being seen as more diversified, although the following charts of average assessment by region suggest that they still have some way to go with changing global perceptions.

All the top offshore centres achieve higher than average assessments from other offshore centres and generally lower responses from elsewhere, particularly from Asia. Asian responses were particularly low for Jersey and Guernsey:

Chart 20 | Assessments by region – difference from the mean – Jersey

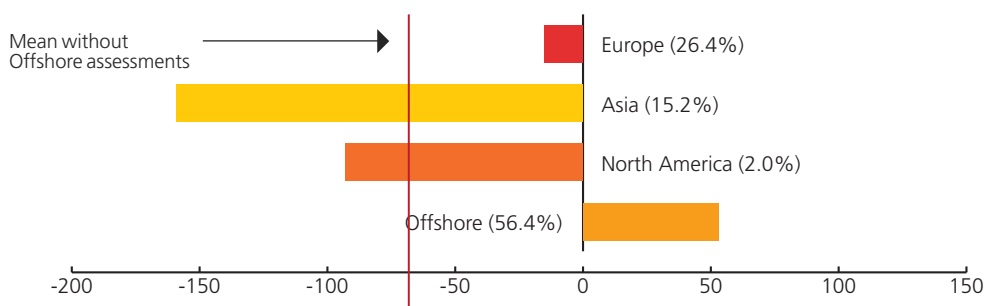
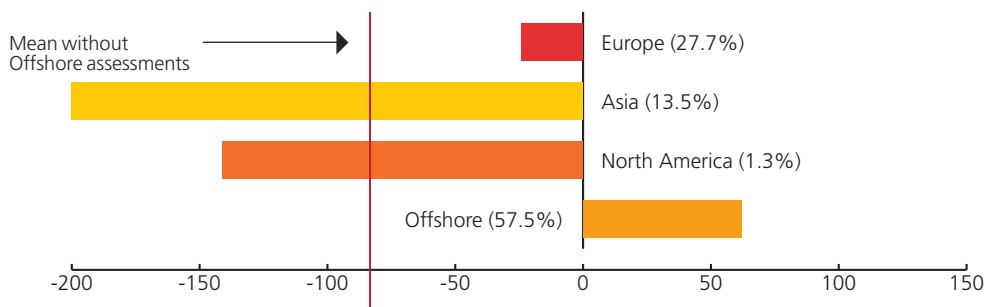


Chart 21 | Assessments by region – difference from the mean – Guernsey



“The Channel Islands continue to lead the way and are now pointing to the fact that they are not just 'offshore' centres.”

Asset Manager based in Edinburgh

“The Caymans and the Bahamas are just not places to be seen doing business right now – they still have (probably unfairly) a dirty reputation.”

Trust Fund Manager based in New York



Industry Sectors

Industry sector sub-indices are created by building the GFCI 8 statistical model using only the questionnaire responses from respondents working in the relevant industry sectors. The GFCI 8 dataset has been used to produce separate sub-indices for the Banking, Asset Management, Insurance, Professional Services, Government & Regulatory and Wealth Management & Private Banking sectors. The Wealth Management & Private Banking sub-index is new for GFCI 8 and should be viewed with caution at this stage as the sample size is relatively small.

London appears at the top of three of the six sub-indices. New York tops the Banking and Government & Regulatory sub-indices and Hong Kong appears at the top of the Insurance sub-index where London is down in fifth place.

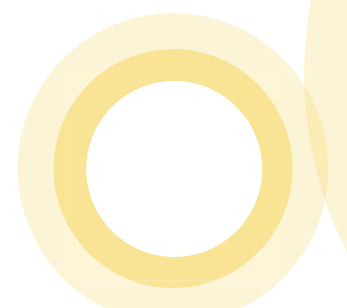
Table 19 below shows the top ten ranked financial centres in the industry sector sub-indices. The figures in brackets show how each centre has moved in these sub-indices since GFCI 7.

The top five positions in each of the sub-indices are mostly occupied by the five top GFCI 8 centres. The Asian centres are well placed in the Insurance sub-index with six of the top eight spots filled by Asian centres. Asian centres have also performed well in the Banking sub-index, filling five of the top eight places.

The Wealth Management and Private Banking sub-index is new. It is interesting to see the wealth management centres of Geneva in 2nd place, Toronto in 4th place and Bahrain and Qatar within the top ten places. Dublin is in 8th place, well above its overall GFCI rank of 29th.

