



The Global Financial Centres Index 15

MARCH 2014





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

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

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

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

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

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

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

Z/Yen Group thanks the City of London Corporation for its cooperation in the development of the GFCI and sponsorship of GFCI 1 to GFCI 7.

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

Foreword

We all knew a Global Financial Centres Index like this might come, one where London lost the top spot. From the beginning, London never had a statistically clear lead over New York, and Hong Kong and Singapore have been steady gainers. Over fifteen GFCI editions, the gap between the two leading Western centres and the two leading Eastern centres narrowed to less than 30 points. So, while New York now has the top spot, it is with a shaky, again statistically insignificant, 2 point lead.

In honour of the USA and our report cover, I'll quote Kevin Spacey's character, Francis Underwood, in the popular House of Cards drama: "That's how you devour a whale. One bite at a time." For London this loss may be significant. London needs a strong reputation as a place all can come to freely to raise capital at a low cost. Critically, London needs a reputation that everyone who comes will be treated fairly and can compete fairly. Without the large domestic economies behind New York and Hong Kong, London needs to act more like a Singaporean city state with a global economy, or have the backing of a European Union 'domestic' economy.

Although we are independent compilers of the index, given that the GFCI originated in London, it is hard for us to say that London seems to be slacking. Since the financial crises of 2007, New York hasn't done anything particularly well, but in a number of areas no one in London has accepted responsibility for regulation or self-regulation. Despite some regulatory restructuring, which only appears to have delayed reform, London appears ill-served in domestic regulation with examples such as RBS's Global Restructuring Group scandal, the dragged out Payment Protection Insurance scandal, or the mis-sold swaps scandal. Domestic regulation has not tackled an oligopolistic banking market; that's been left to the EU.

London's powerful wholesale financial markets, which leverage its strong brand, generate disproportionate benefits in jobs and exports. London suffers when global financial news tarnishes that brand – London-IBOR, the London Whale, the foreign exchange scandal only now starting to bite, with rumours circulating about other index, benchmark, and commodities scandals. In fact, it seems increasingly apparent that authorities were aware of, yet tolerated, the LIBOR scandal well into 2012. If the regulators are unimpressive, they are certainly not inexpensive. Some claim that the majority of jobs created have been in compliance departments or compliance providers, accountants or actuaries or lawyers. A Middle Eastern businessman states the problem plainly, "though deals have become vastly more expensive, I don't feel any safer." Francis Underwood said, "There are two kinds of pain. The sort of pain that makes you strong, or useless pain." London has a chance to choose which kind of pain this fall from the top will be.

There is much more to GFCI 15 than the top four centres. European centres outside Switzerland should be questioning their strategies. Offshore centres face enormous problems. The Middle Eastern centres seem to be doing well despite changes in the energy industry. Top Asian centres continue to soar. Innovation is hotting up in areas such as international peer-to-peer systems, financing cities, or alternative cryptocurrencies, which may give levers to forward-thinking centres. The GFCI analyses facts against perceptions. Facts are facts, perceptions are perceptions, but sometimes perceptions are facts, or facts are perceptions. GFCI 15 may be a landmark change in perception, that the top places are vulnerable; and that perception may soon change the facts again.



Professor Michael Mainelli
Executive Chairman, Z/Yen Group Limited

GFCI 15 – Summary and Headlines

The Global Financial Centre Index (GFCI) provides profiles, ratings and rankings for 83 financial centres, drawing on two separate sources of data – instrumental factors and responses to an online survey. The GFCI was first published by Z/Yen Group in March 2007 and has subsequently been updated every six months. This is the fifteenth edition of GFCI (GFCI 15).

Instrumental factors: previous research indicates that many factors combine to make a financial centre competitive. We group these factors into five broad ‘areas of competitiveness’: **Business Environment, Financial Sector Development, Infrastructure, Human Capital and Reputational and General Factors.** Evidence of a centre’s performance in these areas is drawn from a range of external measures. For example, evidence about the telecommunications infrastructure competitiveness of a financial centre is drawn from a global digital economy ranking (supplied by the Economist Intelligence Unit), a telecommunication infrastructure index (by the United Nations) and an IT industry competitiveness survey (by the World Economic Forum). 103 factors have been used in GFCI 15.

Financial centre assessments: GFCI uses responses to an ongoing online questionnaire¹ completed by international financial services professionals. Respondents are asked to rate those centres with which they are familiar and to answer a number of questions relating to their perceptions of competitiveness. Responses from 3,246 financial services professionals were collected in the 24 months to December 2013. These responses provided 25,441 financial centre assessments which were used to compute GFCI 15, with older assessments discounted according to age. Full details of the methodology behind GFCI 15 can be found on page 46.

The main headlines of GFCI 15 are:

New York, London, Hong Kong and Singapore remain the top four global financial centres. New York is now the leading centre, although its lead over London is statistically insignificant – two points on a scale of 1,000. London’s reputation has suffered due to uncertainty over European Union membership, uncertainty over Scottish independence, regulatory creep and conservatism as well as expense, regulatory failures on Payment Protection Insurance or RBS’s Global Restructuring Group or rate swap scandals or the London Whale, perceived ‘insider’ markets in LIBOR and foreign exchange, uncertainty over taxation, and the UK appearing unwelcoming to foreign workers and visitors. London exhibited the biggest fall in the top 50 centres. Whilst financial services employment is increasing in London, there is some evidence that jobs growth is in regulatory and compliance, including IT compliance jobs. There may be a looming tussle among the top four centres for Renminbi (RMB) business at the traditional end of foreign exchange, or alternative currencies at the innovative end.

The ‘big four’ global financial centres are being chased. It is easy to focus on New York, London, Hong Kong and Singapore but others are catching up to the leaders. Three years ago (in GFCI 9) the difference between first and tenth was 117 points. The top ten centres are now within 75 points of each other.

The leading Asian Centres pull away from the weaker. There is a ‘shakeout’ in Asia with the leading centres – such as Hong Kong, Singapore, Tokyo, Seoul and Shenzhen – doing significantly better than the weaker centres (e.g. Kuala Lumpur, Manila, Jakarta and Mumbai).

¹ www.zyen.info/gfci/

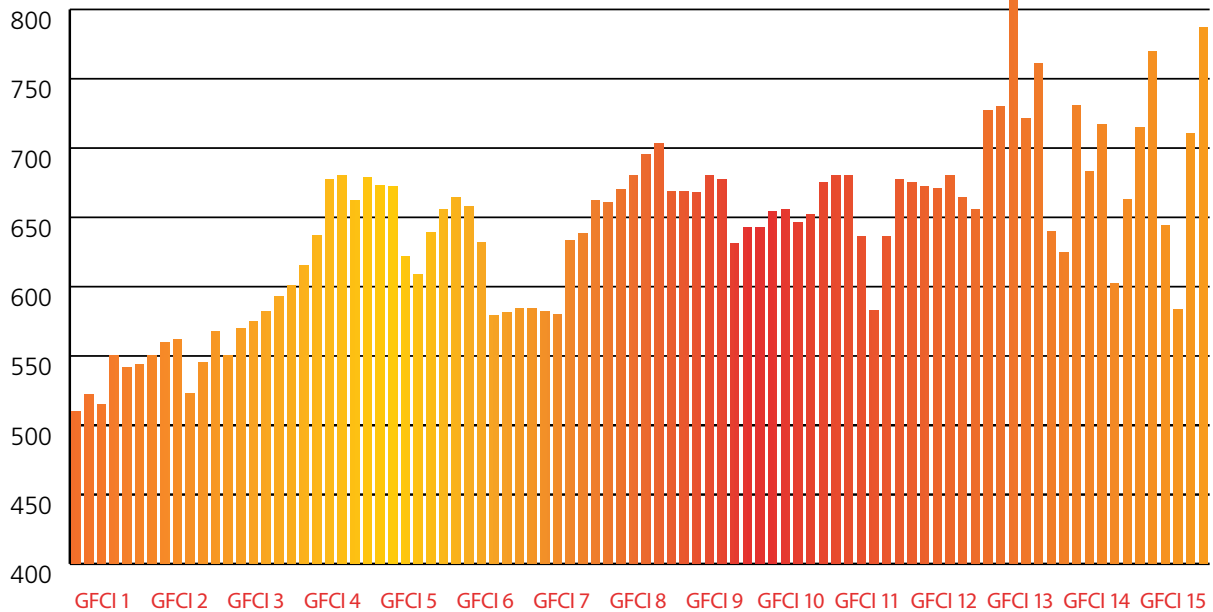
Middle East centres continue to rise in the index. Qatar remains the leading Middle Eastern Centre just ahead of Dubai. Riyadh is up 16 places, Bahrain is up 12 places and Abu Dhabi is up 10 places.

Financial centres in Europe are still in turmoil. 23 of the 27 European centres in the GFCI declined by rank. Significant falls include Copenhagen, Edinburgh, Dublin, Madrid, Lisbon, and Rome. Athens in last place (83rd) is now 82 points adrift of Reykjavik, second to last.

Offshore centres struggle with reputation and regulation. All except Gibraltar and the British Virgin Islands decline in the ranks.

2013 saw significantly more volatile assessments. Average assessments rose, but so did the volatility of assessments. This volatility started in 2012 and persisted throughout 2013. 2013 ratings were on average lower than the levels seen in 2012.

Chart 1 | Three Month Rolling Average Assessments of the Top 50 Centres



In GFCI 15, 29 financial centres climbed in the ranks, 47 centres declined, four centres experienced no change, and three centres (Almaty, Busan and Casablanca) entered the GFCI for the first time. Buenos Aires saw the biggest climb, 21 places to 25th in GFCI 15. Rome saw the biggest fall, down 19 places to 54th.

67 centres experienced a rise in their ratings and only nine saw a decline; four centres' ratings were unchanged. The biggest rate rise was Gibraltar (67 points) while the biggest decline was Athens (down by 46). The full set of GFCI 15 ranks and ratings are shown in Table 1.

Bratislava, Dalian, Guangzhou, Liechtenstein, Los Angeles, New Delhi, Nairobi and Riga are included in the GFCI questionnaire but have yet to acquire sufficient assessments to be included in the Index.

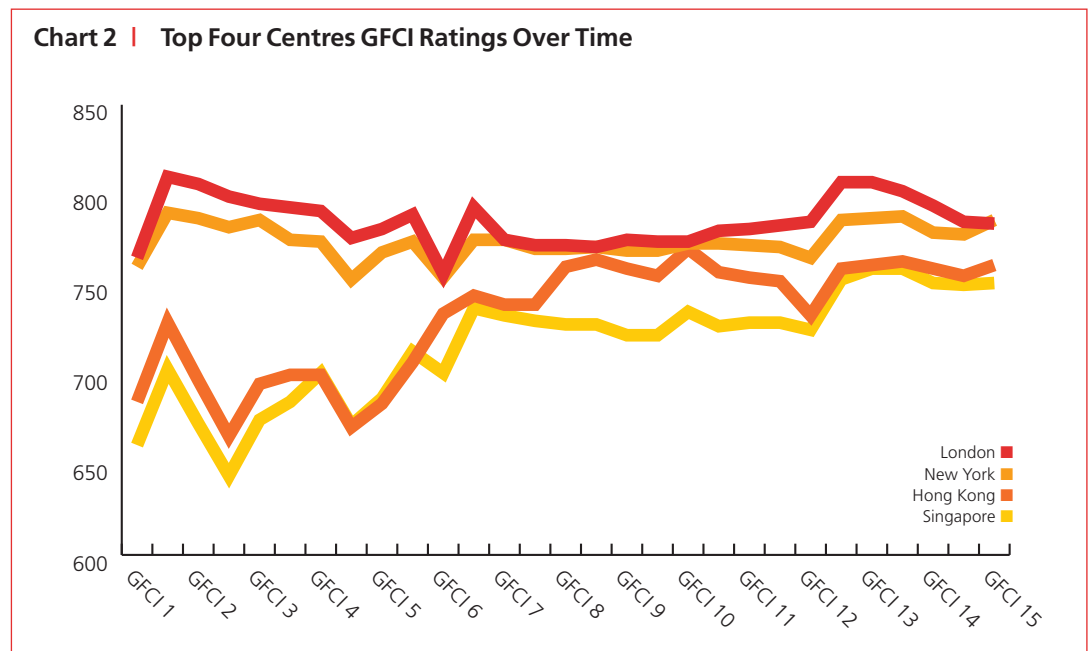


Table 1 | GFCI 15 Ranks and Ratings

Centre	GFCI 15		GFCI 14		CHANGES	
	Rank	Rating	Rank	Rating	Rank	Rating
New York	1	786	2	779	▲ 1	▲ 7
London	2	784	1	794	▼ 1	▼ 10
Hong Kong	3	761	3	759	–	▲ 2
Singapore	4	751	4	751	–	–
Zurich	5	730	6	718	▲ 1	▲ 12
Tokyo	6	722	5	720	▼ 1	▲ 2
Seoul	7	718	10	701	▲ 3	▲ 17
Boston	8	715	7	714	▼ 1	▲ 1
Geneva	9	713	8	710	▼ 1	▲ 3
San Francisco	10	711	12	697	▲ 2	▲ 14
Frankfurt	11	709	9	702	▼ 2	▲ 7
Luxembourg	12	707	13	696	▲ 1	▲ 11
Washington DC	13	706	17	689	▲ 4	▲ 17
Toronto	14	705	11	699	▼ 3	▲ 6
Chicago	15	704	14	695	▼ 1	▲ 9
Montreal	16	699	18	688	▲ 2	▲ 11
Vancouver	17	698	19	686	▲ 2	▲ 12
Shenzhen	18	697	27	660	▲ 9	▲ 37
Vienna	19	696	20	685	▲ 1	▲ 11
Shanghai	20	695	16	690	▼ 4	▲ 5
Tel Aviv	21	692	32	653	▲ 11	▲ 39
Calgary	22	691	21	684	▼ 1	▲ 7
Sydney	23	690	15	692	▼ 8	▼ 2
Monaco	24	689	23	674	▼ 1	▲ 15
Buenos Aires	25	688	46	628	▲ 21	▲ 60
Qatar	26	687	24	672	▼ 2	▲ 15
Busan	27	686	n/a	–	New	New
Munich	28	685	34	651	▲ 6	▲ 34
Dubai	29	684	25	671	▼ 4	▲ 13
Stockholm	30	683	37	644	▲ 7	▲ 39
Riyadh	31	682	47	627	▲ 16	▲ 55
Abu Dhabi	32	678	42	637	▲ 10	▲ 41
Oslo	33	677	26	669	▼ 7	▲ 8
Osaka	34	676	30	655	▼ 4	▲ 21
Kuala Lumpur	35	675	22	675	▼ 13	–
Paris	36	672	29	656	▼ 7	▲ 16
Melbourne	37	670	33	652	▼ 4	▲ 18
Sao Paulo	38	667	38	643	–	▲ 24
Wellington	39	666	43	636	▲ 4	▲ 30
Bahrain	40	660	52	610	▲ 12	▲ 50
Jersey	41	657	28	657	▼ 13	–
Guernsey	42	656	36	649	▼ 6	▲ 7

Table 1 | GFCI 15 Ranks and Ratings continued

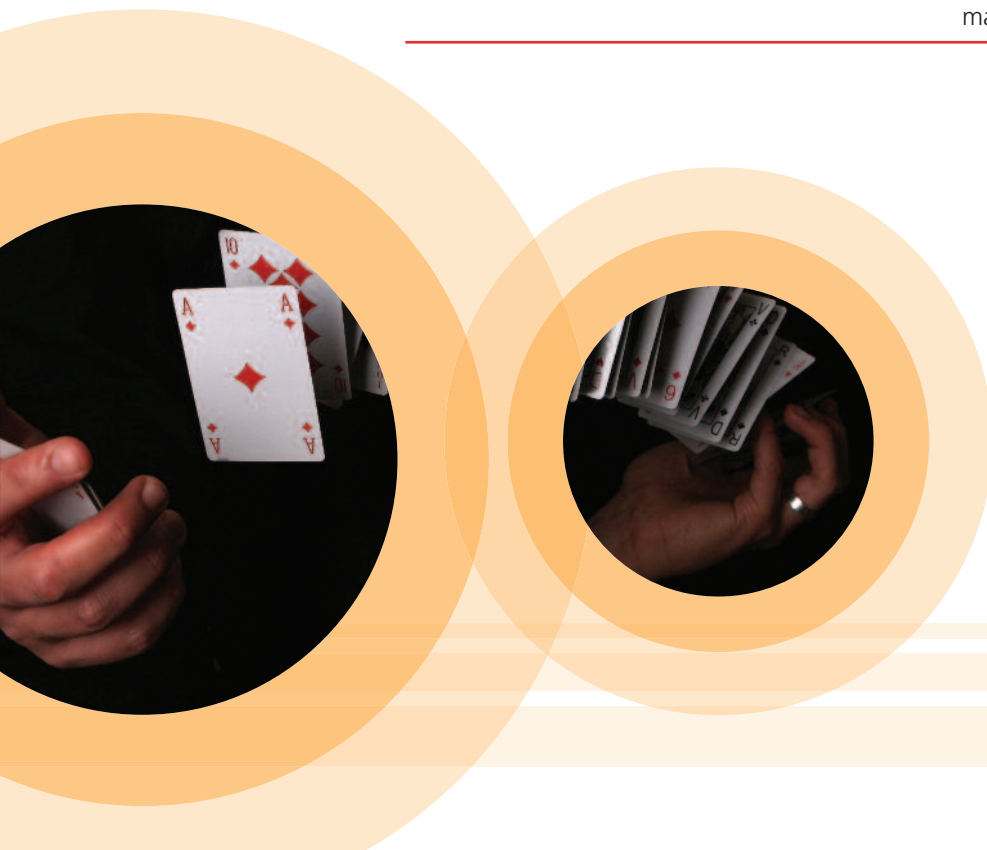
Centre	GFCI 15		GFCI 14		CHANGES	
	Rank	Rating	Rank	Rating	Rank	Rating
Cayman Islands	43	655	39	642	▼ 4	▲ 13
British Virgin Islands	44	654	48	626	▲ 4	▲ 28
Rio de Janeiro	45	653	31	654	▼ 14	▼ 1
Amsterdam	46	652	45	629	▼ 1	▲ 23
Istanbul	47	651	44	633	▼ 3	▲ 18
Milan	48	650	51	618	▲ 3	▲ 32
Beijing	49	649	59	598	▲ 10	▲ 51
Johannesburg	50	647	61	592	▲ 11	▲ 55
Isle of Man	51	642	41	638	▼ 10	▲ 4
Bangkok	52	640	58	600	▲ 6	▲ 40
Gibraltar	53	639	70	572	▲ 17	▲ 67
Rome	54	637	35	650	▼ 19	▼ 13
Taipei	55	636	50	619	▼ 5	▲ 17
Hamilton	56	631	40	641	▼ 16	▼ 10
Brussels	57	630	60	597	▲ 3	▲ 33
Almaty	58	629	n/a	–	New	New
Panama	59	628	63	589	▲ 4	▲ 39
Warsaw	60	626	71	571	▲ 11	▲ 55
Copenhagen	61	623	49	625	▼ 12	▼ 2
Casablanca	62	622	n/a	–	New	New
Mauritius	63	621	68	581	▲ 5	▲ 40
Edinburgh	64	620	62	590	▼ 2	▲ 30
Bahamas	65	618	67	583	▲ 2	▲ 35
Dublin	66	616	56	605	▼ 10	▲ 11
Malta	67	614	53	608	▼ 14	▲ 6
Manila	68	610	64	587	▼ 4	▲ 23
Jakarta	69	606	55	606	▼ 14	–
Mexico City	70	605	66	584	▼ 4	▲ 21
Madrid	71	604	54	607	▼ 17	▼ 3
Helsinki	72	592	57	604	▼ 15	▼ 12
Moscow	73	591	69	580	▼ 4	▲ 11
Glasgow	74	590	65	586	▼ 9	▲ 4
Prague	75	589	73	565	▼ 2	▲ 24
Mumbai	76	584	72	570	▼ 4	▲ 14
Budapest	77	560	77	515	–	▲ 45
St Petersburg	78	543	76	522	▼ 2	▲ 21
Cyprus	79	541	74	536	▼ 5	▲ 5
Lisbon	80	536	75	535	▼ 5	▲ 1
Tallinn	81	510	78	495	▼ 3	▲ 15
Reykjavik	82	505	79	479	▼ 3	▲ 26
Athens	83	423	80	469	▼ 3	▼ 46

Areas of Competitiveness

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

Table 2 | Main Areas of Competitiveness

Area of competitiveness	Number of mentions	Main concerns
Business environment	333	Corruption, transparency and the rule of law. There is currently over-regulation and inflexibility. Diminishing market friendliness of regulators. Stability and predictability is needed.
Taxation	309	Clarity, transparency and simplicity, stability & predictability are all important.
Human Capital	307	Labour markets and immigration regulation rigidity. Insufficient investment in employees' skills. Availability of skilled people is key and rising in importance.
Infrastructure	290	ICT speed and security. Overcrowding and overloading. More investment is needed especially in developed centres.
Reputation	277	A key factor and rising in importance. Underlying factors are more important but less recognised.
Market Access	254	Physical proximity to clients and suppliers still matters.



