March 2009

THE GLOBAL FINANCIAL CENTRES INDEX 5

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CITY OF LONDON

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The Global Financial Centres Index (GFCI) is updated every six months in March and September. This report is the fifth edition, with analysis and detailed discussion of centres' competitive dynamics. The next periodic update will be published in September 2009.

Please participate in the GFCI by rating the financial centres you are familiar with at: www.cityoflondon.gov.uk/GFCI

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London
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Foreword

Stuart Fraser

Chairman, Policy and Resources Committee, City of London

This latest *Global Financial Centres Index* is the fifth, continuing the twice-yearly series produced by the Z/Yen Group Ltd for the City of London. This index monitors the perspectives of market practitioners and regulators located across the world on the position of their own and other international financial centres. The report uses a combination of questionnaire responses and underpinning data to monitor and analyse the way that perceptions of financial centres are shaped, specifically helping to illuminate the extent to which the recent period of striking global economic turbulence has impacted on the fundamental long-term factors driving the performance of financial centres.

Given the rapid slowdown in the global economy, it is unsurprising that the findings of the current survey differ dramatically from those of even six months ago. The six-month period surveyed up to the end of December, has been unprecedented. It has included massive intervention by governments, designed to mitigate the potentially disastrous contagion effects on the rest of their economies as financial institutions try to deal with asset devaluation, the need for recapitalisation and deleveraging of lending. Events in the period surveyed included the collapse of Lehman and the effective nationalisation by the US government of the mortgage bodies Fannie Mae and Freddie Mac.

The GFCI results reflect the severe loss of confidence across all centres. There has been a significant fall in scores for all 62 centres rated here, reflecting a more negative perception of the performance of financial services generally and the effect of the severe downturn in some financial sectors, in particular in investment banks and hedge funds. There is also a much higher degree of uncertainty about the future amongst financial services professionals, demonstrated by a greater degree of volatility in their questionnaire responses regarding current and future competitiveness and success – this is a global crisis with a widespread negative effect on predictability.

There are some notable patterns, however, that emerge amid this uncertainty. In general, the top-ranked centres have shown a much greater degree of resilience and a smaller drop in scores than those lower down the rankings, reflecting perhaps a greater confidence in the ability of long–established centres to weather the global economic crisis. The top six centres remain unchanged in the rankings from GFCI 4, with London and New York still leading the field in 1st and 2nd place respectively. They remain the only two truly global centres. The gap between 2nd place and 3rd placed Singapore has widened. Conversely, centres at the bottom of the table are showing falls in scores four times greater than those at the top.

It is important to recognise that the current economic crisis is of concern to all centres, of course, and it must be a priority for financial centres to work together in partnership to address shortcomings and stimulate recovery in the global economy. A particular responsibility falls to long established centres, such as New York and London, to work with other centres to help restore a stable global financial services architecture.

No economy in the world has been left unaffected by the current severe downturn. A global crisis requires a global response. Experience shows that a retreat into protectionism would make the situation worse and prolong a recession. The financial and related professional and business services industry has an important role to play in stimulating economic recovery and growth.

Stuart Fraser
City of London
March 2009

The Global Financial Centres Index

Financial Centre	GFCI 5 Rank	Change in Rank since GFCI 4	GFCI 5 Rating	Change in Rating since GFCI 4
London	1	► 0	781	▼ -10
New York	2	► 0	768	▼ -6
Singapore	3	► 0	687	▼ -14
Hong Kong	4	► 0	684	▼ -16
Zurich	5	► 0	659	▼ -17
Geneva	6	► 0	638	▼ -7
Chicago	7	▲ 1	638	▼ -3
Frankfurt	8	▲ 1	633	▼ -3
Boston	9	▲ 2	618	▼ -7
Dublin	10	▲ 3	618	▼ -4
Toronto	11	▲ 1	615	▼ -9
Guernsey	12	▲ 4	615	▼ -7
Jersey	13	▲ 1	613	▼ -9
Luxembourg	14	▲ 1	612	▼ -10
Tokyo	15	▼ -8	611	▼ -31
Sydney	16	▼ -6	610	▼ -20
San Francisco	17	► 0	609	▼ -11
Isle of Man	18	▲ 1	601	▼ -10
Paris	19	▲ 1	600	▼ -7
Edinburgh	20	▼ -2	600	▼ -14
Washington D.C.	21	▲ 1	596	▼ -4
Cayman Islands	22	▼ -1	591	▼ -11
Dubai	23	► 0	580	▼ -17
Amsterdam	24	► 0	575	▼ -15
Vancouver	25	▲ 5	569	▼ -11
Montreal	26	▲ 5	568	▼ -11
Hamilton	27	▼ -1	564	▼ -22
Melbourne	28	▼ -1	562	▼ -24
Munich	29	▲ 3	558	▼ -20
Stockholm	30	▲ 3	556	▼ -13
Glasgow	31	▼ -3	554	▼ -32
Brussels	32	▲ 4	552	▼ -7
Gibraltar	33	▼ -8	549	▼ -40
British Virgin Islands	34	▼ -5	549	▼ -35
Shanghai	35	▼ -1	538	▼ -30
Bahamas	36	▼ -1	537	▼ -26
Monaco	37	► 0	533	▼ -19
Copenhagen	38	► 0	532	▼ -16
Oslo	39	▲ 2	523	▼ -11
Milan	40	▼ -1	521	▼ -20
Taipei	41	New	518	New
Vienna	42	► 0	513	▼ -17
Bahrain	43	► 0	513	▼ -16
Helsinki	44	▼ -4	512	▼ -22
Kuala Lumpur	45	New	510	New
Qatar	46	▼ -1	507	▼ -18
Madrid	47	▼ -1	506	▼ -19
Johannesburg	48	▼ -4	503	▼ -22
Mumbai	49	► 0	485	▼ -12
Bangkok	50	New	480	New
Beijing	51	▼ -4	478	▼ -31
Osaka	52	▼ -2	469	▼ -24
Seoul	53	▼ -5	462	▼ -40
Sao Paulo	54	▼ -2	440	▼ -31
Rome	55	▼ -2	439	▼ -28
Wellington	56	▼ -5	432	▼ -41
Lisbon	57	▼ -2	409	▼ -21
Prague	58	▼ -4	396	▼ -48
Warsaw	59	▼ -3	381	▼ -43
Moscow	60	▼ -3	363	▼ -51
Athens	61	▼ -3	335	▼ -44
Budapest	62	▼ -3	306	▼ -68