Table 14 | Industry sector sub-indices (changes from GFCI 7 in brackets)

Rank	Asset Management	Banking	Government & Regulatory	Insurance	Professional Services	Wealth Management/ Private Banking
1	London (-)	New York (-)	New York (-)	Hong Kong (-)	London (-)	London (n/a)
2	New York (-)	Hong Kong (+1)	London (-)	Shanghai (+4)	New York (-)	Geneva (n/a)
3	Hong Kong (-)	London (-1)	Singapore (-)	New York (-1)	Hong Kong (+1)	New York (n/a)
4	Singapore (-)	Singapore (-)	Hong Kong (-)	Singapore (+1)	Singapore (-1)	Toronto (n/a)
5	Tokyo (-)	Tokyo (-)	Tokyo (-)	London (-2)	Geneva (+1)	Bahrain (n/a)
6	Chicago (-)	Shanghai (+2)	Frankfurt (+1)	Tokyo (+2)	Chicago (+2)	Tallinn (n/a)
7	San Francisco (+1)	Zurich (-1)	Chicago (-1)	Beijing (-)	Tokyo (+3)	Qatar (n/a)
8	Shanghai (-1)	Shenzhen (-1)	Geneva (+1)	Shenzhen (-4)	Zurich (-3)	Dublin (n/a)
9	Boston (+3)	Chicago (-)	Paris (+3)	Paris (+4)	Toronto (-)	Brussels (n/a)
10	Zurich (-)	Frankfurt (+3)	San Francisco (+1)	Chicago (-1)	Boston (+1)	Stockholm (n/a)



Key Areas of Competitiveness

The instrumental factors used in the GFCI 8 model are grouped into five key areas of competitiveness (People, Business Environment, Market Access, Infrastructure and General Competitiveness). The GFCI 8 factor assessment model is run with one set of instrumental factors at a time. Table 20 shows the top ten ranked centres in each sub-index (the figures in brackets show how the centre has moved in the sub-index rankings since GFCI 7).

The top four financial centres in GFCI 8 – London, New York, Hong Kong and Singapore – also share the top four places in each of these sub indices (as they did in GFCI 7). This indicates that they are very strong in all five areas of competitiveness. Most of the sub-indices are fairly closely correlated to the main GFCI 8 ranks. Toronto, 12th overall, is in the top ten of the Market Access and General Competitiveness sub-indices.

Table 15 | Sub-indices by areas of competitiveness (changes from GFCI 7 in brackets)

Rank	People	Business Environment	Market Access	Infrastructure	General Competitiveness
1	London (+1)	New York (-)	New York (+1)	London (+1)	London (-)
2	New York (-1)	London (-)	London (-1)	New York (-1)	New York (-)
3	Hong Kong (+1)	Hong Kong (-)	Hong Kong (-)	Hong Kong (-)	Hong Kong (-)
4	Singapore (-1)	Singapore (-)	Singapore (-)	Singapore (-)	Singapore (-)
5	Tokyo (-)	Chicago (-)	Tokyo (-)	Tokyo (+1)	Tokyo (-)
6	Shanghai (+4)	Tokyo (-)	Shanghai (+1)	Chicago (-1)	Shanghai (+2)
7	Chicago (-)	Shanghai (+4)	Chicago (+1)	Washington D.C. (+11)	Chicago (-)
8	Zurich (+1)	Zurich (-1)	Zurich (-2)	Zurich (-1)	Zurich (-2)
9	Geneva (+2)	Sydney (-1)	Seoul (+13)	Boston (+7)	Toronto (+3)
10	Boston (+4)	Geneva (-1)	Toronto (+1)	Geneva (+1)	Sydney (+1)



Reputation

The reputation of a financial centre is another indicator of potential success. In the GFCI model, one way to look at this is to examine the difference between the average assessment given to a centre and its overall rating (the average assessment adjusted to reflect the instrumental factors). If a centre has a higher average assessment than the GFCI 8 rating this indicates that respondents' perceptions of a centre are more favourable than the quantitative measures alone would suggest. Table 21 shows the 20 centres with the highest difference between average assessment and the GFCI rating.

It is notable that the top three centres by reputational advantage are Asian. It should be stressed that for Beijing, Shenzhen and Shanghai, the preponderant proportion of favourable assessments came from other Asian centres rather than from non-Asian centres.

Their positions help to explain the strong performance of Asia in GFCI 8. One could argue that these three centres are still not well-connected globally. One could also argue that these three centres are highly rated by other Asians who may be better placed to evaluate them. If their future ratings are to equal expectations, it is clear that these centres' people, market access, business environment and infrastructure need to improve. Hopefully their capacity to improve will meet the expectations implicit in their assessments.