The GFCI questionnaire asks respondents which centres they consider are likely to become more significant in the next few years. The ten most mentioned centres are again predominantly in the Asia-Pacific region. Casablanca and Busan, recent additions to the GFCI received the most mentions since GFCI 14. Singapore is now third and Hong Kong fourth ahead of Shanghai in fifth:

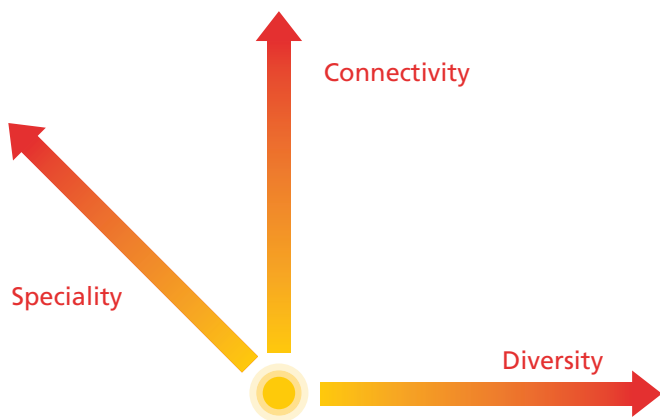
Table 3 | The Ten Centres Likely to Become More Significant

Centres Likely to Become More Significant	Number of Mentions
Casablanca	68
Busan	58
Singapore	47
Hong Kong	37
Shanghai	36
Dalian	30
Seoul	22
Dubai	20
Luxembourg	18
London	15



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 financial industry sectors that flourish in a financial centre. We consider this sector 'richness' to be measurable in a similar way to that of the natural environment and therefore, use a combination of biodiversity indices (calculated on the instrumental factors) to assess a centre's

diversity. A high score means that a centre is well diversified; a low diversity score reflects a less rich business environment.

'Speciality' – the depth within a financial centre of the following industry sectors: investment management, banking, insurance, professional services and government and regulatory. A centre's 'speciality' performance is calculated from the difference between the GFCI rating and the industry sector ratings.

In Table 4 below, 'Diversity' (Breadth) and 'Speciality' (Depth) are combined on one axis to create a two dimensional table of financial centre profiles. The 83 centres are assigned a profile on the basis of a set of rules for the three measures: how well connected a centre is, how broad its services are and how specialised it is.

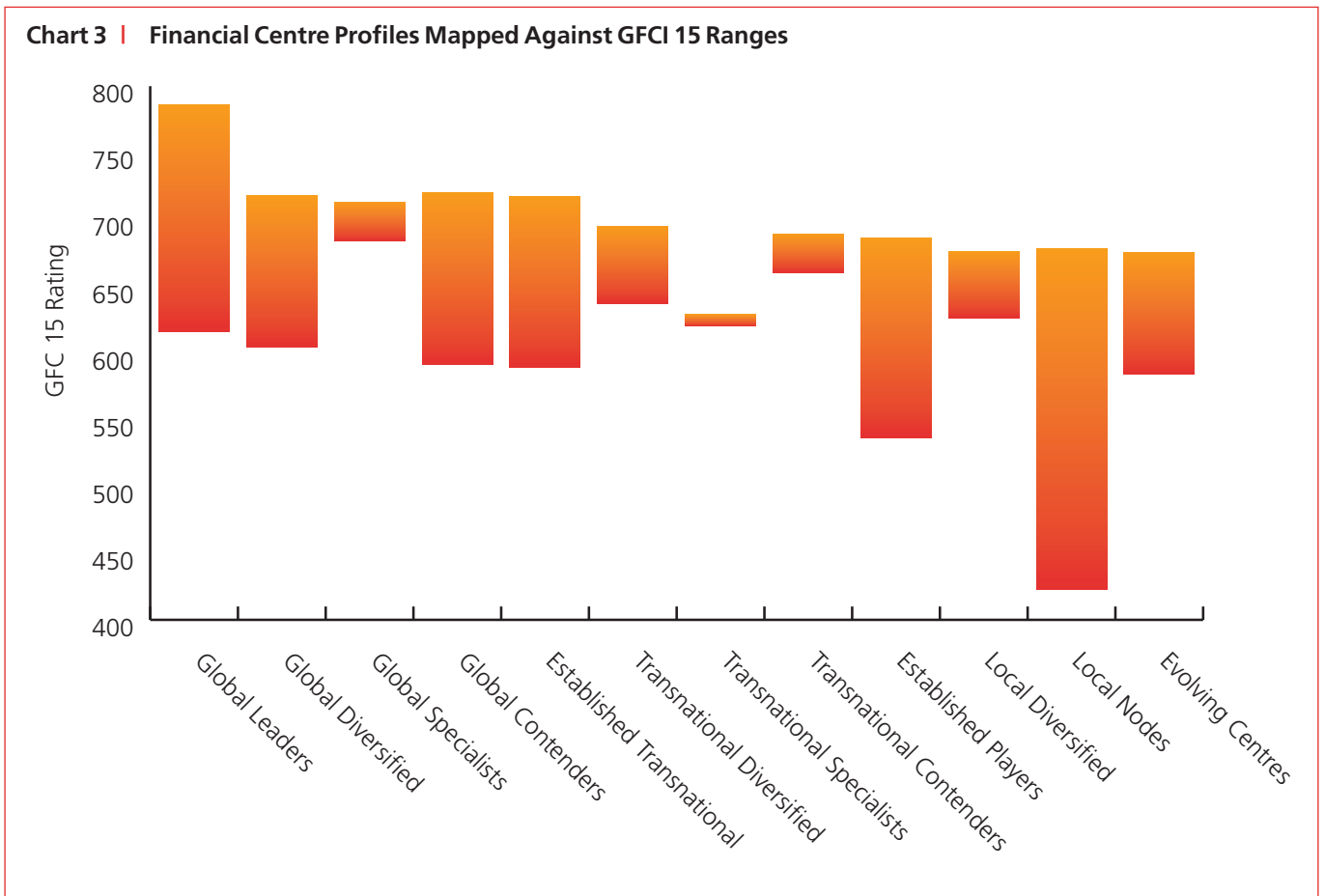
The 11 Global Leaders (in the top left of the table) have both broad and deep financial services activities and are connected with many other financial centres. This list includes London, New York, Hong Kong and Singapore, the top four global financial centres. A number of centres have changed profile since GFCI 14 including:

- Tokyo was a Global Diversified centre and has become an Established Transnational centre;
- Sydney is now an Established Transnational centre having been a Global Leader, although it is on the borderline and may well regain Global Leadership status in the near future;
- Beijing is now a Global Contender, it was previously a Global Specialist;
- Milan is now a Global Contender, it was previously an Established Transnational.

Table 4 | GFCI 15 Financial Centre Profiles

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

Chart 3 below shows the profiles mapped against the range of GFCI 15 ratings:

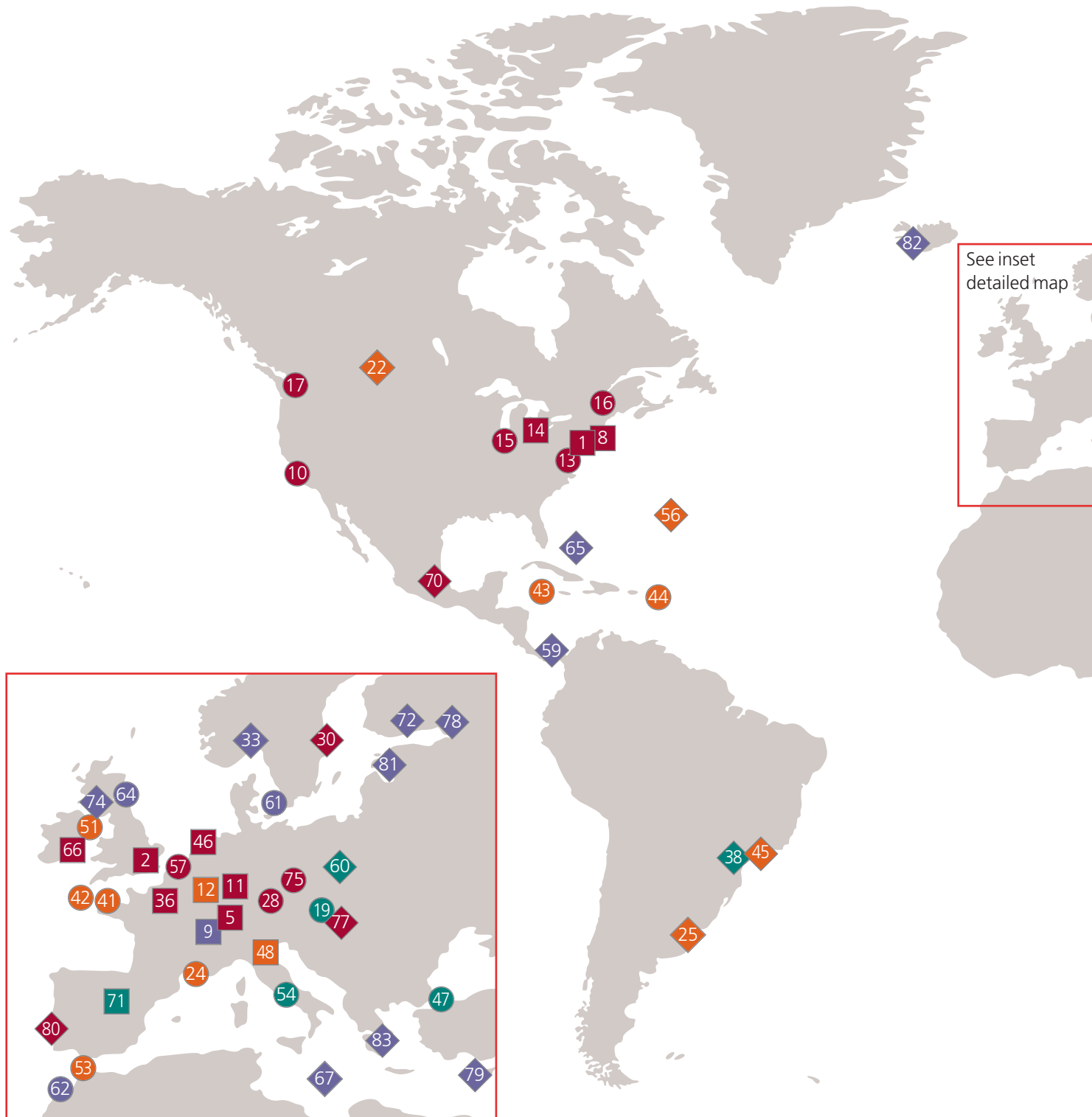


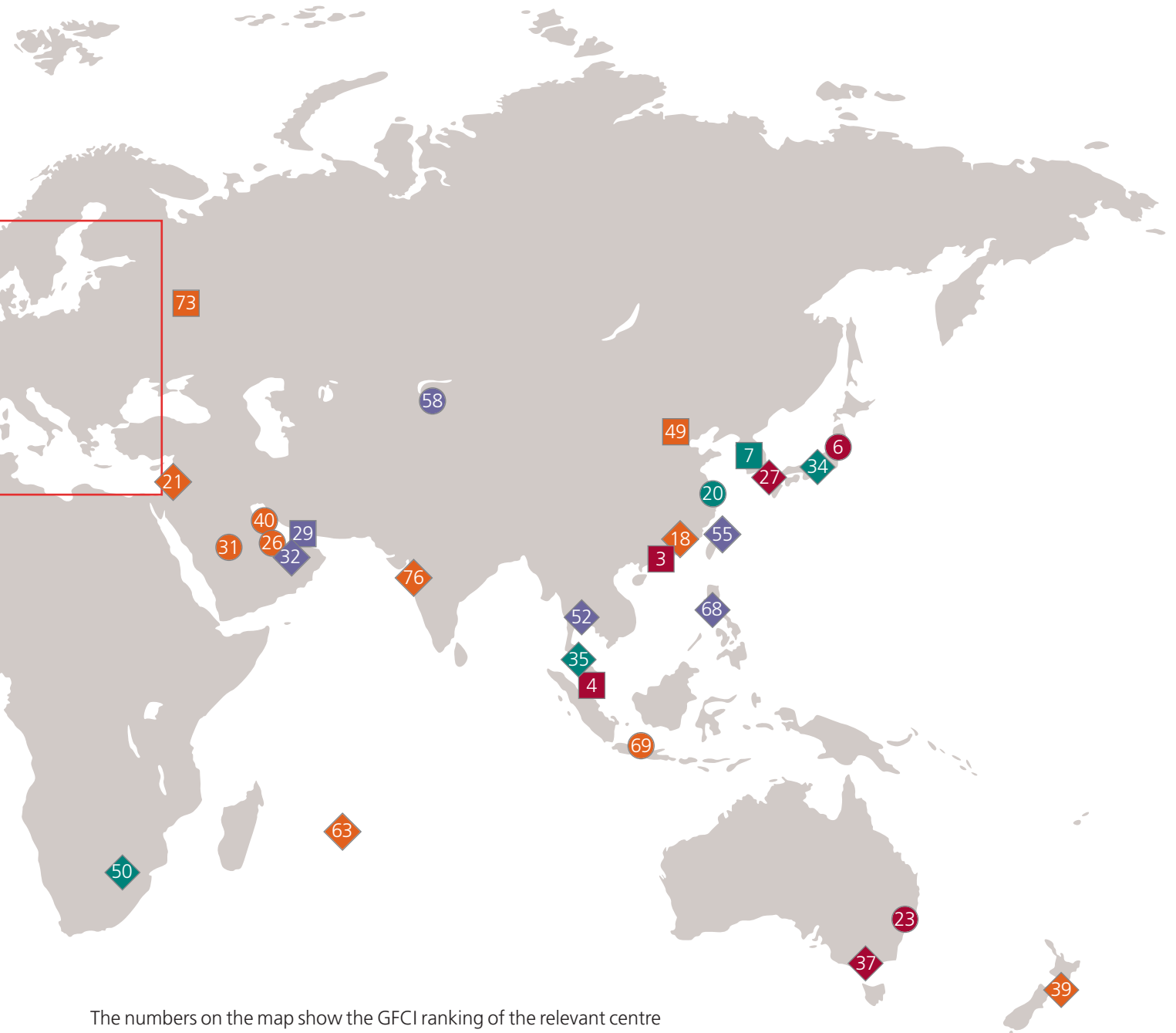
“Hong Kong and Singapore are now such powerful centres that I can’t see where else the Asian business is going”

Asset Manager based in London



The GFCI World





- | Broad and deep | | Relatively broad | | Relatively deep | | Emerging | |
|----------------|---------------------------|------------------|---------------------------|-----------------|---------------------------|----------|--------------------------|
| ■ | Global leaders | ■ | Global diversified | ■ | Global specialists | ■ | Global contenders |
| ● | Established transnational | ● | Transnational diversified | ● | Transnational specialists | ● | Transnational contenders |
| ◆ | Established players | ◆ | Local diversified | ◆ | Local nodes | ◆ | Evolving centres |

Europe

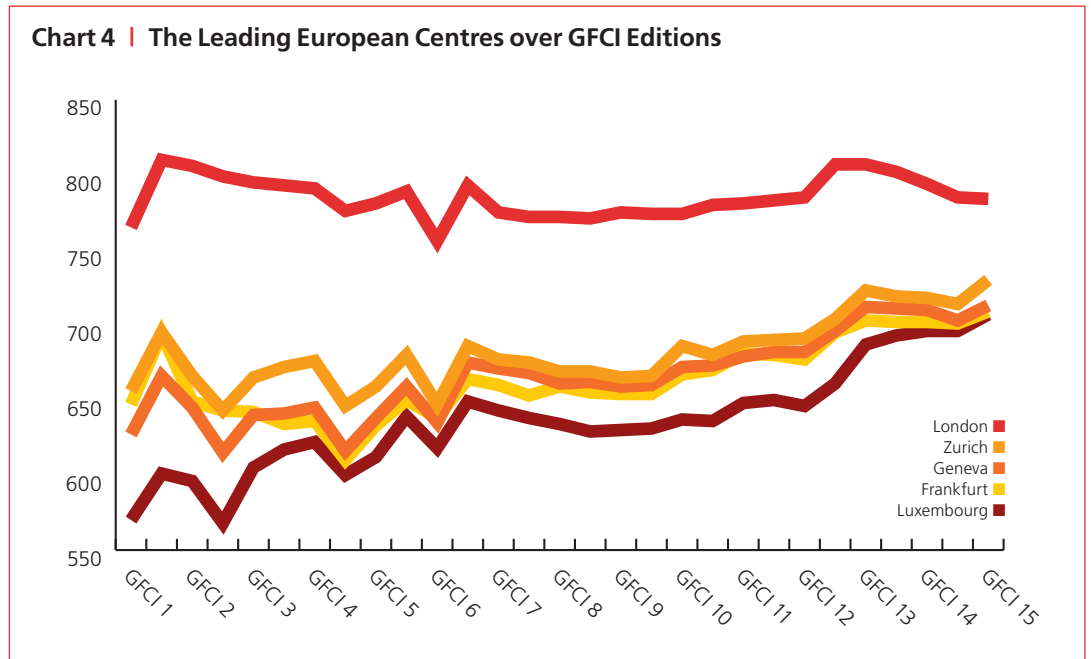
Table 5 shows the Top 20 European financial centres in the GFCI. The leading centres in Europe are London, Zurich and Geneva as in GFCI 14. London suffered the largest decline of any centre in the Top 50. Zurich saw its rating rise by 12 points and it reclaimed fifth place from Tokyo. Geneva and Frankfurt were both overtaken by Seoul and are now in ninth and 11th places respectively. Luxembourg climbed 11 points and one place to 12th.

Europe's ratings have mostly improved in GFCI 15. Warsaw saw the greatest improvement (55 points) and climbed 11 places to 60th. Stockholm rose seven places to 30th and Munich six places to 28th. Apart from London, the other significant declines in Europe are Rome (down 13 points and 19 places to 54th), and Helsinki (down 12 points and 15 places to 72nd overall).