Chart 1
The GFCI World

Rising	▲
Static	►
Falling	▼

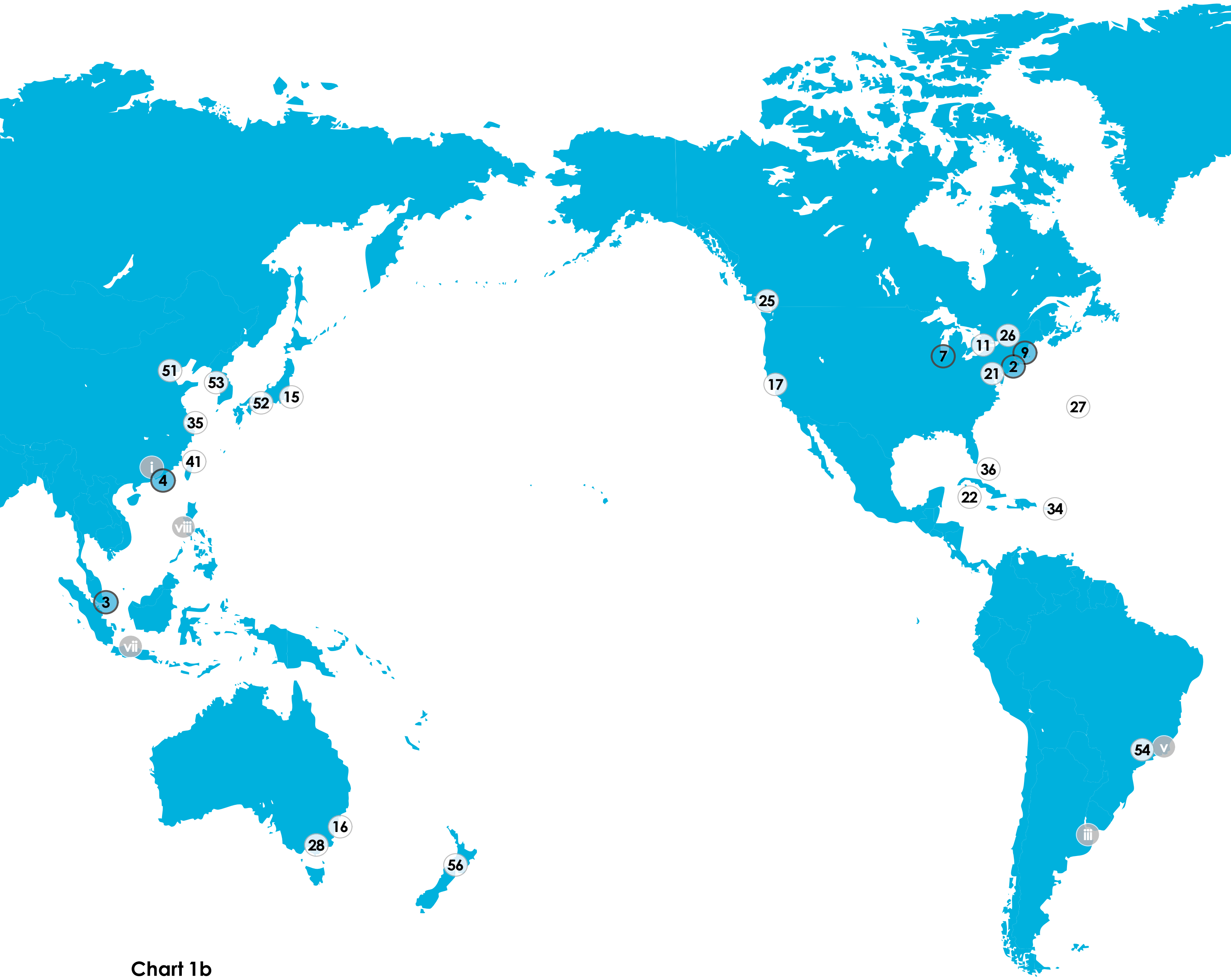


Chart 1b
Centres with insufficient number of assessments to be ranked in GFCI

Financial Centre		Number of Assessments	Average Assessment	Standard Deviation of Assessments
Shenzhen	i	25	628	188
Malta	ii	41	588	166
Buenos Aires	iii	51	541	227
Mauritius	iv	39	521	187
Rio de Janeiro	v	47	515	220
Tallinn	vi	74	509	271
Jakarta	vii	80	498	219
Manila	viii	74	447	198
St. Petersburg	ix	87	434	220

1. Executive Summary

The Global Financial Centres Index (GFCI) was first produced by the Z/Yen Group for the City of London in March 2007. The GFCI provides ratings for 62 financial centres calculated by a 'factor assessment model'. This process combines instrumental factors (external indices) with financial centre assessments (from responses to an online questionnaire). The GFCI model thus offers an insight into changing perceptions of financial centres' competitiveness over time and how these relate to the underlying data. The methodology reflects changes in periods of relative stability and growth, as well as in the current conditions of crisis and contraction.

The use of instrumental factors provides an insight to the fundamental underpinnings of competitiveness of the centres, relating to data across five key aspects: People; Business Environment; Market Access; Infrastructure; General Competitiveness. Fifty-seven instrumental factors are used in GFCI 5 to measure these (see Appendix C). A continuously running online questionnaire provides financial centre assessments from financial services professionals, giving a barometer of perceptions within the financial services industry. GFCI 5 incorporates 308 new respondents since GFCI 4, giving an overall total of 26,629 centre assessments, weighted towards the most recent.

GFCI 5 shows that there is no 'safe' port in the current financial storm. Ratings of all financial centres have dropped (by an average of over 20 points), reflecting overall negativity about the current and future state of the sector. This is a significant change from GFCI 4, where only ten centres dropped in the ratings. Overall, centres towards the lower end of the rankings have seen their ratings drop more than the top-ranking centres. The top ten centres in GFCI 5 have fallen by an average of under 9 points in the ratings, compared with an average fall of over 40 points for the bottom ten centres. It would appear that there is a genuine 'flight to safety' with people in financial services putting their faith in the quality of well established financial centres.

Another of the main themes of GFCI 5 is uncertainty – there is a high degree of volatility in the ratings, reflecting uncertainty among financial services professionals. There is uncertainty about markets, assets and, of particular interest here, about which financial centres will prosper in the future. In this climate, responses to the GFCI questionnaire indicate a mood of greater loyalty towards one's home centre. There is a slightly stronger element of 'home' bias – respondents rating their home centre higher than others rate that centre (such bias is accounted for in the GFCI model).

Of the 62 centres in GFCI 5, 18 have risen in the rankings, 28 have fallen, 13 remain unchanged and there are three new entrants.

London and New York remain the only truly global financial centres, although both centres' ratings have fallen, by 10 and 6 points respectively, since GFCI 4 (published in September 2008). Whilst London is just ahead of New York in the GFCI, it should be noted that New York has a slightly higher average assessment (807) than London (801) overall, although average assessments for London and New York, during the past six months, are virtually identical; New York (799) is one point ahead of London (798).

Table 1
the Top Ten GFCI 5 Centres (GFCI 4 Ranks and Ratings in Brackets)

London	1(1)	781 (791)	London remains in the top place, closely followed by New York, separated by 13 points, down from 17 points in GFCI 4. In spite of the current economic climate, London is again in the top quartile of nearly all instrumental factors as well as the overall GFCI. London still leads New York in all areas of competitiveness, and in four of the five industry sector sub-indices, although respondents expressed continuing concerns about the likelihood of increased regulatory burden, and a less predictable tax-regime.
New York	2(2)	768(774)	New York remains in second place, and dropped only 6 points since GFCI 4 in spite of a host of financial turmoil: government support of Fannie Mae and Freddie Mac, bankruptcy filings for Lehman Brothers, the sale of Merrill Lynch to Bank of America and the US Federal Reserve bailout of AIG. New York moved marginally ahead of London in the Banking sector sub-index.
Singapore	3(3)	687(701)	Singapore has dropped 14 points, but retains the number 3 ranking over Hong Kong that it gained in GFCI 4. It is now 81 points behind New York. It remains a solid centre, as evidenced in its continuing high performance in all industry sector sub-indices and in all areas of competitiveness, taking 3rd or 4th place across the board.
Hong Kong	4(4)	684(700)	Hong Kong remains a strong financial centre and is in 3rd or 4th place in all industry sector sub-indices, except Insurance, and in all areas of competitiveness. With only a few exceptions, most Asian banks continue to be able to finance loans with deposits, insulating Hong Kong from some of the direct impact of the current financial crisis.
Zurich	5(5)	659(676)	Zurich held steady at 5th place in GFCI 5 due both to its deep-rooted market niche in the private banking and asset management sectors, and the early moves by Swiss banks to cut back on exposure prior to, and early in, the current financial crisis.
Geneva	6(6)	638*(645)	Geneva has remained at 6th place as investors move to find firm ground amidst the tumult. This has helped the city's score in the Business Environment sub-index move up 5 points.
Chicago	7(8)	638*(641)	Slipping only three points from GFCI 4, Chicago remained relatively stable in a market that saw most other centres suffer far more. Chicago remained in 6th in the General Competitiveness sub-index.
Frankfurt	8(9)	633(636)	Frankfurt is in 8th place, up one rank from GFCI 4. The financial system in Germany has been more stable than in London or New York over the past six months. Frankfurt also did very well in certain industry sub-sectors, rising five places to 7th among Government & Regulatory respondents, and three places to 9th among Professional Services respondents.
Boston	9(11)	618*(625)	Boston has historically moved in and out of the GFCI top 10, and is ranked 9th in GFCI 5. It showed a strong increase in average assessments among respondents, rising from 628 in GFCI 4 to 699 now. It was hit by a falling performance in some of the instrumental factors, however.
Dublin	10(13)	618* (622)	Dublin has benefited from the Irish government's investment over the past decade which has made Ireland a cost efficient location for banking operations. Dublin is also an attractive destination for investment and corporate tax residence. Dublin has climbed three places in the rankings despite recent worries about the Irish economy as a whole.