It could be argued that the greater the reputational advantage, the more fragile the position. Looking outside the top three, other centres' assessments also exceed what a strict factor rating would provide, of note here are New York, Singapore and Zurich. The implication is that these centres should improve their fundamentals if they wish to retain their positions.

Table 16 | Top 20 Centres assessments & ratings – reputational advantage

Centre	Average Assessment	GFCI 8 Rating	Reputational Advantage
Shenzhen	710	654	56
Beijing	696	653	43
Shanghai	732	693	39
New York	805	770	35
Singapore	761	728	33
Zurich	697	669	28
Taipei	665	639	26
Hong Kong	786	760	26
London	797	772	25
Sydney	684	660	24
Geneva	685	661	24
Toronto	680	656	24
Chicago	701	678	23
Tokyo	715	697	18
Frankfurt	676	659	17
San Francisco	669	654	15
Washington D.C.	664	649	15
Boston	670	655	15
Dubai	611	607	4
Luxembourg	638	634	4

Stability

The GFCI allows for analysis of the centres with the most volatile competitiveness. Chart 22 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 22 | Variance of assessments versus sensitivity to instrumental factors

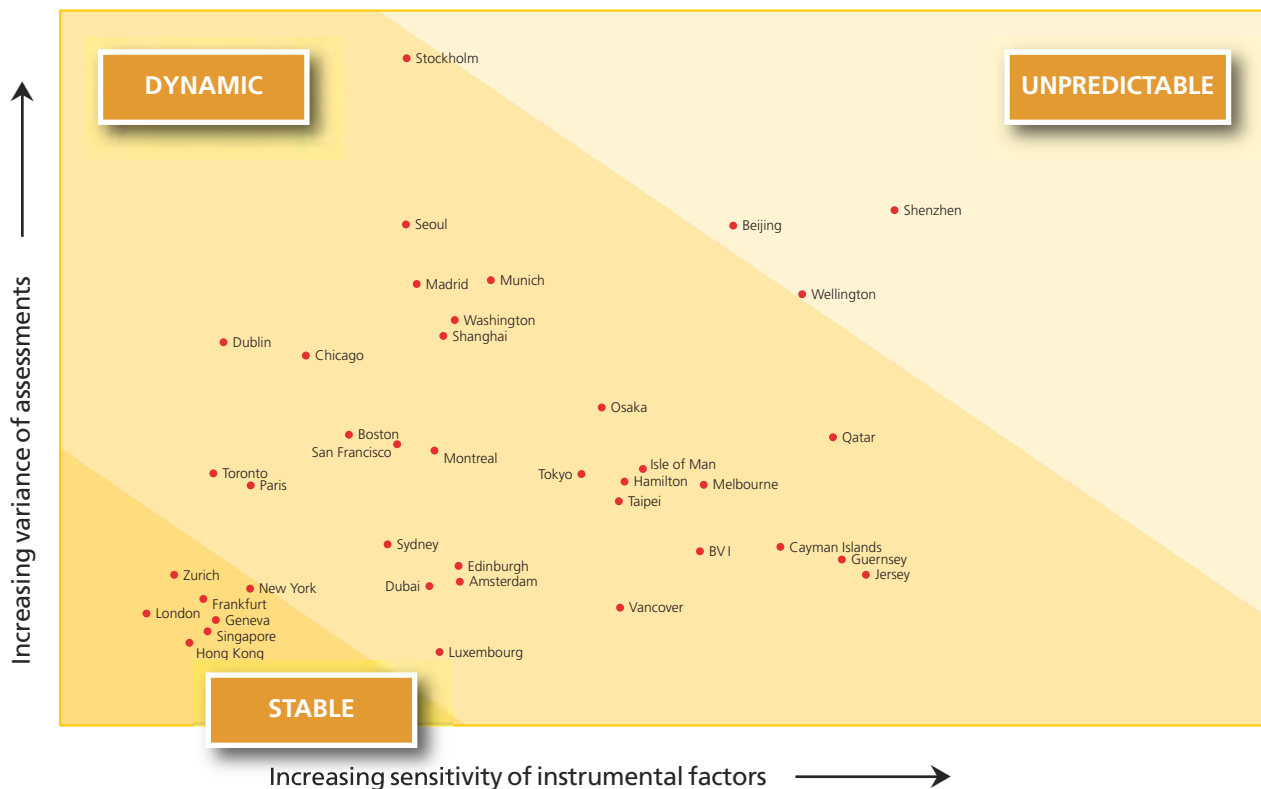


Chart 22 shows three 'bands' of financial centres. The 'Unpredictable' centres in the top right of the chart, Shenzhen, Beijing and Wellington, have a high sensitivity to changes in the instrumental factors and a high variance of assessments. These centres have the highest potential volatility of the top GFCI centres.