Table 5 | Top 20 European Centres in GFCI 15

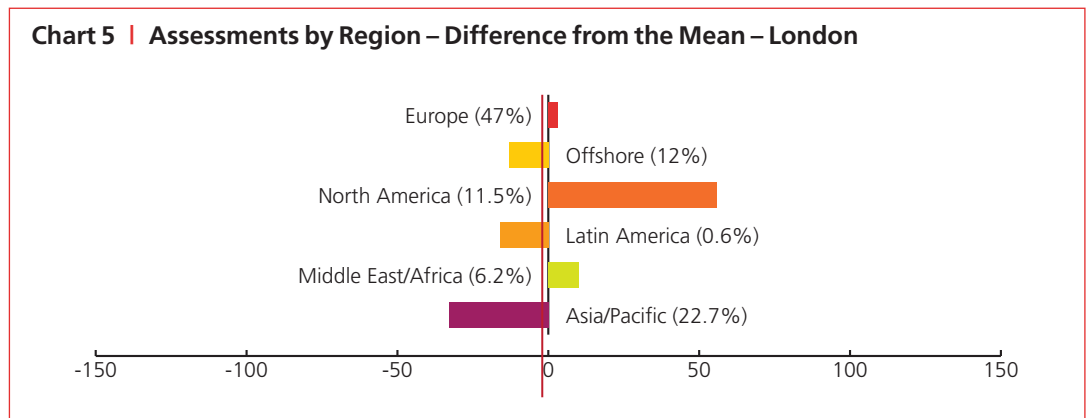
	GFCI 15 rank	GFCI 15 rating	GFCI 14 rank	GFCI 14 rating	Change in rank	Change in rating
London	2	784	1	794	▼ 1	▼ 10
Zurich	5	730	6	718	▲ 1	▲ 12
Geneva	9	713	8	710	▼ 1	▲ 3
Frankfurt	11	709	9	702	▼ 2	▲ 7
Luxembourg	12	707	13	696	▲ 1	▲ 11
Vienna	19	696	20	685	▲ 1	▲ 11
Monaco	24	689	23	674	▼ 1	▲ 15
Munich	28	685	34	651	▲ 6	▲ 34
Stockholm	30	683	37	644	▲ 7	▲ 39
Oslo	33	677	26	669	▼ 7	▲ 8
Paris	36	672	29	656	▼ 7	▲ 16
Amsterdam	46	652	45	629	▼ 1	▲ 23
Milan	48	650	51	618	▲ 3	▲ 32
Rome	54	637	35	650	▼ 19	▼ 13
Brussels	57	630	60	597	▲ 3	▲ 33
Warsaw	60	626	71	571	▲ 11	▲ 55
Copenhagen	61	623	49	625	▼ 12	▼ 2
Edinburgh	64	620	62	590	▼ 2	▲ 30
Dublin	66	616	56	605	▼ 10	▲ 11
Madrid	71	604	54	607	▼ 17	▼ 3

Chart 4 below shows that the Top Five European centres except London have improved their competitiveness:

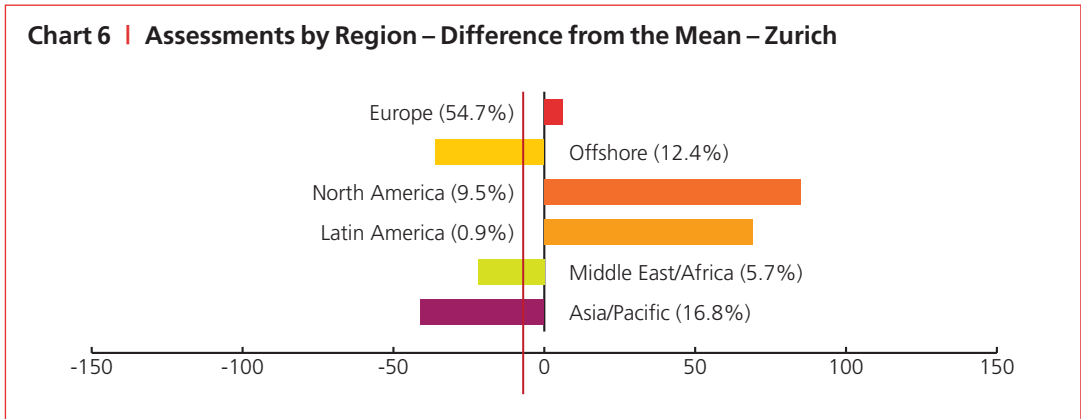


Examining the assessments given to each major centre is a useful means of assessing the relative strength and weakness of their reputations in different regions. It is important to note that assessments given to a centre by people based in that centre are excluded from the GFCI model to eliminate ‘home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

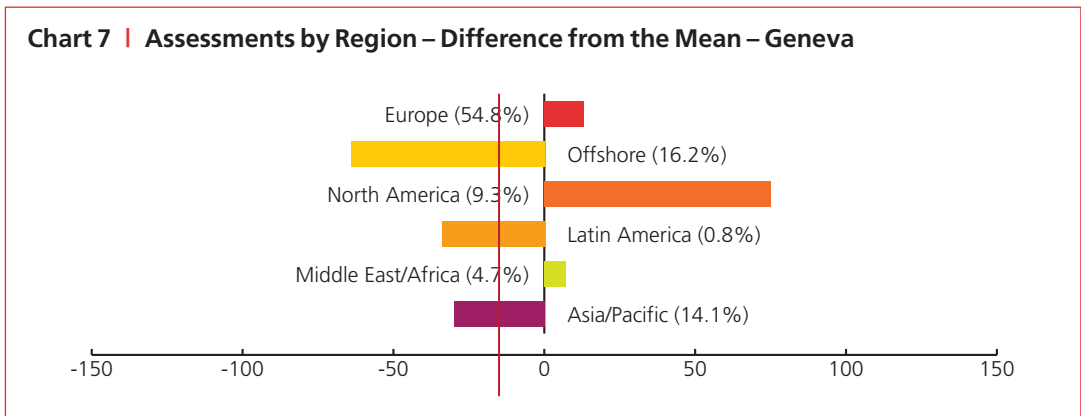
London’s overall average assessment is 840. Respondents from the Asia/Pacific region, the second largest group of respondents, are the least favourable to London, while North Americans are by far the most favourable.



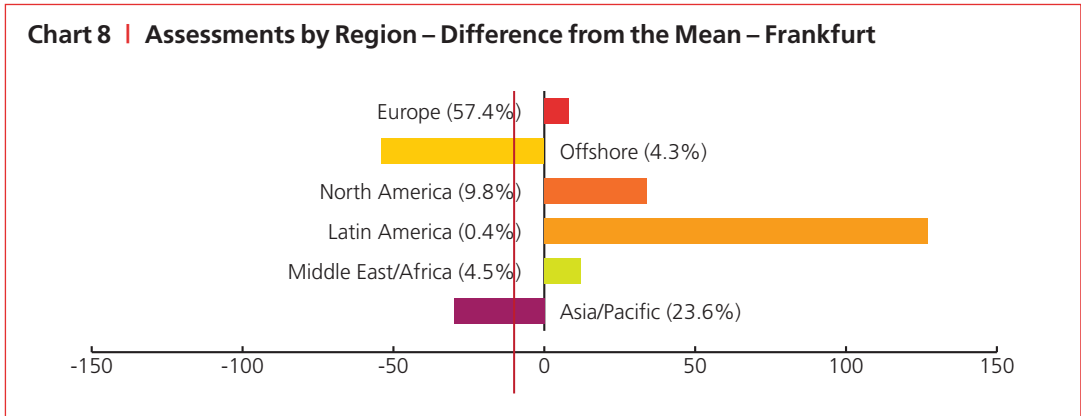
Zurich’s overall average assessment is 774 up from 756 in GFCI 14. Its ex-regional assessment is a little lower at 767. European respondents represent the largest respondent group by far and are slightly more favourable than the mean. Respondents from Asia/Pacific, Offshore and the Middle East and Africa are less favourable to Zurich than the mean.



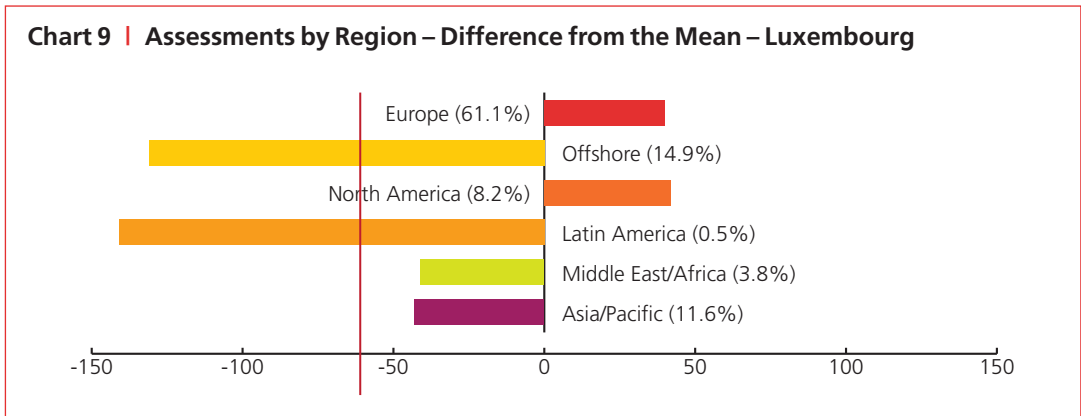
Geneva’s overall average assessment is 750, up from 737 in GFCI 14; the ex-regional average is 735 slightly up from 733 in GFCI 14. Europeans are the largest regional group of respondents (almost 55% of the total) and their assessments are more favourable than the average.



Frankfurt’s overall average assessment is 739, an increase from 724 in GFCI 14; its ex-regional assessment is 729, down from 735. Assessments from Europe, the Americas and The Middle East and Africa are more favourable than the mean.

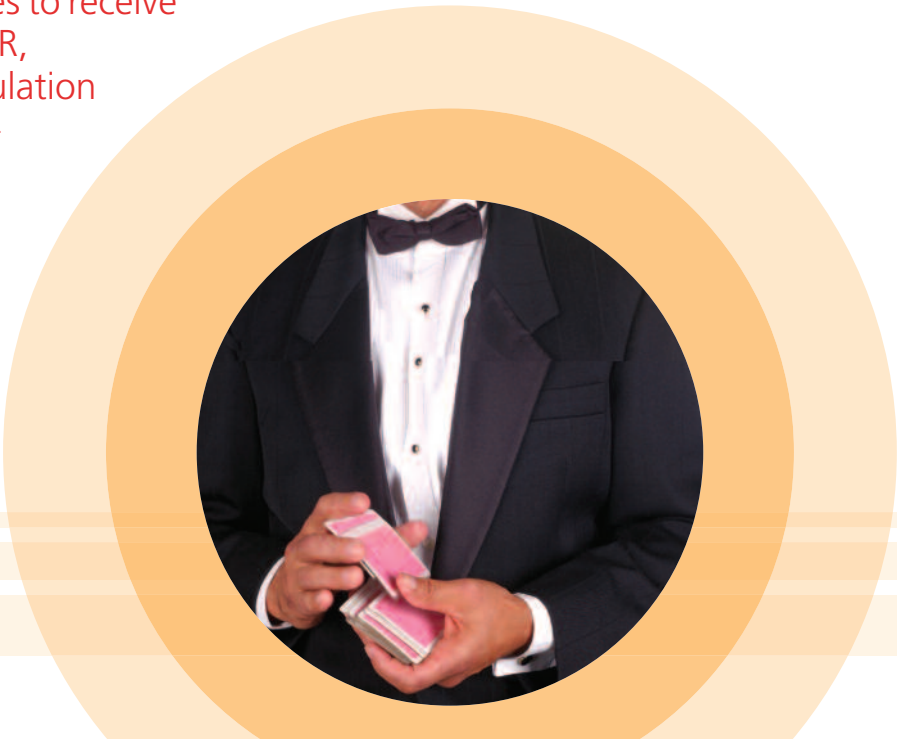


Luxembourg’s average rating is 791, significantly higher than 774 in GFCI 14. Luxembourg’s ex-regional average is 730. Luxembourg is well regarded in Europe, which constitutes the vast majority of its assessments (over 60%) and in North America.



“London continues to receive bad news – LIBOR, creeping EU regulation and corruption – I think Frankfurt and Zurich will catch up soon.”

Investment Banker based in London



Asia/Pacific

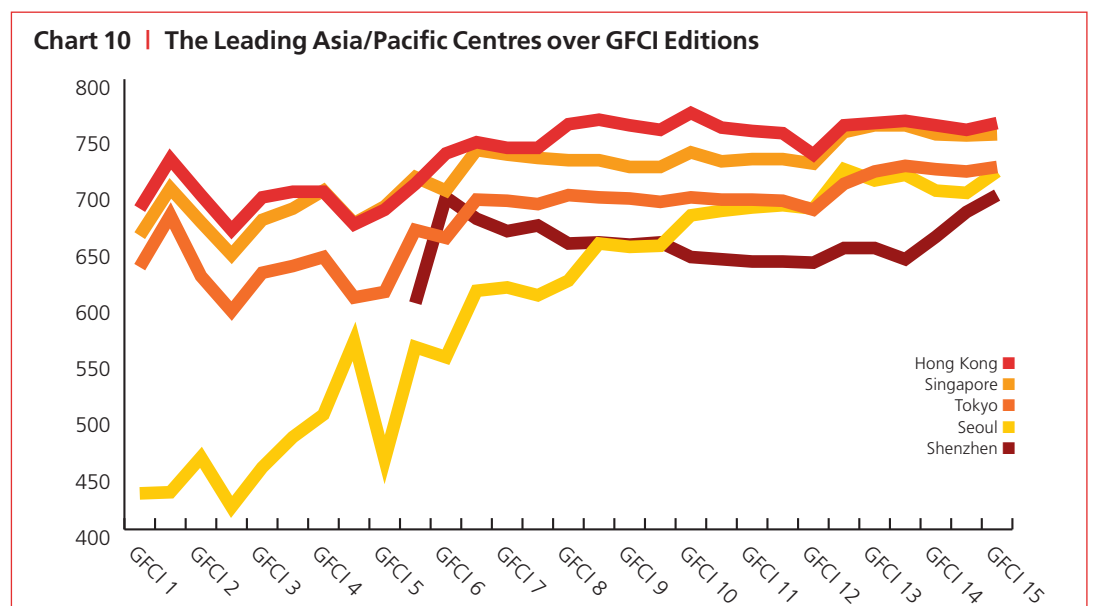
Most Asia/Pacific financial centres have seen their scores improve in GFCI 15. Hong Kong, Singapore, Tokyo and Seoul remain in the GFCI Top 10 with Tokyo losing fifth place to Zurich and Seoul moving up three places to seventh.

Table 6 | The Top 10 Asia/Pacific Centres in GFCI 15

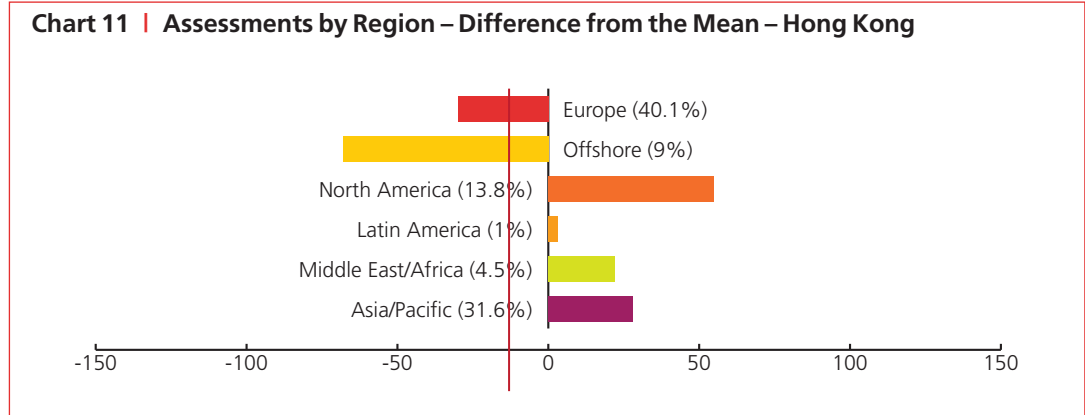
	GFCI 15 rank	GFCI 15 rating	GFCI 14 rank	GFCI 14 rating	Change in rank	Change in rating
Hong Kong	3	761	3	759	–	▲ 2
Singapore	4	751	4	751	–	–
Tokyo	6	722	5	720	▼ 1	▲ 2
Seoul	7	718	10	701	▲ 3	▲ 17
Shenzhen	18	697	27	660	▲ 9	▲ 37
Shanghai	20	695	16	690	▼ 4	▲ 5
Sydney	23	690	15	692	▼ 8	▼ 2
Busan	27	686	New	New	New	New
Osaka	34	676	30	655	▼ 4	▲ 21
Kuala Lumpur	35	675	22	675	▼ 13	–

Of the Top Ten in Asia/Pacific, Shenzhen gained the most, 37 points and nine places to 18th. Sydney lost two points, which resulted in a drop of eight places to 23rd. Kuala Lumpur, while retaining its GFCI 14 score of 675, dropped 13 places to 35th. Busan made a strong entry into the GFCI at 27th.

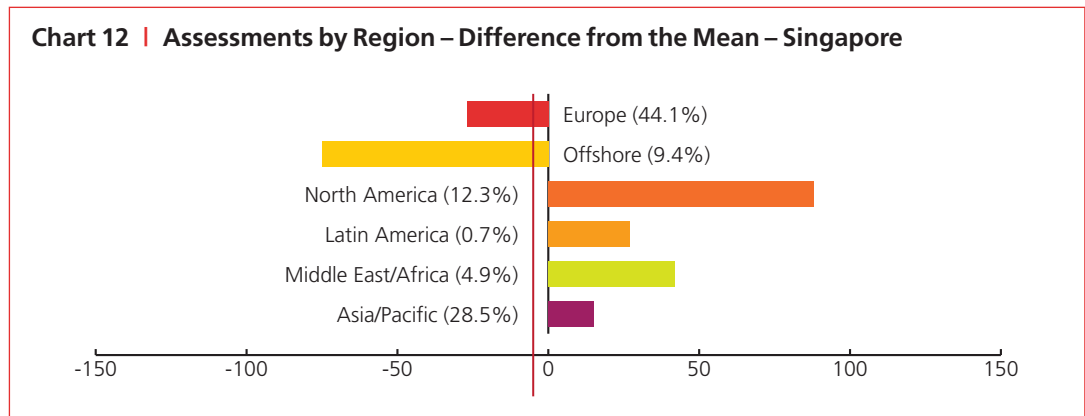
Chart 10 below shows a stable performance for Asia/Pacific centres over the past four years. Seoul continues its long term positive trend and is now almost level with Tokyo. Shenzhen has seen a strong rise over the last year:



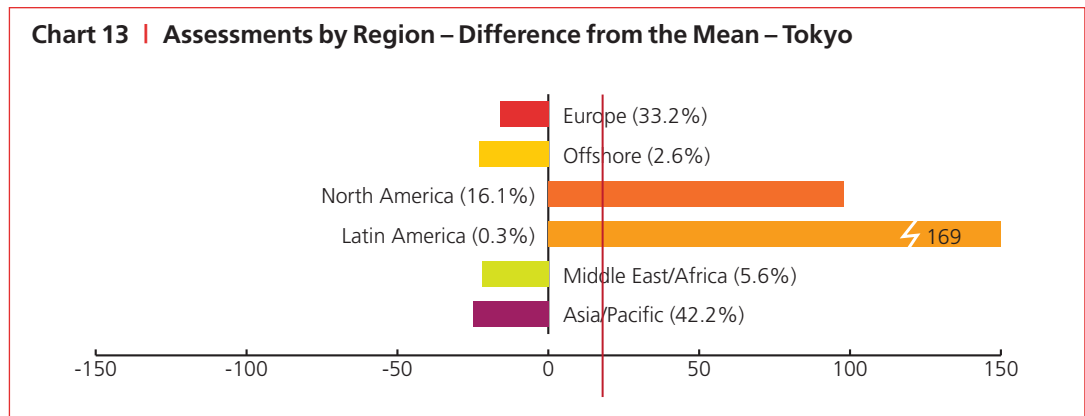
Hong Kong has an average assessment of 827 up from 816 in GFCI 14. Its ex-regional average is 814, an improvement from 801 in GFCI 14. North Americans gave the most favourable assessments. Europeans, the largest group of respondents, were less positive.



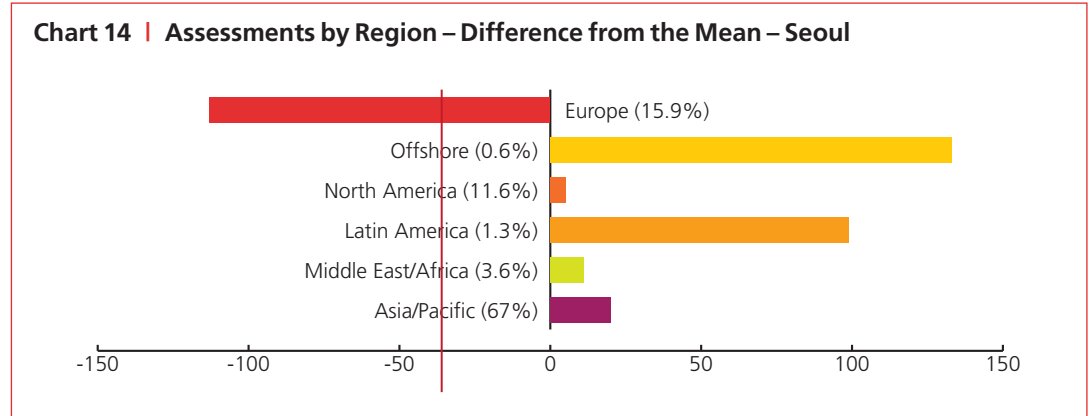
Singapore’s average assessment is 823, up from 810, and its ex-regional average assessment is 818, up from 804 in GFCI 14. North Americans’ ratings were by far the most favourable. Asia/Pacific and Latin American respondents also gave better than average assessments.