* Ratings are rounded to the nearest whole number for clarity but are calculated to several decimal places

The difference in ratings between the top two centres and third place has increased since GFCI 4 – the gap between New York and 3rd placed Singapore is now 81 points, compared with 73 points previously. Singapore's rating has fallen by 14 points, and Hong Kong (4th in the rankings) has fallen by 16 points.

Whilst the top six centres have remained in the same position in GFCI 5, Tokyo has dropped 8 places to 15th and Sydney has fallen six places to 16th. Some strong secondary or regional centres feature in the top ten – Chicago and Frankfurt have risen one rank apiece to 7th and 8th place respectively, and Boston (9th) and Dublin (10th) have entered the top ten.

A summary of the top ten financial centres in GFCI 5 is given in Table 1 on page 7.

GFCI respondents believe that the main threats to London and New York are currently:

- Potential regulatory knee-jerk reactions to the credit crunch, which may have unintended consequences;
- Recession – New York and London anticipate significant economic losses from the credit crunch, due to their heavy dependence on revenues derived from financial sector performance, but will also be hurt by national recessions.

The model used to create GFCI is also used to create sub-indices for industry sectors and areas of competitiveness (see Chapter 4). London, New York, Singapore and Hong Kong all remained in the top four places of these sub-indices (with the single exception of Hong Kong in 5th place in the Insurance sib-index).

Other centres displayed a greater range of movements in comparison to GFCI 4. This seems to reflect the overall confusion in the sector and uncertainty about which centres will ultimately prove to be most successful.

Respondents to the GFCI 5 questionnaire corroborated data showing that the leading specialist centres (for example Zurich for private banking and Chicago for commodities trading) and some off-shore centres have weathered the financial turmoil comparatively well thus far. Respondents continue to identify Dubai as likely to become more significant in the next two to three years, with Singapore and Shanghai also mentioned as centres where new offices are most likely to be opened in the next few years. As in previous editions of GFCI, respondents also overwhelmingly identified the 'Business Environment' as the single greatest factor of competitiveness. Business environment in this context includes the regulatory environment, the rule of law, trust and taxation.

Please participate in the GFCI by rating the financial centres you are familiar with at: www.cityoflondon.gov.uk/GFCI

2 Background & Introduction

The Global Financial Centres Index (GFCI) was produced by the Z/Yen Group for the City of London in March 2007. It rated and ranked major financial centres of the world in terms of competitiveness. Since then, the increase in the number of respondents and additional data in successive editions has highlighted the changing priorities and concerns of finance professionals.

A continuously running online questionnaire provides financial centre assessments from financial services professionals. GFCI 5 uses 26,629 assessments from 1,455 respondents of whom 308 have responded since GFCI 4. This report is the 5th in the series.

GFCI 5 provides ratings and rankings for 62 financial centres calculated by a ‘factor assessment model’ (full details can be found in Appendix A). This process combines assessments of financial centres from responses to an online questionnaire with instrumental factors (external indices).

Table 2
the GFCI Series

	Published	Total Respondents	Total Assessments
GFCI 1	March, 2007	491	3,992
GFCI 2	September, 2007	825	11,685
GFCI 3	March, 2008	1,236	18,878
GFCI 4	September 2008	1,406	24,014
GFCI 5	**March 2009**	**1,455**	**26,629**

- **Financial centre assessments** provide an up to date barometer of perceptions within the financial services industry. The assessments are given by responses to a comprehensive ongoing online questionnaire completed by international financial services professionals (who assess financial centres with which they are personally familiar). The online questionnaire (see Appendix B) runs continuously to keep the GFCI up-to-date with people’s changing assessments. Since GFCI 4, 308 additional respondents have filled in the online questionnaire, thereby providing 5,814 new financial centre assessments from financial services professionals across the world. A total of 26,629 financial centre assessments from 1,455 financial services professionals are used to compute GFCI 5.
- **Instrumental factors offer** an insight to the fundamentals of competitiveness of the centres. They form a set of objective evidence of competitiveness provided by 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. Fifty-seven instrumental factors are used in the GFCI 5 model (see Appendix C for details). Of these 57, two new indices are included to replace two less related to financial services. A further 22 indices have been updated since GFCI 4. Not all financial centres are represented in all the external sources, and the statistical model takes account of these gaps.

Table 3
Respondents by Industry Sector

Sector	Number of Responses	
Banking	309	21%
Asset Management	259	18%
Insurance	118	8%
Professional Services	279	19%
Regulatory & Government	95	7%
Other	395	27%
TOTAL	**1,455**	**100%**

Table 4
Respondents by Size of Organisation

Number of Employees Worldwide	Number of Responses	
Fewer than 100	432	30%
100 to 500	237	16%
500 to 1,000	106	7%
1,000 to 2,000	56	4%
2,000 to 5,000	90	6%
More than 5,000	420	29%
Unspecified	114	8%
TOTAL	**1,455**	**100%**

Table 5
Respondents by Location

Location	Number of Responses	
Europe*	707	49%
North America**	144	10%
Asia	126	9%
Off-shore	370	25%
Multiple or Other	108	7%
TOTAL	**1,455**	**100%**

*Of these 707 respondents, 454 were from London
**Of these 144 respondents, 69 were from New York

One of the strengths of the GFCI is the diversity of respondents and the breadth of their experience and perspective on the financial services industry. In GFCI 5, the respondents represented the types of industries, organisations, and geographic regions shown in Tables 3 to 5.

The instrumental factors and financial centre assessments are combined using statistical techniques to build a predictive model of financial centre competitiveness using support vector machine mathematics. The predictive model is used to answer questions such as:

> *"If an investment banker gives Singapore and Sydney certain assessments, then, based on the instrumental factors for Singapore, Sydney and Paris, how would that person assess Paris?"*

The GFCI provides sub-indices derived from respondents in five specific financial services industry sectors, namely: Asset Management, Banking, Government & Regulatory, Insurance, and Professional Services. These are based upon five key aspects of competitiveness: People, Business Environment (including regulation and taxation), Market Access, Infrastructure, and General Competitiveness. These sub-indices are discussed in Chapter 4.

3. The GFCI

One of the main themes of current financial conditions, reflected strongly in GFCI 5, is uncertainty. As Olivier Blanchard, Chief Economist of the IMF recently said:

> *"From the Vix index of stockmarket volatility, to the dispersion of growth forecasts, even to the frequency of the word 'uncertain' in the press, all the indicators of uncertainty are at or near all-time highs."*

GFCI 5 shows significant volatility in the ratings reflecting uncertainty among financial services professionals. There is uncertainty about markets, assets and, of particular interest here, about which financial centres will prosper in the future. This uncertainly is exhibited in a 'flight to safety' in the GFCI rankings. Financial centres further down the GFCI rankings suffered greater volatility to the assessments they received than centres towards the top of the rankings. Although all centres lost points in the GFCI ratings, those at the top of the GFCI lost substantially less ground than the centres at the bottom. The top ten centres in GFCI 5 fell by an average of under 9 points in the ratings compared with an average fall of over 40 points for the bottom ten centres.

There are 62 centres rated in GFCI 5. Seventy-one centres were included in the online questionnaire, but nine were not ranked in the GFCI as they did not receive the minimum 100 assessments needed for inclusion. The rankings of the 62 centres in GFCI 5, show that 18 centres have risen, 28 have fallen, 13 remain unchanged and there are three new entrants.