The 'Stable' centres in the bottom left of the chart, London, New York, Hong Kong, Singapore, Frankfurt and Zurich, have a low sensitivity to changes in the instrumental factors

and a lower variance of assessments. These centres are likely to exhibit the lowest volatility in future GFCI ratings. Looking back at previous editions of the GFCI, there is strong evidence that these centres do show much greater stability than the more volatile centres. The top 10 centres show, on average, over 25% less movement in GFCI ratings than other centres.

The centres in the middle band might be classed as 'dynamic' and have the potential to move in either direction.

Appendices

1. Assessment Details

Table 17 | Assessment details

Centre	GFCI 8	Count of Assessments	Average Assessment	St. Dev of Assessments
London	772	1170	797	180
New York	770	1196	805	188
Hong Kong	760	1113	786	184
Singapore	728	949	761	185
Tokyo	697	733	715	212
Chicago	678	627	701	193
Zurich	669	724	697	183
Geneva	661	733	685	186
Shenzhen	654	451	710	233
Sydney	660	532	684	199
Shanghai	693	742	732	203
Toronto	656	495	680	186
Frankfurt	659	675	676	185
Boston	655	571	670	196
San Francisco	654	468	669	199
Beijing	653	730	696	223
Washington D.C.	649	549	664	204
Jersey	626	610	624	231
Luxembourg	634	739	638	202
Paris	645	825	647	188
Taipei	639	469	665	215
Guernsey	616	564	599	229
Vancouver	627	336	618	215
Dubai	607	709	611	202
Isle of Man	598	488	577	217
Montreal	617	299	604	201
Melbourne	622	287	614	221
Cayman Islands	592	444	594	229
Edinburgh	600	556	587	204
Seoul	626	327	621	240
Dublin	605	767	607	186
Hamilton	592	348	575	218
Munich	610	344	591	206
Osaka	601	252	586	214
Amsterdam	595	542	588	204
Qatar	592	265	525	229
British Virgin Islands	582	392	551	229

Centre	GFCI 8	Count of Assessments	Average Assessment	St. Dev of Assessments
Stockholm	587	263	562	213
Brussels	582	526	575	200
Sao Paulo	573	237	558	224
Copenhagen	573	281	534	227
Bahrain	578	354	550	217
Vienna	571	294	531	206
Wellington	585	196	546	227
Madrid	584	342	563	201
Oslo	557	215	511	224
Milan	577	385	558	202
Monaco	567	392	546	208
Rome	563	367	544	214
Helsinki	549	204	493	240
Kuala Lumpur	569	293	557	208
Glasgow	572	325	513	217
Gibraltar	554	457	499	216
Johannesburg	555	291	516	209
Rio de Janeiro	561	189	510	231
Malta	554	365	521	215
Mexico City	563	221	525	230
Mumbai	550	326	519	210
Bahamas	529	258	483	218
Mauritius	535	308	497	224
Bangkok	537	334	504	203
Prague	543	235	504	214
Jakarta	534	235	497	209
Buenos Aires	528	200	487	221
Lisbon	534	246	478	222
Manila	523	220	479	212
Warsaw	517	207	470	218
Moscow	506	419	472	226
Riyadh	503	143	440	230
St. Petersburg	491	177	431	220
Tallinn	451	133	402	250
Budapest	467	238	413	207
Athens	465	292	389	199
Istanbul	496	191	424	221
Reykjavik	441	123	382	255

2. Respondent's Details

Table 18 | Respondents by industry sector

Sector	Total	%
Asset Management	286	15.2%
Banking	525	28.0%
Government & Regulatory	86	4.6%
Insurance	353	18.8%
Other	295	15.7%
Professional Services	318	17.0%
Wealth Management/ Private Banking	13	0.7%
Grand Total	1,876	100.0%

Table 19 | Respondents by size of organisation

Number of Employees Worldwide	Total	%
Fewer than 100	479	25.5%
100 to 500	263	14.0%
500 to 1,000	149	7.9%
1,000 to 2,000	108	5.8%
2,000 to 5,000	200	10.7%
More than 5,000	645	34.4%
Unspecified	32	1.7%
Grand Total	1,876	100.0%