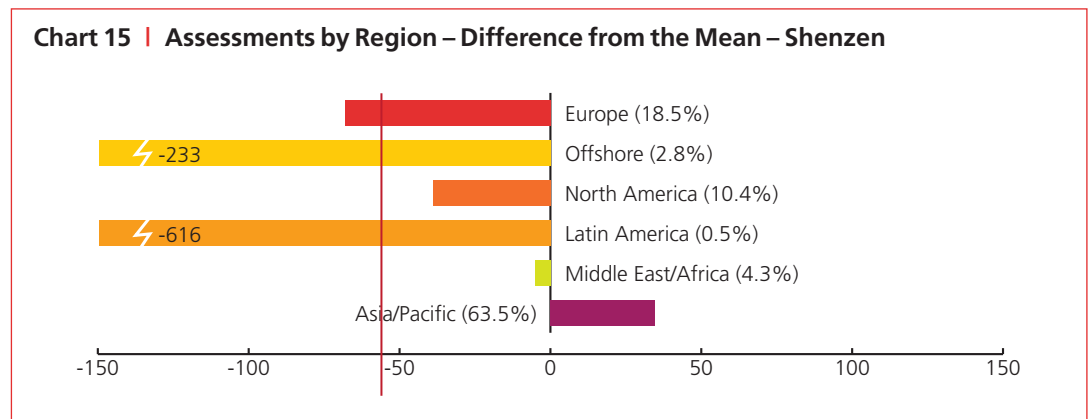
The average assessment for Tokyo is 783, up from 781 in GFCI 14. Its ex-regional average assessment is 801, which is significantly better than 774 in GFCI 14. Asia/Pacific and Europe, respectively the first and second largest groups of respondents gave slightly lower than average assessments for Tokyo.



The average assessment for Seoul is 801, a substantial improvement from 757 in GFCI 14; its ex-regional assessment has also improved significantly from 724 to 765. The largest respondent group, Asia/Pacific (67% of the total), is slightly more favourable to Seoul than the overall mean.



Shenzhen's average assessment is 716, up from 696 in GFCI 14. Its ex-regional assessment at 660 is a marked improvement from GFCI 14's 598. Asia/Pacific, by far the largest respondents group, is the only group that rated Shenzhen better than average.



“Hong Kong and Singapore are still the clear leaders in Asia – as far as I am concerned they are becoming even stronger.”

Investment Banker based in Sydney

The Americas

Although New York's increase in rating was relatively small, it overtook London to become the top GFCI centre for the first time since the GFCI was launched. San Francisco returned to GFCI's Top Ten with an increase of 14 points. Washington D.C. gained 17 points, rose to 13th place and overtook Chicago and Toronto.

All centres from North and Latin America (except Rio de Janeiro) improved their ratings in comparison to GFCI 14. Buenos Aires gained 60 points (the biggest gain in GFCI 15), which moved it up 21 places to 25th place and into the Americas' Top Ten. Panama also saw a significant improvement of 39 points and rose four places to 59th.

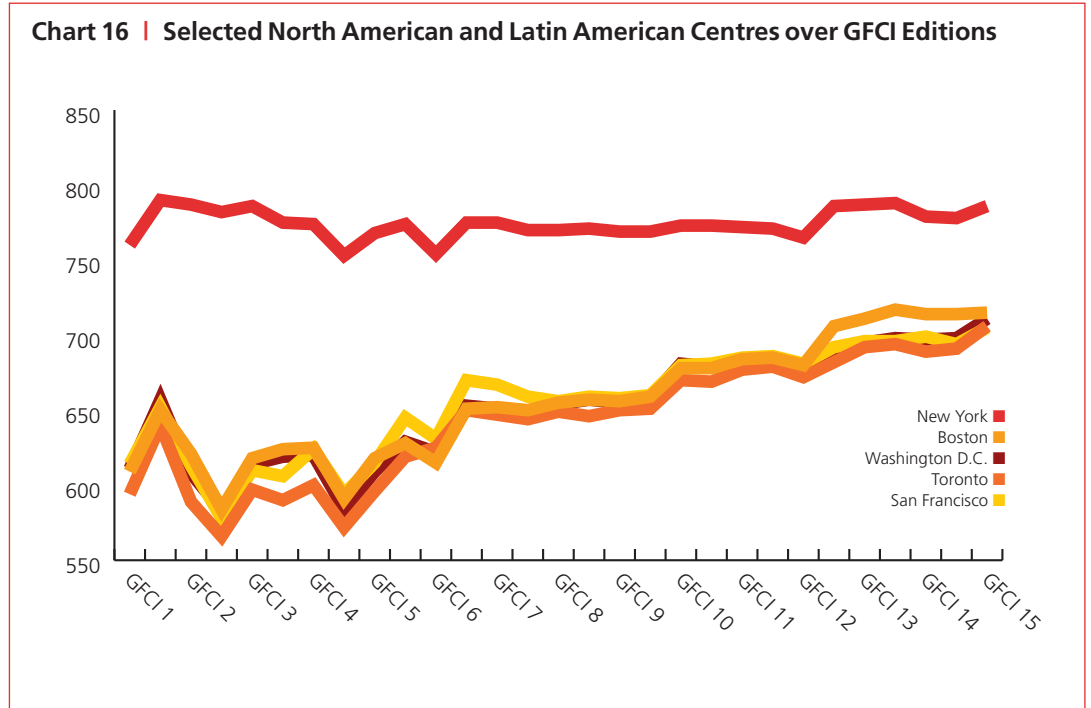
Table 7 | North American and Latin American Centres in GFCI 15

	GFCI 15 rank	GFCI 15 rating	GFCI 14 rank	GFCI 14 rating	Change in rank	Change in rating
New York	1	786	2	779	▲ 1	▲ 7
Boston	8	715	7	714	▼ 1	▲ 1
San Francisco	10	711	12	697	▲ 2	▲ 14
Washington DC	13	706	17	689	▲ 4	▲ 17
Toronto	14	705	11	699	▼ 3	▲ 6
Chicago	15	704	14	695	▼ 1	▲ 9
Montreal	16	699	18	688	▲ 2	▲ 11
Vancouver	17	698	19	686	▲ 2	▲ 12
Calgary	22	691	21	684	▼ 1	▲ 7
Buenos Aires	25	688	46	628	▲ 21	▲ 60
Sao Paulo	38	667	38	643	–	▲ 24
Rio de Janeiro	45	653	31	654	▼ 14	▼ 1
Panama	59	628	63	589	▲ 4	▲ 39
Mexico City	70	605	66	584	▼ 4	▲ 21

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

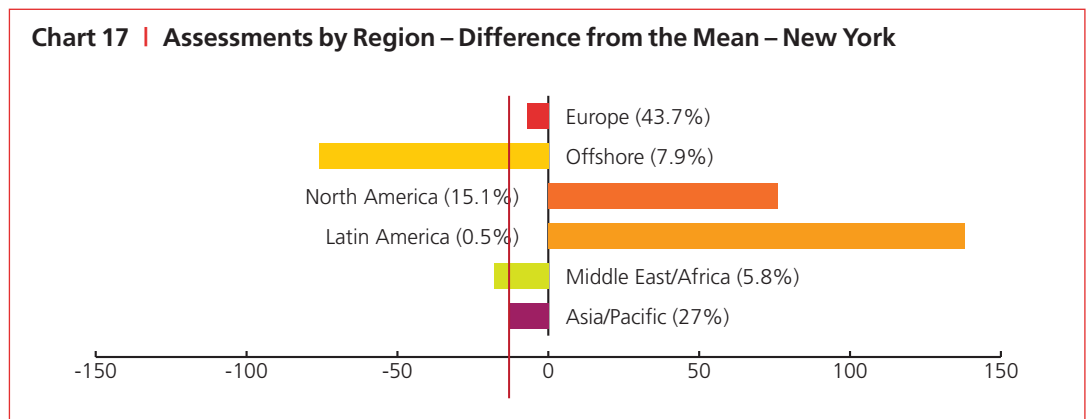
Asset Manager based in New York

Chart 16 below shows leading American centres' performance improving since GFCI 14. New York is well ahead of the rest. Boston is the only centre that does not exhibit a marked improvement and consequently San Francisco, Washington D.C. and Toronto are catching up with it.



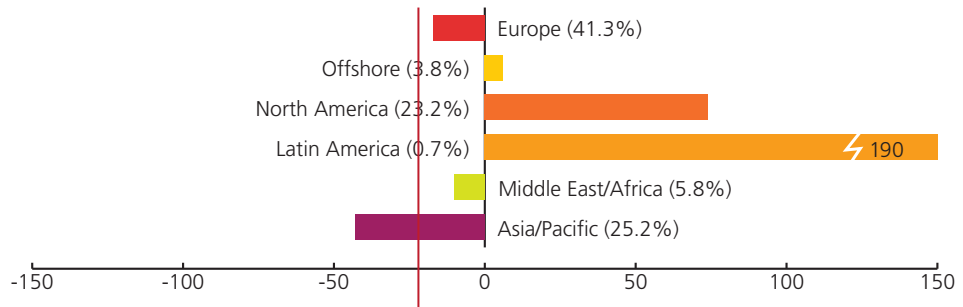
The difference between regional assessments for some of the major North American centres is shown below:

New York's overall average assessment is 845, up from 834 and its ex-regional assessment is 832, up from 816 in GFCI 14. Respondents from the Americas, were favourable in their ratings. Offshore centre respondents were by far the least favourable to New York.



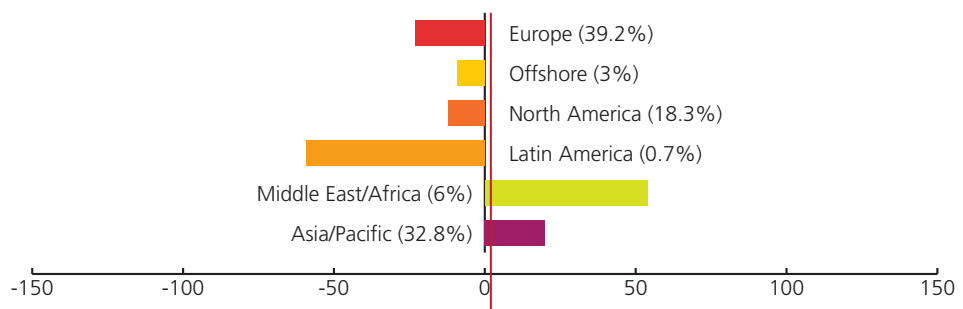
Boston's overall average assessment is 785 and its ex-regional assessment is 763, slightly up from 782 and 759 in GFCI 14. Respondents from the Americas were most positive in their ratings.

Chart 18 | Assessments by Region – Difference from the Mean – Boston



San Francisco has a global average score of 759, up from 733, and an ex-regional score of 761, up from 734. Unlike New York and Boston, American respondents are less favourable than the mean to San Francisco.

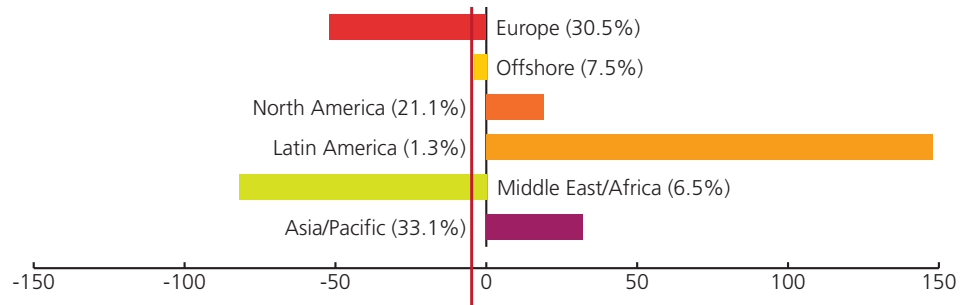
Chart 19 | Assessments by Region – Difference from the Mean – San Francisco



Assessments from Europe and the Offshore centres are also lower than the mean. In contrast Asian respondents are more favourable than the mean to San Francisco.

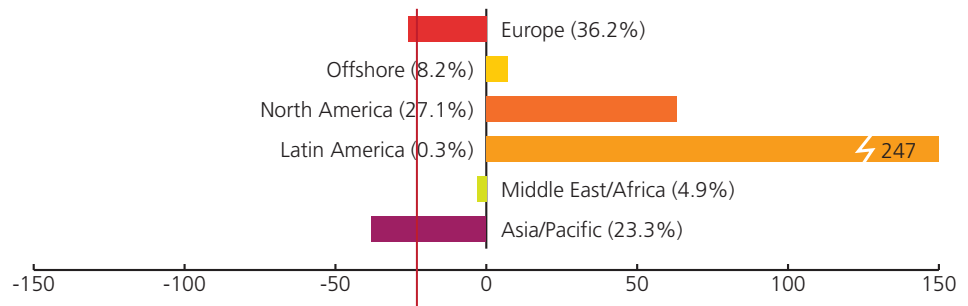
Washington D.C.'s global average assessment is 752 and its ex-regional assessment is 747, a significant improvement from 705 and 681 in GFCI 14.

Chart 20 | Assessments by Region – Difference from the Mean – Washington D.C.



Toronto's average assessment is 753, down from 766 in GFCI 14; its ex-regional assessment shows an improvement from 721 to 730. Respondents from the Americas were more favourable than the mean to Toronto.

Chart 21 | Assessments by Region – Difference from the Mean – Toronto



“Canada continues to do well – a good reputation and a strong regulatory regime.”

Investment Banker based in Boston



The Middle East and Africa

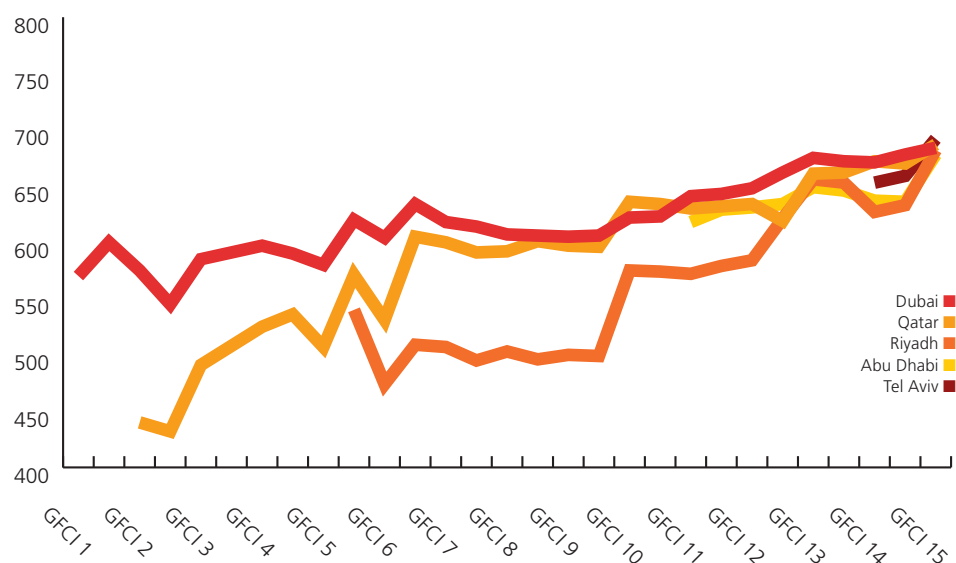
The biggest gains in this competitive region were seen in Riyadh, which gained 55 points and rose 16 places to 31st. Bahrain, gained 50 points and rose 12 places to 40th. Tel Aviv gained 39 points and rose 11 places to 21st, and Johannesburg, gained 55 points and rose 11 places to 50th. Abu Dhabi also made an impressive gain of 41 points and 10 places to 32nd. Although it gained 18 points, Istanbul declined three places to 47th. Casablanca entered the GFCI for the first time in 62nd place.

Table 8 | The Middle Eastern and African Centres in GFCI 15

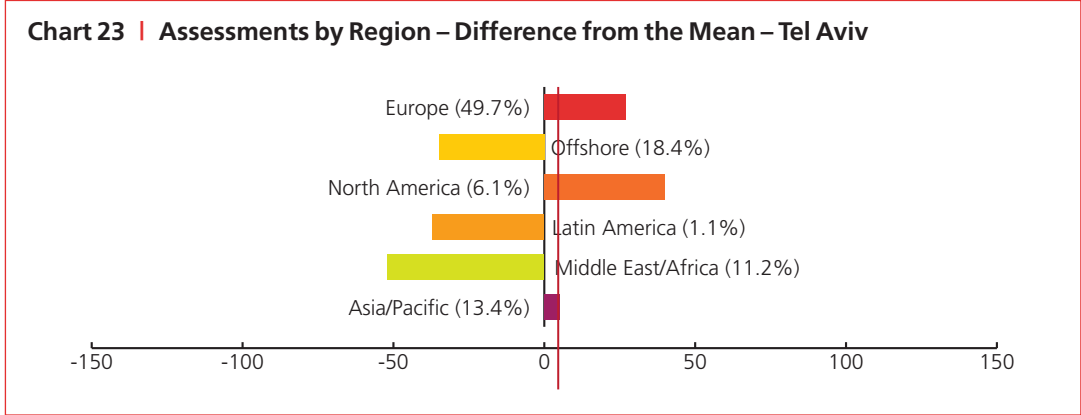
	GFCI 15 rank	GFCI 15 rating	GFCI 14 rank	GFCI 14 rating	Change in rank	Change in rating
Tel Aviv	21	692	32	653	▲ 11	▲ 39
Qatar	26	687	24	672	▼ 2	▲ 15
Dubai	29	684	25	671	▼ 4	▲ 13
Riyadh	31	682	47	627	▲ 16	▲ 55
Abu Dhabi	32	678	42	637	▲ 10	▲ 41
Bahrain	40	660	52	610	▲ 12	▲ 50
Istanbul	47	651	44	633	▼ 3	▲ 18
Johannesburg	50	647	61	592	▲ 11	▲ 55
Casablanca	62	622	New	New	New	New

The chart shows the progress of Tel Aviv, Riyadh and Abu Dhabi. Qatar's performance since GFCI 14 is also notable.

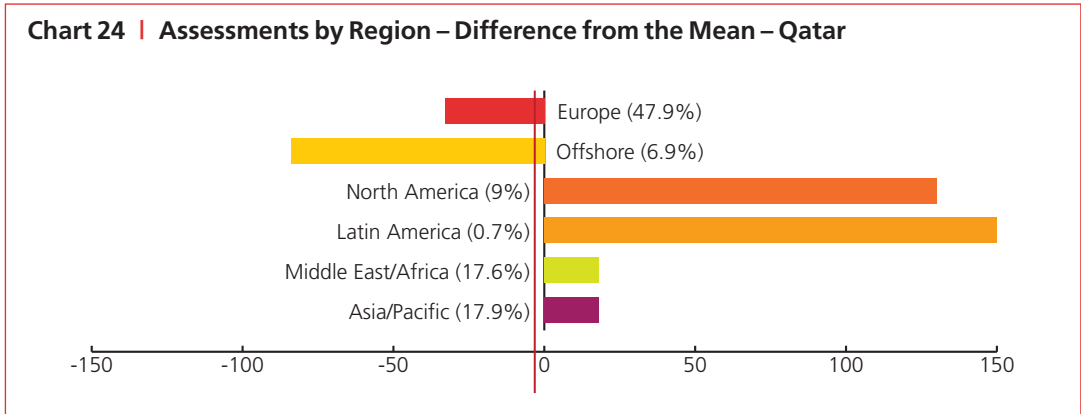
Chart 22 | Selected Middle Eastern & African Centres over GFCI Editions



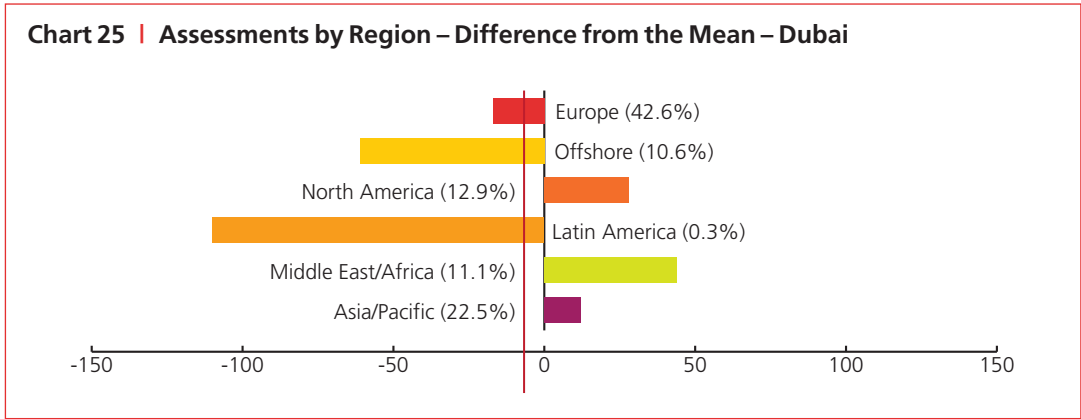
Tel Aviv's global average assessment is 687 (up from 639) and its ex-regional assessment is higher at 693, up from 636. Respondents from Tel Aviv's home region gave the least favourable assessments but these are more than offset from the largest respondent group of Europe.



