



The Global Financial Centres Index 11

MARCH 2012





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

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

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

QFC aims to help all QFC licensed firms generate new and sustainable revenue streams. It provides access to local and regional investment opportunities. Business can be transacted inside or outside Qatar, in local or foreign currency.

Uniquely, this allows businesses to operate both locally and internationally. Furthermore, QFC allows 100% ownership by foreign companies, and all profits can be remitted outside of Qatar.

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

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

Z/Yen Group thanks the City of London Corporation for its cooperation in the development of the GFCI and 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, Nick Danev, Chiara von Gunten, Stephanie Rochford and Michael Mainelli.

Foreword

The Global Financial Centres Index is a barometer, tracking the shifts of competitiveness in global financial centres, and over the last few years it has shown that Canada's economy is weathering the storm. We entered the downturn in better condition than many, because when times were good we managed surplus budgets and kept down the national debt. Today Canada has the lowest net debt to GDP ratio in the G-7.

Forbes magazine ranks Canada as the best country in the world in which to do business. We have generous R&D tax incentives, first rate technology and innovation, a highly skilled workforce, investor protection and a lack of red tape. The OECD and the IMF predict that our economy will continue to be a leader in the industrialised world over the next two years.

Canada's banks are well capitalised, stable and secure. They largely stayed out of sub-prime mortgages and mortgage backed securities, and their strong balance sheets have enabled them to expand and pick up both assets and talent that other global banks were forced to sell. In 2012, for the fourth year in a row, The World Economic Forum described Canada's banks "as the soundest in the world". Six of the world's 50 safest banks and four of North America's ten largest banks are Canadian. Strong leadership, good management and a prudent regulatory system served us well.

Canada's financial services sector has grown and diversified significantly, generating sales of more than \$82.4 billion in 2010. Canada has leading banks, major insurance companies, asset managers including cutting edge pension funds, and some of the largest wealth management operations in the world. We are increasingly competitive and global in reach.

Four Canadian cities are now in the top 30 of the Global Financial Centres Index. Toronto offers a breadth of financial services activity that makes it the third largest financial services centre in all of North America. Vancouver is Canada's Pacific gateway, offering unique access to trade financing in the fast growing Asia Pacific markets. Calgary is a global hub for energy and commodity financing. Montreal has strong expertise in pension management, and leads in developing software for the financial services sector.

Canada's financial services sector is a key asset of the Canadian economy. Looking ahead, we will continue to build partnerships and international networks that aim to capture opportunities as the global economy returns to growth and prosperity.

Gordon Campbell
Canadian High Commissioner
to the United Kingdom

GFCI 11 – Summary and Headlines

The GFCI provides profiles, ratings and rankings for 77 financial centres, drawing on two separate sources of data – instrumental factors (external indices) and responses to an online survey. The GFCI was first published by the 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 this time, particularly since financial crises began to unfold in 2007 and 2008. This is the eleventh edition of GFCI (GFCI 11).

Instrumental factors: previous research indicates that many factors combine to make a financial centre competitive. These factors 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. 80 factors have been used in GFCI 11, of which 37 have been updated since GFCI 10 and five are new to the GFCI (see page 42 for details on all external measures used in the GFCI 11 model).

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. Overall, 26,853 financial centre assessments from 1,778 financial services professionals were used to compute GFCI 11, with older assessments discounted according to age.

Full details of the methodology behind GFCI 11 can be found on page 37. The ratings and

rankings are calculated using a ‘factor assessment model’, which combines the instrumental factors and questionnaire assessments. The full list of the 77 financial centres rated and profiled in GFCI 11 is shown on page 4.

The main headlines of GFCI 11 are:

- The past trend of large rises in the ratings of Asia/Pacific centres has paused. Hong Kong, Singapore, Tokyo, Shanghai, Beijing, Taipei and Shenzhen all decline in GFCI 11. Centres on the mainland of China have seen significant declines with Shanghai down 37 points and Beijing down 11. Hong Kong sees a 16 point drop and is now 27 points below London.

We believe that these results in Asia are just an interlude in the long-term trend of the increasing importance of the region rather than a fundamental change in fortunes. Overall respondents think that the Asian centres will continue to become more significant. Some respondents question whether financial centres on mainland China will be able to continue their growth without relaxations in currency controls. It is worth noting that Seoul and Sydney are the only centres in Asia/Pacific showing higher ratings than in GFCI 10.

“Several commentators on China are revising their expectations downwards – currency controls are a real issue.”

Asset Manager based in Hong Kong

- Offshore centres have suffered significant reputational damage in the past four years. In GFCI 10 several of these centres were beginning to recover and this trend has continued. Jersey, Guernsey, the Cayman Islands, the British Virgin Islands, the Isle of Man, Gibraltar and Mauritius (listed in order



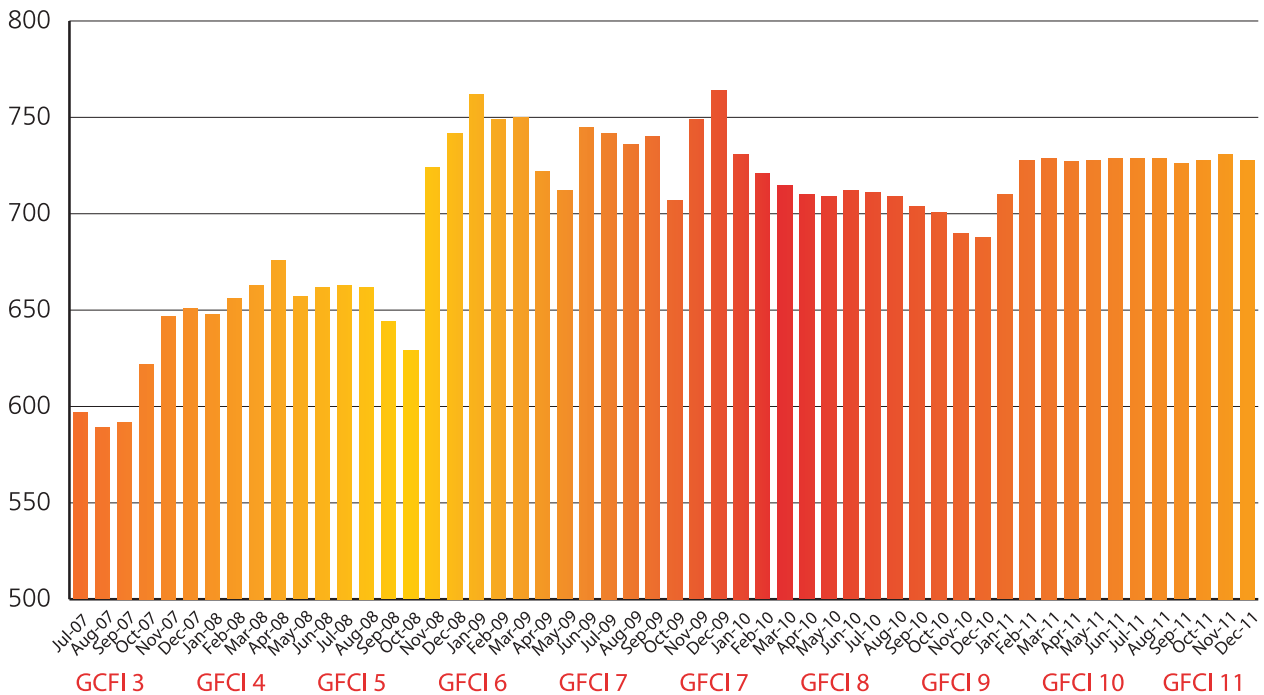
of GFCI rank) have all made modest gains in the ratings. Jersey and Guernsey remain the leading offshore centres. A number of our respondents believe that centres like Zurich, Geneva and Luxembourg, whilst not geographically 'offshore', compete in a similar manner to the genuinely offshore centres. It is interesting to note that Zurich, Geneva and Luxembourg have all risen in the GFCI 11 ratings.

- The recent crisis of the Euro has changed the balance of interest within the Eurozone. The capital cities of the weaker Euro economies are clearly suffering. Dublin, Milan, Madrid, Lisbon and Athens were all down in GFCI 10 and this decline has continued in GFCI 11 with these five centres all down in the rankings again. In contrast to the centres in the weaker Eurozone economies, Frankfurt and Paris have both risen in the ranks (by two places and

three places respectively). This may be as a result of the political lead that Germany and France have been showing in attempting to come to terms with the Eurozone crisis. Historically, Frankfurt and Paris have moved up and down in the rankings together in all editions of the GFCI (this can be seen in Chart 10 on page 16). There have been some other strong performances in Europe with Vienna (up 21 points), Amsterdam (up 12), Warsaw (up 13), and the Scandinavian centres of Stockholm, Oslo and Helsinki all doing well.

- Confidence amongst financial services professionals, measured by average assessments of the leading centres, was relatively stable during 2011. This is demonstrated by a stability in the 'spread' (measured by standard deviation) of assessments. Chart 1 below shows the stability of overall ratings in 2011.

Chart 1 | Three month rolling average assessments of the top 25 centres



The full set of GFCI 11 ranks and ratings are shown in Table 1 below:

Table 1 | GFCI 11 ranks and ratings

Centre	GFCI 11		GFCI 10		CHANGES	
	Rank	Rating	Rank	Rating	Rank	Rating
London	1	781	1	774	–	▲7
New York	2	772	2	773	–	▼-1
Hong Kong	3	754	3	770	–	▼-16
Singapore	4	729	4	735	–	▼-6
Tokyo	5	693	6	695	▲1	▼-2
Zurich	6	689	8	686	▲2	▲3
Chicago	7	688	7	692	–	▼-4
Shanghai	8	687	5	724	▼-3	▼-37
Seoul	9	686	11	679	▲2	▲7
Toronto	10	685	10	680	–	▲5
Boston	11	684	12	678	▲1	▲6
San Francisco	12	683	9	681	▼-3	▲2
Frankfurt	13	681	16	667	▲3	▲14
Geneva	14	679	13	672	▼-1	▲7
Washington D.C.	15	677	14	670	▼-1	▲7
Sydney	16	674	15	669	▼-1	▲5
Vancouver	17	667	17	661	–	▲6
Montreal	18	658	20	652	▲2	▲6
Munich	19	656	22	649	▲3	▲7
Melbourne	20	653	18	656	▼-2	▼-3
Jersey	21	652	21	650	–	▲2
Paris	22	650	24	643	▲2	▲7
Luxembourg	23	648	29	637	▲6	▲11
Osaka	24	647	26	641	▲2	▲6
Stockholm	25	645	28	638	▲3	▲7
Beijing	26	644	19	655	▼-7	▼-11
Taipei	27	643	23	645	▼-4	▼-2
Calgary	28	642	–	–	New	New
Dubai	29	641	36	622	▲7	▲19
Wellington	30	640	27	640	▼-3	–
Guernsey	31	639	31	635	–	▲4
Shenzhen	32	638	25	642	▼-7	▼-4
Amsterdam	33	637	35	625	▲2	▲12
Vienna	34	636	42	615	▲8	▲21
Kuala Lumpur	35	635	38	619	▲3	▲16
Copenhagen	36	634	34	626	▼-2	▲8
Edinburgh	37	632	32	632	▼-5	–
Qatar	38	630	30	636	▼-8	▼-6
Oslo	39	629	37	621	▼-2	▲8
Cayman Islands	40	628	46	610	▲6	▲18
Glasgow	41	627	33	628	▼-8	▼-1
Helsinki	42	626	39	618	▼-3	▲8
Hamilton	43	625	41	616	▼-2	▲9
Isle of Man	44	624	40	617	▼-4	▲7
British Virgin Islands	45	623	45	611	–	▲12
Dublin	46	621	43	614	▼-3	▲7
Brussels	47	620	44	612	▼-3	▲8

Centre	GFCI 11		GFCI 10		CHANGES	
	Rank	Rating	Rank	Rating	Rank	Rating
Abu Dhabi	48	618	-	-	New	New
Madrid	49	617	48	608	▼-1	▲9
Sao Paulo	50	612	49	607	▼-1	▲5
Mexico City	51	610	47	609	▼-4	▲1
Milan	52	609	50	606	▼-2	▲3
Rio de Janeiro	53	608	53	602	-	▲6
Warsaw	54	606	56	593	▲2	▲13
Johannesburg	55	603	52	603	▼-3	-
Prague	56	602	51	605	▼-5	▼-3
Bahrain	57	600	55	596	▼-2	▲4
Rome	58	596	54	597	▼-4	▼-1
Bangkok	59	594	57	585	▼-2	▲9
Monaco	60	593	59	583	▼-1	▲10
Istanbul	61	590	62	580	▲1	▲10
Jakarta	62	588	65	577	▲3	▲11
Gibraltar	63	587	58	584	▼-5	▲3
Mumbai	64	584	64	578	-	▲6
Moscow	65	583	61	581	▼-4	▲2
Mauritius	66	578	68	571	▲2	▲7
Buenos Aires	67	577	63	579	▼-4	▼-2
Lisbon	68	575	60	582	▼-8	▼-7
Manila	69	573	69	570	-	▲3
Riyadh	70	572	66	575	▼-4	▼-3
Tallinn	71	570	67	574	▼-4	▼-4
Malta	72	568	70	568	▼-2	-
St. Petersburg	73	567	71	554	▼-2	▲13
Budapest	74	552	73	543	▼-1	▲9
Bahamas	75	550	72	545	▼-3	▲5
Reykjavik	76	517	74	491	▼-2	▲26
Athens	77	468	75	477	▼-2	▼-9



Abu Dhabi and Calgary enter the GFCI for the first time. Canada now has four centres in the top 30 of the GFCI. Panama, Cyprus and Tel Aviv have been added to the GFCI questionnaire recently but have yet to acquire enough assessments to be rated in the index.

(approximately 70% of equity trading) and are likely to remain powerful financial centres for the foreseeable future.