Table 20 | Respondents by location

Where Based	Total	%
Asia	796	42.4%
Europe	214	11.4%
UK	322	17.2%
North America	94	5.0%
Offshore	440	23.5%
Other	10	0.5%
Grand Total	1,876	100.0%

3. Methodology

The GFCI provides ratings for financial centres calculated by a 'factor assessment model' that uses two distinct sets of input:

- **Instrumental factors (external indices that contribute to competitiveness):** Objective evidence of competitiveness was sought from a wide variety of comparable sources. For example, evidence about the infrastructure competitiveness of a financial centre is drawn from a survey of property and an index of occupancy costs. Evidence about a fair and just business environment is drawn from a corruption perception index and an opacity index. A total of 75 external sources were

used in GFCI 8. 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. For the GFCI 8 model, we use 33,023 financial centre assessments drawn from 1,876 respondents. Since 2007, we have collected over 60,000 assessments from over 3,500 respondents and use these in additional analysis.

The 75 instrumental factors were selected because the features they measure contribute in various ways to the fourteen competitiveness factors identified in previous research³. These are shown below.

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

Financial centres are added to the GFCI model when they receive five or more mentions in the online questionnaire – "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.

At the beginning of our work on the GFCI, a number of guidelines were set out. Additional Instrumental Factors are added to the GFCI model when relevant and meaningful ones are discovered:

- indices should come from a reputable body and be derived by a sound methodology;

- indices should be readily available (ideally in the public domain) and be regularly updated;
- updates to the indices are collected and collated every six months;
- no weightings are applied to indices;
- indices are entered into the GFCI model as directly as possible, whether this is a rank, a derived score, a value, a distribution around a mean or a distribution around a benchmark;
- if a factor is at a national level, the score will be used for all centres in that country; nation-based factors will be avoided if financial centre (city)-based factors are available;
- if an index has multiple values for a city or nation, the most relevant value is used (and the method for judging relevance is noted);
- if an index is at a regional level, the most relevant allocation of scores to each centre is made (and the method for judging relevance is noted);
- if an index does not contain a value for a particular city, a blank is entered against that centre (no average or mean is used). Only indices which have values for at least one third of the financial centres (currently 25) will be included.

Creating the GFCI does not involve totaling or averaging scores across instrumental factors.

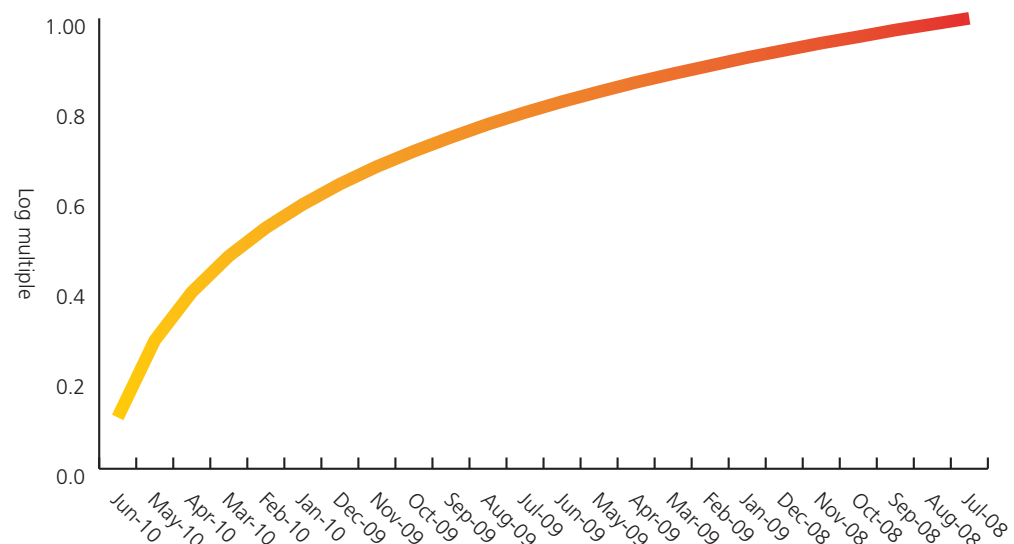
An approach involving totaling and averaging would involve a number of difficulties:

- 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;

Chart 23 | Log scale for time weightings



³ 'The Competitive Position of London as a Global Financial Centre', Z/Yen Limited, The Corporation of London, 2005

- respondents who do not say where they work are excluded;
- financial centre assessments from the month when the GFCI is created are given full weighting and earlier responses are given a reduced weighting on a log scale (Chart 23).