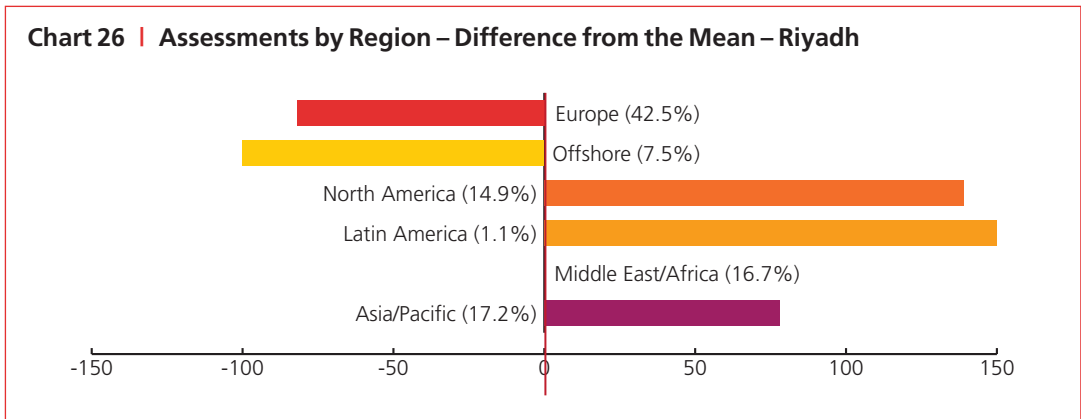
Qatar's average global assessment is 694 and its ex-regional average is 690, slightly up from 690 and 683 respectively in GFCI 14. All regions except Europe and the Offshore centres have given favourable assessments to Qatar with the Americas being significantly more favourable than the Middle East/Africa and Asia/Pacific respondents.



Dubai's overall average assessment is 710 and its ex-regional average is 704, an increase in their respective values from 697 and 690 in GFCI 14. It received favourable assessments from its home region, Asia/Pacific and North America. Europe, the largest respondent group is slightly less favourable than the mean.



Riyadh's average global and ex-regional assessments coincide at 638, significantly higher than their respective values of 618 and 608 in GFCI 14. Riyadh received favourable assessments from Asia/Pacific and the Americas, while respondents from Europe and the Offshore centres were less favourable than the mean.



“I have moved to Doha recently and highly recommend it as a place to do business in the Middle East.”

Investment Banker based in Qatar



Offshore Centres

Most Offshore centres have seen their ratings improve since GFCI 14 but most have experienced a decline in their position relative to other financial centres; several losing more than ten places. Jersey retained its rating from GFCI 14 but was overtaken by 13 other centres and fell from 28th to 41st place. It nonetheless retained the top spot in the Offshore group because Guernsey also lost six places to 42nd while the Cayman Islands lost four places to 43rd. The British Virgin Islands (BVI) entered the Top Five Offshore centres moving up four places. Mauritius saw a rise of 40 points in the ratings and five places to 63rd, and the Bahamas improved by 35 points and two places to 65th.

Table 9 | Offshore Centres in GFCI 15

	GFCI 15 rank	GFCI 15 rating	GFCI 14 rank	GFCI 14 rating	Change in rank	Change in rating
Jersey	41	657	28	657	▼ 13	–
Guernsey	42	656	36	649	▼ 6	▲ 7
Cayman Islands	43	655	39	642	▼ 4	▲ 13
British Virgin Islands (BVI)	44	654	48	626	▲ 4	▲ 28
Isle of Man	51	642	41	638	▼ 10	▲ 4
Gibraltar	53	639	70	572	▲ 17	▲ 67
Hamilton	56	631	40	641	▼ 16	▼ 10
Mauritius	63	621	68	581	▲ 5	▲ 40
Bahamas	65	618	67	583	▲ 2	▲ 35
Malta	67	614	53	608	▼ 14	▲ 6
Cyprus	79	541	74	536	▼ 5	▲ 5

Chart 27 | Selected Offshore Centres over GFCI Editions

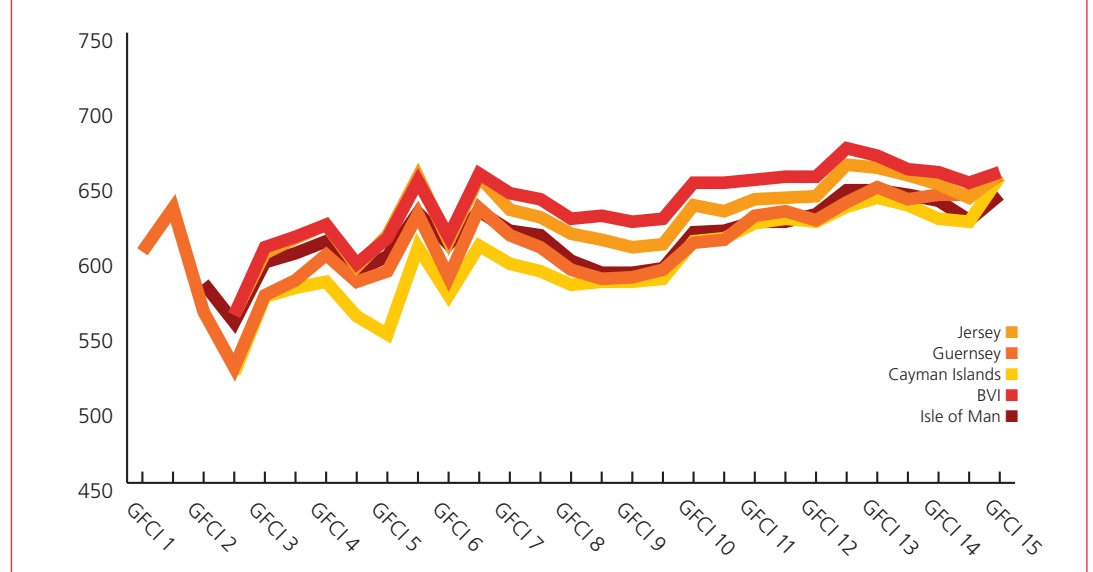
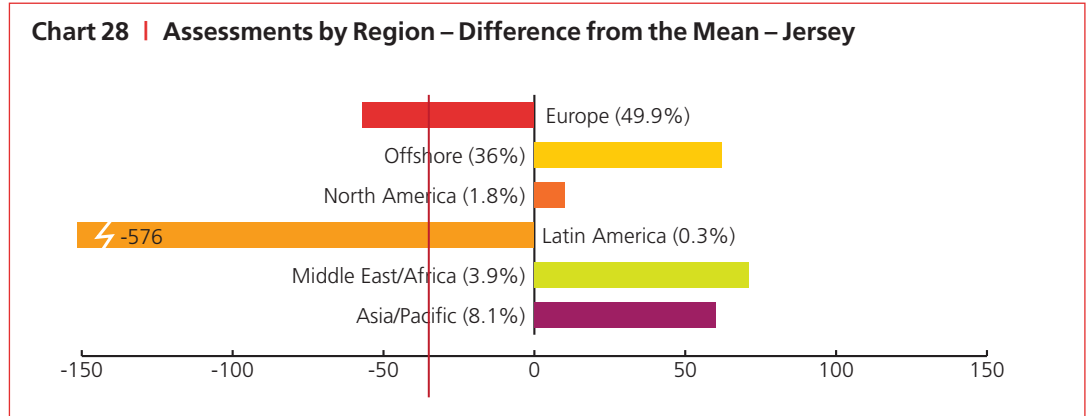
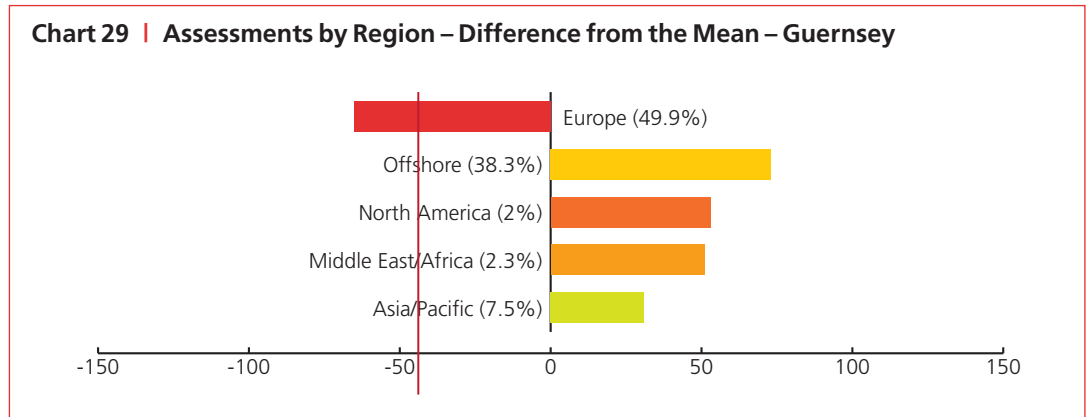


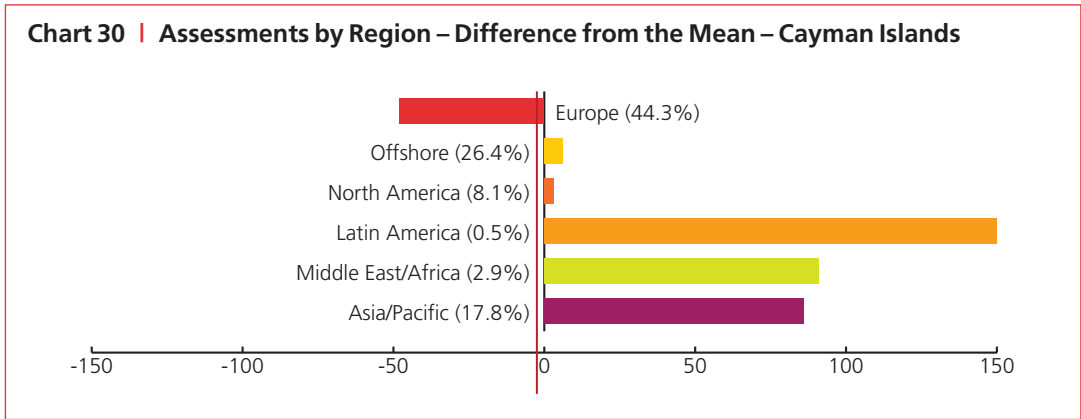
Chart 27 shows BVIs strong rise since GFCI 14. Performance by the other three centres – Jersey, Guernsey and the Cayman Islands – converges in GFCI 15.

The global average assessment for Jersey is 676, slightly up from 670 in GFCI 14; its ex-regional assessment is 641, a strong improvement from 618 previously. Other Offshore centres along with Asia/Pacific, the Middle East/Africa region and North America rate Jersey more favourably than the mean.

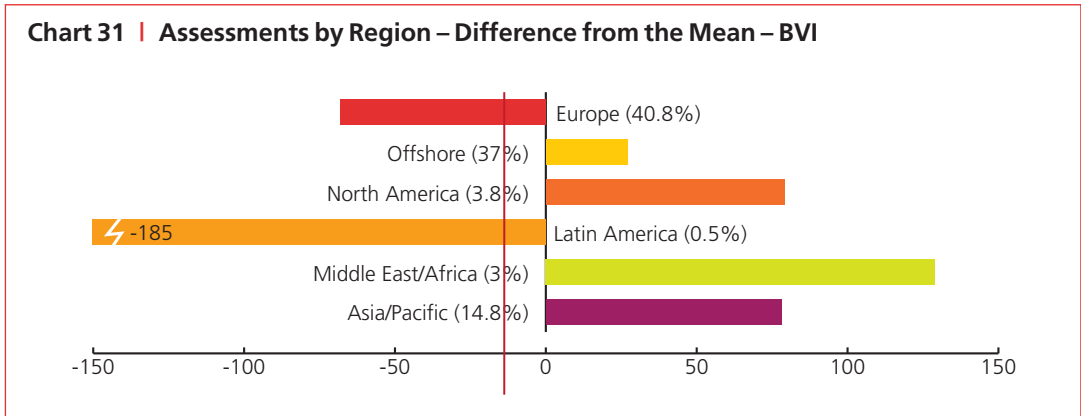


The global average assessment of Guernsey is 661, two points lower than GFCI 14; its ex-regional average is 617 (up from 599). Europe is the only region that assesses Guernsey less favourably than the mean.





The global average assessment for the Cayman Islands is 643 and its ex-regional assessment is 640, both considerably up from GFCI 14. Assessments from other Offshore respondents and from North America were only slightly better than the overall mean.



The global average assessment of the BVI is 635, the same as in GFCI 14; its ex-regional assessment is 620, significantly better than 587 in GFCI 14. The BVI get higher than mean assessments from four regions but European respondents were much less favourable.

“I am hearing much more about the BVI these days – the bad reputation they have had seems to be getting better.”

Asset Manager based in Zurich



Industry Sectors

Industry sector sub-indices are created by building the GFCI statistical model using only the questionnaire responses from respondents working in the relevant industry sectors. The GFCI 15 dataset has been used to produce separate sub-indices for the Investment Management, Banking, Government & Regulatory, Insurance and Professional Services sectors.

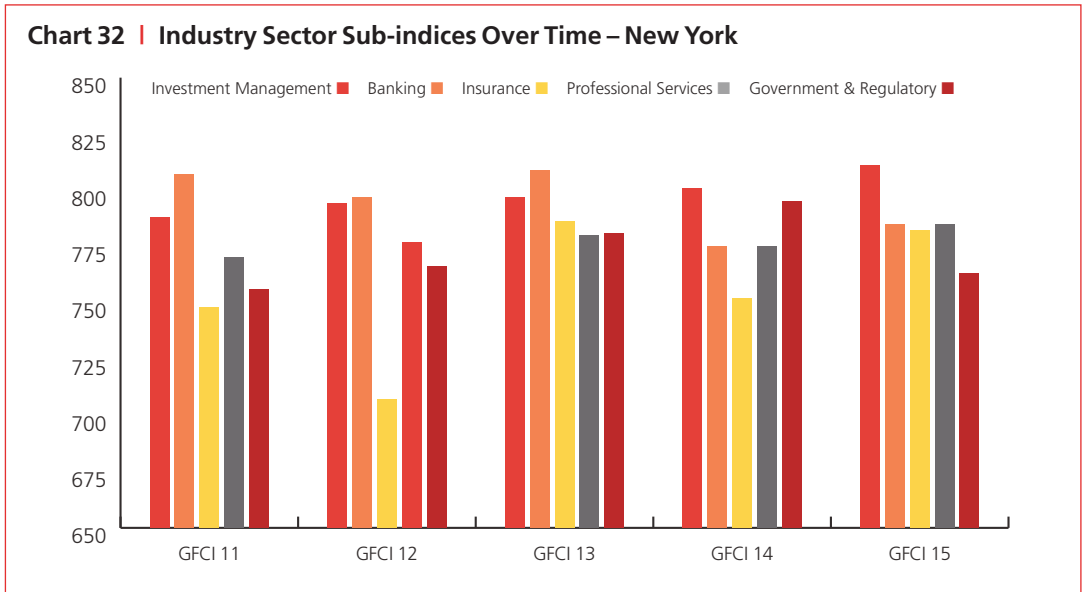
Table 10 below shows the Top Ten ranked financial centres in the industry sector sub-indices:

Table 10 | GFCI 15 Industry Sector Sub-Indices Top 10

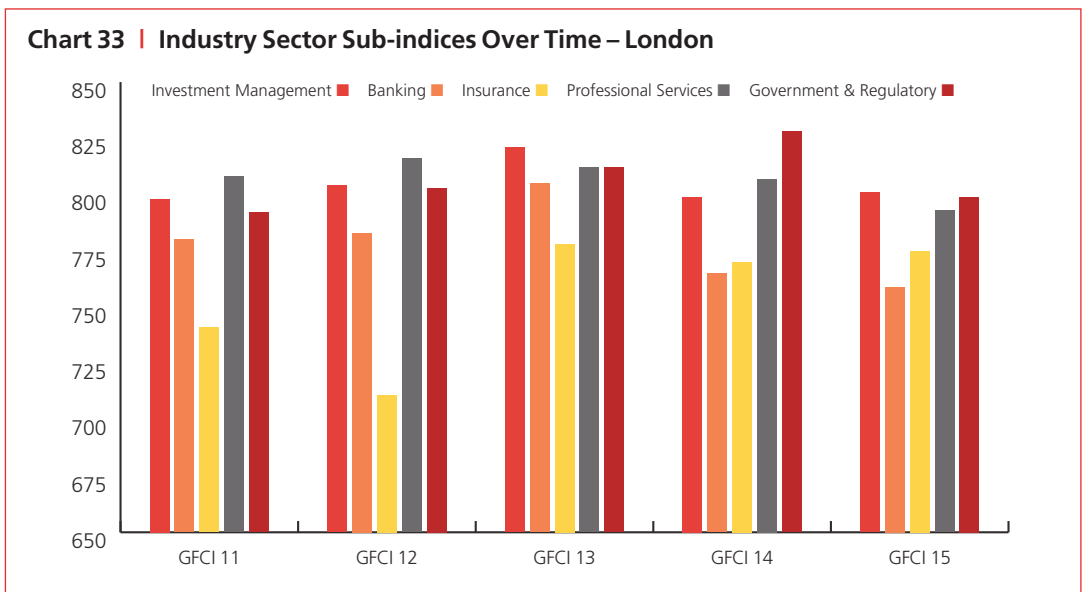
Rank	Investment Management	Banking	Government & regulatory	Insurance	Professional services
1	New York (-)	New York (-)	London (-)	New York (+2)	London (-)
2	London (-)	Hong Kong (-)	New York (-)	London (-1)	New York (-)
3	Hong Kong (+1)	London (-)	Hong Kong (-)	Singapore (-)	Hong Kong (-)
4	Singapore (-1)	Singapore (-)	Zurich (-)	Hong Kong (-2)	Singapore (-)
5	Tokyo (-)	Seoul (-)	Singapore (+1)	Seoul (+23)	Zurich (-)
6	Boston (-)	Zurich (+2)	Geneva (-1)	Zurich (-1)	Tokyo (+3)
7	Zurich (-)	Tokyo (-1)	Tokyo (-)	Chicago (+4)	Geneva (-1)
8	Toronto (-)	Shanghai (+5)	Seoul (+6)	Boston (-2)	Chicago (+6)
9	Geneva (+1)	San Francisco (+1)	Frankfurt (-1)	Geneva (-1)	Toronto (+1)
10	Chicago (+1)	Geneva (-1)	Toronto (-)	Tokyo (+5)	Washington DC (+20)

The GFCI 15 top six centres make it into the Top Ten of all five sector groups. The graphs below show how the GFCI 15 Top Five centres fared in the various industry sectors over the past five GFCI editions:

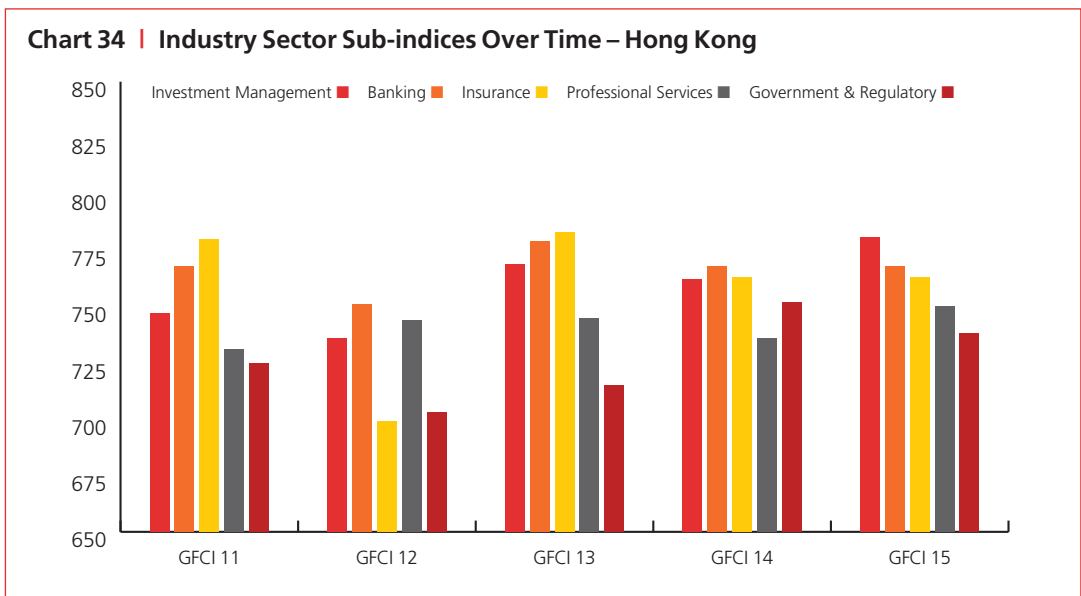




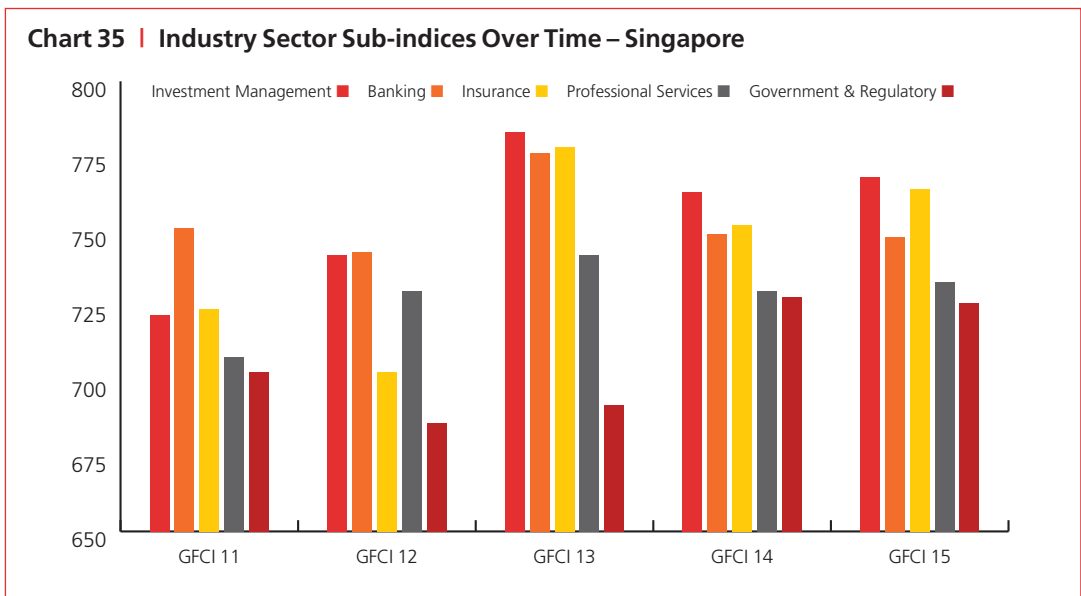
New York’s average ratings have increased in all sectors except Government/Regulatory where it experienced a marked decline since GFCI 14. New York is still in second place in Banking, which has traditionally been the most favourable sector for the city. Performance in Insurance also shows a strong rise since GFCI 14.



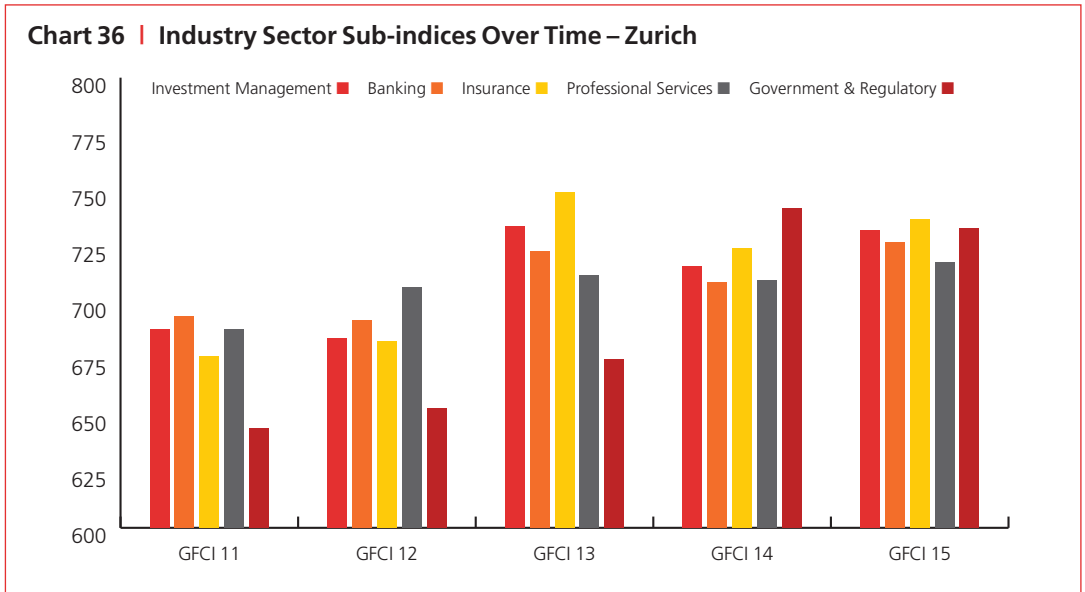
London’s average ratings have decreased across all sectors except Investment Management and Insurance. In GFCI 15 Investment Management becomes the sector most favourable to London, followed closely by government/regulatory and professional services. Banking is the least favourable sector.



Hong Kong saw a rise in ratings from the Investment Management and Professional Services sectors and a decline in ratings from the Government/Regulatory sector. Investment Management becomes the most favourable sector in GFCI 15 followed by Banking and Insurance.



Singapore's ratings have not moved significantly since GFCI 14. There is a small increase in ratings from the Investment Management and Insurance. Banking is still the third most favourable sector but is now some distance behind Insurance.



Zurich’s average ratings have increased since GFCI 14 in all sectors except Government/Regulatory. Investment management comes third by just one point behind Government/Regulatory, followed closely by Banking. Professional Services are the least favourable.

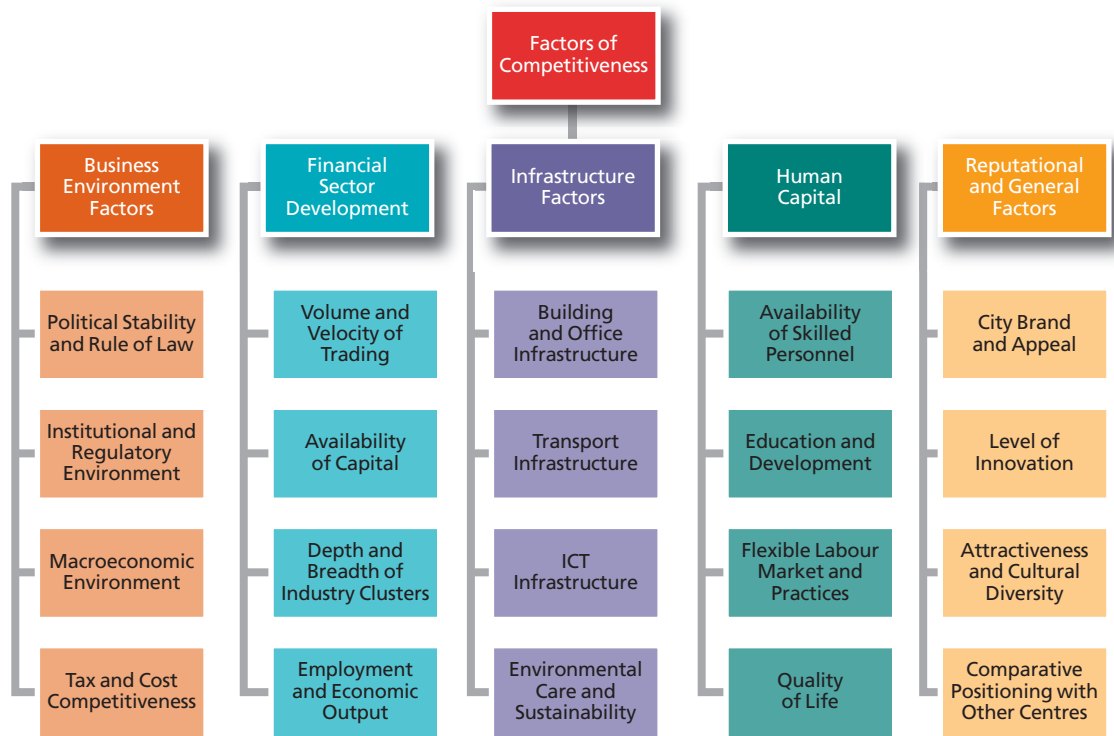
“I’m surprised to see respondents from the Professional Services sector ranking Hong Kong poorly – I only hear good things about it.”

Accountancy Practitioner based in Sydney



Five Areas of Competitiveness

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



The instrumental factors used in the GFCI model are grouped into five key areas of competitiveness (Business Environment, Financial Sector Development, Infrastructure, Human Capital and Reputational and General Factors). To assess how financial centres perform in each of these areas, the GFCI 15 factor assessment model is run with only one of the five groups of instrumental factors at a time.

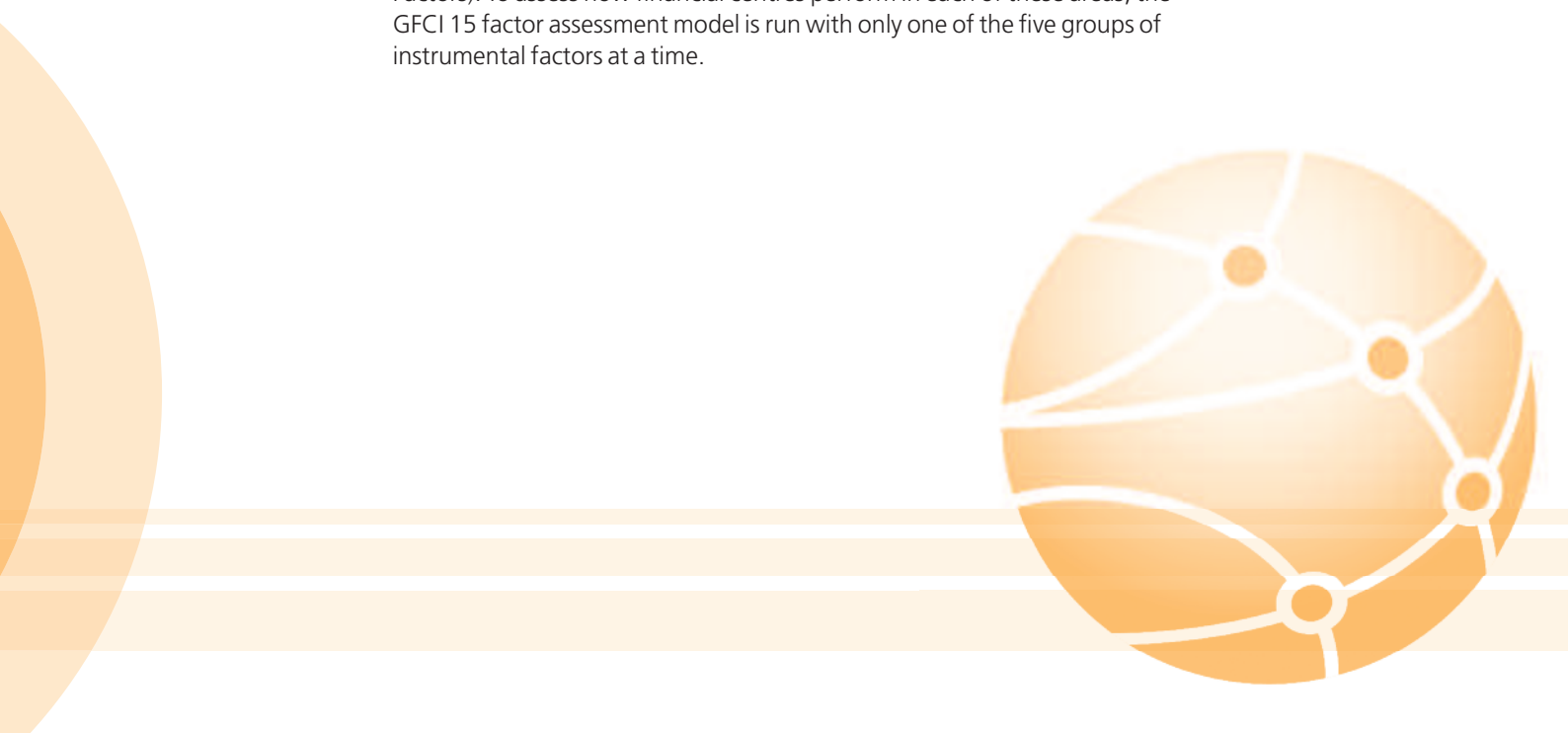


Table 11 shows the top ten ranked centres in each sub-index:

Table 11 | GFCI 15 Area of Competitiveness Sub-Indices – Top 10

Rank	Human Capital	Business Environment	Financial Sector Development	Infrastructure	Reputational and General Factors
1	New York (+1)	New York (+1)	London (-)	New York (+1)	New York (+1)
2	London (-1)	London (-1)	New York (+1)	London (-1)	London (-1)
3	Hong Kong (-)	Hong Kong (-)	Hong Kong (-)	Hong Kong (-)	Hong Kong (-)
4	Singapore (-)	Singapore (-)	Singapore (-)	Singapore (-)	Singapore (-)
5	Zurich (-)	Tokyo (-)	Tokyo (-)	Tokyo (-)	Tokyo (-)
6	Tokyo (-)	Boston (+1)	Zurich (-)	Zurich (-)	Zurich (+1)
7	Geneva (+1)	Zurich (-1)	Boston (-)	Chicago (+2)	Boston (-1)
8	Boston (-)	Chicago (+2)	Geneva (+1)	Seoul (+4)	San Francisco (+4)
9	Seoul (+5)	Washington DC (+3)	Seoul (+7)	Boston (-2)	Geneva (-1)
10	San Francisco (-)	San Francisco (-1)	Washington DC (-1)	Washington DC (+4)	Toronto (-1)

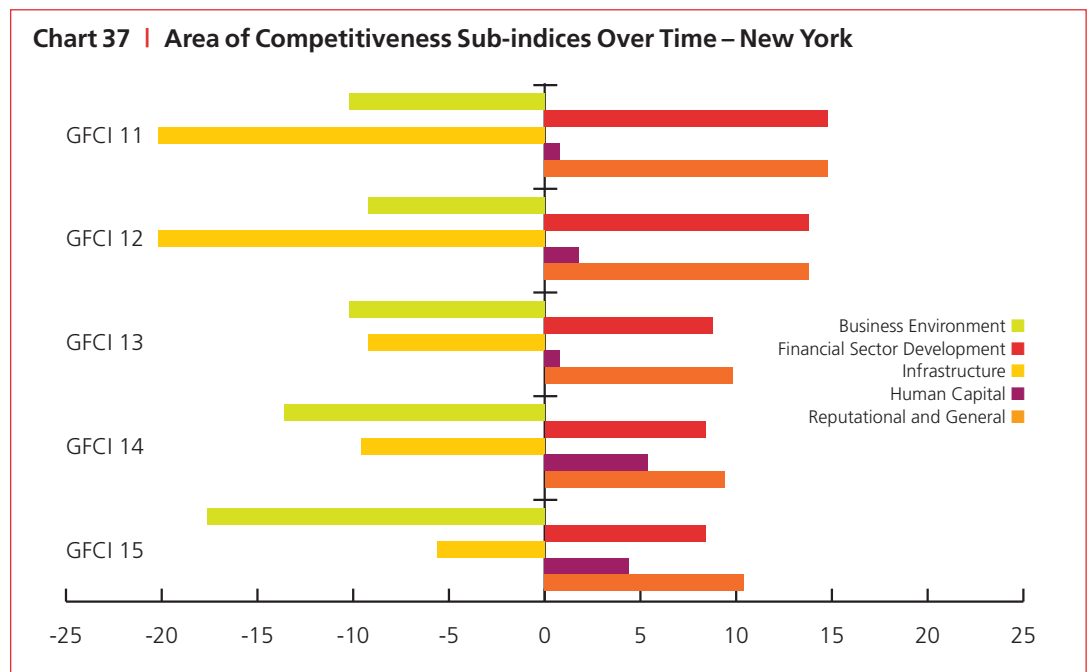
The top four GFCI centres remain in virtually the same positions across all five areas of competitiveness – New York is first, London is second, Hong Kong third and Singapore fourth; Infrastructure is the only exception where London is top.

- New York gains one place across all areas of competitiveness and comes first everywhere except in Infrastructure where it remains second;
- London has lost one place and becomes second across all sectors except Infrastructure, where it remains top;
- Hong Kong and Singapore retain their positions in third and fourth respectively;
- Tokyo, which is sixth in GFCI 15, has also held its rankings since GFCI 14 and is fifth in all areas except business environment where it is sixth;
- Zurich, which overtook Tokyo and returned to the fifth place in GFCI 15, takes sixth place behind Tokyo in Infrastructure, Human Capital and Reputational and General factors; it is seventh behind both Tokyo and Boston in Financial Sector Development.
- Boston climbs one place to sixth in Financial Centre Development, holds the seventh place in Infrastructure, falls by one place to seventh in Reputational and General factors, holds the eighth place in Business Environment and falls two places to ninth in Human Capital;
- Seoul shows some impressive gains: it climbs seven places to enter the Infrastructure top ten (ninth), four places in Human Capital to eighth, and five places in Business Environment to ninth.

In GFCI 15 we have furthered our analysis of the top five financial centres’ performance in the five areas of competitiveness. The instrumental factors vary widely in terms of measurements, scales and whether they are a positive or a negative influence on a financial centre’s competitiveness. In order to analyse the overall performance of a centre in instrumental factors we examine their relative rankings. As an approximate guide to how a centre performs in each instrumental factor group we have taken a simple mean of its ranking in that group and then compared it to its overall average.

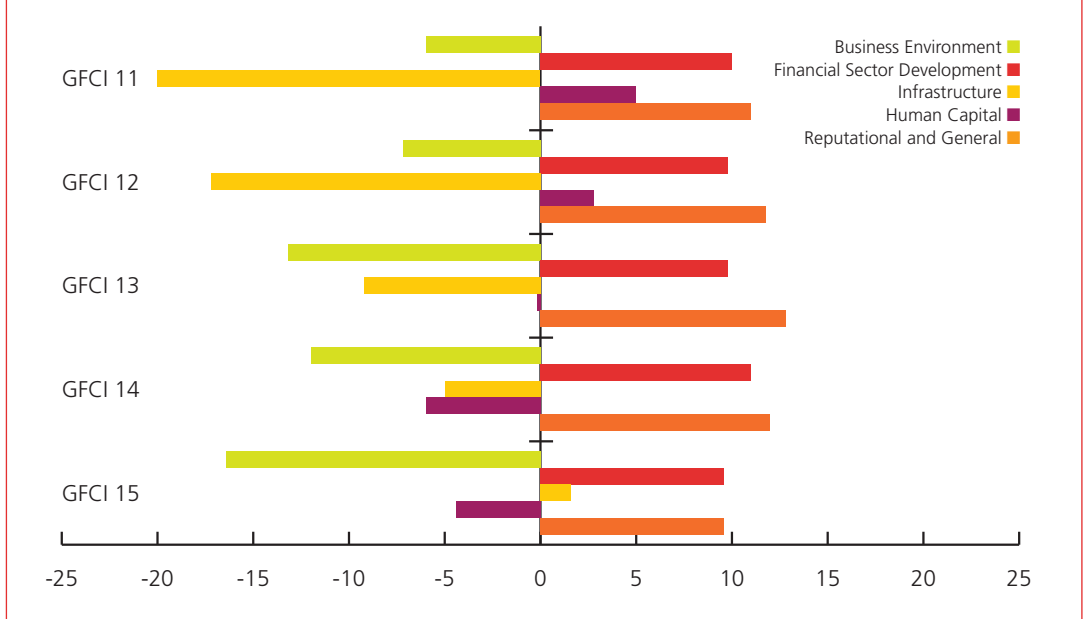
The graphs below show how the top five GFCI centres’ average ranking in each instrumental factor group differs from their average ranking in all five groups. We review the past five GFCI editions:

New York’s performance in three areas of competitiveness seems to be converging to the mean over the past five editions of the GFCI. Business Environment is an exception in that it seems to be diverging from the mean and becoming more negative. New York performs better in Financial Sector Development, Reputational and General factors, and in Human Capital.