We continue to believe that the relationships between London, New York and Hong Kong are mutually supportive. Whilst some industry

Chart 2 | Top four centres GFCI ratings over time

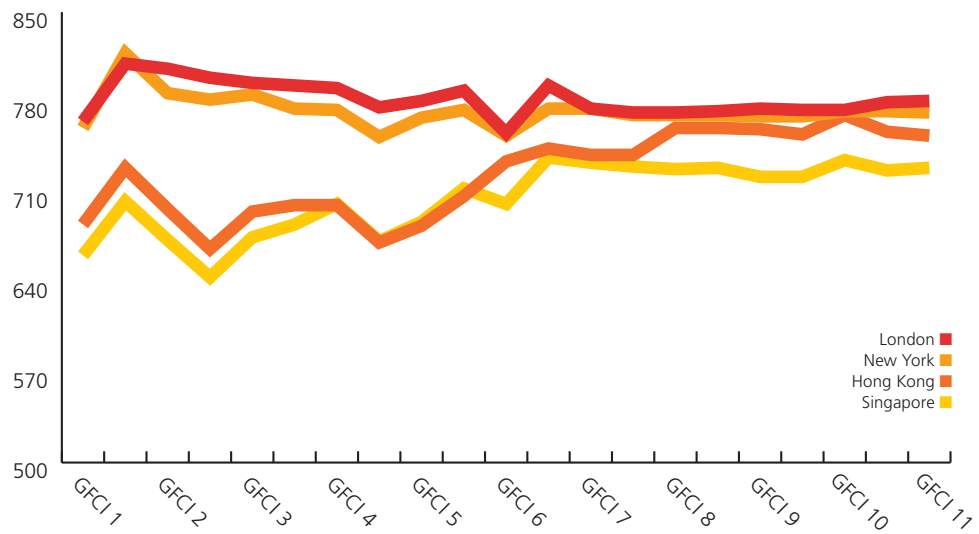
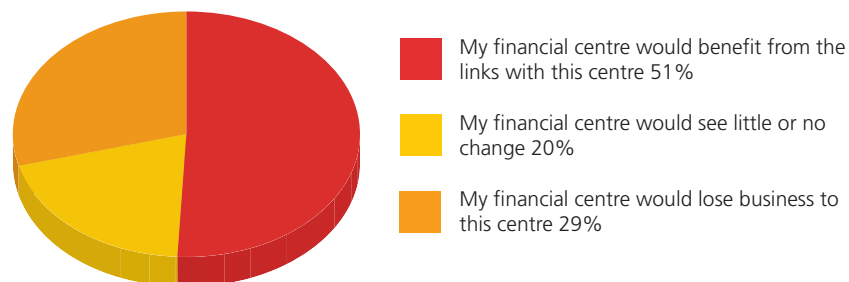


Chart 2 shows the relative stability of the leading centres.

In GFCI 10 Hong Kong was just three points behind New York and four points behind London. Hong Kong has now fallen back a little but maintains its position as the third global financial centre. These three centres control a large proportion of financial transactions

professionals still see a great deal of competition, others from the industry appear to recognise that working together on certain elements of regulatory reform is likely to enhance the competitiveness of these centres. We recently asked GFCI respondents "If a financial centre which was closely linked with your centre, became significantly more important, how would this affect your financial

Chart 3 | Close links with another financial centre



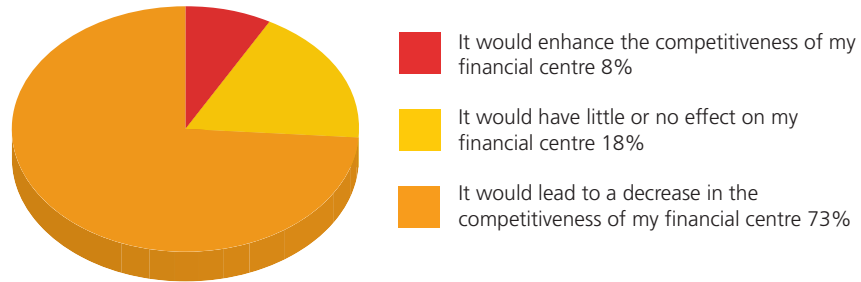
centre. Chart 3 shows that just over half the respondents think that financial centres can benefit from close links with other centres.

London and New York must not believe that they are 'untouchable'. Whilst Hong Kong and other Asian centres have declined a little in GFCI 11, the overall trend of the leading Asian centres is upward. London still has to negotiate some challenging regulatory changes (for example as recommended by the Vickers report¹). Tax levels in the UK remain unpopular within the financial services sector. In particular, the 50% personal tax rate for top earners (gross income greater than £150K) is deeply unpopular among financial services professionals and is the subject of much conjecture as to how much damage it is doing to the competitiveness of London.

We sent a supplementary questionnaire to GFCI respondents in February 2012 asking for opinions on several topical issues in financial services. The number of responses is fewer than in the overall GFCI, but they are still statistically significant.

The first question asked was – “How would the imposition of a financial transaction tax affect the competitiveness of your financial centre?” The responses are shown in Chart 4 and there is an overwhelming feeling that transaction taxes (unless imposed in all financial centres) would reduce competitiveness:

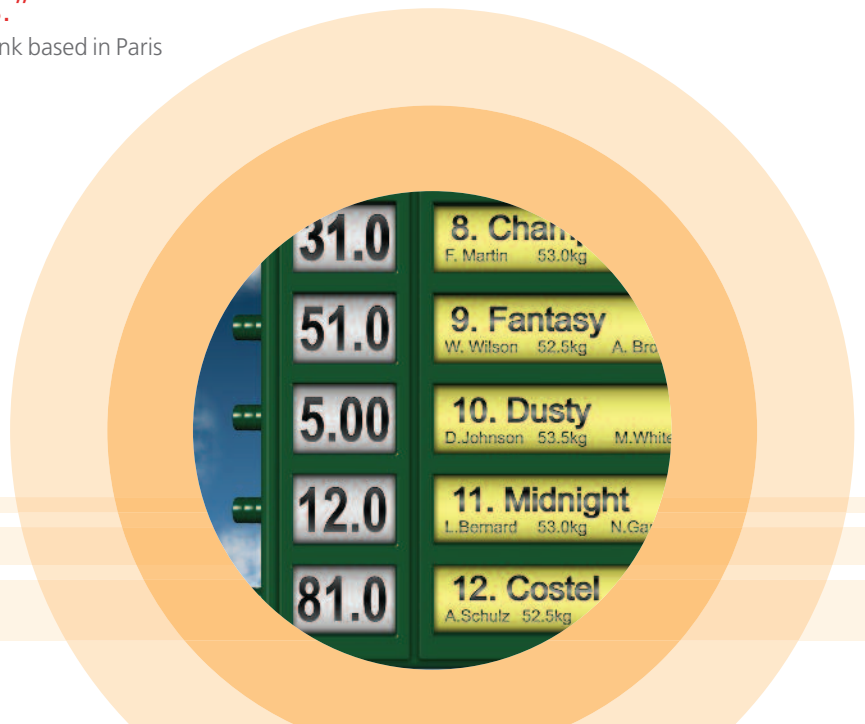
Chart 4 | The effect of a financial transaction tax



“Any steps to introduce financial transaction taxes should be taken at a global level rather than in individual jurisdictions or financial centres.”

Director of Investment Bank based in Paris

¹ *The Independent Commission on Banking, Final Report and Recommendations*, Sir John Vickers, September 2011



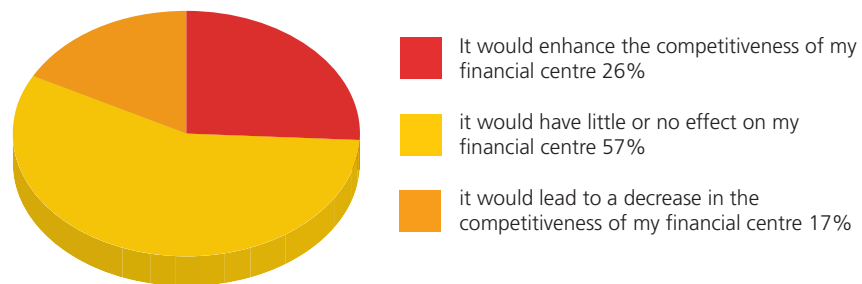
When asked “How would the mandatory separation of retail and investment banking affect your financial centre?” over half of our respondents did not think mandatory separation would have a significant effect on their financial centres.

“It is not clear that the universal banking model was a cause of the crisis, or that constraining it will have positive effects.”

Financial Services Consultant based in London

Many comments suggest that respondents are in favour of separating retail and investment banking but some question whether it would be effective:

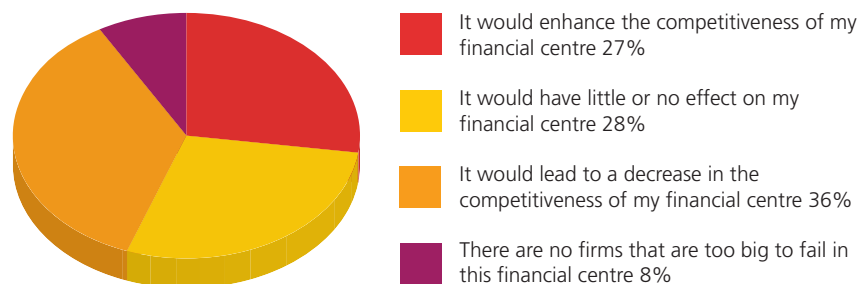
Chart 5 | The effect of a separation of retail and investment banking



Our next question was “If your local regulator restricted the activities of firms that are too big to fail, how would this affect your financial centre?” Over a third of respondents feel that greater regulatory involvement would decrease competitiveness in those centres affected:

Several respondents blame regulators for allowing firms to become too big:

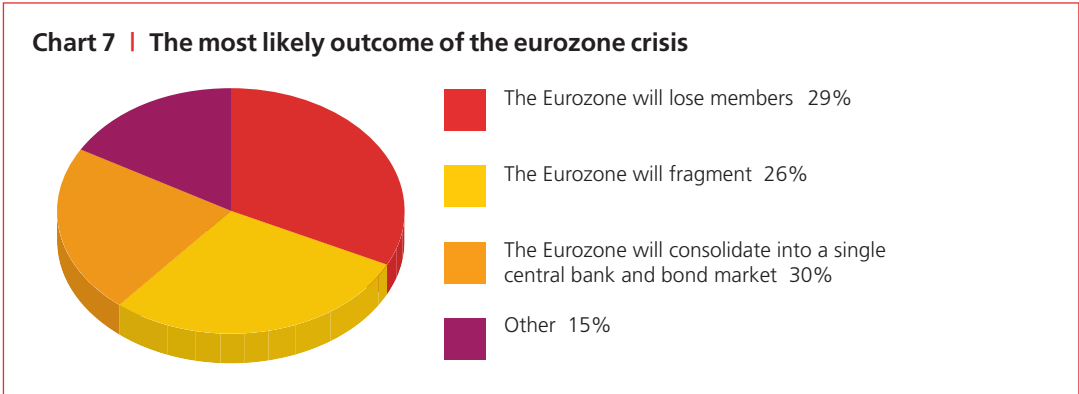
Chart 6 | The effect of greater regulatory involvement on firms that are too big to fail



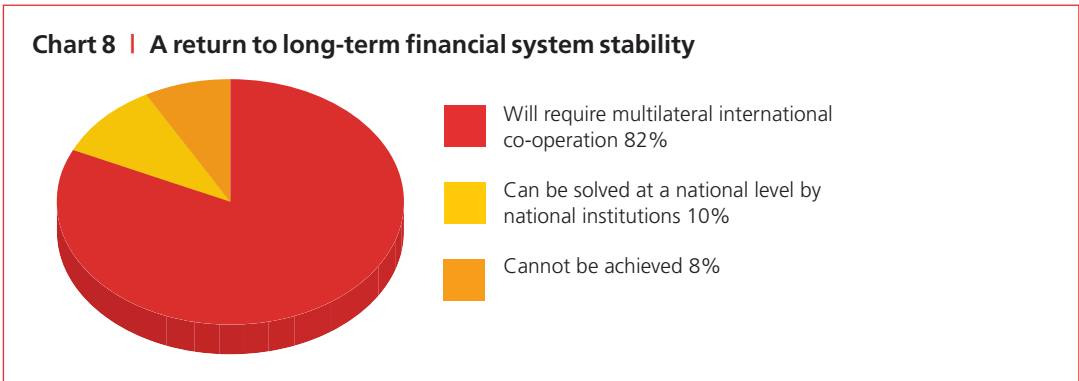
“Financial firms become too big to fail because they have regulatory protection! Enhancing competitiveness would ensure that firms don’t grow too big.”

Financial Services Advisor based in Jersey

We asked our respondents about the most likely outcome of the Eurozone crisis:



Finally we asked about what would be required for a return to long-term financial system stability. Over 80% of respondents feel that this will require international co-operation:



Main Areas of Competitiveness

The GFCI questionnaire asks about the most important factors for competitiveness. The number of times that each area is mentioned is summarised in Table 2:

Table 2 | Main areas of competitiveness

Area of competitiveness	Number of mentions	Main concerns
Taxation	74	Personal and corporate tax
Business environment	32	Stability and predictability
People	26	Quality of staff
General economic conditions	26	Eurozone recession
Infrastructure	15	Air transport

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 mentioned most often are shown in Table 3 below:

Table 3 | Top four single regulatory changes

Regulatory change	Number of mentions	Main issues
Taxation	49	Personal tax
Regulation	41	Fairness and predictability
Level playing field	32	Competitiveness with others
Business freedom / ease	30	Ease of running a business

The GFCI questionnaire also asks respondents how financial centres can best signal their long-term commitment to financial services. There were a large number of 'signals' mentioned but the four most common are shown in Table 4 below:

Table 4 | Best signals of commitment to financial services

Area of competitiveness	Number of mentions
Stability and transparency of regulation	45
Lack of corruption	34
Taxation	32
Lack of government interference	26
Infrastructure development	18

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

Table 5 | The ten centres likely to become more significant

Centres likely to become more significant	Number of mentions
Singapore	42
Shanghai	35
Hong Kong	33
Toronto	20
Sao Paulo	15
Luxembourg	14
Almaty	14
Beijing	11
Moscow	11
Mumbai	11

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

Table 6 | The ten centres where new offices will be opened

Centres where new offices will be opened	Number of mentions
Singapore	17
Hong Kong	14
London	11
Shanghai	8
Dubai	6
Beijing	5
Mumbai	5
New York	5
Luxembourg	4
Calgary	3

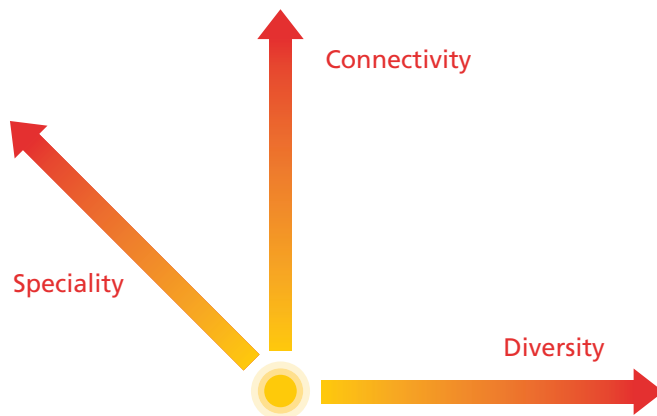
“Tax is now the single biggest concern we have about London at the moment. The government needs to be really careful.”