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:

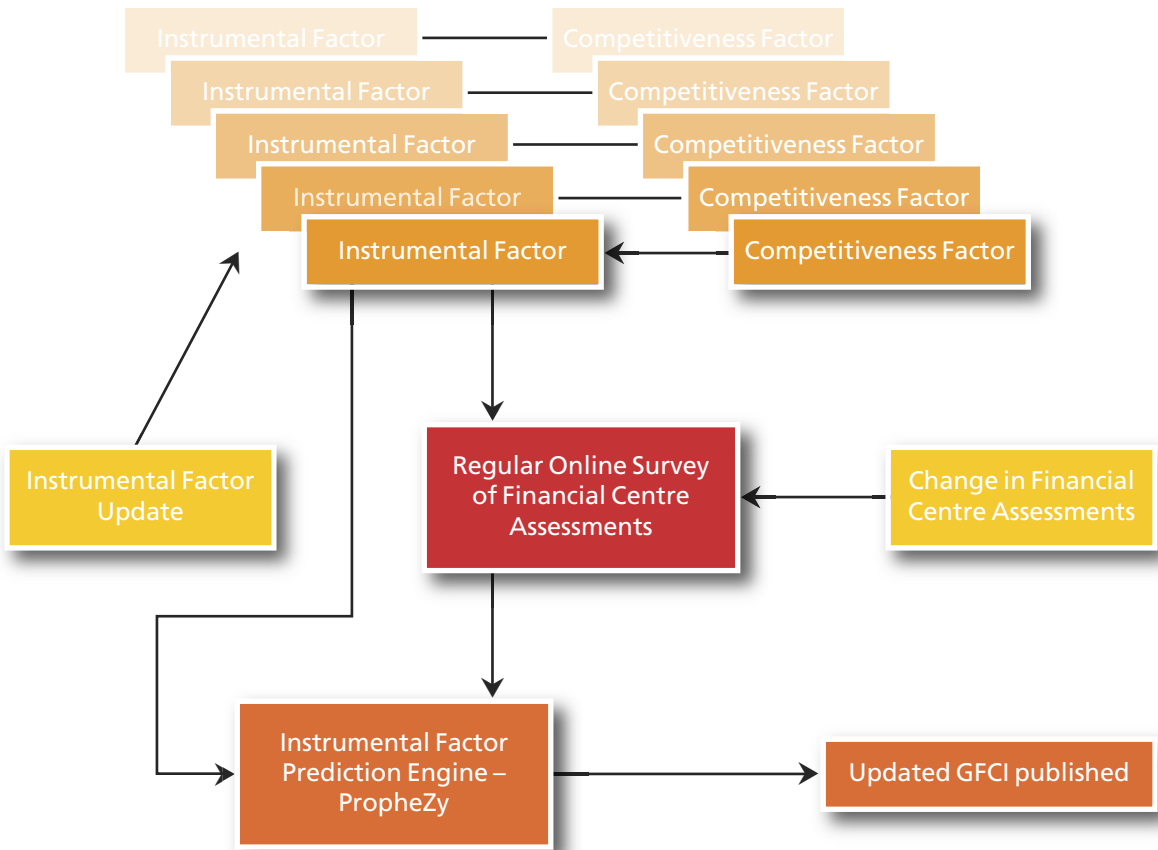
If an investment banker gives Singapore and Sydney certain assessments then, based on the relevant data for Singapore, Sydney and Paris, how would that person assess Paris?

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?

This process is shown in chart 24.

Chart 24 | The GFCI process



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 above.

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' can be developed as the GFCI progresses;

Table 22 | Top 20 instrumental factors by correlation with GFCI 8

Instrumental Factor	R-Squared with GFCI 8
Centres of Commerce Index	0.590
World Competitiveness Scoreboard	0.520
World Cities Survey	0.474
Global Competitiveness Index	0.448
Global Power City Index	0.431
Global Cities Index	0.382
Quality of Roads	0.346
Credit Ratings	0.341
Capital Access Index	0.336
Business Environment	0.299
Banking Industry Country Risk Assessments	0.292
Capitalisation of Stock Exchanges	0.292
The Access Opportunities Index	0.288
Number of International Fairs and Exhibitions	0.285
RPI (% change on year ago)	0.277
The World's Most Innovative Countries	0.276
Volume of Share Trading	0.255
Economic Freedom of the World	0.251
Office Space Around the World	0.237
E - Readiness Score	0.227

- sector-specific ratings are being developed by using the business sectors represented by questionnaire respondents. This could make it possible to rate London as competitive in Insurance (for instance) while less competitive in Asset Management (for instance);
- over time, as confidence in the GFCI increases, 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 was tested against actual assessments. Over 85% of the predictions made were accurate to within 5%.