In London, Business Environment and Infrastructure are underperforming the other three areas. Business Environment has been steadily deteriorating. London’s Financial Sector Development and its Reputational and General factors are firmly above average and have not seen much change over the past five editions. Human Capital on the other hand has passed from greater than the mean in GFCI 11 into negative territory since GFCI 13.

Chart 38 | Area of Competitiveness Sub-indices Over Time – London

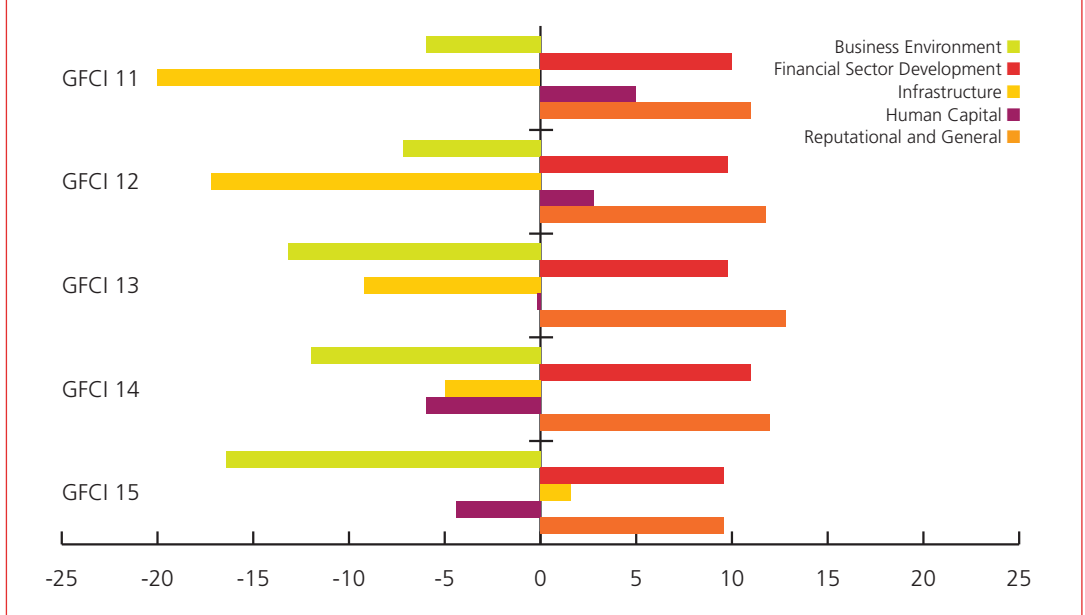


Hong Kong's performance in the five areas exhibits a greater divergence from the mean than New York and London. Hong Kong performs better in Business Environment, Reputational and General factors and Financial Centre Development. It performs less well in Infrastructure and Human Capital. Business Environment performance has declined since GFCI 11 when it was clearly the best performing area.

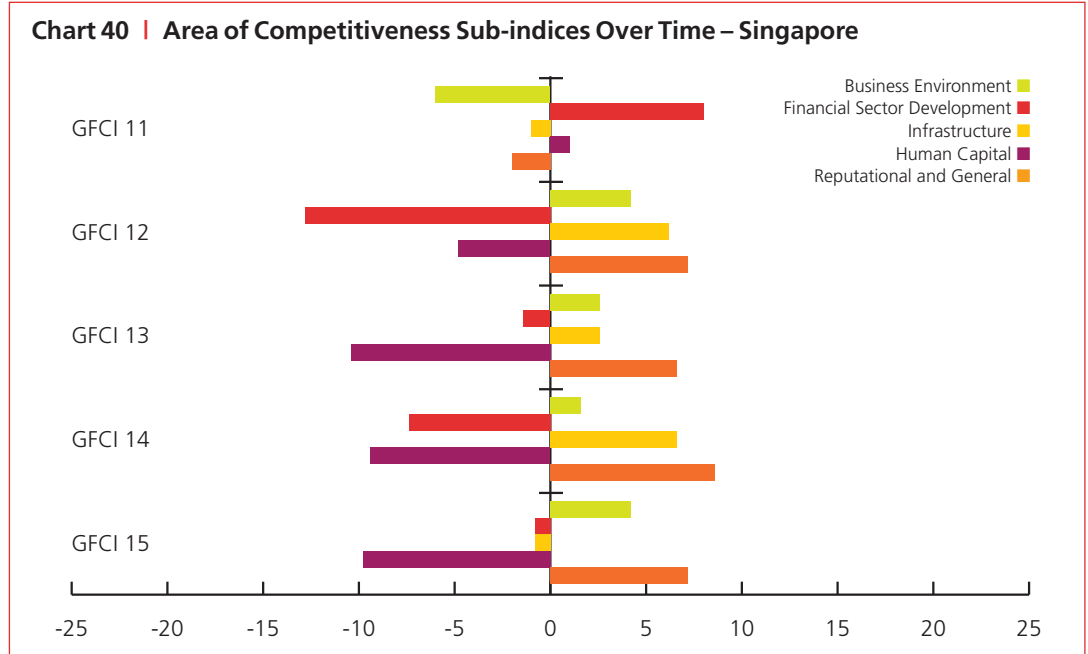
“Hong Kong and Singapore are growing in importance as financial centres – but we are finding it harder to get really good people there these days.”

Consultant based in London

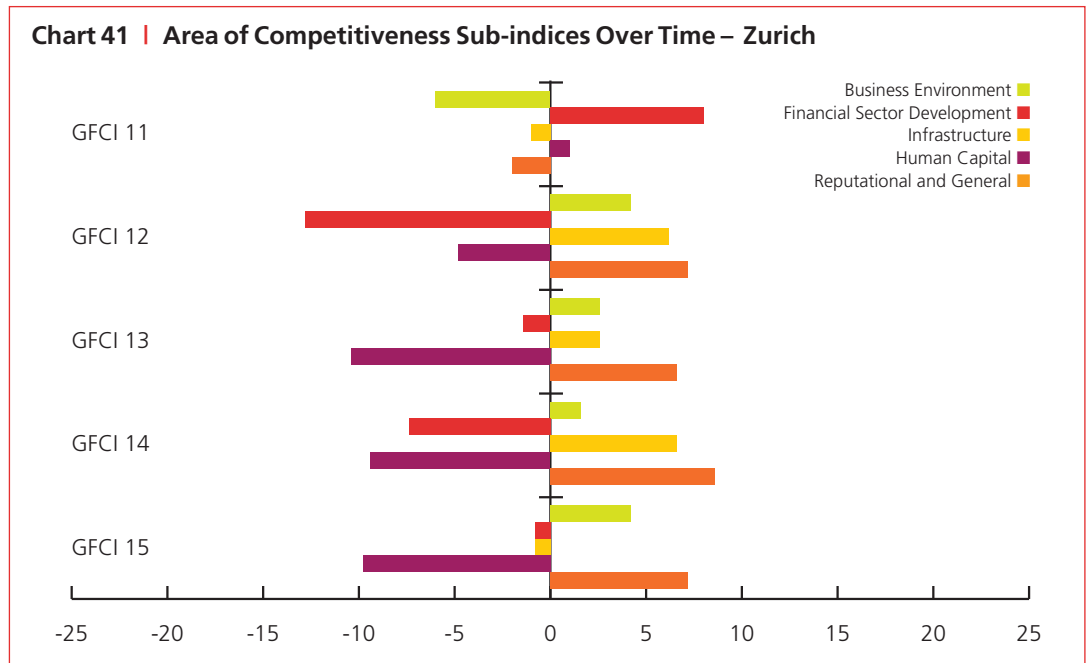
Chart 39 | Area of Competitiveness Sub-indices Over Time – Hong Kong



Singapore exhibits a relatively balanced performance, close to the mean in all five areas. Human Capital has declined over the past four editions of the GFCI. Reputational and General factors are now better than average. The remaining three groups are close to the mean.



Zurich has experienced a noteworthy convergence to the mean to three of the five areas of competitiveness. While Business Environment and Human Capital were performing much better than the mean in earlier editions, Financial Sector Development was performing much worse. All three areas are now much closer to the mean.



Size of Organisation

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

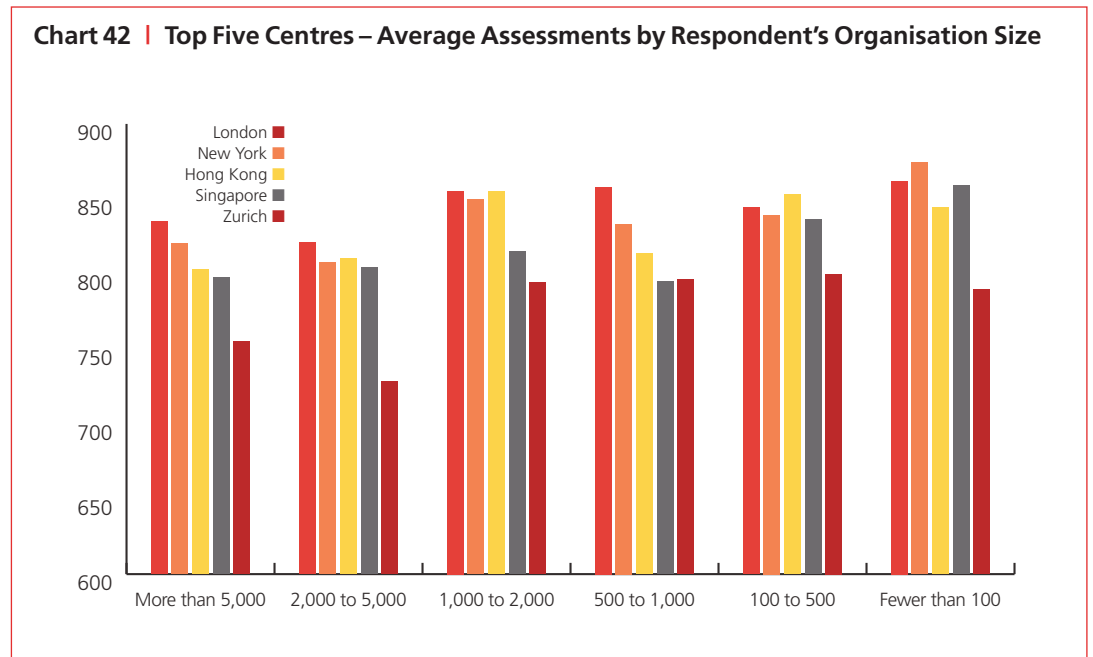


Chart 42 shows that the largest organisations have a preference to London and New York. Hong Kong is favoured by medium enterprises. Singapore, New York and London also score highly among smaller organisations.

“Singapore has become a fantastic base for smaller firms.”

Director of small M&A law firm based in Hong Kong

Reputation

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

If a centre has a higher average assessment than its GFCI 15 rating this indicates that respondents' perceptions of a centre are more favourable than the quantitative measures alone would suggest. This may be due to strong marketing or general awareness. Table 12 below shows the 10 centres with the greatest positive difference between average assessment and the GFCI rating:

Table 12 | GFCI 15 Top 10 Centres Assessments and Ratings – Reputational Advantage

	Average assessment	GFCI 14 rating	Reputational advantage
Seoul	790	718	72
Singapore	818	751	67
Hong Kong	819	761	58
New York	840	786	54
Tokyo	775	722	53
Sydney	743	690	53
San Francisco	763	711	52
Washington DC	756	706	50
Boston	761	715	46
Wellington	712	666	46

“London’s reputation as a financial centre has been gravely damaged over the past two years.”

Investment Banker based in Frankfurt

Of the top four financial centres in the GFCI, only London is outside the top ten for reputational advantage. The top three centres for reputational advantage in GFCI 15 are all Asia/Pacific centres (Seoul, Singapore and Hong Kong). Next is New York, which overtook Boston and Tokyo to become fourth in the ranking and first among American centres. No European centres are in the Top Ten.

Table 13 below shows the ten centres with the greatest reputational disadvantage – an indication that respondents’ perceptions of a centre are less favourable than the quantitative measures alone would suggest.

Gibraltar’s reputational score has decreased significantly in GFCI 15 and it is now the centre with the highest reputational disadvantage. Reykjavik, Moscow and St. Petersburg also suffer from strong reputational disadvantages.

Table 13 | GFCI 15 Bottom 10 Centres Assessments and Ratings – Reputational Advantage

	Average assessment	GFCI 14 rating	Reputational advantage
Cyprus	500	541	-41
Budapest	515	560	-45
Mauritius	575	621	-46
Riyadh	632	682	-50
Tallinn	455	510	-55
Stockholm	618	683	-65
St Petersburg	475	543	-68
Moscow	522	591	-69
Reykjavik	423	505	-82
Gibraltar	553	639	-86

“Despite making efforts to create a financial centre, Russia still seems to be corrupt as ever – I can’t imagine it becoming a leading financial centre just yet.”

Investment Banker based in London



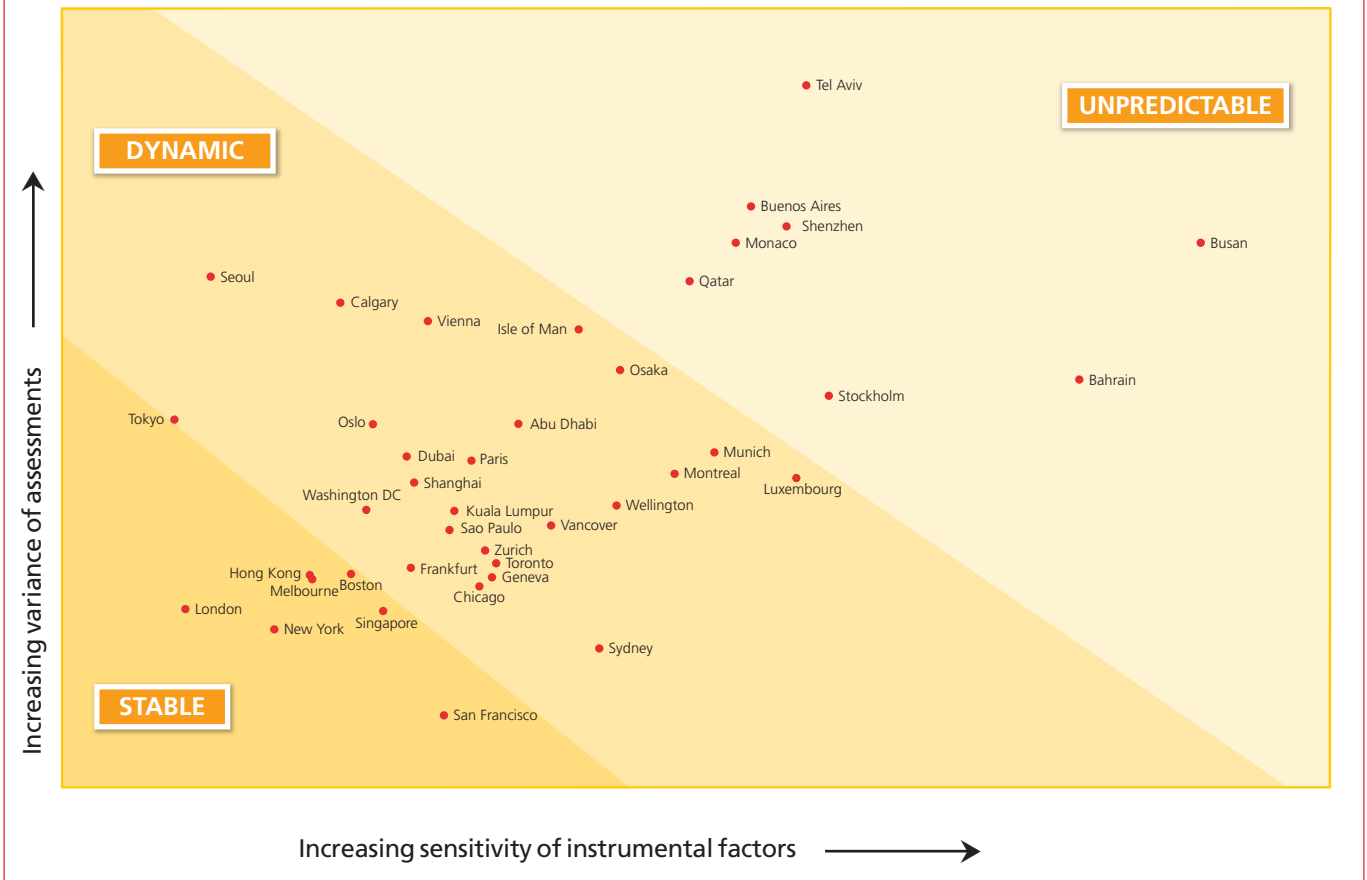
Stability

The GFCI 15 model allows for analysis of the financial centres with the most volatile competitiveness. Chart 43 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 43 shows three bands of financial centres. The ‘unpredictable’ centres in the top right of the chart have a high sensitivity to changes in the instrumental factors and a high variance of assessments. These centres have the highest potential volatility of the top GFCI centres.

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

Chart 43 | GFCI 15 – The Stability of the Top 40 Centres



Appendix 1: Assessment Details

Table 14 | Assessment Details

Centre	GFCI 15	Number of assessments	Total Average assessment	Standard deviation of assessments
New York	786	1,082	839	1.75
London	784	1,294	836	1.79
Hong Kong	761	930	820	1.79
Singapore	751	805	821	1.75
Zurich	730	690	758	1.91
Tokyo	722	544	776	2.15
Seoul	718	449	801	2.38
Boston	715	518	783	1.86
Geneva	713	662	739	1.86
San Francisco	711	239	749	1.56
Frankfurt	709	703	725	1.88
Luxembourg	707	746	788	2.04
Washington DC	706	268	734	1.98
Toronto	705	337	746	1.89
Chicago	704	362	737	1.84
Montreal	699	209	697	2.05
Vancouver	698	214	717	1.96
Shenzhen	697	177	689	2.46
Vienna	696	265	704	2.31
Shanghai	695	399	709	2.04
Tel Aviv	692	114	608	2.66
Calgary	691	154	694	2.34
Sydney	690	257	733	1.71
Monaco	689	360	681	2.43
Buenos Aires	688	142	650	2.48
Qatar	687	230	680	2.38
Busan	686	234	863	2.43
Munich	685	256	660	2.09
Dubai	684	619	705	2.09
Stockholm	683	146	606	2.19
Riyadh	682	153	610	2.83
Abu Dhabi	678	333	637	2.14
Oslo	677	163	670	2.14
Osaka	676	130	666	2.23
Kuala Lumpur	675	236	697	1.98
Paris	672	746	677	2.08
Melbourne	670	124	673	1.86
Sao Paulo	667	139	660	1.95
Wellington	666	40	663	1.99
Bahrain	660	201	601	2.21
Jersey	657	353	666	2.19
Guernsey	656	327	647	2.18
Cayman Islands	655	368	624	2.24
British Virgin Islands	654	347	621	2.41
Rio de Janeiro	653	124	659	2.10
Amsterdam	652	465	634	2.09
Istanbul	651	163	631	2.16
Milan	650	326	639	2.01
Beijing	649	448	571	2.47
Johannesburg	647	133	608	2.01
Isle of Man	642	284	604	2.42
Bangkok	640	170	562	2.06
Gibraltar	639	260	657	2.80
Rome	637	283	641	2.38
Taipei	636	110	619	1.97
Hamilton	631	196	607	2.26
Brussels	630	493	597	2.10
Almaty	629	208	848	2.13
Panama	628	133	555	2.52
Warsaw	626	119	525	2.60
Copenhagen	623	195	578	2.16
Casablanca	622	116	759	1.97
Mauritius	621	168	529	2.53
Edinburgh	620	302	581	2.22
Bahamas	618	219	576	2.34
Dublin	616	495	648	2.10
Malta	614	284	580	2.24
Manila	610	77	562	2.38
Jakarta	606	129	588	2.55
Mexico City	605	83	531	2.45
Madrid	604	359	605	2.12
Helsinki	592	141	565	2.40
Moscow	591	350	522	2.18
Glasgow	590	165	535	2.49
Prague	589	152	503	2.48
Mumbai	584	175	550	2.36
Budapest	560	150	418	2.55
St Petersburg	543	99	452	2.62
Cyprus	541	276	484	2.47
Lisbon	536	158	492	2.33
Tallinn	510	68	451	2.69
Reykjavik	505	69	378	2.78
Athens	423	231	357	2.34

Appendix 2: Respondents' Details

Table 15 | Respondents by Industry Sector

Sector	Respondents
Banking	603
Investment Management	307
Trading	113
Insurance	142
Government & Regulatory	101
Professional Services	359
Industry Finance	86
Other	220
Grand Total	1,931

Table 16 | Respondents by Size of Organisation

Number of staff	Responses
Fewer than 100	533
100 to 500	254
500 to 1,000	130
1,000 to 2,000	127
2,000 to 5,000	250
More than 5,000	637
Grand Total	1,931

Table 17 | Respondents by Location

Regions	Responses
Europe	830
Middle East/Africa	123
Asia/Pacific	529
North America	202
Latin America	18
Offshore	189
Other	40
Grand Total	1,931



Appendix 3: Methodology

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

- Instrumental factors:** objective evidence of competitiveness was sought from a wide variety of comparable sources. For example, evidence about the telecommunications infrastructure competitiveness of a financial centre is drawn from a global digital economy ranking (supplied by the Economist Intelligence Unit), a telecommunication infrastructure index (by the United Nations) and an IT industry competitiveness survey (by the World Economic Forum). Evidence about a business-friendly regulatory environment is drawn from an ease of doing business index (supplied by the World Bank) and an institutional environment rating (from the EIU) amongst others. A total of 103 instrumental factors are used in GFCI 15. Not all financial centres are represented in all the external sources, and the statistical model takes account of these gaps.
- Financial centre assessments:** by means of an online questionnaire, running continuously since 2007, we use 25,749 31,116 financial centre assessments drawn from 2,786 1,931 respondents in GFCI 15.