Director of Private Bank based in London



Financial Centre Profiles

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



'Connectivity' – the extent to which a centre is well known around the world and how much non-resident professionals believe it is connected to other financial centres. Respondents are asked to assess only those centres with which they are personally familiar. A centre's connectivity is assessed using a combination of 'inbound' assessment locations (the number of locations from which a particular centre receives assessments) and 'outbound' assessment locations (the number of other centres assessed by respondents from a particular centre). If the weighted assessments for a centre are provided by over 65% of other centres, this centre is deemed to be 'Global'. If the ratings are provided by over 45% of other centres, this centre is deemed to be 'Transnational'.

'Diversity' – the breadth of industry sectors that flourish in a financial centre. We consider this 'richness' of the business environment 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: asset management, investment banking, insurance, professional services and wealth management. A centre's 'speciality' performance is calculated from the difference between the GFCI rating and the industry sector ratings.

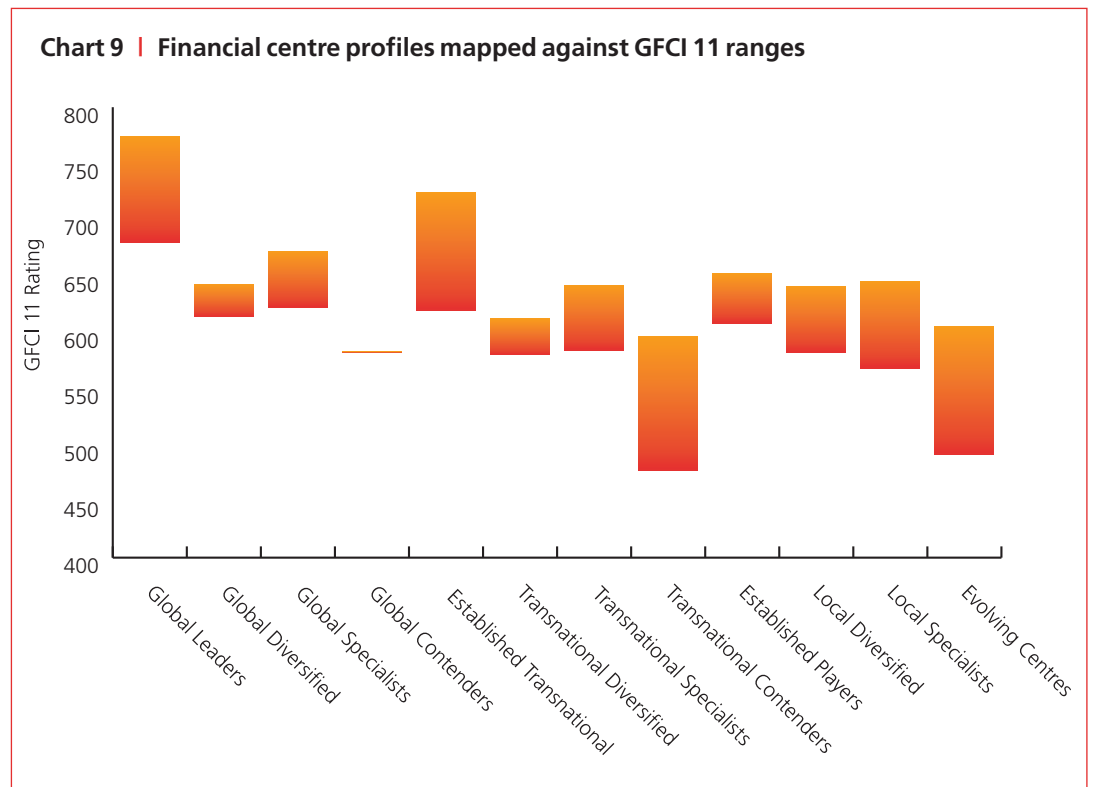
In Table 7, 'Diversity' (Breadth) and 'Speciality' (Depth) are combined on one axis to create a two dimensional table of financial centre profiles. The 77 centres are assigned a profile on the basis of a set of rules for the three measures: how well connected a centre is, how broad its services are and how specialised it is.

Table 7 | GFCI 11 financial centre profiles

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

This profile ‘map’ shows the nine 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 and Hong Kong, the leading global financial centres. Seoul, Shanghai and Singapore are Global Diversified centres as they are equally well connected but do not exhibit the same depth in different sectors to be considered Global Leaders. The only Global Contenders are Moscow and Luxembourg which are assigned a global profile because there is widespread awareness of their activities, but their financial services are not currently sufficiently broad and deep for them to be considered leaders.

The ‘movers’ since GFCI 10 include Shanghai (from Established Transnational to Global Diversified), Paris becoming a Global Leader (from Global Diversified), Montreal, Copenhagen and Munich becoming Established Transnational centres (from Transnational Diversified) and the European Centres of Helsinki, Lisbon, Rome and Stockholm all becoming Established Players from being Local Diversified and Local Specialist centres. Chart 9 below shows the profiles mapped against the GFCI 11 ranges:



“It is interesting to see Moscow as a Global Contender – that is exactly what it is. The leaders in Moscow are putting a lot of effort in changing Moscow into a more established global player.”

Asset Manager based in London

European Centres

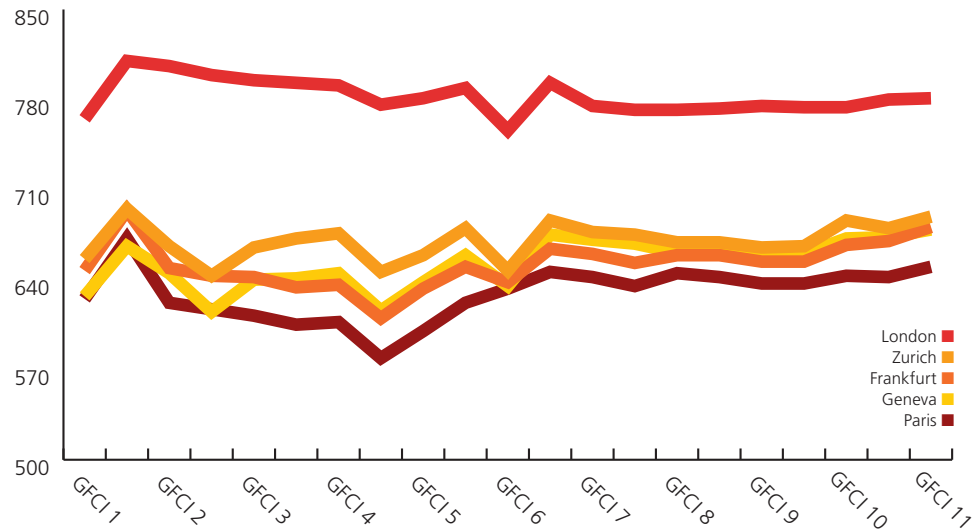
Table 8 shows the top 20 European financial centres. The main centres of countries suffering in the Euro-crisis have all declined in the rankings. In the UK, Edinburgh and Glasgow see the largest falls in Europe (five places and eight places respectively).

Frankfurt, Paris, Zurich and Geneva are amongst those European centres that have risen in the ratings. Ten of the top 20 European centres have declined in the ranks:

Table 8 | The leading 20 European centres in GFCI 11

	GFCI 11 rank	GFCI 11 rating	GFCI 10 rank	GFCI 10 rating	Change in rank	Change in rating
London	1	781	1	774	–	▲ 7
Zurich	6	689	8	686	▲ 2	▲ 2
Frankfurt	13	681	16	667	▲ 3	▲ 14
Geneva	14	679	13	672	▼ -1	▲ 7
Munich	19	656	22	649	▲ 3	▲ 7
Paris	22	650	24	643	▲ 2	▲ 7
Luxembourg	23	648	29	637	▲ 6	▲ 11
Stockholm	25	645	28	638	▲ 3	▲ 7
Amsterdam	33	637	35	625	▲ 2	▲ 12
Vienna	34	636	42	615	▲ 8	▲ 21
Copenhagen	36	634	34	626	▼ -2	▲ 8
Edinburgh	37	632	32	632	▼ -5	–
Oslo	39	629	37	621	▼ -2	▲ 7
Glasgow	41	627	33	628	▼ -8	▼ -1
Helsinki	42	626	39	618	▼ -3	▲ 8
Dublin	46	621	43	614	▼ -3	▲ 7
Brussels	47	620	44	612	▼ -3	▲ 8
Madrid	49	617	48	608	▼ -1	▲ 9
Milan	52	609	50	606	▼ -2	▲ 3
Warsaw	54	606	56	593	▲ 2	▲ 13

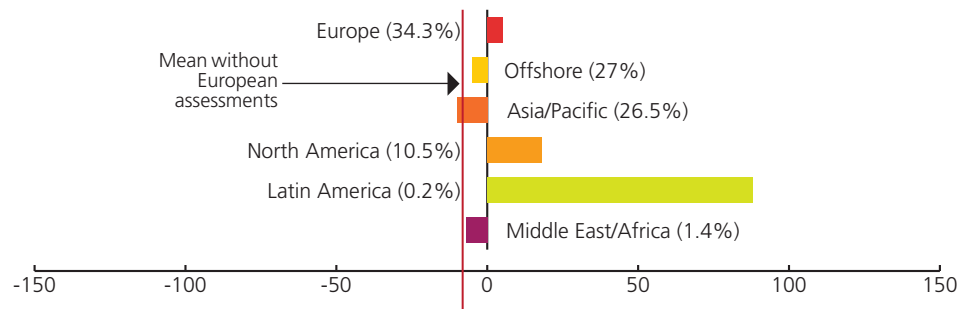
Chart 10 | The leading European centres over GFCI editions



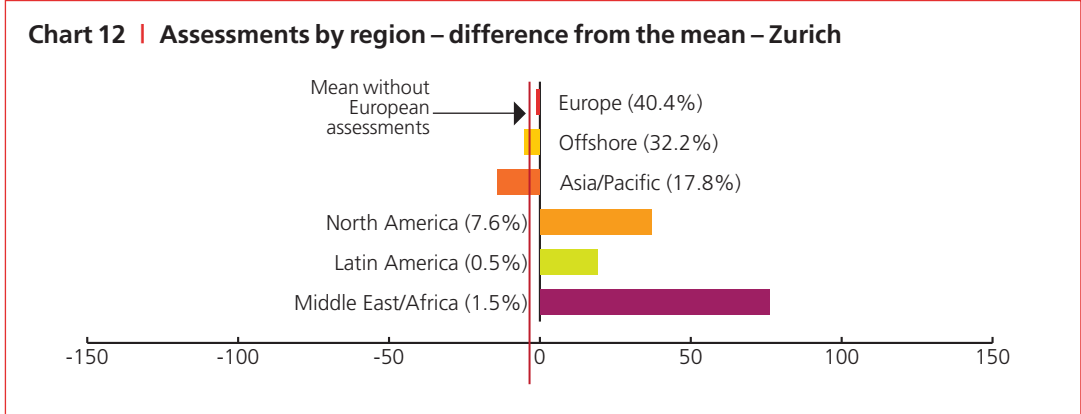
Examining the assessments given to each major centre is a useful means of assessing the relative strength and weakness of their reputations in different regions. It is important to note that assessments given to a centre by people based there are excluded from the GFCI model to eliminate 'home preference'. 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 780. The chart indicates that London is well regarded in North America (and by the few respondents in Latin America) but less well rated by respondents from offshore centres, the Middle East/Africa and Asia/Pacific.

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



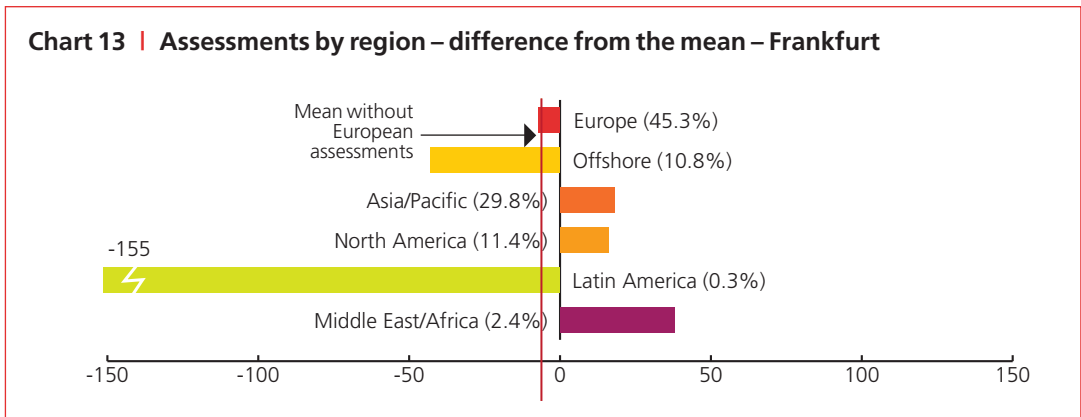
Zurich’s overall average assessment is 717, up from 702 in GFCI 10. North American assessments of Zurich together with those from the Middle East & Africa are strong. Offshore and European respondents are much closer to the mean. Asia/Pacific respondents are less favourable.



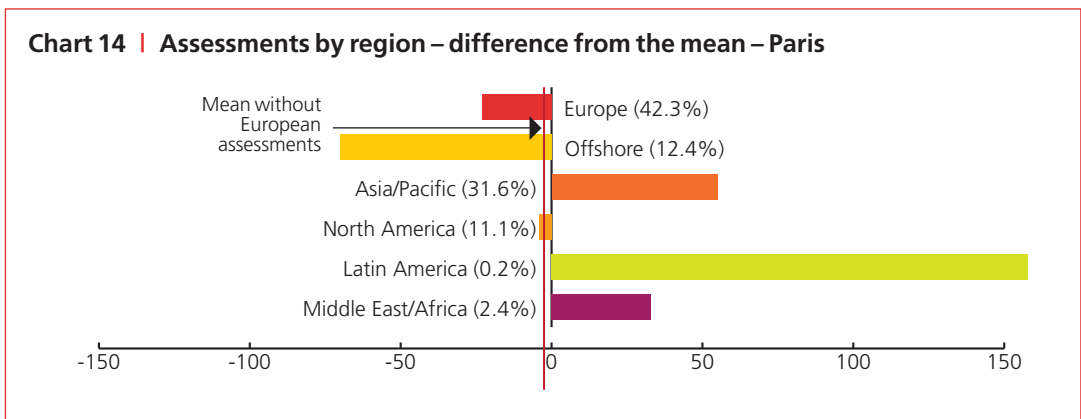
Frankfurt’s overall average assessment is 709 up from 693 in GFCI 10. Frankfurt is given lower assessments by people based in offshore locations and Latin America.