Table 6
GFCI 5 Rankings and Ratings

Financial Centre	Rank	Change in Rank	Rating	Change in rating
London	1	-	781	-10
New York	2	-	768	-6
Singapore	3	-	687	-14
Hong Kong	4	-	684	-16
Zurich	5	-	659	-17
Geneva	6	-	638	-7
Chicago	7	1	638	-3
Frankfurt	8	1	633	-3
Boston	9	2	618	-7
Dublin	10	3	618	-4
Toronto	11	1	615	-9
Guernsey	12	4	615	-7
Jersey	13	1	613	-9
Luxembourg	14	1	612	-10
Tokyo	15	-8	611	-31
Sydney	16	-6	610	-20
San Francisco	17	-	609	-11
Isle of Man	18	1	601	-10
Paris	19	1	600	-7
Edinburgh	20	-2	600	-14
Washington D.C.	21	1	596	-4
Cayman Islands	22	-1	591	-11
Dubai	23	-	580	-17
Amsterdam	24	-	575	-15
Vancouver	25	5	569	-11
Montreal	26	5	568	-11
Hamilton	27	-1	564	-22
Melbourne	28	-1	562	-24
Munich	29	3	558	-20
Stockholm	30	3	556	-13
Glasgow	31	-3	554	-32
Brussels	32	4	552	-7
Gibraltar	33	-8	549	-40
British Virgin Islands	34	-5	549	-35
Shanghai	35	-1	538	-30
Bahamas	36	-1	537	-26
Monaco	37	-	533	-19
Copenhagen	38	-	532	-16
Oslo	39	2	523	-11
Milan	40	-1	521	-20
Taipei	41	New	518	New
Vienna	42	-	513	-17
Bahrain	43	-	513	-16
Helsinki	44	-4	512	-22
Kuala Lumpur	45	New	510	New
Qatar	46	-1	507	-18
Madrid	47	-1	506	-19
Johannesburg	48	-4	503	-22
Mumbai	49	-	485	-12
Bangkok	50	New	480	New
Beijing	51	-4	478	-31
Osaka	52	-2	469	-24
Seoul	53	-5	462	-40
Sao Paulo	54	-2	440	-31
Rome	55	-2	439	-28
Wellington	56	-5	432	-41
Lisbon	57	-2	409	-21
Prague	58	-4	396	-48
Warsaw	59	-3	381	-43
Moscow	60	-3	363	-51
Athens	61	-3	335	-44
Budapest	62	-3	306	-68

The Global Centres

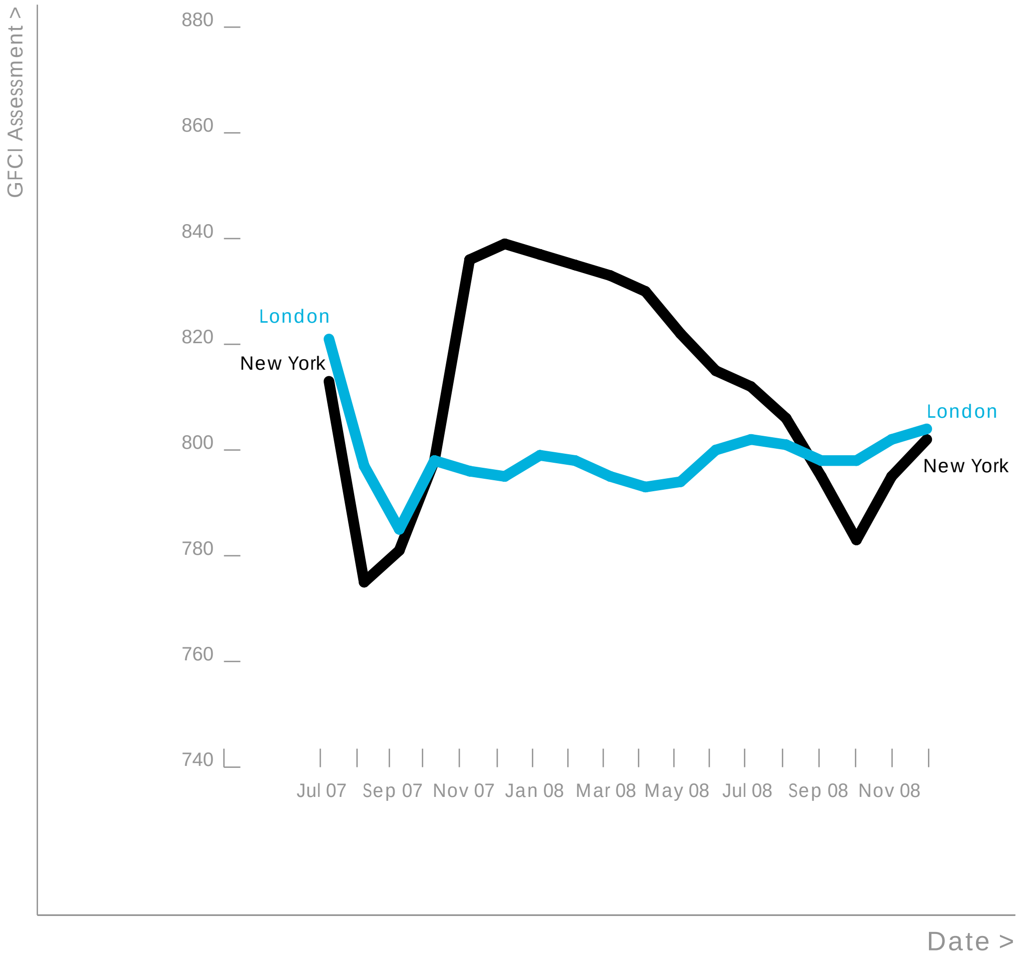
London and **New York** remain in 1st and 2nd places respectively. Both centres have arguably been epicentres of the global financial crisis in 2007 and 2008. London's lead over New York has dropped from 17 points in GFCI 4 to 13 points now. The index is on a scale of 1,000, and this 13 point difference is relatively small.

The two leading centres remain closely matched and are complementary to each other as well as competitive. New York's average assessment (from respondent ratings) is slightly higher than London's, but the addition of data from instrumental factors and the analytics of the prediction engine result in its overall rating being lower in the final index.

Financial Centre Assessments
Financial centre assessments are given by respondents to the online questionnaire. It should be noted that overall New York has a slightly higher average assessment (807) than London (801). Table 14, in Chapter 5, shows that average assessments for London and New York, during the past six months, are virtually identical (New York (799) is one point ahead of London (798).

Shown below in Chart 2 are three month rolling average assessments given to London and New York between July 2007 (the start of the current crisis) and the end of December 2008, when the assessments for GFCI 5 were collected.

Chart 2
Average Assessments for London and New York



The Five Key Areas of Competitiveness

Both centres suffered in August 2007 when the crisis began but New York's assessments recovered more quickly than London's. The recovery of confidence in London's competitiveness was slowed by the collapse and subsequent handling of Northern Rock together with proposed changes in taxation, for example of non-domiciled residents of the UK. When GFCI 4 was modelled in July 2008, New York's assessments were still above those of London.

New York's reputation suffered further damage at the time of Lehman Brothers' failure and average assessments given to New York fell sharply. The average of all assessments given to the two centres since GFCI 4 are virtually identical.

It is interesting to contrast the assessments of industry professionals based in London and New York with the assessments of respondents in other locations. The following two charts compare the average assessments from respondents in different locations against the overall average assessments for the two centres. Because both centres exhibit signs of home bias – a tendency to rate one's own centre more highly than other people do – the average assessment excluding home ratings are also shown on the charts by a blue line:

London is rated most negatively by respondents in New York, followed by respondents in off-shore centres. London is viewed most positively by respondents in North American centres other than New York, and by respondents in Asia. While the GFCI model controls for 'home bias', the assessments show that respondents in London rate London 10 points (out of 1,000) higher than the global average.