4. Instrumental Factors

Table 25 shows how closely instrumental factor rankings correlate with the GFCI 8 rankings for the top 20 instrumental factors:

It is interesting (but perhaps unsurprising) to see that the broader measures of competitiveness seem to act as good indicators for financial centre competitiveness. The five most highly correlated instrumental factors are all broad measures of competitiveness rather than being specific to financial services. This indicates that cities that are successful at most things are likely to be very competitive financial centres. A full list of instrumental factors is shown in tables 23 to 27 :

U – this index has been updated since GFCI 7
N – this index is new

Table 23 | Infrastructure related instrumental factors

Instrumental Factors	Instrumental Factor	Source	Website
Office Occupancy Costs	CBRE	www.cbre.com/EN/Research/	U
Office Space Around the World	Cushman & Wakefield	www.cushmanwakefield.com/cwglobal	U
Global Property Index	IPD	www.ipd.com/	N
Real Estate Transparency Index	Jones Lang LaSalle	www.joneslanglasalle.com/	U
E-readiness Score	Economist Intelligence Unit	www.eiu.com/	U
Telecommunications Infrastructure	United Nations	www.unpan.org/egovkb/global_reports/	N
City Infrastructure	Mercer HR	www.mercer.com/qualityofliving	
Quality of Ground Transport Network	The World Economic Forum	www.weforum.org/en/initiatives/gcp	
Quality of Roads	The World Economic Forum	www.weforum.org/en/initiatives/gcp	
Roadways per Land Area	The CIA Fact Book	https://www.cia.gov/library/publications/the-world-factbook/	N
Railways per Land Area	The CIA Fact Book	https://www.cia.gov/library/publications/the-world-factbook/	N

Table 24 | Market access related instrumental factors

Instrumental Factors	Instrumental Factor	Source	Website
Capital Access Index	Milken Institute	www.milkeninstitute.org/research/	U
Centres of Commerce Index	Master Card	www.mastercard.com/us/company/	
Access Opportunities	SRI International	about.fedex.designcdt.com/access/	
Securitisation	International Financial Services London	www.thecityuk.com/what-we-do/	U
Capitalisation of Stock Exchanges	World Federation of Exchanges	www.world-exchanges.org/	U
Value of Share Trading	World Federation of Exchanges	www.world-exchanges.org/	U
Volume of Share Trading	World Federation of Exchanges	www.world-exchanges.org/	U
Broad Stock Index Levels	World Federation of Exchanges	www.world-exchanges.org/	U
Value of Bond Trading	World Federation of Exchanges	www.world-exchanges.org/	U
Volume of Stock Options Trading	World Federation of Exchanges	www.world-exchanges.org/	U
Volume of Stock Futures Trading	World Federation of Exchanges	www.world-exchanges.org/	U
Domestic Credit Provided by Banking Sector (% GDP)	The World Bank	data.worldbank.org/indicator/	N
Percentage of Firms Using Banks to Finance Investment	The World Bank	data.worldbank.org/indicator/	N
Total Net Assets of Mutual Funds	The Investment Company Institute	www.ici.org/pdf/2010_factbook.pdf	N
Islamic Finance	International Financial Services London	www.thecityuk.com/what-we-do/	N
Net External Positions of Banks	The Bank for International Settlements	www.bis.org/statistics/bankstats.htm	U
External Positions of Central Banks (% GDP)	The Bank for International Settlements	www.bis.org/statistics/bankstats.htm	U
Credit Ratings	The Institutional Investor Magazine	www.iimagazinerankings.com/	

Table 25 | People related instrumental factors

Instrumental Factor	Source	Website	Updated/New
Graduates in Social Science Business & Law	The World Bank	www.worldbank.org/education	U
Gross Tertiary Graduation Ratio	The World Bank	www.worldbank.org/education	U
Visa Restrictions Index	Henley & Partners	www.henleyglobal.com/citizenship/visa-restrictions/	
Human Development Index	United Nations	http://hdr.undp.org/	
Citizens Purchasing Power	City Mayors	www.citymayors.com/economics/usb-purchasing-power.html	N
Quality of Living Survey	Mercer HR	www.mercer.com/qualityofliving	U
Happy Planet Index	The New Economics Foundation	www.happyplanetindex.org	N
Number of High Net Worth Individuals	City Bank & Knight Frank	/www.knightfrank.com/wealthreport/	N
Personal Safety	Mercer HR	www.mercer.com	
International Crime Victims Survey	UN Office of Drugs and Crime	rechten.uvt.nl/icvs	
Top Tourism Destinations	Euro Monitor	www.euromonitor.com/	U
Average Days with Precipitation	Sperling's Best Places	www.bestplaces.net/Climat/	U