“Frankfurt has benefited from the leadership that Angela Merkel has shown in the Euro crisis.”

Asset Manager based in Zurich



The overall average assessment for Paris is 664 up from 637 in GFCI 10. Paris is given lower assessments by other European respondents and the offshore centres but gets more favourable responses from the Asia/Pacific region.



Asia/Pacific Centres

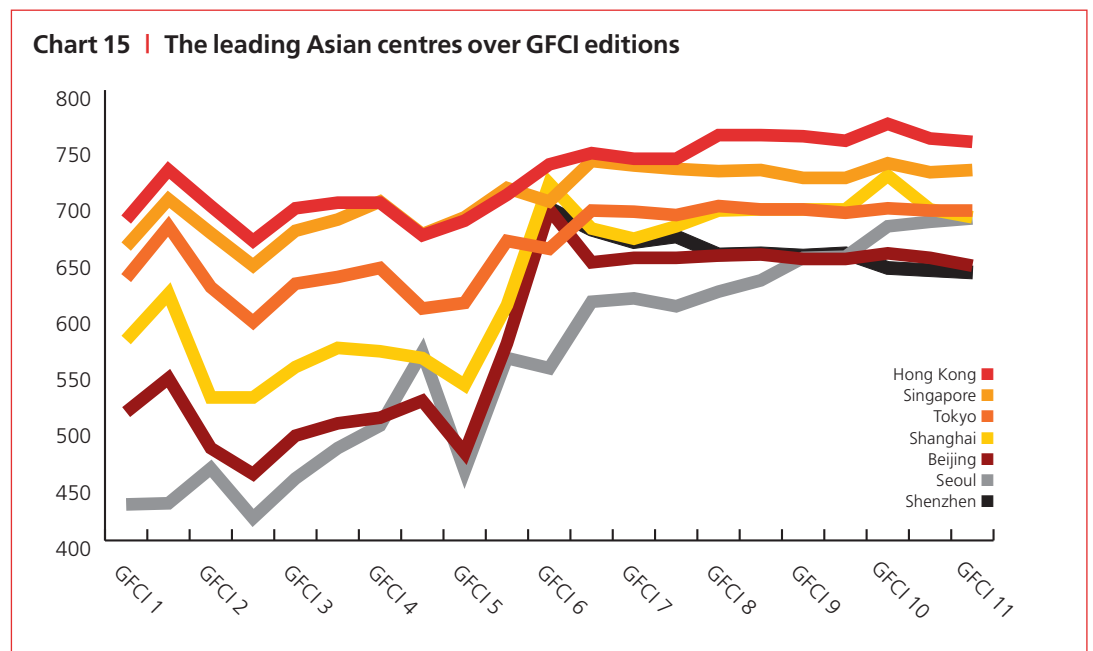
GFCI 11 ratings have, on average, risen since GFCI 10. In Asia however, the ratings of some of the leading centres have shown marked decreases. Hong Kong, Shanghai and Beijing in particular have shown declines. However the Asian/Pacific region still has five centres in the overall top ten – more than Europe and the Americas:

Shenzhen has now fallen outside the top 30 for the first time since entering the GFCI.

Table 9 | The leading ten Asia/Pacific centres in GFCI 11

	GFCI 11 rank	GFCI 11 rating	GFCI 10 rank	GFCI 10 rating	Change in rank	Change in rating
Hong Kong	3	754	3	770	–	▼-16
Singapore	4	729	4	735	–	▼-6
Tokyo	5	693	6	695	1	▼-2
Shanghai	8	687	5	724	▼-2	▼-37
Seoul	9	686	11	679	▲2	▲7
Sydney	16	674	15	669	▼-1	▲5
Melbourne	20	653	18	656	▼-2	▼-3
Osaka	24	647	26	641	▲2	▲6
Beijing	26	644	19	655	▼-7	▼-11
Taipei	27	643	23	645	▼-4	▼-2

Chart 15 | The leading Asian centres over GFCI editions



The mean rating of Hong Kong is 782 (down from 790 in GFCI 10), the mean for Singapore is 764 (761 in GFCI 10) and the mean for Tokyo is 739 (718 in GFCI 10). Responses from North America, Latin America and the Middle East/Africa are more positive than average about Hong Kong and Singapore. Responses from Europe and the offshore centres are less positive than average about Asian centres.

“Seoul has identified that their city is less attractive to live in for Western expats than they imagined. They are beginning to change that but still have a long way to go.”

Asset Manager based in Hong Kong

Chart 16 | Assessments by region – difference from the mean – Hong Kong

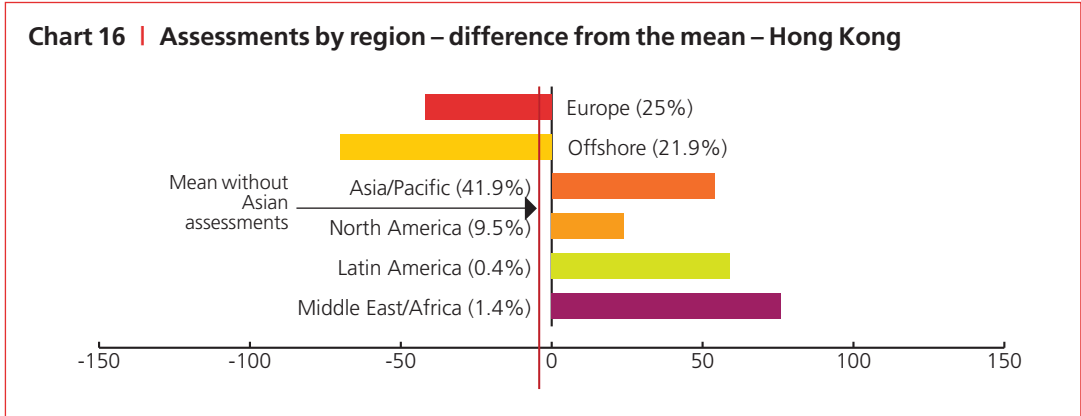


Chart 17 | Assessments by region – difference from the mean – Singapore

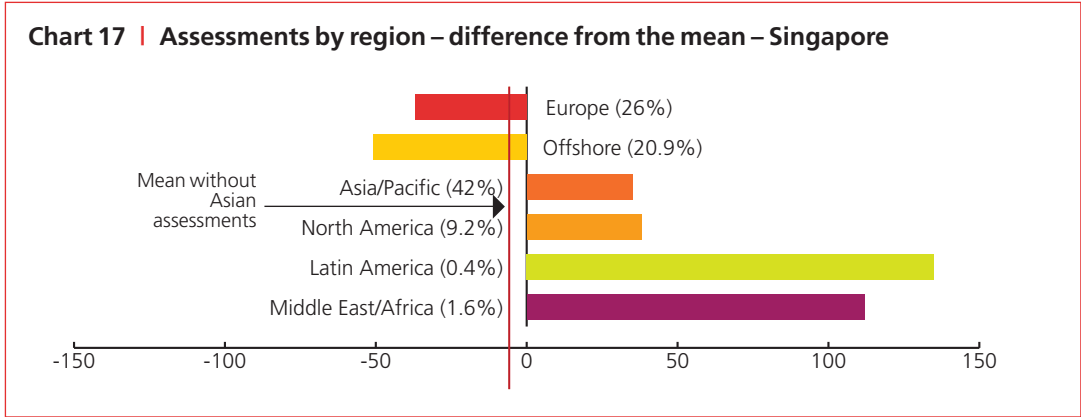
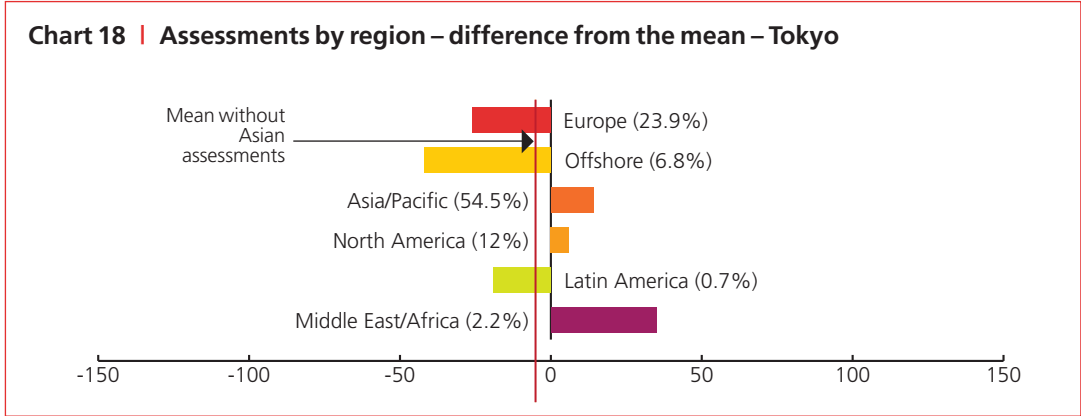


Chart 18 | Assessments by region – difference from the mean – Tokyo



North American Centres

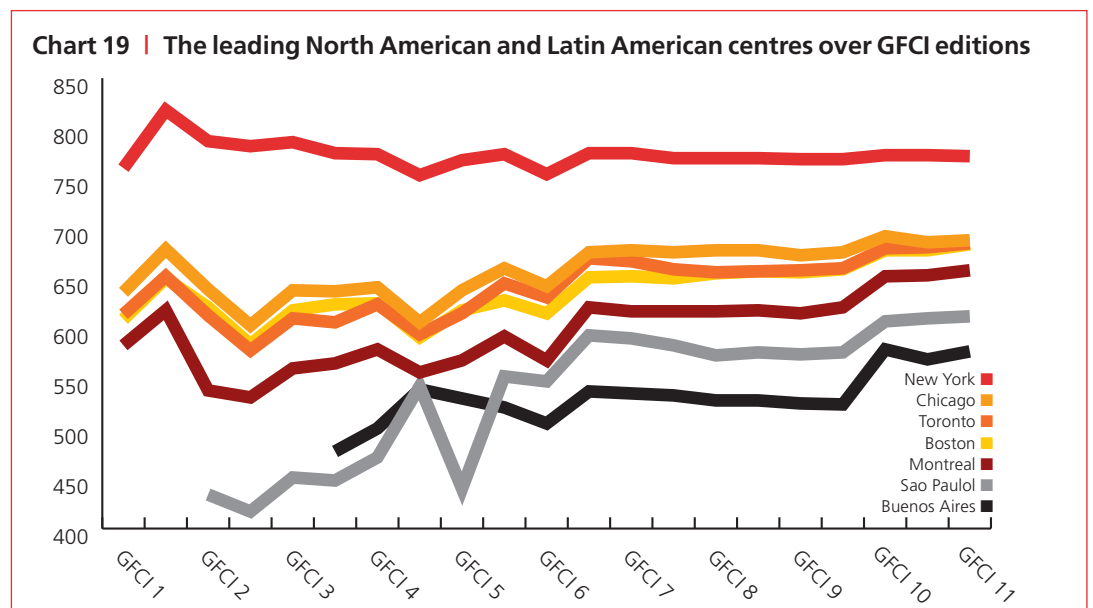
North American and Latin American centres show a mixed performance in GFCI 11.

Table 10 | The leading North American and Latin American Centres in GFCI 11

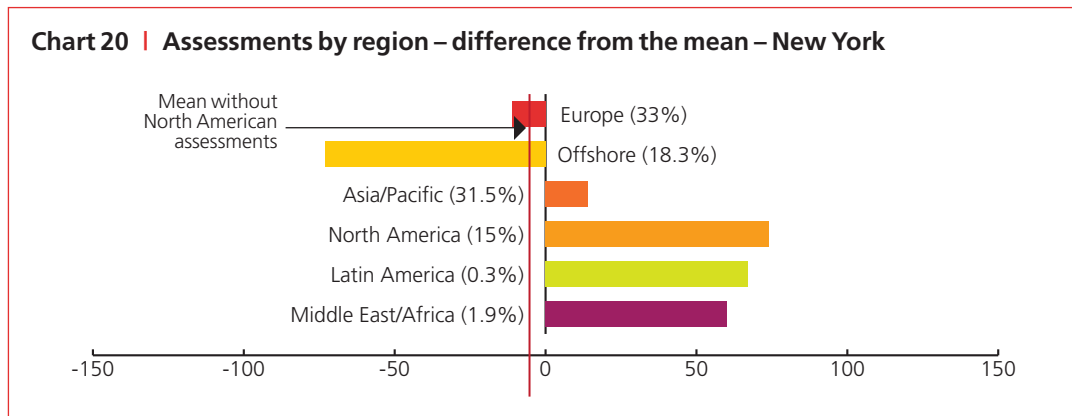
	GFCI 11 rank	GFCI 11 rating	GFCI 10 rank	GFCI 10 rating	Change in rank	Change in rating
New York	2	772	2	773	–	▼-1
Chicago	7	688	7	692	–	▼-5
Toronto	10	685	10	680	–	▲5
Boston	11	684	12	678	▲1	▲6
San Francisco	12	683	9	681	▼-3	▲2
Washington D.C.	15	677	14	670	▼-1	▲7
Vancouver	17	667	17	661	–	▲6
Montreal	18	658	20	652	▲2	▲6
Calgary	28	642			New	New
Sao Paulo	50	612	49	607	▼-1	▲5
Mexico City	51	610	47	609	▼-4	▲1
Rio de Janeiro	53	608	53	602	–	▲6
Buenos Aires	67	577	63	579	▼-4	▼-2

New York, Chicago and Toronto retain their positions in the GFCI 11 top ten. Boston and Montreal rose in the ranks. Calgary is a new entrant into the GFCI in 28th place. Canada

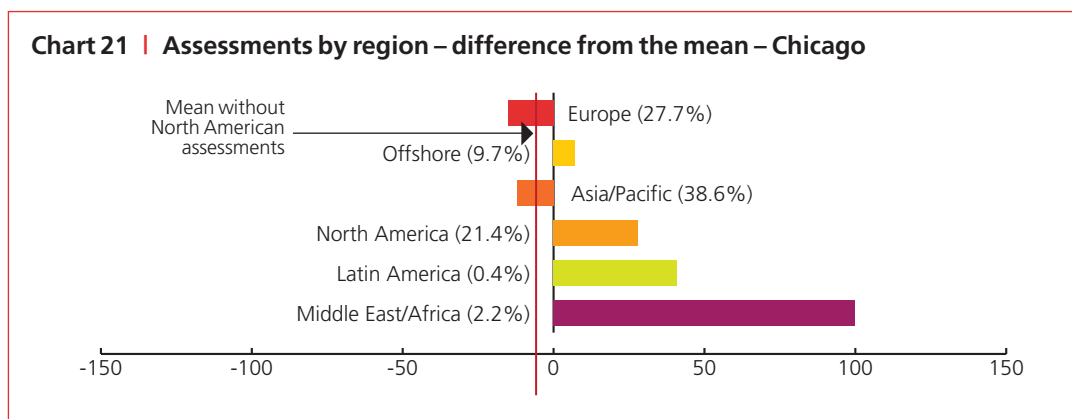
now has four centres in the GFCI, all within the top 30. Chart 19 below shows New York maintaining its leadership in North America:



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



The overall average assessment for New York is 764 down from 801 in GFCI 10. New York benefits from strong North American support. Offshore centres assess New York less positively, possibly due to US clampdowns on offshore activities.