New York is viewed most negatively by off-shore centres. It is positively perceived by other centres in North America, Europe and Asia. Respondents from New York rated their own centre the most highly, over 120 points higher than the global average.

It can be seen here that Londoners assess

Chart 3a
Average Assessments by Respondent Location – London

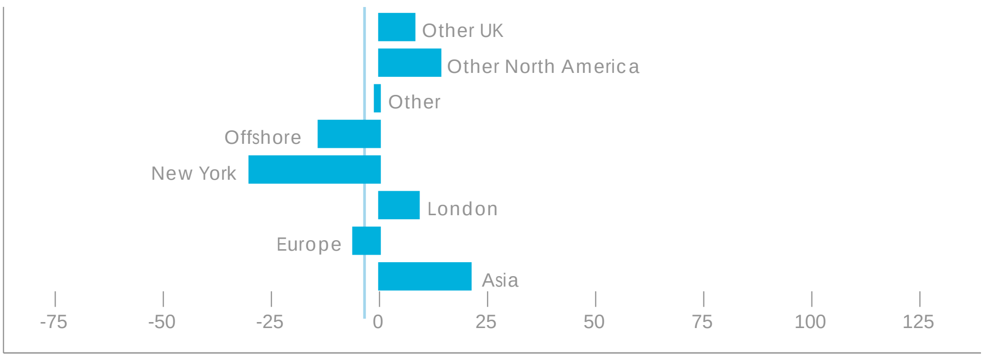
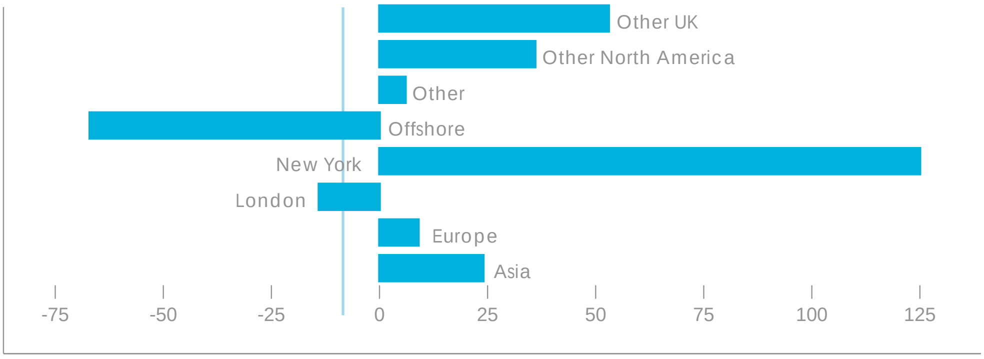


Chart 3b
Average Assessments by Respondent Location – New York



New York lower than most other respondents, but give an average assessment very similar to the overall average when the New York 'home' responses are removed. New Yorkers assess London substantially lower than many other respondents. This might be due to the high profile coverage of financial services in the two centres which is sometimes portrayed in the press as a 'battle' for supremacy. It might also reflect a greater loyalty to one's home centre during turbulent times. It appears from comments received from respondents to the GFCI survey that most observers see the two centres as both competitive and yet complementary and that the success of one centre is not a failure of the other. The two centres have reached a critical-mass that does much to secure their co-leadership in the financial sector globally. This leadership helps to insulate them from anything but catastrophic changes in any of the competitiveness factors.

Other Studies on London and New York
A recent study chaired by Bob Wigley (Merrill Lynch's Chairman for Europe, the Middle East, and Africa) on "London: Winning in a Changing World"[1] backs up many GFCI findings. The research identified four key elements underpinning London's advantage in the global marketplace. These elements are directly comparable to the GFCI's areas of competitiveness.

The research paper also discusses several threats to London's dominance:

- a deterioration in London's historic strengths and attractiveness through increased EU-based regulation and a number of changes to UK policies (relating, for example, to corporate tax, non-domiciled tax status, living costs, and skills gaps);
- the intensifying competition from other financial centres in Europe and elsewhere, some of which are aggressively targeting sub-sectors of the financial services industry;
- the financial crisis itself threatens the collapse of key companies in the city (as witnessed by the experiences of companies such as Lehman Brothers and Northern Rock);
- the risk of reactionary new regulation decreasing the city's competitiveness.

These threats must be taken seriously. The contributions of a successful financial centre to a country's overall economic health can be very important. The Financial Services (FS) sector makes a large contribution to the UK public finances. A recent study (2009) undertaken by PricewaterhouseCoopers for the City of London estimates the Total Tax Contribution of the sector in the Financial Year to 31 March 2007 as £67.8bn or 13.9% of total government receipts for all taxes. Corporation tax (CT) is the largest of the taxes borne by UK companies and the FS sector as a whole provided 27.5% of total government CT receipts in the Financial Year to 31 March 2007. The UK financial services sector's contribution has grown steadily in recent years, making up almost

1 http://www.london.gov.uk/mayor/economy/london-winning.jsp

Table 7
Wigley Key Elements Mapped to GFCI Areas of Competitiveness Changes since GFCI 3

Wigley Report Key Elements	GFCI Areas of Competitiveness
Supportive tax, legal, and regulatory context	Business Environment (this includes taxation and the regulatory environment)
Attractiveness as a location for corporate headquarters	General Competitiveness and Market Access
Effective systems and support services (including technology, media, and professional services)	Market Access, Infrastructure
Deep talent pool and welcoming culture	People, General Competitiveness

8% of the UK's gross value added. More than just tax revenue, successful financial centres are large economic engines in general – for the UK £38.8 bn of net exports were generated in 2007 at a time when the UK had a deficit on trade as a whole of £46.6bn.[2]

New York fared particularly well in a recent analysis by PricewaterhouseCoopers (PwC) entitled "Cities of Opportunity"[3] ranking 1st out of twenty global centres. London was placed 3rd (behind Paris in 2nd). It should however, be noted that Cities of Opportunity looks at cities in a wider context than just financial services. Whilst London ranks in 1st place in what PwC refer to as 'Financial Clout', New York ranks 1st in 'Intellectual Capital' and 'Technology IQ and Innovation', as well as 'Lifestyle Assets' ("the quality of life and well-being potential each city offers its residents and visitors").

Another study looking at the two centres in some detail is MasterCard's 'Centres of Commerce Index'[4] which classifies 75 world cities according to their significance in international commerce using seven dimensions. In this index London comes 1st just ahead of New York with Tokyo in 3rd. London scores highest in the 'financial flow' dimension as well as in the 'knowledge creation and information flow' dimension. London also ranked 2nd in the "business center" dimension. London did not fare as well in 'livability' or 'economic stability'. New York benefits from good positions in the two dimensions that measure country-level data – 'legal and political framework' and 'economic stability', while also scoring highly in 'knowledge creation and information Flow'.

The Main Threats to the Two Leaders revealed by the GFCI

GFCI respondents identified several threats to the two global centres. With the ever-increasing globalisation of finance and business, and in spite of the equally pervasive spread of broadband connectivity, practical hurdles such as visas and other regulatory barriers to building an international workforce continue to draw fire from GFCI respondents. A good example of this:

> *"The ease with which employers can obtain work visas for prospective foreign employees is often overlooked. There appears to be a mini-stampede of city folk heading out East to escape woeful conditions in London. Cities such as Singapore which are very open to foreign talent will benefit hugely."*
> London based pension fund manager

Short-term ease of travel is key to financial centre growth as well. In the PricewaterhouseCoopers study "Cities of Opportunity", the centres ranked highest for "Ease of Entry" include:

Table 8
Number of countries with visa-free travel to the centre

Financial Centre	Rank
London	1st
Singapore	2nd
Hong Kong	3rd
Toronto	4th
Seoul	5th

One GFCI 5 respondent put it succinctly:

> *"Where it's a hassle to fly in quickly to have a key face-to-face meeting, I don't want to do business."*
> Chicago based senior consultant

Visa and travel difficulties are problematic and the other issues mentioned by Wigley are real. However, the main threats to London and New York currently are:

- Regulatory knee-jerk reactions to the credit crisis that increase regulation may have unintended consequences.