The 103 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 below.

Financial centres are added to the GFCI questionnaire when they receive five or more mentions in the online questionnaire in response to the question: "Are there any financial centres that might become significantly more important over the next 2 to 3 years?" A centre is only given a GFCI rating and ranking if it receives more than 200 assessments from other centres in the online survey.

Table 18 | Competitiveness Factors and their Relative Importance

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

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

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

- indices are entered into the GFCI model as directly as possible, whether this is a rank, a derived score, a value, a distribution around a mean or a distribution around a benchmark;
- if a factor is at a national level, the score will be used for all centres in that country; nation-based factors will be avoided if financial centre (city)-based factors are available;
- if an index has multiple values for a city or nation, the most relevant value is used (and the method for judging relevance is noted);
- if an index is at a regional level, the most relevant allocation of scores to each centre is made (and the method for judging relevance is noted);
- if an index does not contain a value for a particular city, a blank is entered against that centre (no average or mean is used).

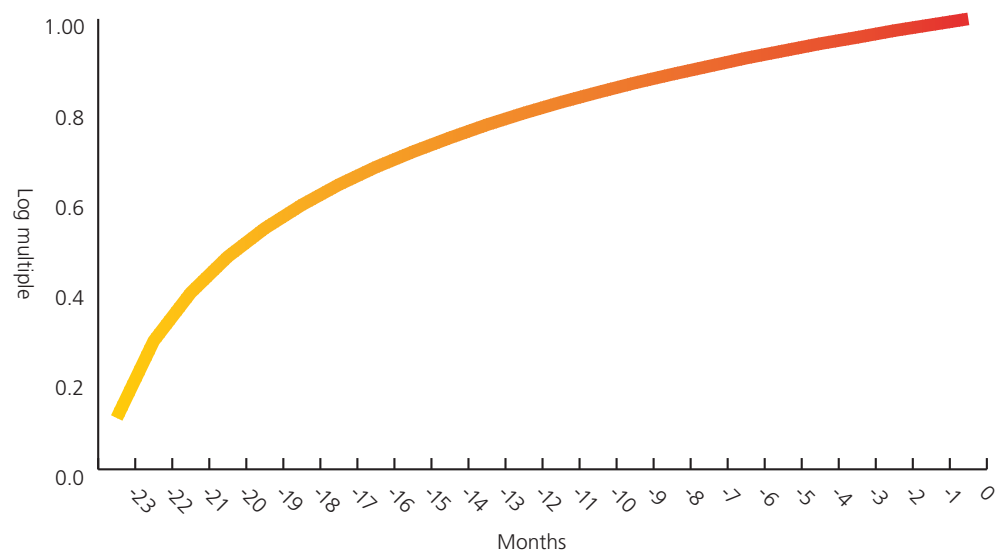
Creating the GFCI does not involve totaling or averaging scores across instrumental factors. An approach involving totaling and averaging would involve a number of difficulties:

- 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;

Chart 44 | Log Scale for Time Weightings



- financial centre assessments will be included in the GFCI model for 24 months after they have been received;
- respondents rating fewer than 3 or more than half of the centres are excluded from the model;
- respondents who do not say where they work are excluded;
- financial centre assessments from the month when the GFCI is created are given full weighting and earlier responses are given a reduced weighting on a log scale.

The financial centre assessments and instrumental factors are used to build a predictive model of centre competitiveness using a support vector machine (SVM). SVMs are based upon statistical techniques that classify and model complex historic data in order to make predictions of new data. SVMs work well on discrete, categorical data but also handle continuous numerical or time series data. The SVM used for the GFCI provides information about the confidence with which each specific classification is made and the likelihood of other possible classifications.

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

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

Or

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

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



The process of creating the GFCI is outlined diagrammatically below.

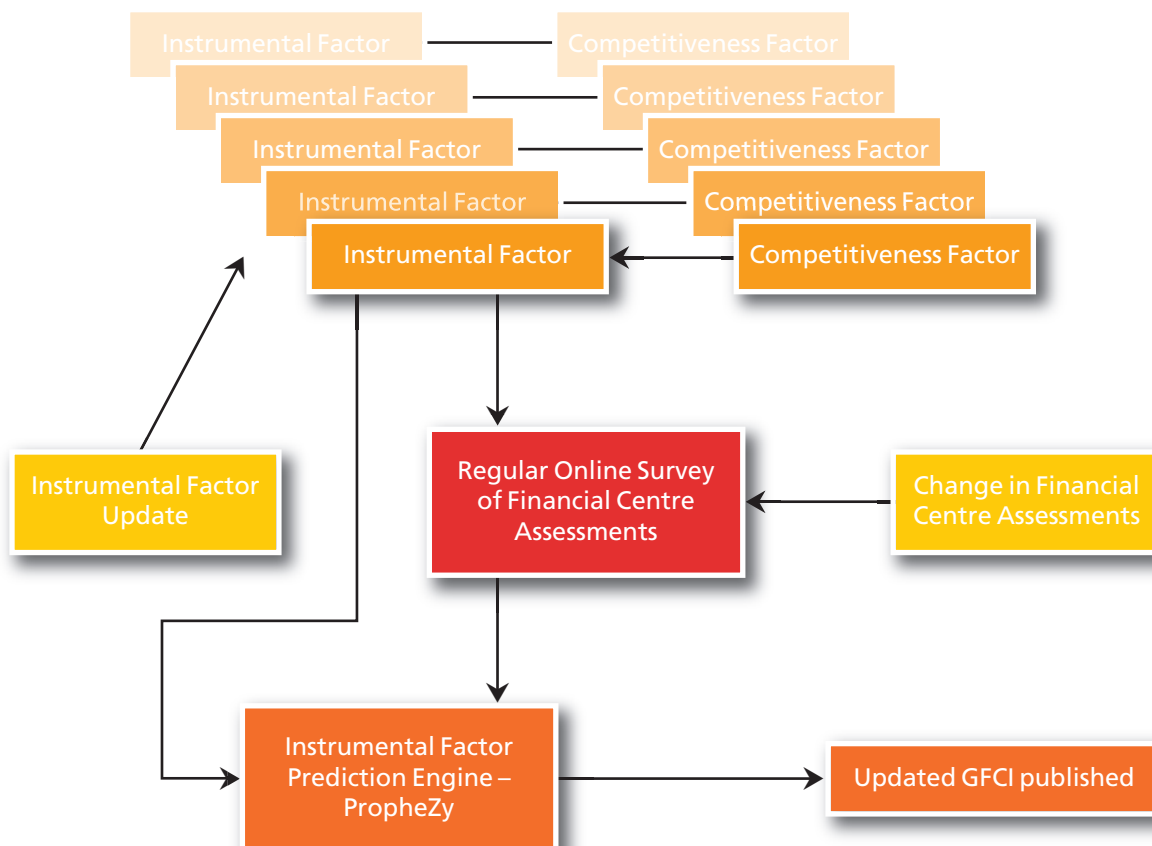
It is worth drawing attention to a few consequences of basing the GFCI on instrumental factors and questionnaire responses.

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

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

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

Chart 45 | The GFCI Process



Appendix 4: Instrumental Factors

Table 19 shows how closely instrumental factor rankings correlate with the GFCI 15 rankings for the top 25 instrumental factors:

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

A full list of the instrumental factors used in the GFCI 15 model are shown below:

Table 19 | Top 25 Instrumental Factors by Correlation with GFCI 15

Instrumental Factors	R-Sq
Global Power City Index	0.4362
City Global Image	0.3957
World Competitiveness Scoreboard	0.3669
Banking Industry Country Risk Assessments	0.3650
Office Occupancy Costs	0.3331
Global Cities Index	0.3074
Global Competitiveness Index	0.2944
Financial Secrecy Index	0.2843
Global City Competitiveness	0.2769
Citizens Domestic Purchasing Power	0.2342
Price Levels	0.2256
Liner Shipping Connectivity Index	0.2203
Value of Share Trading	0.1996
Top Tourism Destinations	0.1996
Business Environment	0.1989
Wage Comparison Index	0.1883
Number of Greenfield Investments	0.1835
Political Risk	0.1793
Personal Safety	0.1784
IT Industry Competitiveness	0.1718
Quality of Roads	0.1702
Infrastructure	0.1649
Citywide CO2 Emissions	0.1646
Innovation Cities Global Index	0.1608
Capital Access Index	0.1603



Table 20 | Business Environment Related Instrumental Factors

Instrumental factor	Source	Website	Updated since GFCI 14
Business Environment	EIU	www.economist.com/markets/rankings	✓
Ease of Doing Business Index	The World Bank	www.doingbusiness.org/economyrankings	✓
Operational Risk Rating	EIU	www.viewswire.com/index.asp?layout=homePubTypeRK	✓
Real Interest Rate	World Bank	data.worldbank.org/indicator/FR.INR.RINR	✓
Projected City Economic Growth	McKinsey Global Institute	www.foreignpolicy.com/articles/2012/08/13	
Global Services Location Index	AT Kearney	www.atkearney.com	
Corruption Perceptions Index	Transparency International	www.transparency.org/publications	✓
Wage Comparison Index	UBS	www.ubs.com	
Corporate Tax Rates	Price Waterhouse Coopers	n/a	✓
Employee Effective Tax Rates	Price Waterhouse Coopers	n/a	
Personal Tax Rates	OECD	www.oecd.org	✓
Total Tax Receipts (as % of GDP)	The World Bank	data.worldbank.org/indicator/GC.TAX.TOTL.GD.ZS	✓
Bilateral Tax Information Exchange Agreements	OECD	www.oecd.org	✓
Economic Freedom of the World	Fraser Institute	www.freetheworld.com/release.html	✓
Banking Industry Country Risk Assessments	Standard & Poor's	www2.standardandpoors.com	
Government Debt as Percentage of GDP	CIA World Fact Book	www.cia.gov/library/publications/the-world-factbook/rankorder/2186rank.html	
Political Risk Index	Exclusive Analysis Ltd	www.exclusive-analysis.com/	
Global Peace Index	Institute for Economics and Peace	www.visionofhumanity.org/info-center/global-peace-index-2011/	✓
Financial Secrecy Index	Tax Justice Network	www.financialsecrecyindex.com/	✓
Institutional Effectiveness	EIU	www.managementthinking.eiu.com/	
City GDP Figures	Brookings Institute	www.brookings.edu/~media/research/	
Number of Greenfield Investments	KPMG	www.kpmg.com/FR/fr/IssuesAndInsights/News/Documents/GPIA-KPMG-CIM-2012.pdf	
Open Government	The World Justice Project	worldjusticeproject.org/sites/default/files/WJP_Index_Report_2012.pdf	
Regulatory Enforcement	The World Justice Project	worldjusticeproject.org/sites/default/files/WJP_Index_Report_2012.pdf	

Table 21 | Financial Sector Development Related Instrumental Factors

Instrumental factor	Source	Website	Updated since GFCI 14
Capital Access Index	Milken Institute	www.milkeninstitute.org/research	
Securitisation	International Financial Services London (IFSL)	www.ifsl.org.uk	
Capitalisation of Stock Exchanges	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Value of Share Trading	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Volume of Share Trading	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Broad Stock Index Levels	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Value of Bond Trading	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Volume of Stock Options Trading	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Volume of Stock Futures Trading	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Domestic Credit Provided by Banks (% GDP)	World Bank	data.worldbank.org/indicator/FS.AST.DOMS.GD.ZS	✓
Percentage of Firms Using Bank Credit to Finance Investment	World Bank	data.worldbank.org/indicator/IC.FRM.BNKS.ZS	
Total Net Assets of Mutual Funds	Investment Company Institute	www.icifactbook.org/	
Islamic Finance	IFSL	www.thecityuk.com/what-we-do/the-research-centre/reports.aspx	✓
Net External Position of Banks	Bank for International Settlements	www.bis.org/statistics/bankstats.htm	✓
External Position of Central Banks (as % GDP)	Bank for International Settlements	www.bis.org/statistics/bankstats.htm	✓
Liner Shipping Connectivity	The World Bank	data.worldbank.org/indicator/IS.SHP.GCNW.XQ	✓
Commodity Options Notional Turnover	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Commodity Futures Notional Turnover	World Federation of Stock Exchanges	www.world-exchanges.org	✓
Global Connectedness Index	DHL	www.dhl.com/en/about_us/logistics_insights/global_connectedness_index_2012/gci_results.html	
City GDP Composition (Business/Finance)	Brookings Institution	www.brookings.edu/research/interactives/global-metro-monitor-3	

Table 22 | Infrastructure Related Instrumental Factors

Instrumental factor	Source	Website	Updated since GFCI 14
Office Occupancy Costs	DTZ	www.dtz.com/Global/Research/	
Office Space Across the World	Cushman & Wakefield	www.cushwake.com/cwglobal	
Global Property Index	Investment Property Databank	www.ipd.com/	
Real Estate Transparency Index	Jones Lang LaSalle	www.joneslanglasalle.co.uk	
Digital Economy Ranking	EIU	www.economist.com/markets/rankings	
Telecommunication Infrastructure Index	United Nations	www.unpan.org/egovkb/global_reports/08report.htm	
Quality of Ground Transport Network	World Economic Forum	www.weforum.org/en/initiatives/gcp/TravelandTourismReport	✓
Quality of Roads	World Economic Forum	www.weforum.org/en/initiatives/gcp/TravelandTourismReport	✓
Roadways per Land Area	CIA World Fact Book	www.cia.gov/library/publications/the-world-factbook/rankorder/2085rank.html	✓
Railways per Land Area	CIA World Fact Book	www.cia.gov/library/publications/the-world-factbook/rankorder/2121rank.html	✓
Physical Capital	EIU	www.managementthinking.eiu.com/	
Connectivity	EIU	pages.eiu.com/rs/eiu2/images/EIU_BestCities.pdf	
IT Industry Competitiveness	BSA/EIU	globalindex11.bsa.org/country-table/	
Energy Sustainability Index	World Energy Council	www.worldenergy.org/publications/3962.asp	✓
City Infrastructure	EIU	pages.eiu.com/rs/eiu2/images/EIU_BestCities.pdf	
Urban Sprawl	EIU	pages.eiu.com/rs/eiu2/images/EIU_BestCities.pdf	
Metro Network Length	Metro Bits	mic-ro.com/metro/table.html	✓
Global Information Technology	World Economic Forum	www.weforum.org/issues/global-information-technology/index.html	
The Web Index	The World Wide Web Foundation	thewebindex.org/	NEW

Table 23 | Human Capital Related Instrumental Factors

Instrumental factor	Source	Website	Updated since GFCI 14
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	www.henleyglobal.com/citizenship/visa-restrictions/	✓
Human Development Index	UN Development Programme	hdr.undp.org	✓
Citizens Purchasing Power	UBS	www.ubs.com/1/e/ubs_ch/wealth_mgmt_ch/research.html	
Quality of Living Survey	Mercer HR	www.mercerhr.com	
Happy Planet Index	New Economics Foundation (NEF)	www.happyplanetindex.org/explore/global/index.html	
Number of High Net Worth Individuals	Capgemini	www.knightfrank.com/wealthreport/	✓
Personal Safety Index	Mercer HR	www.mercerhr.com	
Homicide Rates	UN Office of Drugs and Crime	www.unodc.org/unodc/en/data-and-analysis/	✓
World's Top Tourism Destinations	Euromonitor Archive	www.euromonitor.org	
Average Days with Precipitation per Year	Sperling's Best Places	www.bestplaces.net	
Spatial Adjusted Liveability Index	EIU	pages.eiu.com/rs/eiu2/images/EIU_BestCities.pdf	
Human Capital	EIU	www.managementthinking.eiu.com/	
Global Talent Index	EIU	www.managementthinking.eiu.com/global-talent-index-2011-2015.html	
Citywide CO2 Emissions	Carbon Disclosure Project	www.cdproject.net/en-US/Results/Pages/reports.aspx	✓
Healthcare	EIU	pages.eiu.com/rs/eiu2/images/EIU_BestCities.pdf	
Global Skills Index	Hays	www.hays-index.com/	✓

Table 24 | Reputational and General Instrumental Factors

Instrumental factor	Source	Website	Updated since GFCI 14
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	www.unctad.org	✓
FDI Confidence	AT Kearney	www.atkearney.com/images/global/pdf/Investing_in_a_Rebound-FDICI_2010.pdf	✓
City to Country GDP Ratio	World Bank The Brookings Institution	www.ukmediacentre.pwc.com/content/detail.aspx?releaseid=3421&newsareaid=2	✓
GDP per Person Employed	World Bank	data.worldbank.org/indicator/SL.GDP.PCAP.EM.KD	✓
Global Innovation Index	INSEAD/WIPO	www.globalinnovationindex.org/gii/	✓
Global Intellectual Property Index	Taylor Wessing	www.taylorwessing.com/ipindex/	✓
Retail Price Index	The Economist	www.economist.com/markets/indicators	✓
Price Levels	UBS	www.ubs.com/1/e/wealthmanagement/wealth_management_research/prices_earnings.html	
Global Power City Index	Institute for Urban Strategies & Mori Memorial Foundation	www.mori-m-foundation.or.jp/english/index.shtml	✓
Global Cities Index	AT Kearney	www.foreignpolicy.com/story/cms.php?story_id=4509	
Number of International Fairs & Exhibitions	World Economic Forum	www.weforum.org/en/initiatives/gcp/TravelandTourismReport	✓
Innovation Cities Global Index	2thinknow Innovation Cities™ Project	www.innovation-cities.com/innovation-cities-global-index-2010-city-rankings/	✓
City Global Appeal	EIU	www.managementthinking.eiu.com/	
Global City Competitiveness	EIU	www.managementthinking.eiu.com/	
The Big Mac Index	The Economist	www.economist.com/blogs/graphicdetail/2012/01/daily-chart-3	✓
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City's Weight in National Incoming Investments	KPMG	www.kpmg.com/FR/fr/IssuesAndInsights/News/Documents/GPIA-KPMG-CIM-2012.pdf	
Sustainable Economic Development	Boston Consulting Group	www.bcgperspectives.com/content/interactive/public_sector_globalization_interactive_map_sustainable_economic_development/	
Global Enabling Trade Report	World Economic Forum	www.weforum.org/issues/international-trade	



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