Chicago has an overall average assessment of 726 up from 710 in GFCI 10. Assessments of Chicago show that respondents from the Asia/Pacific region and Europe gave the city a less favourable score than average.

Respondents from North America gave Toronto and Montreal scores higher than average, whilst respondents from elsewhere gave lower scores.

Chart 22 | Assessments by region – difference from the mean – Toronto

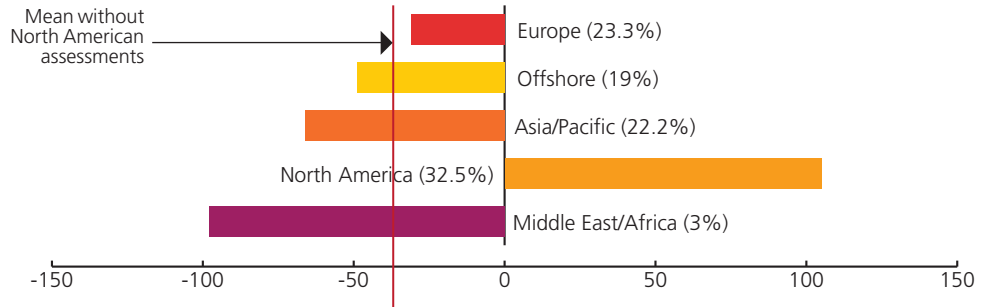
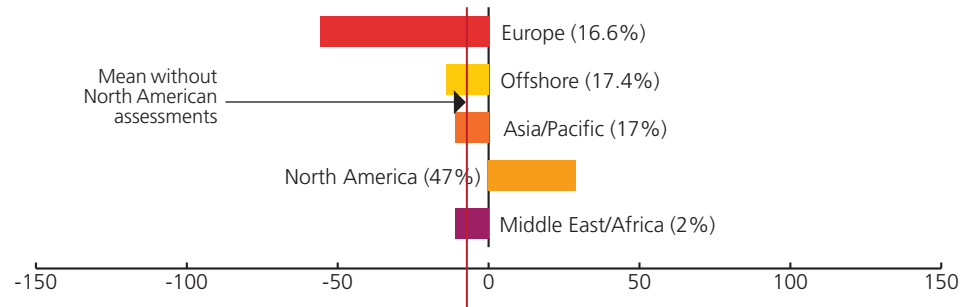


Chart 23 | Assessments by region – difference from the mean – Montreal



“Toronto has been the leading centre in Canada for a while now but Montreal and Vancouver are also getting stronger – particularly in asset management.”

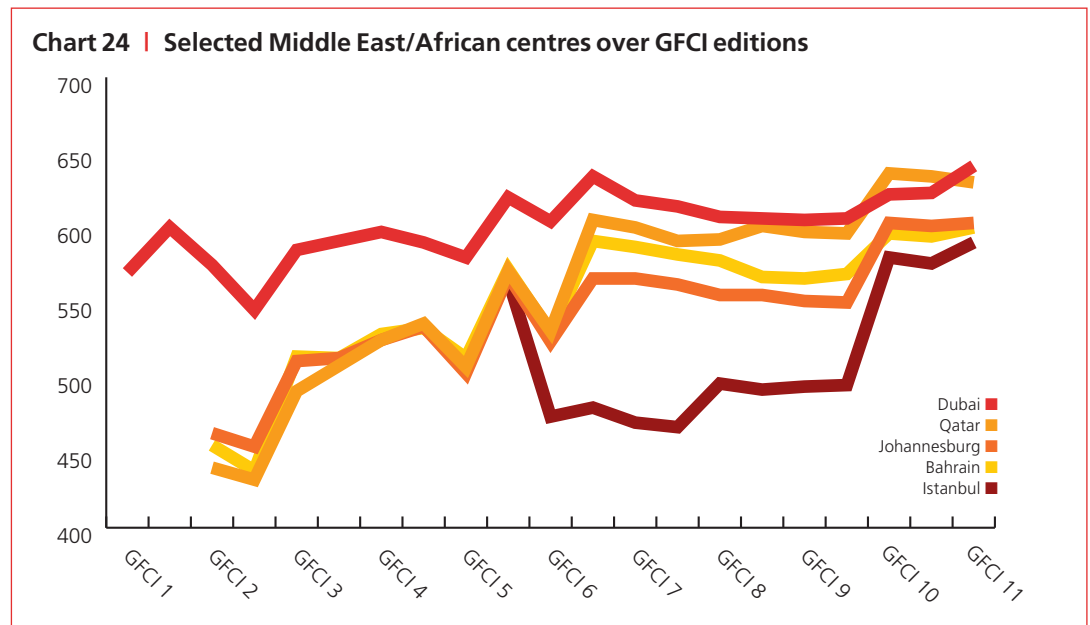
Asset Manager based in Boston

Middle East/African Centres

Of the four Middle Eastern centres in the GFCI, Dubai has overtaken Qatar to regain the status of leading Middle Eastern centre in GFCI 11. We believe that Qatar has strong underlying fundamentals to challenge Dubai. Abu Dhabi is a new entrant to the GFCI and has come in just above Bahrain. Johannesburg and Istanbul do not yet fulfil their potential. We certainly expect Istanbul to become more significant in the medium term.

Table 11 | The Middle East/African centres in GFCI 11

	GFCI 11 rank	GFCI 11 rating	GFCI 10 rank	GFCI 10 rating	Change in rank	Change in rating
Dubai	29	641	36	622	▲ 7	▲ 19
Qatar	38	630	30	636	▼ -8	▼ -7
Abu Dhabi	48	618			New	New
Johannesburg	55	603	52	603	▼ -3	–
Bahrain	57	600	55	596	▼ -2	▲ 4
Istanbul	61	590	62	580	▲ 1	▲ 10
Riyadh	70	572	66	575	▼ -4	▼ -3



There is a mixed pattern of assessments for the Middle Eastern centres. Dubai gets strong support from Asia/Pacific and below average scores from the offshore centres. Qatar does well with respondents from Asia/Pacific and also North America. Istanbul is well supported by the Middle East and North America but has a lower reputation amongst European respondents:

Chart 25 | Assessments by region – difference from the mean – Dubai

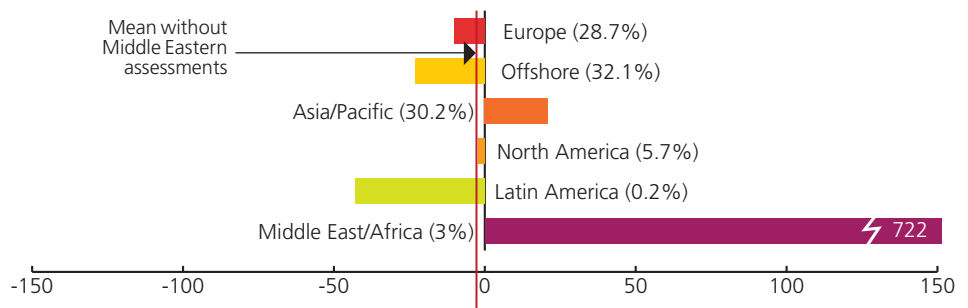


Chart 26 | Assessments by region – difference from the mean – Qatar

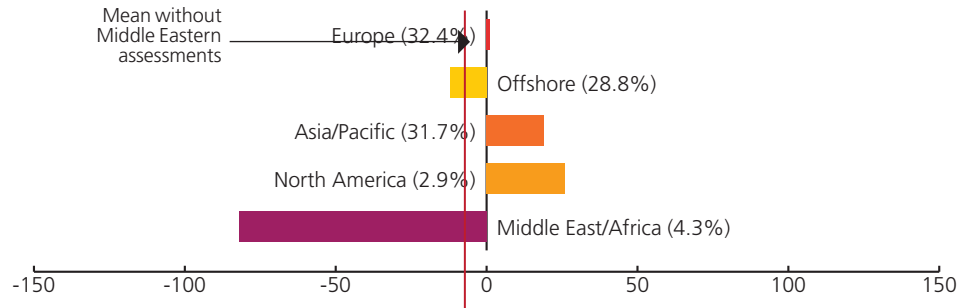
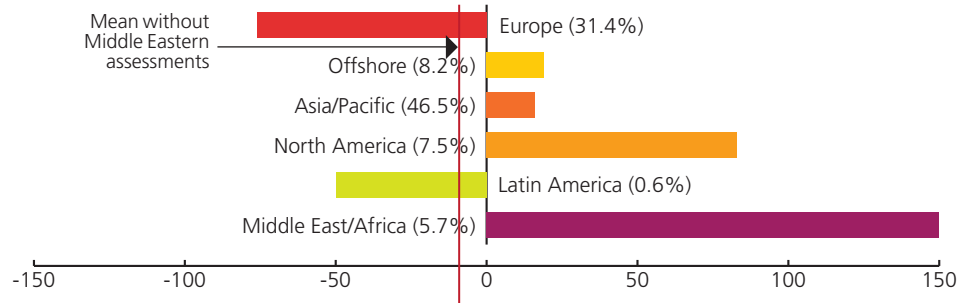
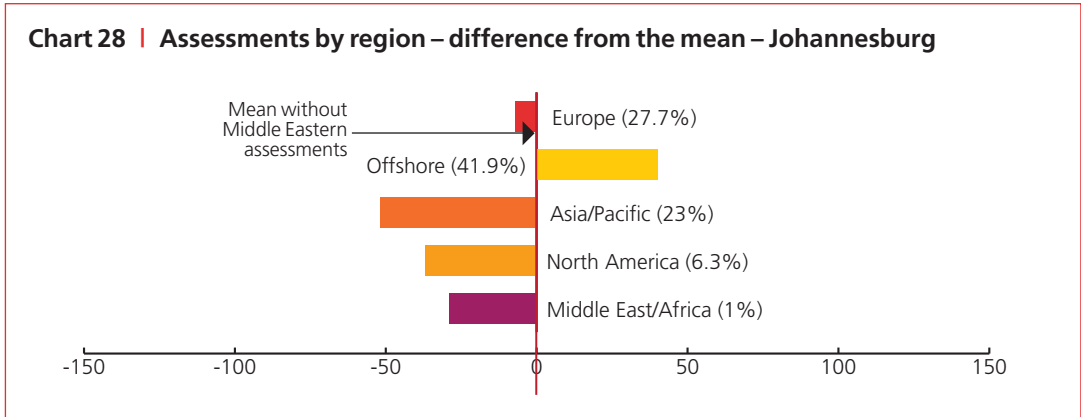


Chart 27 | Assessments by region – difference from the mean – Istanbul



Johannesburg is well regarded by respondents from the Asia/Pacific centres but not from elsewhere.



“Dubai is still in the doldrums but watch Qatar with interest over the next couple of years – I think it has much to offer.”

Investment Manager based in London and the Middle East



Offshore Centres

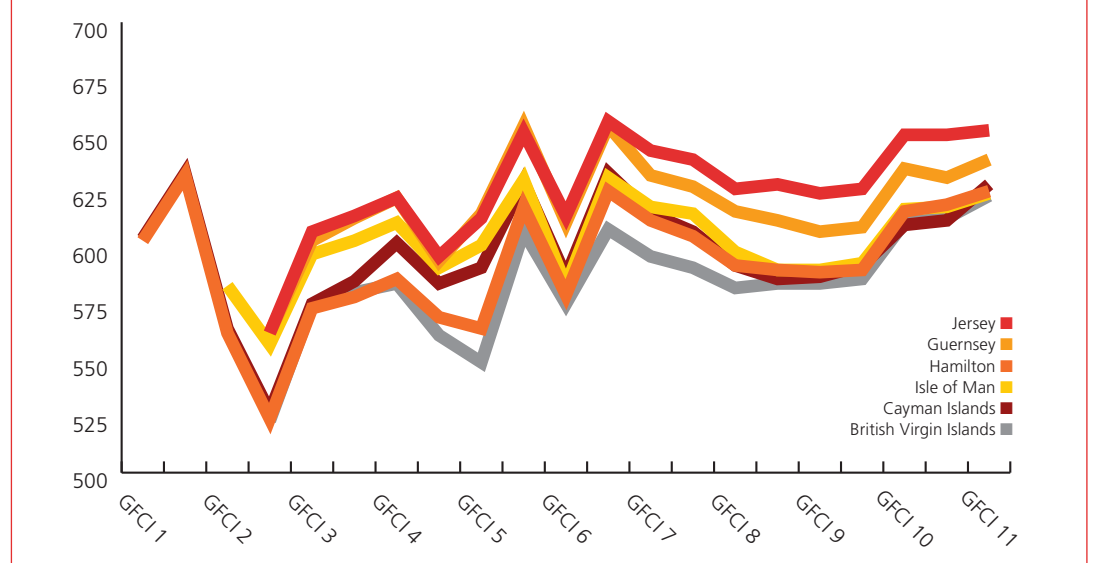
Offshore centres have suffered significant reputational damage in the past four years. GFCI 10 showed that many of these centres' reputations were starting to recover. GFCI 11 shows that this recovery is gaining pace. All the top offshore centres have made gains in GFCI 11 ratings. Jersey and Guernsey remain the leading offshore centres:

A significant proportion of the assessments of offshore centres are coming from other offshore centres. Jersey and Guernsey get good assessments from the other offshore centres whereas the Cayman Islands do less well from the other offshore centres and better from North American and Asia/Pacific respondents.