2 The Guardian, "From Big Bang to Whimper: Welcome to the New City", 11 January 2009 - http://www.guardian.co.uk/business/2009/jan/11/changing-square-mile
3 "Cities of Opportunity", PricewaterhouseCoopers and Partnership for New York City, 2008 – http://www.pwc.com/cities/
4 http://www.mastercard.com/us/company/en/insights/index.html

Eurodollar markets grew swiftly in the 1960s when US tax rule changes meant multinationals found it attractive to leave dollars outside the control of US authorities. Sarbanes-Oxley requirements after 2000 increased the attractiveness of London as a 'principles based' regulatory environment and increased listings on AIM at the expense of NYSE;

- Recession: New York and London anticipate significant economic losses from the credit crisis, due to their heavy dependence on revenues derived from financial sector performance, but will also be hurt by national recessions. London is more exposed to the credit crisis than New York as international wholesale financial services counts for a larger share of GDP. New York also has a large 'hinterland' domestic USA economy that generates a base level of financial services activity.

It is easy to focus on the potential weaknesses of a financial centre but there is can be doubt that London and New York are both very competitive financial centres. London in particular still has an excellent reputation – one representative quotation from a GFCI respondent is:

> *"Yes, London has its disadvantages and frustrations, but the city knows that it runs on financial services, and earns high marks for efforts to remain the leading centre. Dubai and others are investing madly, but you can't buy what London's already got..."*
>
> A Geneva-based investment banking executive

Other Leading Centres

Amongst other leading centres, Singapore remains in 3rd place in GFCI 5, having overtaken Hong Kong in GFCI 4. Hong Kong remains in 4th place overall. Hong Kong also dropped one place (from 3rd to 4th) in both the Asset Management sub-index and the People sub-index of competitiveness.

Singapore has dropped 14 points since GFCI 4, but retains 3rd place in the GFCI rankings. It is now 81 points behind New York in 2nd place. It remains a solid centre, as evidenced in its continuing high performance in all industry sector sub-indices and in all areas of competitiveness, sitting in 3rd or 4th place in these rankings across the board.

Hong Kong is currently wrestling with a regulatory change that is causing conflict among local firms in the financial services industry.

> *"Under Hong Kong's stock-exchange rules, listed companies need to report results twice a year and have an inordinately long time to disclose them — three months after the end of the period for the half-year report, four months for the year-end. In contrast, American financial results, which are reported quarterly, must be disclosed within 40 days of a quarter-end and 60 days of a year-end."*[5]

The rules in Hong Kong are being changed although full implementation of this new rule has been delayed until 1st April 2009. The closing of this particular loophole may cause changes in Hong Kong's rating later in the year.

In the Government & Regulatory sub-index (which includes issues relating to changes like this), Hong Kong remained in 4th place but dropped by 19 points. It will be interesting to see if increasing transparency like this and bringing the regulatory practice more in line with competing centres' standards will help Hong Kong rise in the rankings again.

GFCI respondents have taken note, commenting:

> *"It's causing pain, but tightening Hong Kong's reporting requirements is long overdue and an absolute necessity for that*

5 The Economist, "Indefensible", 08 January 2009 - http://www.economist.com/finance/displaystory.cfm?story_id=12903066

market to keep business in the crisis."
A senior investment advisor in Frankfurt

Tokyo has fallen eight places to 15th in GFCI 5 and is now outside the top ten for the first time. This fall in the rankings was caused by a decline of 31 points – the largest amongst the top 25 centres. Japan's banks are suffering less from toxic-debt problems than many of the other leading centres in the GFCI. Tokyo's decline is caused by more complex macro-economic issues. In recent years, Japan's high export-driven income, particularly in the electronic, technology, and automotive sectors, has made it vulnerable to the global economic slow-down, as consumers reduce spending.

Instrumental factors in the GFCI model show that consumer confidence has dropped, and the Nikkei's 225-share average has reached a 26-year low. The Bank of Japan has cut interest rates from 0.5% to 0.3%, and announced a fiscal stimulus package of approximately 1.4% of GDP. There is also a large rise in corporate and personal tax rates.

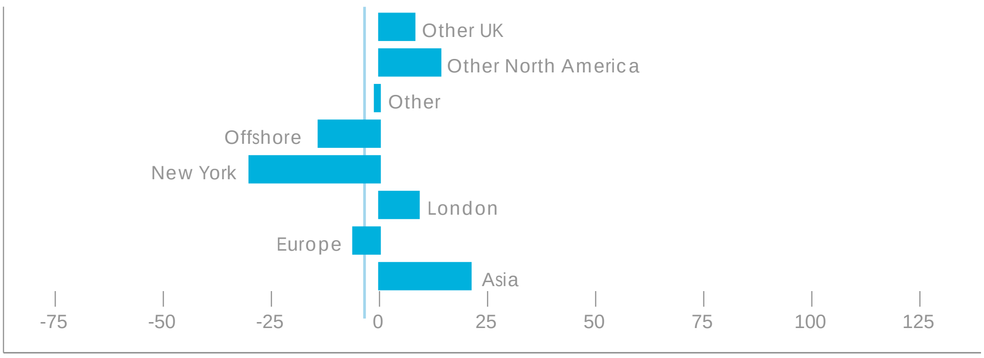
Respondents to the GFCI questionnaire complain about restrictions (both legal and cultural) on access to international staff:

"Cultural acceptance of foreigners is very important to the ease of doing business in a country. Tokyo fares poorly in this regard."
New York based investment banker

Chart 4 shows that Tokyo suffers from negative perceptions among European, UK and off-shore respondents. It is perceived positively in North America, and very strongly among Asian respondents.

6 The GFCI model controls for responses about one's 'home' city to better represent a truly global perspective on the Index. Accordingly, Toronto's increase in this case (as in other city's assessment values) was also statistically significant and based upon a globally diverse set of respondents. For more information on the process used to compile assessments and rankings, please see Appendix A.

Chart 4
Average Assessments by Respondent Location – Tokyo



The recent global financial turmoil raises a question about the global acceptance of the 'Western' model of finance. It is apparent that Asian governments and businesses have vested interests in global financial recovery (particularly since much of their GDP is export-driven). These governments have an opportunity to compete more strongly with established centres. GFCI respondents reinforced the potential in their positions.

> *"Hong Kong is best on the range of services available, quality of service, and tax; Singapore is also improving; London is falling in competitiveness..."*
> Sydney based financial services consultant

Toronto did well in GFCI 5, earning the 3rd highest increase in average assessments from questionnaire responses[6] with a positive change of just over 100 points (out of a possible 1,000.) While this only translated into a one-rank gain in the GFCI, it is an important advance for a regional centre that has been investing in its capacity and reputation as a global centre for finance.

Despite a strong increase in average assessments, Toronto's rating declined by nine points. This was due to a marked decline in certain instrumental factors. GFCI 5 uses a new measure of corporate tax rates and this shows a significant increase for Toronto. In addition, the main measures of Market Access (capitalisation of the stock exchange, and levels of trading) have all fallen significantly.

Toronto has, however, been an important financial centre in North America for many years and has fared relatively well in the current financial crisis. It continues to be an engine for the Canadian economy. Toronto also performs well in the industry and competitiveness sub-indices (see Chapter 4).

Boston showed an increase in its average assessment of 71 points but fell in the GFCI rating due to changes in instrumental factors such as PwCs measure of corporate taxation that shows a sharp increase. Tax income as a percentage of GDP has also risen by 7%.

Sydney is another centre that has performed poorly in GFCI 5. It has declined six places from 10th to 16th. Examining the centre's score among instrumental factors, the cost of living index rose by almost twice the average and there was also a significant change in the level of both share and bond trading. This was accompanied by a large fall in the capitalisation of its stock exchange.