Table 26 | Business environment related instrumental factors

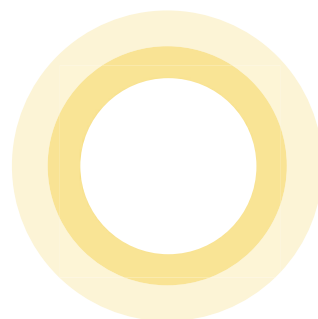
Instrumental Factor	Source	Website	Updated/New
Business Environment	Economist Intelligence Unit	www.eiu.com/	
Ease of Doing Business	The World Bank	www.doingbusiness.org/	
Operational Risk Rating	Economist Intelligence Unit	www.viewswire.com/	U
Real Interest Rate	The World Bank	data.worldbank.org/indicator/	N
Projected City Economic Growth (2008-2025)	Price Waterhouse Coopers	https://www.ukmediacentre.pwc.com/	N
Global Services Location	AT Kearney	www.atkearney.com/	
Opacity Index	Milken Institute	www.milkeninstitute.org/publications/	
Corruption Perceptions Index	Transparency International	www.transparency.org/	
Wage Comparison Index	UBS	www.ubs.com/	
Corporate Tax Rates	Price Waterhouse Coopers	www.pwc.com/gx/en/paying-taxes	U
Employee Effective Tax Rates	Price Waterhouse Coopers	www.pwc.co.uk/	U
Personal Tax Rates	OECD	www.oecd.org/document/	U
Tax As Percentage of GDP	The World Bank	data.worldbank.org/indicator/	N
Bilateral Tax Information Exchange Agreements	OECD	www.oecd.org/	U
Economic Freedom of the World	The Fraser Institute	www.freetheworld.com/	
Banking Industry Country Risk Assessments	Standard & Poor	www2.standardandpoors.com	U
Government Debt as Percentage of GDP	The CIA Fact Book	https://www.cia.gov/library/publications/the-world-factbook/	N
Political Risk	Exclusive Analysis Ltd	www.exclusive-analysis.com/	

Table 27 | General competitiveness related instrumental factors

Instrumental Factor	Source	Website	Updated/New
World Competitiveness Scoreboard	IMD	www.imd.ch/news/upload	U
Global Competitiveness Index	The World Economic Forum	www.weforum.org/documents	
Business Confidence	Grant Thornton	www.grantthorntonibos.com	
Foreign Direct Investment Inflows	UNCTAD	www.unctad.org	
FDI Confidence	AT Kearney	www.atkearney.com	N
City to Country GDP Ratio	The World Bank & PWC	https://www.ukmediacentre.pwc.com/http://data.worldbank.org/indicator/	N
GDP per Person Employed	The World Bank	data.worldbank.org/indicator	N
The World's Most Innovative Countries	Economist Intelligence Unit	www.economist.com/markets/rankings	
Global Intellectual Property Index	Taylor Wessing	www.global-ip-index.com	U
RPI (% change on a year)	The Economist	www.economist.com/markets/indicators/	U
Cost of Living	City Mayors	www.citymayors.com/statistics/expensive-cities-world.html	N
Global Power City Index	Institute for Urban Strategies	www.mori-m-foundation.or.jp/english/	N
World Cities Survey	City Bank & Knight Frank	www.knightfrank.com/wealthreport	N
Global Cities Index	AT Kearney	www.foreignpolicy.com/	
Number of International Fairs & Exhibitions	The World Economic Forum	www.weforum.org/en/initiatives/gcp	
City Population Density	City Mayors	www.citymayors.com/statistics/	



Notes





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.

Financial Centre Futures consists of publications, events, workshops and seminars. We have planned research on topics such as clustering, Islamic finance to the affects of technology or outsourcing on future workplaces.

Long Finance publishes a number of papers under the Financial Centre Futures name in order to initiate discussion on the changing landscapes of global finance. The publications consist of in-depth research reports as well as the popular Global Financial Centres Index publication series.

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

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