Table 12 | Top ten offshore centres in GFCI 11

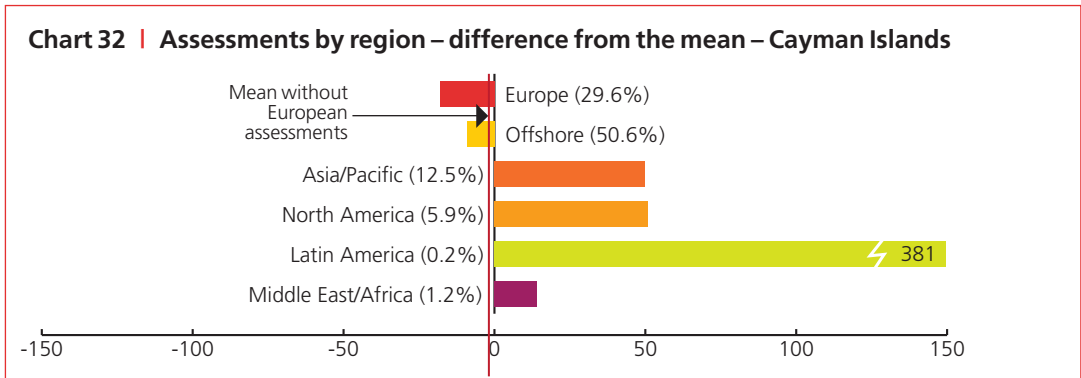
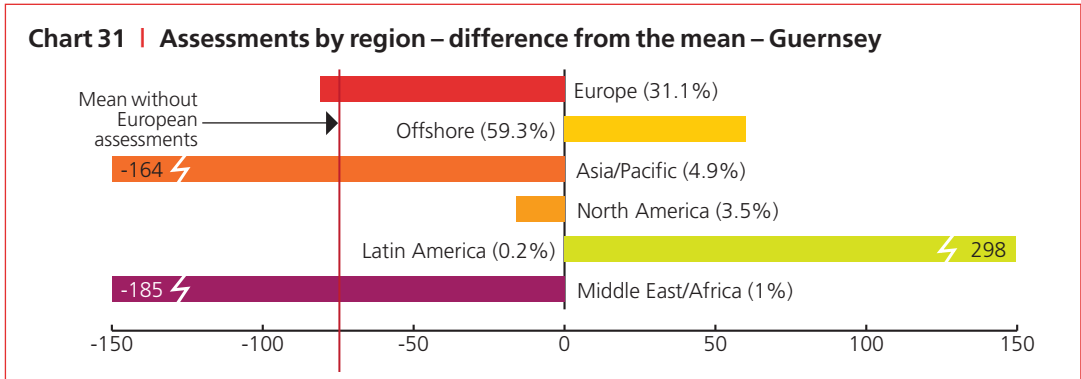
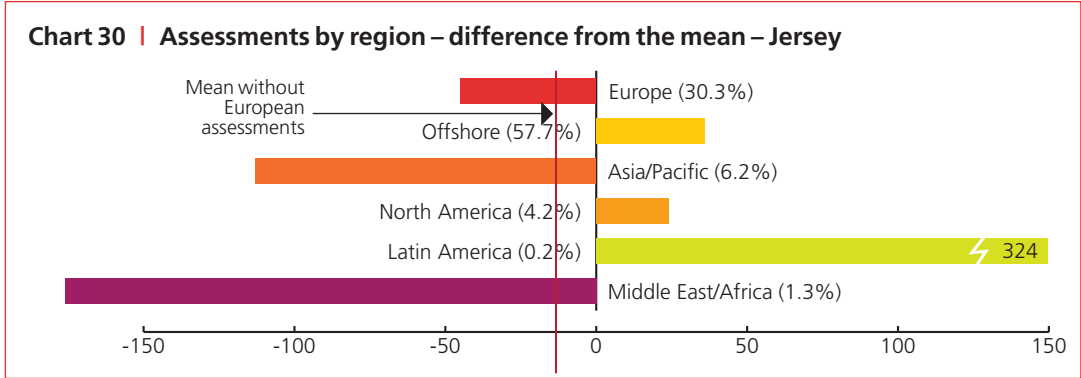
	GFCI 11 rank	GFCI 11 rating	GFCI 10 rank	GFCI 10 rating	Change in rank	Change in rating
Jersey	21	652	21	650	–	▲ 2
Guernsey	31	639	31	635	–	▲ 4
Cayman Islands	40	628	46	610	▲ 7	▲ 18
Hamilton	43	625	41	616	▼ -2	▲ 9
Isle of Man	44	624	40	617	▼ -4	▲ 7
British Virgin Islands	45	623	45	611	–	▲ 12
Monaco	60	593	59	583	▼ -1	▲ 10
Gibraltar	63	587	58	584	▼ -5	▲ 3
Mauritius	66	578	68	571	▲ 2	▲ 7
Malta	72	568	70	568	▼ -2	–
Bahamas	75	550	72	545	▼ -3	▲ 5

Chart 29 | The top offshore centres over GFCI Editions

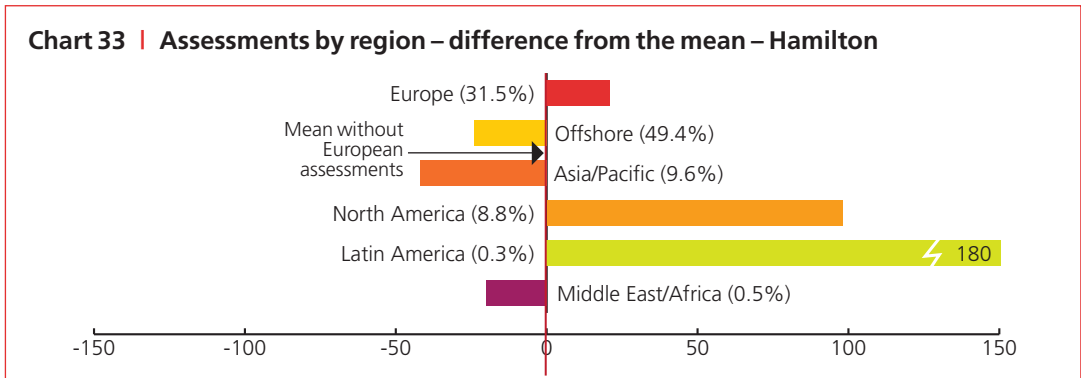


“We are doing business in Jersey and Guernsey but our business with Luxembourg and Geneva has increased most strongly.”

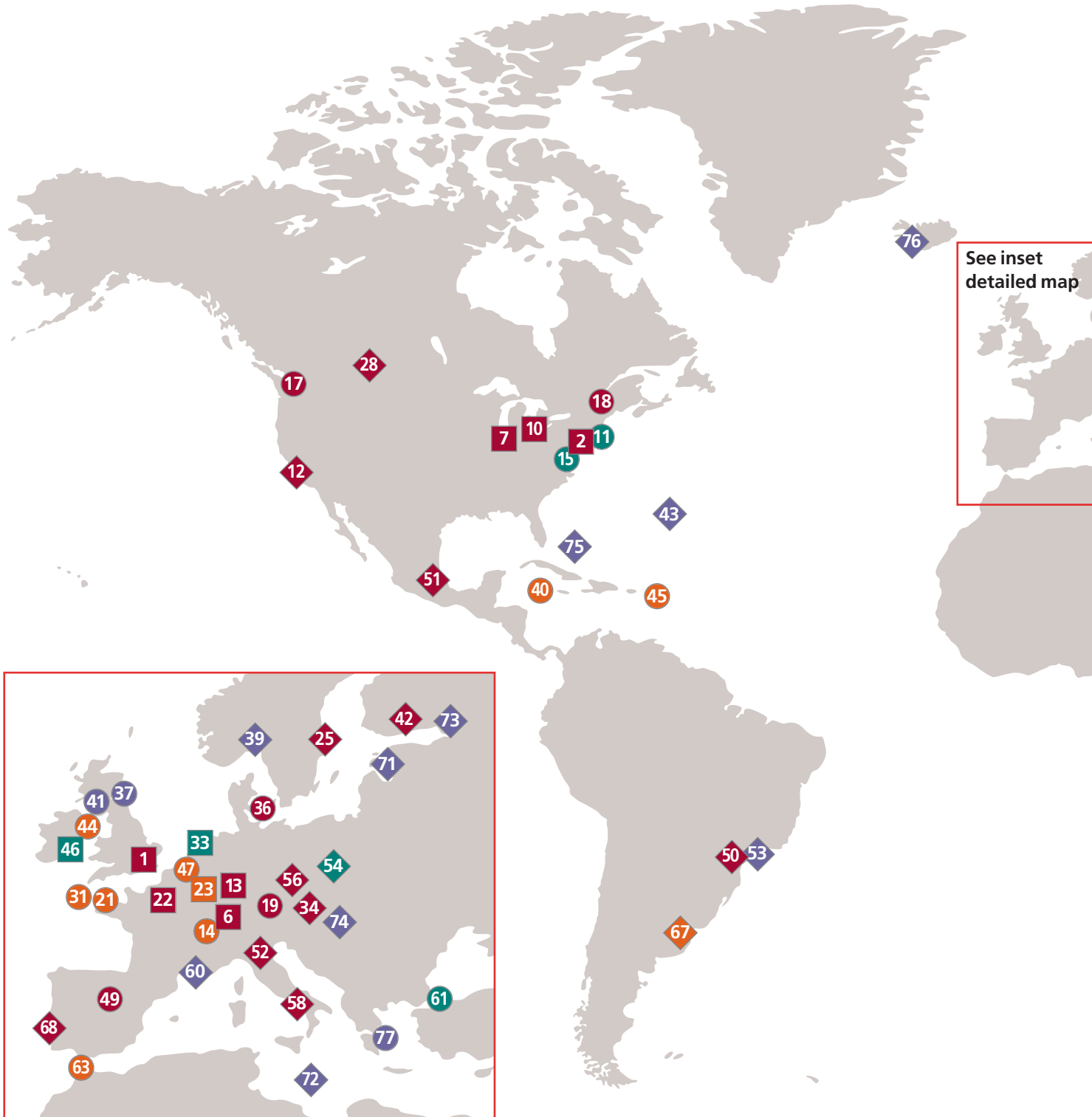
Trust Fund Manager based in Paris

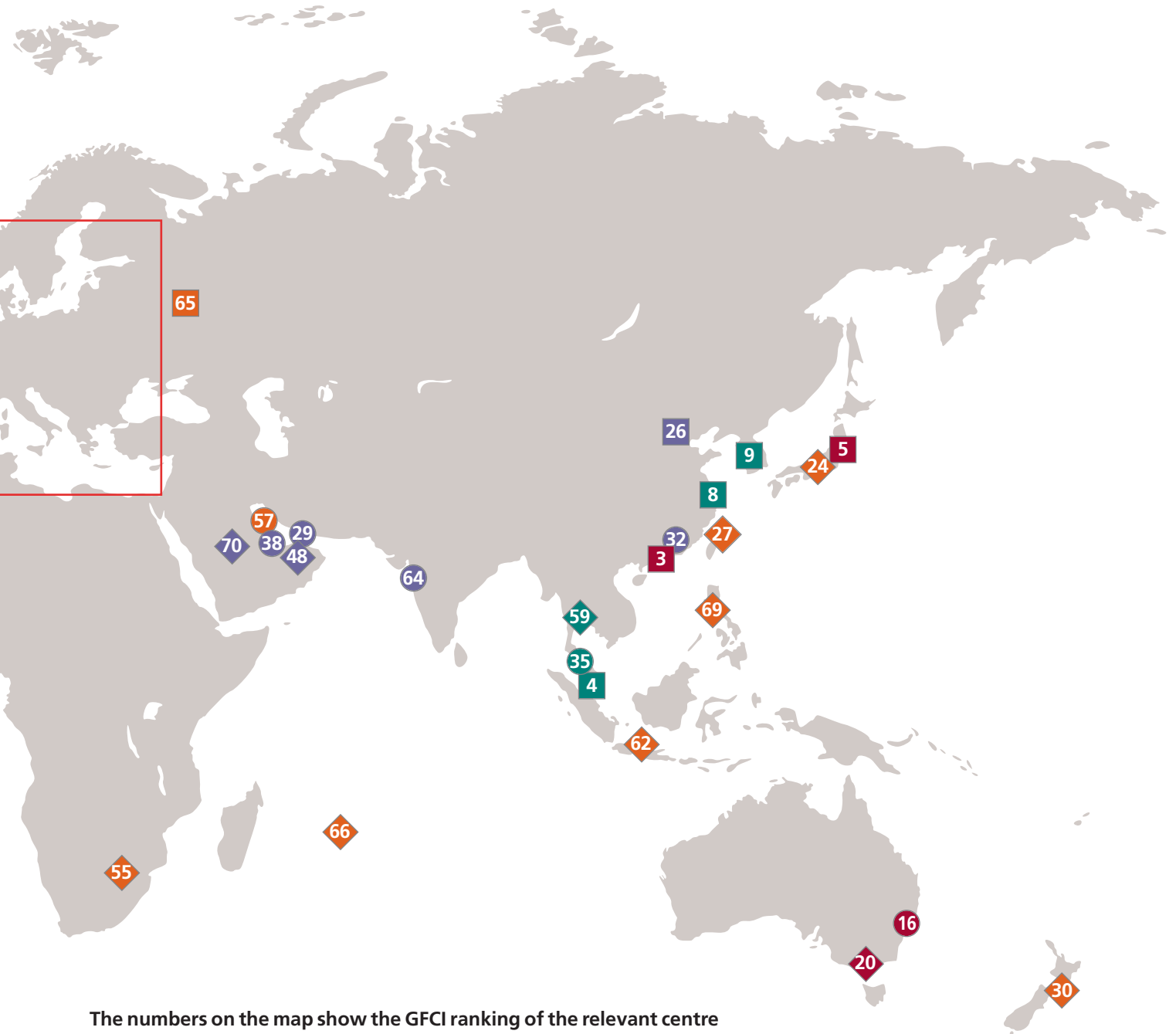


Hamilton has a different business mix than the other offshore centres with its speciality being re-insurance. It might therefore be expected to have a different profile amongst respondents and is well regarded by North American and European respondents.



The GFCI World





Broad and deep

- Global leaders
- Established transnational
- ◆ Established players

Relatively broad

- Global diversified
- Transnational diversified
- ◆ Local diversified

Relatively deep

- Global specialists
- Transnational specialists
- ◆ Local nodes

Emerging

- Global contenders
- Transnational contenders
- ◆ Evolving centres

Industry Sectors

Industry sector sub-indices are created by building the GFCI 11 statistical model using only the questionnaire responses from respondents working in the relevant industry sectors. The GFCI 11 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.