Off-shore Centres

It is interesting to note the performance of the Offshore centres in the current climate, given that concerns about tax evasion have highlighted issues associated with their tax status. GFCI results suggest that some off-shore

Table 9
Top five Off-shore Centres

Off-shore Centre	GFCI 5 Rank (change since GFCI 4)	GFCI 5 Rating (change since GFCI 4)
Guernsey	12th (+4)	615 (-7)
Jersey	13th (+1)	613 (-9)
Isle of Man	18th (+1)	601 (-10)
Cayman Islands	22nd (-1)	591 (-11)
Hamilton	27th (-1)	564 (-22)

centres, led here by **Guernsey** and **Jersey**, may have a competitive advantage in the recent economic turmoil. There are five off-shore centres in the top 30 of GFCI 5.

Whilst these off-shore centres have all suffered declines in their ratings, these decreases are generally lower than the average decline of all centres in the GFCI. Jersey showed a rise of 40 points in the average assessments it achieved but still fell by nine points in the GFCI ratings. Falls in instrumental factors measuring corruption perceptions, global competitiveness and economic sentiment contributed to this performance.

The ratings of off-shore centres also reflect the 'flight to safety'. Whilst the top centres in Table 9 have performed well, off-shore centres further down the GFCI rankings have suffered large falls. Gibraltar dropped 40 points in GFCI 5 whilst the British Virgin Islands (-35 points) and the Bahamas (-26 points) also performed poorly.

Other Centres

Centres at the bottom of GFCI 5 have all suffered a significant decline in ratings since GFCI 4. The bottom ten centres in GFCI 5 have fallen by an average of over 40 points in the ratings (compared with an average fall of under 9 for the top ten centres). These declines are, in part due to changes in instrumental factors but they seem to have been affected by the uncertainly felt by GFCI respondents. It would appear that there is a genuine 'flight to safety' with people in financial services putting their faith in the quality of well established financial centres. Of the ten centres which suffered the largest ratings falls in GFCI 5, eight are in the bottom quarter of the GFCI ratings table. Of these Budapest, Moscow, Prague and Athens showed the largest declines.

4. Focus: Industry Sectors and Areas of Competitiveness

The GFCI data can be modeled to provide a number of sub-indices. Five of these sub-indices are for specific industry sectors. These are Asset Management, Banking, Government & Regulatory, Insurance and Professional Services. Each sub-index reflects the views of respondents from one sector alone. It is therefore possible to contrast the views of particular sectors about financial centres.

The Five Key Industry Sectors
Table 10 below shows the top ten ranked financial centres in the industry sector sub-indices. These indices are created by building the GFCI statistical model using only the questionnaire responses from respondents working in the relevant industry sectors. The figures in brackets show how the centre has moved in these sub-indices since GFCI 4:

Table 10
Industry Sector Sub-Indices (changes against GFCI 4 in brackets)

Rank	Asset Management	Banking	Government & Regulatory	Insurance	Professional Services
1	London (-)	New York (+1)	London (+1)	London (-)	London (-)
2	New York (-)	London (-1)	New York (-1)	New York (-)	New York (-)
3	Singapore (+1)	Singapore (-)	Singapore (-)	Zurich (-)	Hong Kong (-)
4	Hong Kong (-1)	Hong Kong (-)	Hong Kong (-)	Singapore (-)	Singapore (-)
5	Zurich (-)	Chicago (+1)	Chicago (-)	Hong Kong (-)	Zurich (-)
6	Jersey (-)	Zurich (-1)	Tokyo (+2)	Dublin (+2)	Geneva (+3)
7	Geneva (+1)	Geneva (-)	Frankfurt (+5)	Tokyo (-1)	Jersey (-1)
8	Guernsey (-1)	Frankfurt (-)	Paris (-1)	Hamilton (+1)	Guernsey (-1)
9	Dublin (+1)	Boston (+4)	Zurich (-3)	Munich (-2)	Frankfurt (+3)
10	Luxembourg (+3)	Toronto (+2)	Toronto (-1)	Geneva (+1)	Chicago (-)

It is noticeable that these GFCI sub-indices display a degree of stability despite the prevailing mood of uncertainty. The top specialists in each sector remaining high positions; their ratings may have suffered but their ranks have not. In the Asset Management sub-index, Singapore rose one place to 3rd, Geneva overtook Guernsey and Luxembourg advanced three places to 10th. It is not a great surprise to see the specialist centres Zurich, Geneva, Guernsey and Jersey all in the top ten for Asset Management – which is where their real strength continues to lie.

In the Banking sub-index, New York edged out London into 1st place. Strong banking centres such as Singapore, Hong Kong, Chicago, Frankfurt and Toronto all feature in the top 10. Boston rose four places to 9th place in this sub-index.

The Government & Regulatory sub-index shows London and New York switching places since GFCI 4, with London regaining first place. Tokyo climbs two places to 6th, and Frankfurt rises five places to 7th.

Rankings in the Insurance sub-index

remained fairly stable with the top five centres remaining the same, and Dublin, Hamilton, and Geneva improving. The ratings are also unsurprising with the major insurance centres all featuring strongly.

Similarly, the top five in Professional Services remained stable, but Geneva and Frankfurt both rose three places to 6th and 9th respectively.

The Five Key Areas of Competitiveness
There are five sub-indices based upon the five key areas of competitiveness. The Instrumental factors used in the GFCI model are grouped in the five key areas of competitiveness:

- **People** involves the availability of good personnel, the flexibility of the labour market, business education and the development of 'human capital'.

- **Business Environment** covers regulation, tax rates, levels of corruption, economic freedom and the ease of doing business. Regulation, a major component of the business environment, is cited by questionnaire respondents as a decisive factor in the competitiveness of London and New York.

- **Market Access** covers the levels of securitisation, volume and value of trading in equities and bonds, as well as the clustering effect of having many firms involved in the financial services sector together in one centre.

- **Infrastructure** mainly concerns the cost and availability of buildings and office space, although it also includes other infrastructure factors such as transport.

- **General Competitiveness** covers the overall competitiveness of centres in terms of more general economic factors such as price levels, economic sentiment and how centres are perceived as places to live in.

The GFCI questionnaire asks about the most important factors of competitiveness. The number of times that each area was mentioned is summarised in Table 11.

Clearly the Business Environment is viewed as a key area with over twice as many mentions as the second factor, People. Business Environment is mentioned almost as many times as all other areas combined. This is clearly a response to the current credit crisis but reflects specific concerns over taxation, the rule of law and the level of trust in an environment. Respondents currently seem to particularly value a 'fair and just' business environment. One comment sums this up:

> *"As a foreigner based in London what I really appreciate is being treated fairly in business".*
> London based commercial banker

In order to generate the five sub-indices by area of competitiveness, the GFCI factor assessment model is run with one

Table 11
Main Areas of Competitiveness

Area of Competitiveness	Number of mentions by respondents	Main concerns raised
Business Environment	73	Regulatory environment; rule of law; trust and taxation
People	34	Quality and availability of staff; lifestyle
Infrastructure	32	Transport links and airports
Market Access	12	Cluster of professional advisors; access to international markets
General Competitiveness	8	Reputation and marketing

set of instrumental factors at a time and the results are compared to identify which factors influence which centres.

Most of the resulting sub-indices are fairly closely correlated to the main GFCI. Indeed, in the top ten there are very few surprises. This indicates that to be a leading financial centre, strength in all areas is necessary. London is top in all areas, New York is a very close 2nd, whilst Hong Kong and Singapore share 3rd and 4th places throughout.