London appears at the top of four of the six sub-indices. New York tops the Banking sub-index and Hong Kong tops the Insurance sub-index. Table 13 below shows the top ten ranked financial centres in the industry sector sub-indices.

The top four centres in the GFCI 11 overall index are top of the Asset Management, Banking,

Government & Regulatory and Professional Services sub-indices. In the Insurance sub-index Shanghai is (surprisingly) up in fourth place. The top eight places in this sub-index are filled by the top eight centres in the main GFCI. The Asian centres are well placed in the Insurance sub-index with four centres in the top seven, and in the Banking sub-index with three in the top five places.

The Wealth Management sub-index was introduced in GFCI 8. It is not surprising to see the leading global wealth management centres of Geneva, Toronto, Zurich and Jersey so high in this sub-index. These centres are not the largest financial services centres and wealth management is a sector where specialist centres compete successfully with much larger centres.

Table 13 | GFCI 11 industry sector sub-indices Top 10

Rank	Asset management	Banking	Government & regulatory	Insurance	Professional services	Wealth management/ private banking
1	London (-)	New York (-)	London (-)	Hong Kong (-)	London (-)	London (-)
2	New York (-)	London (1)	New York (-)	New York (+1)	New York (-)	New York (+1)
3	Hong Kong (-)	Hong Kong (-2)	Hong Kong (+1)	London (+1)	Hong Kong (-)	Hong Kong (+2)
4	Singapore (-)	Singapore (-)	Singapore (-1)	Shanghai (-2)	Singapore (-)	Geneva (-2)
5	Boston (-)	Tokyo (-)	Frankfurt (-)	Singapore (-)	Zurich (+5)	Singapore (+2)
5	San Francisco (+3)	Chicago (+2)	Paris (-)	Tokyo (-)	Toronto (+2)	Zurich (-1)
7	Toronto (+1)	Zurich (+1)	Tokyo (+1)	Chicago (+1)	Chicago (-1)	Toronto (-3)
8	Chicago (-1)	Frankfurt (+2)	Munich (+1)	Zurich (+8)	Geneva (+2)	Jersey (-)
9	Tokyo (-3)	Toronto (+1)	Chicago (-3)	Frankfurt (+9)	San Francisco (-4)	Vancouver (-)
10	Zurich (-1)	Sydney (+2)	Toronto (+2)	Boston (+1)	Boston (-3)	Tokyo (+2)

“Switzerland has such a good reputation for private banking – with the emphasis on **private** – but I fear this might disappear as the US regulators start to apply more pressure.”

Asset Manager based in Zurich

Five Areas of Competitiveness

The instrumental factors used in the GFCI 11 model are grouped into five key areas of competitiveness (People, Business Environment, Market Access, Infrastructure and General Competitiveness). The GFCI 11 factor assessment model is run with one set of instrumental factors at a time. Table 14 shows the top ten ranked centres in each sub-index:

Table 14 | GFCI 11 Area of competitiveness sub-indices – Top 10

Rank	People	Business environment	Market access	Infrastructure	General competitiveness
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)	Seoul (+1)	Tokyo (+1)	Tokyo (+1)	Seoul (-)
5	Chicago (+1)	Chicago (-1)	Zurich (+2)	Seoul (-1)	Tokyo (+1)
7	Seoul (-)	Tokyo (+1)	Seoul (+1)	Zurich (+2)	Chicago (+1)
8	Shanghai (-3)	Zurich (+2)	Chicago (+2)	Chicago (-)	Zurich (+6)
9	Boston (+2)	Toronto (+1)	Shanghai (-4)	Geneva (+8)	Toronto (+3)
10	Zurich (-)	Geneva (+2)	Toronto (-)	Frankfurt (+6)	Shanghai (-4)

The top four financial centres in GFCI 11 – London, New York, Hong Kong and Singapore – also share the top four places in each of these sub-indices (as they have in the past three editions of GFCI). 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.

Seoul is in fifth place in both the General Competitiveness and Infrastructure sub-indices and within the top seven in all five of these sub-indices – it is now up two places in the overall GFCI and is in ninth place overall. Toronto remains in the top ten in the Business Environment, Market Access and General Competitiveness sub-indices.

“Seoul is making strides to be a more welcoming city to Westerners but it still has a way to go.”

Investment Banker based in New York

Size of Organisation

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

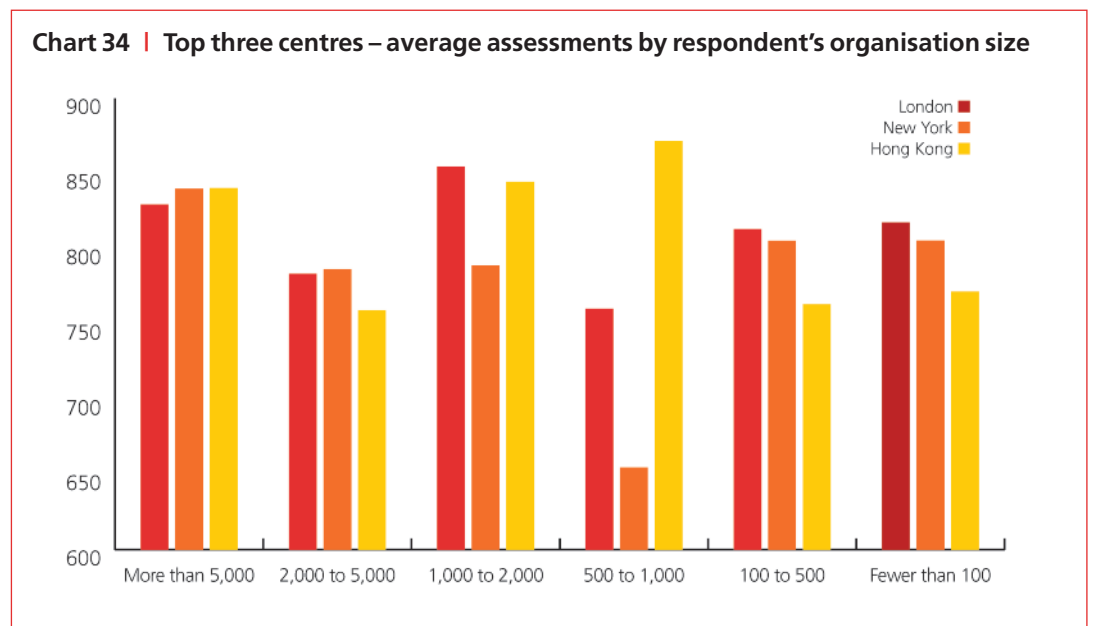


Chart 34 above shows that London is assessed more highly than both New York and Hong Kong by respondents from small organisations (with fewer than 100 employees). At the other end of the scale New York and Hong Kong are assessed slightly higher than London by respondents from organisations with over 5,000 employees. In the mid-sized organisations (500 to 1,000 employees) Hong Kong is a clear leader from London and New York.

“London is still the best base for us for our international business.”

Director of Small Mergers and Acquisitions
Consulting Business based in London

“You have to be in New York, London and Hong Kong if you have aspirations to be seen as global.”

Investment Banker based in Hong Kong

Reputation

In the GFCI model, one way to look at reputation 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 11 rating this indicates that respondents' perceptions of a centre are more favourable than the quantitative measures alone would suggest. This may be due to strong marketing or general awareness. Table 15 below shows the 20 centres with the greatest positive difference between average assessment and the GFCI rating:

Table 15 | Top 20 centres assessments & ratings – reputational advantage

Centre	Average assessment	GFCI 11 rating	Reputational advantage
Seoul	768	686	82
Singapore	763	729	34
Shanghai	721	687	34
New York	803	772	31
Hong Kong	785	754	31
Toronto	712	685	27
Zurich	713	689	24
Geneva	703	679	24
London	803	781	22
San Francisco	705	683	22
Chicago	708	688	20
Vancouver	687	667	20
Tokyo	712	693	19
Frankfurt	699	681	18
Kuala Lumpur	653	635	18
Sydney	690	674	16
Boston	699	684	15
Jersey	666	652	14
Stockholm	656	645	11
Washington DC	681	677	4
Melbourne	653	653	0

Overall reputational advantage has remained fairly stable since GFCI 10. It is notable that four of the top five financial centres by reputational advantage are Asian. It should be stressed that for these centres a large proportion of favourable assessments came from other Asian centres rather than from non-Asian centres.

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

Table 16 | GFCI 11 Bottom 10 centres assessments and ratings – reputational advantage

Centre	Average assessment	GFCI 11 rating	Reputational advantage
Athens	353	468	-115
Tallinn	460	570	-110
Budapest	454	552	-98
Lisbon	484	575	-91
Reykjavik	432	517	-85
Riyadh	490	572	-82
Manila	495	573	-78
Moscow	506	583	-77
Warsaw	541	606	-65
Glasgow	566	627	-61

It is no surprise to us that Athens tops this list or that Lisbon and Reykjavik are so high up.

“The Eurozone continues to suffer from reputational damage. It takes years to gain a good reputation and no time at all to lose it!”

International Banker based in Frankfurt

Stability

The GFCI 11 model allows for analysis of the financial centres with the most volatile competitiveness. Chart 35 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.

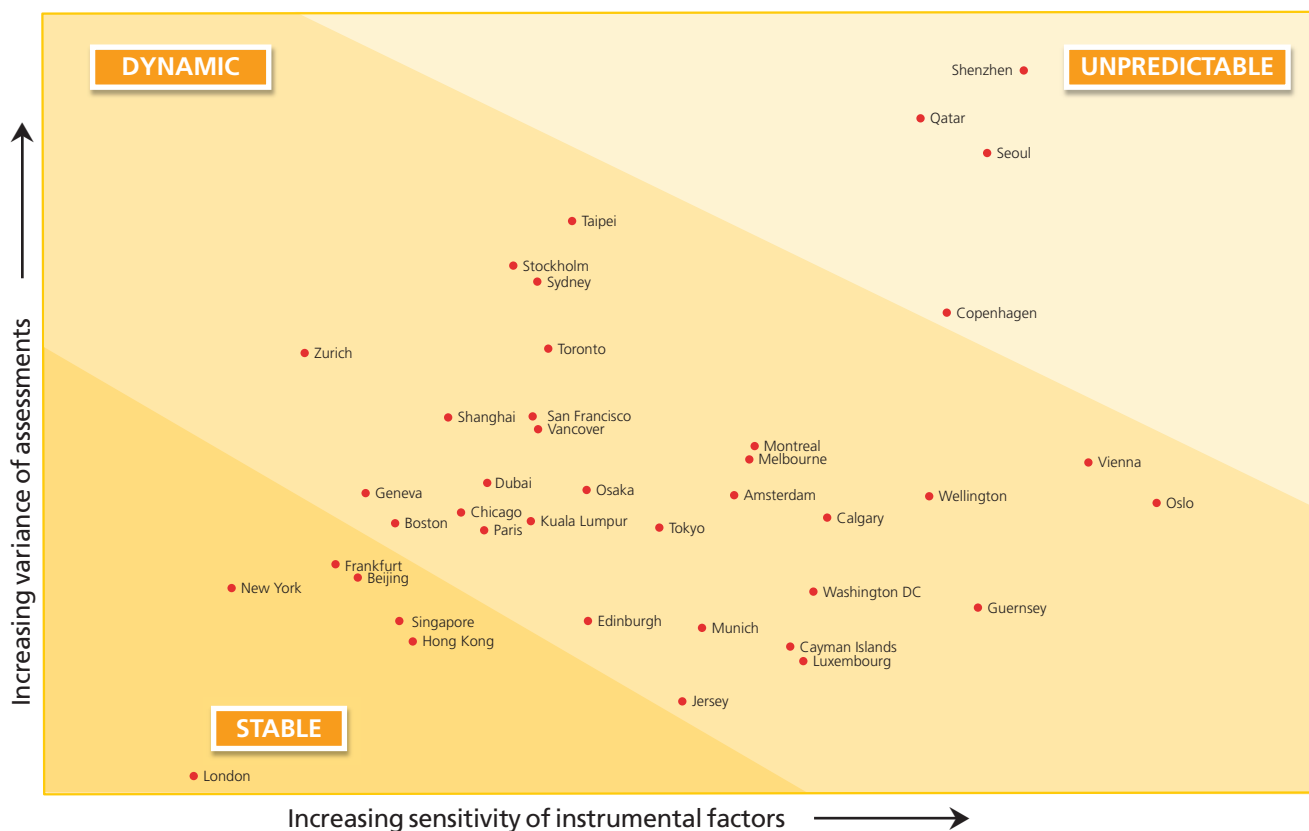
Chart 35 shows three bands of financial centres. The 'unpredictable' centres in the top right of the chart, Shenzhen, Seoul, Copenhagen and Qatar, have a high sensitivity to changes in the instrumental factors and a high variance of assessments. These centres have high potential volatility of the top GFCI centres. It is interesting to note that the centres classed as unpredictable in previous editions of the GFCI have shown the greatest movements in ratings over the past year. A good example is Wellington, being

classed as unpredictable in GFCI 10 and now established in the dynamic band.

The 'stable' centres in the bottom left of the chart, London, Hong Kong, New York and Singapore, have a 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, these centres are consistently in the top ten and we would not be surprised to see them remaining there for a while yet. It is interesting to see Beijing in this band – even though it is in 26th place in GFCI 11 it appears to exhibit signs of stability.

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

Chart 35 | Variance of assessments versus sensitivity to instrumental factors



Appendices

1. Assessment Details

Table 17 | Assessment details

Centre	GFCI 11	Number of assessments	Average assessment	Standard deviation of assessments
London	781	1,384	734	166
New York	772	1,162	764	179
Hong Kong	754	1,068	759	185
Singapore	729	828	753	184
Tokyo	693	575	751	205
Zurich	688	490	711	176
Shanghai	687	646	710	189
Chicago	687	505	726	188
Seoul	686	591	731	228
Toronto	685	422	684	196
Boston	684	350	705	184
San Francisco	683	468	693	195
Frankfurt	681	378	705	184
Geneva	679	594	703	182
Washington DC	677	626	713	216
Sydney	674	402	701	196
Vancouver	667	280	685	195
Montreal	658	157	655	212
Munich	656	655	658	208
Melbourne	653	247	709	211
Jersey	652	613	665	206
Paris	650	149	664	192
Luxembourg	648	163	733	215
Osaka	647	156	669	199
Stockholm	645	262	700	194
Beijing	644	218	672	181
Taipei	643	686	640	198
Calgary	642	68	501	217
Dubai	641	180	656	191
Wellington	640	549	668	224
Guernsey	639	84	631	227
Shenzhen	638	592	665	230
Amsterdam	637	142	604	210
Vienna	636	510	636	235
Kuala Lumpur	636	113	579	195
Copenhagen	634	484	593	225
Edinburgh	632	594	603	199
Qatar	629	456	659	244
Oslo	628	200	604	239

Centre	GFCI 11	Number of assessments	Average assessment	Standard deviation of assessments
Cayman Islands	628	743	593	214
Glasgow	627	352	605	236
Helsinki	626	391	630	234
Hamilton	625	117	616	188
Isle of Man	624	139	602	216
British Virgin Islands	623	534	593	228
Dublin	621	208	596	216
Brussels	620	387	643	208
Abu Dhabi	618	262	544	189
Madrid	617	270	711	200
Sao Paulo	612	235	600	215
Mexico City	610	422	601	208
Milan	609	156	617	209
Rio de Janeiro	608	93	584	226
Warsaw	606	125	581	245
Johannesburg	603	221	589	187
Prague	602	144	637	223
Bahrain	600	191	614	196
Rome	596	103	610	220
Bangkok	594	255	592	184
Monaco	593	229	597	204
Istanbul	590	159	610	232
Jakarta	588	235	603	196
Gibraltar	587	200	589	218
Mumbai	584	376	569	202
Moscow	583	113	560	225
Mauritius	578	113	572	219
Buenos Aires	577	135	613	217
Lisbon	575	271	607	234
Manila	573	108	570	206
Riyadh	572	359	563	205
Tallinn	570	258	603	273
Malta	568	115	588	202
St Petersburg	567	74	601	257
Budapest	552	319	578	210
Bahamas	550	56	557	216
Reykjavik	517	157	496	271
Athens	468	181	454	211

2. Respondents' Details

Table 18 | Respondents by industry sector

Sector	Total	%
Asset Management	181	10.2%
Banking	424	23.8%
Government & Regulatory	90	5.1%
Insurance	265	14.9%
Professional Services	305	17.2%
Wealth Management	128	7.2%
Other	385	21.7%
Total	1,778	

Table 19 | Respondents by size of organisation

Number of employees worldwide	Total	%
Fewer than 100	486	27.3%
100 to 500	279	15.7%
500 to 1,000	186	10.5%
1,000 to 2,000	91	5.1%
2,000 to 5,000	153	8.6%
More than 5,000	566	31.8%
Unspecified	17	1.0%
Total	1,778	

Table 20 | Respondents by location

Location	Total	%
Asia/Pacific	604	34.0%
Europe	527	29.6%
Latin America	6	0.3%
Middle East/Africa	27	1.5%
North America	195	11.0%
Offshore	419	23.6%
Total	1,778	

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 80 external sources were used in GFCI 11. 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 26,853 financial centre assessments drawn from 1,778 respondents in GFCI 11. 6,094 assessments from 399 respondents have been gathered since GFCI 10.

The 80 instrumental factors were selected because the features they measure contribute in various ways to the fourteen competitiveness factors identified in previous research². These are shown in Table 21.

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

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

Financial centres are added to the GFCI model 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.

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:

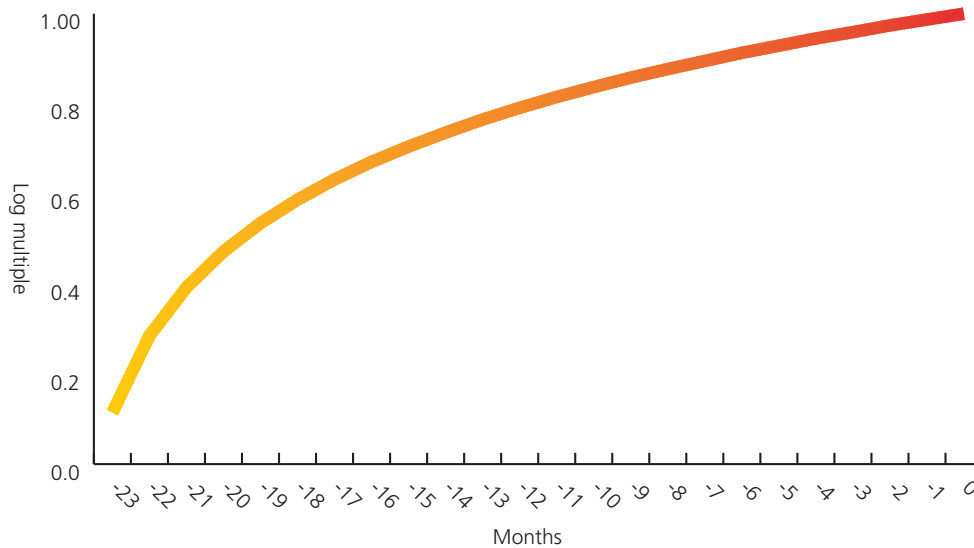
- indices should come from a reputable body and be derived by a sound methodology;
- indices should be readily available (ideally in the public domain) and be regularly updated;
- updates to the indices are collected and collated every six months;
- no weightings are applied to indices;
- indices are 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 26) 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.

Chart 36 | Log scale for time weightings

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?

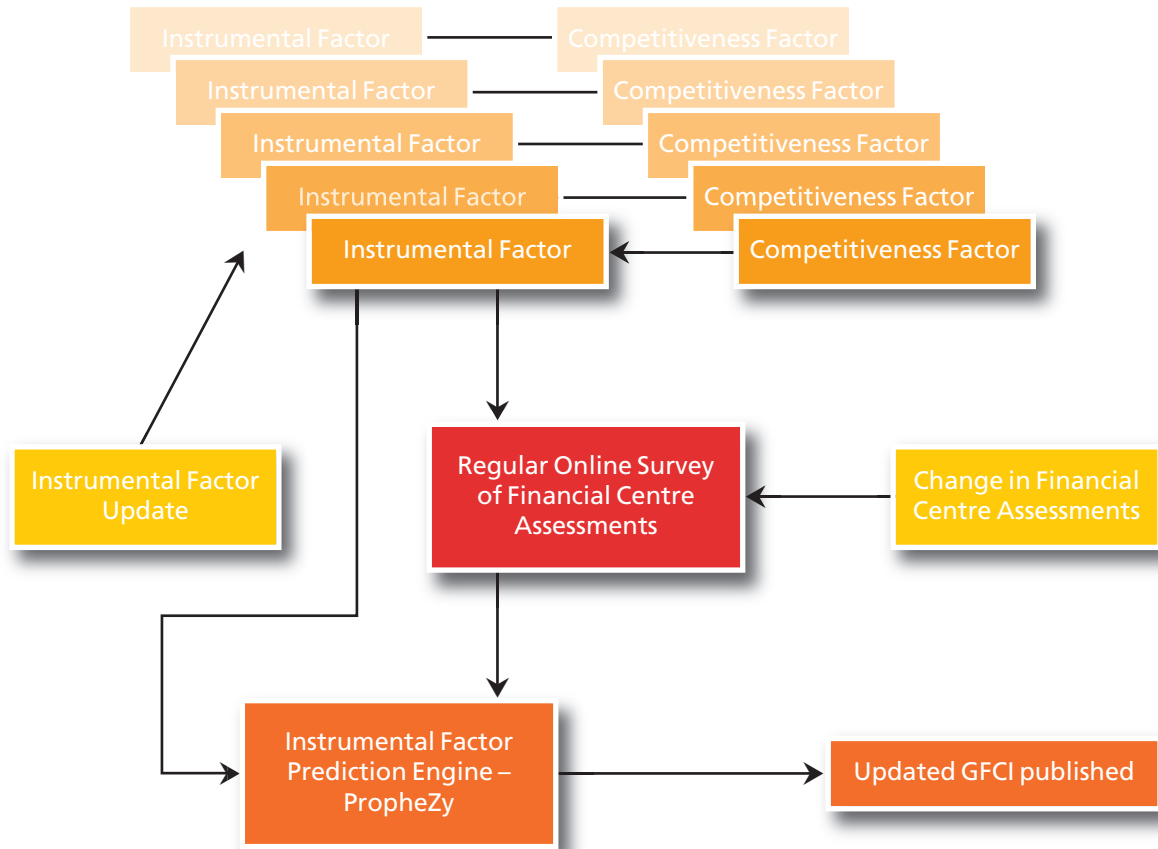
Or

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.

Chart 36 | The GFCI process



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

- several indices can be used for each competitive factor;
- a strong international group of ‘raters’ has developed as the GFCI progresses;
- sector-specific ratings are available - using the business sectors represented by questionnaire respondents. This makes it possible to rate London as competitive in Insurance (for instance) while less competitive in Asset Management (for instance);

- the factor assessment model can be queried in a ‘what if’ mode – “how much would London rental costs need to fall in order to increase London’s ranking against New York?”

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

4. Instrumental Factors

Table 22 shows how closely instrumental factor rankings correlate with the GFCI 11 rankings for the top 20 instrumental factors:

Table 22 | Top 20 instrumental factors by correlation with GFCI 11

Instrumental factor	Correlation measured by R ²
MA2 Centres of Commerce Index	0.599
G1 World Competitiveness Scoreboard	0.562
MA18 Credit Ratings	0.534
G2 Global Competitiveness Index	0.509
G12 Global Power City Index	0.506
BE16 Banking Industry Country Risk Assessments	0.451
G14 Global Cities Index	0.436
G8 Global Innovation Index	0.429
MA1 Capital Access Index	0.378
G13 World Cities Survey	0.354
MA3 The Access Opportunities Index	0.342
I12 Global Air Travel Connectivity	0.332
BE18 Political Risk	0.315
G17 Innovation Cities Global Index	0.292
I5 E – Readiness Score	0.287
I9 Quality of Roads	0.276
MA5 Capitalisation of Stock Exchanges	0.276
BE1 Business Environment	0.269
I8 Quality of Ground Transport Network	0.262
BE21 Financial Secrecy Index	0.260

It is interesting (but perhaps unsurprising) to see that the broader measures of competitiveness seem to act as good indicators for financial centre competitiveness. Four of the top 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 overleaf.



Table 23 | People related instrumental factors

Instrumental factor	Source	Website	Updated since GFCI 10
Graduates in Social Science Business and Law	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-restrictions/	
Human Development Index	UN Development Programme	http://hdr.undp.org	✓
Citizens Purchasing Power	City Mayors	http://www.citymayors.com/economics/usb-purchasing-power.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/	NEW
World's Top Tourism Destinations	Euromonitor Archive	www.euromonitor.org	✓
Average Days with Precipitation per Year	Sperling's Best Places	www.bestplaces.net	

Table 24 | Business environment related instrumental factors

Instrumental factor	Source	Website	Updated since GFCI 10
Business Environment	EIU	www.economist.com/markets/rankings	✓
Ease of Doing Business Index	The World Bank	www.doingbusiness.org/economyrankings	✓
Operational Risk Rating	EIU		✓
Real Interest Rate	World Bank	http://data.worldbank.org/indicator/FR.INR.RINR	✓
Projected City Economic Growth	Price Waterhouse Cooper	https://www.ukmediacentre.pwc.com/content/detail.aspx?releaseid=3421&newsareaid=2	
Global Services Location Index	AT Kearney	www.atkearney.com	
Opacity Index	Milken Institute	www.milkeninstitute.org/publications	
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 & Poors	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	The Institute of Economics and Peace	http://www.visionofhumanity.org/info-center/global-peace-index-2011/	NEW
City GDP Rank	Foreign Policy Magazine	http://www.foreignpolicy.com/node/373401	
Financial Secrecy Index	Tax Justice Network	http://www.financialsecrecyindex.com/	NEW

Table 25 | Market access related instrumental factors

Instrumental factor	Source	Website	Updated since GFCI 10
Capital Access Index	Milken Institute	www.milkeninstitute.org/research	
Centres of Commerce	Master Card	www.mastercard.com/us/company/en/wcoc/index.html	
Access Opportunities Index	SRI International	www.sri.com/news/releases	
Securitisation	International Financial Services London	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.DOMS.GD.ZS	✓
Percentage of Firms Using Bank Credit to Finance Investment	World Bank	http://data.worldbank.org/indicator/IC.FRM.BNKS.ZS	✓
Total Net Assets of Mutual Funds	Investment Company Institute	http://www.icifactbook.org/	
Islamic Finance	International Financial Services London (IFSL)	http://www.thecityuk.com/what-we-do/the-research-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	✓
Global Credit Rankings	Institutional Investor Magazine	http://www.iimagazinerankings.com/rankingsRankCCMaGlobal09/globalRanking.asp	

Table 26 | Infrastructure related instrumental factors

Instrumental factor	Source	Website	Updated since GFCI 10
Office Occupancy Costs	CBRE	http://www.cbre.com/EN/Research/Global+Reports/	
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	
E-Readiness Ranking	EIU	www.economist.com/markets/rankings	
Telecommunication Infrastructure Index	United Nations	http://www.unpan.org/egovkb/global_reports/08report.htm	
City Infrastructure	Mercer HR	http://www.mercer.com/qualityofliving	
Quality of Ground Transport Network	World Economic Forum	http://www.weforum.org/en/initiatives/gcp/TravelandTourismReport	
Quality of Roads	World Economic Forum	http://www.weforum.org/en/initiatives/gcp/TravelandTourismReport	
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	
Global Air Travel Connectivity	City Rank	http://www.cityrank.ch/indicators/14	

Table 27 | General competitiveness related instrumental factors

Instrumental factor	Source	Website	Updated since GFCI 10
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/Investing_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.PCAP.EM.KD	
Global Innovation Index	INSEAD	http://www.globalinnovationindex.org/gii/	NEW
Global Intellectual Property Index	Taylor Wessing	http://www.taylorwessing.com/ipindex/	
Retail Price Index	Economist	www.economist.com/markets/indicators	✓
Price Levels	UBS	http://www.ubs.com/1/e/wealthmanagement/wealth_management_research/prices_earnings.html	NEW
Global Power City Index	Institute for Urban Strategies & Mori Memorial Foundation	http://www.mori-m-foundation.or.jp/english/index.shtml	✓
World Cities Survey	City Bank & Knight Frank	http://www.knightfrank.com/wealthreport/	
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	
City Population Density	City Mayors Statistics	http://www.citymayors.com/statistics/largest-cities-density-125.html	
Innovation Cities Global Index	2thinknow Innovation Cities™ Project	http://www.innovation-cities.com/innovation-cities-global-index-2010-city-rankings/	✓





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