Table 12 shows the top ten ranked centres in each sub-index (again the figures in brackets show how the centre has moved in the sub-index rankings compared with GFCI 4):

Table 12
Sub-Indices by Areas of Competitiveness (changes against GFCI 4 in brackets)

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	Singapore (+1)	Singapore (-)	Hong Kong (-)	Hong Kong (-)	Hong Kong (-)
4	Hong Kong (-1)	Hong Kong (-)	Singapore (-)	Singapore (-)	Singapore (-)
5	Zurich (-)	Zurich (+1)	Chicago (+1)	Frankfurt (+3)	Zurich (-)
6	Frankfurt (+1)	Chicago (-1)	Zurich (-1)	Boston (+3)	Chicago (-)
7	Chicago (-1)	Geneva (-)	Frankfurt (+1)	Paris (+7)	Geneva (-)
8	Geneva (-)	Dublin (+2)	Boston (+1)	Chicago (-1)	Dublin (+2)
9	Boston (+1)	Toronto (-)	San Francisco (+1)	Zurich (-4)	Frankfurt (+2)
10	San Francisco (-1)	Frankfurt (+1)	Jersey (+1)	Dublin (+3)	Boston (+3)

The most notable changes since GFCI 4 are in the Infrastructure sub-index where Frankfurt and Boston each rise three places to 5th and 6th respectively, and Paris rises seven places into the top ten to 7th place.

The General Competitiveness sub-index is the most stable of the five sub-indices, with no changes to the top seven, but Boston has joined the top ten, rising three places from 13th in GFCI 4. The stability of this sub-index is no great surprise – it is closely correlated to the main GFCI and the top rankings in GFCI 5 are also remarkably consistent.

5. Assessments in More Detail

The GFCI is based upon a total of 26,629 financial centre assessments provided by 1,455 financial services professionals from an online questionnaire. These assessments are weighted logarithmically to give more prominence to the most recent responses (see Appendix A).

By combining these financial centre assessments with 57 additional sources of data on competitiveness factors (the instrumental factors), the GFCI tracks global rankings as well as identifying more specific trends.

A summary of the assessments given to the 62 centres in the GFCI is shown in Table 13 below:

Table 13
Assessments of the GFCI Centres

Financial Centre	GFCI 5 Rank	Number of Assessments	Average Assessment	Standard Deviation of Assessments
London	1	1,289	801	164
New York	2	976	807	171
Singapore	3	677	738	188
Hong Kong	4	811	723	191
Zurich	5	755	702	192
Geneva	6	721	668	197
Chicago	7	525	671	210
Frankfurt	8	659	658	198
Boston	9	468	642	208
Dublin	10	795	640	185
Toronto	11	459	663	206
Guernsey	12	584	652	218
Jersey	13	646	650	230
Luxembourg	14	658	641	205
Tokyo	15	518	660	218
Sydney	16	411	660	219
San Francisco	17	406	639	211
Isle of Man	18	522	638	213
Paris	19	685	614	193
Edinburgh	20	603	627	215
Washington D.C.	21	382	596	229
Cayman Islands	22	495	625	220
Dubai	23	581	622	211
Amsterdam	24	538	605	201
Vancouver	25	304	583	239
Montreal	26	319	562	222
Hamilton	27	408	597	224
Melbourne	28	270	563	229
Munich	29	403	607	250
Stockholm	30	373	556	224
Glasgow	31	207	563	215

continued

Financial Centre	GFCI 5 Rank	Number of Assessments	Average Assessment	Standard Deviation of Assessments
Brussels	32	516	564	203
Gibraltar	33	245	588	213
British Virgin Islands	34	243	600	209
Shanghai	35	390	603	213
Bahamas	36	182	585	200
Monaco	37	191	583	208
Copenhagen	38	332	506	235
Oslo	39	279	485	239
Milan	40	408	532	209
Taipei	41	113	615	152
Vienna	42	340	520	212
Bahrain	43	299	541	220
Helsinki	44	284	490	234
Kuala Lumpur	45	137	588	200
Qatar	46	255	525	231
Madrid	47	405	511	193
Johannesburg	48	305	524	215
Mumbai	49	339	523	222
Bangkok	50	137	539	207
Beijing	51	322	513	215
Osaka	52	200	472	231
Seoul	53	240	499	240
Sao Paulo	54	219	496	240
Rome	55	341	458	203
Wellington	56	204	472	252
Lisbon	57	275	410	218
Prague	58	278	449	227
Warsaw	59	263	422	221
Moscow	60	358	403	221
Athens	61	298	364	206
Budapest	62	265	395	226

Table 14
Top 20 Average Assessments of GFCI Centres since GFCI 4

Centre	Number of Assessments	Average Assessment
New York	214	799
London	274	798
Singapore	137	763
Toronto	84	745
Hong Kong	177	731
Chicago	109	726
Zurich	152	721
Geneva	160	712
Sydney	91	705
Cayman Islands	94	704
Boston	94	699
San Francisco	79	696
Isle of Man	122	694
Tokyo	105	692
Frankfurt	141	686
Jersey	137	682
Vancouver	56	673
Dublin	183	666
Guernsey	138	666
Shanghai	73	663

Table 15
Centres from the top 30 with the highest increase in average assessments since

City Code	Up to GFCI 4	Since GFCI 4	Change
Vancouver	563	673	111
Montreal	539	648	108
Toronto	644	745	101
Cayman Islands	606	704	98
Melbourne	546	625	79
Washington D.C.	581	658	77
Isle of Man	620	694	74
Boston	628	699	71
San Francisco	625	696	71
Chicago	657	726	68

Table 15 shows that within the top 30 GFCI centres, North American centres (with the exception of New York) have faired well since GFCI 4. Two off-shore centres, the Cayman Islands and the Isle of Man, also saw good increases in average assessments.

Table 16 shows the nine centres included in the GFCI questionnaire that were not rated in the GFCI as they received fewer than 100 assessments each (the minimum number needed for inclusion in the GFCI index).

Table 16
Centres with Insufficient Number of Assessments to be ranked in GFCI

Financial Centre	GFCI 5 Rank	Number of Assessments	Average Assessment	Standard Deviation of Assessments
Shenzhen	-	25	628	188
Malta	-	41	588	166
Buenos Aires	-	51	541	227
Mauritius	-	39	521	187
Rio de Janeiro	-	47	515	220
Tallinn	-	74	509	271
Jakarta	-	80	498	219
Manila	-	74	447	198
St. Petersburg	-	87	434	220

Amongst these centres, Shenzhen is interesting in that it received a relatively high average assessment. There were however, only a small number of assessments given to Shenzhen and it will be interesting to see how this city performs when a greater number of assessments have been obtained. Several respondents did identify Shenzhen as both "likely to become more significant" and as a location where their firm is "likely to open an office in the next 2 to 3 years".

In addition to assessments, narrative responses to specific questions in the GFCI questionnaire help to shed light on changes from one edition of the GFCI to the next. Among these questions, the GFCI questionnaire asks which centres respondents think are likely to become more significant in the next few years:

Table 17
Centres Likely to Become More Significant

Financial Centre	Number of times mentioned
Dubai	26
Shanghai	23
Singapore	13
Mumbai	12
Beijing	8
Abu Dhabi	8

Dubai topped this list for GFCI 5 and as one respondent says:

> *"It will be very interesting to see how Dubai goes in the next year or two. If there is a regulatory 'knee-jerk' by the USA and UK governments, Dubai is now ideally placed to benefit."*
> A Zurich based asset manager

Shanghai and Singapore are in 2nd and 3rd places respectively in terms of likelihood of becoming more significant in the next few years. As one respondent puts it:

> *"The development of financial centres in Middle East and Asia should not be underestimated by policy makers in the West"*
> Geneva based asset manager

There is an increasing narrative focus on emerging centres in the Middle East and Asia accompanied by a perception that the economic crisis is of the West's making. Chart 5 however confirms that whilst developing centres have made progress in the GFCI ratings, they have also been affected by the financial crisis as shown by the GFCI 5 ratings:

The GFCI questionnaire also asks respondents where their organisations are most likely to open offices over the next few years, shown in Table 18.

Chart 5
Progress of Centres Likely to Become More Significant

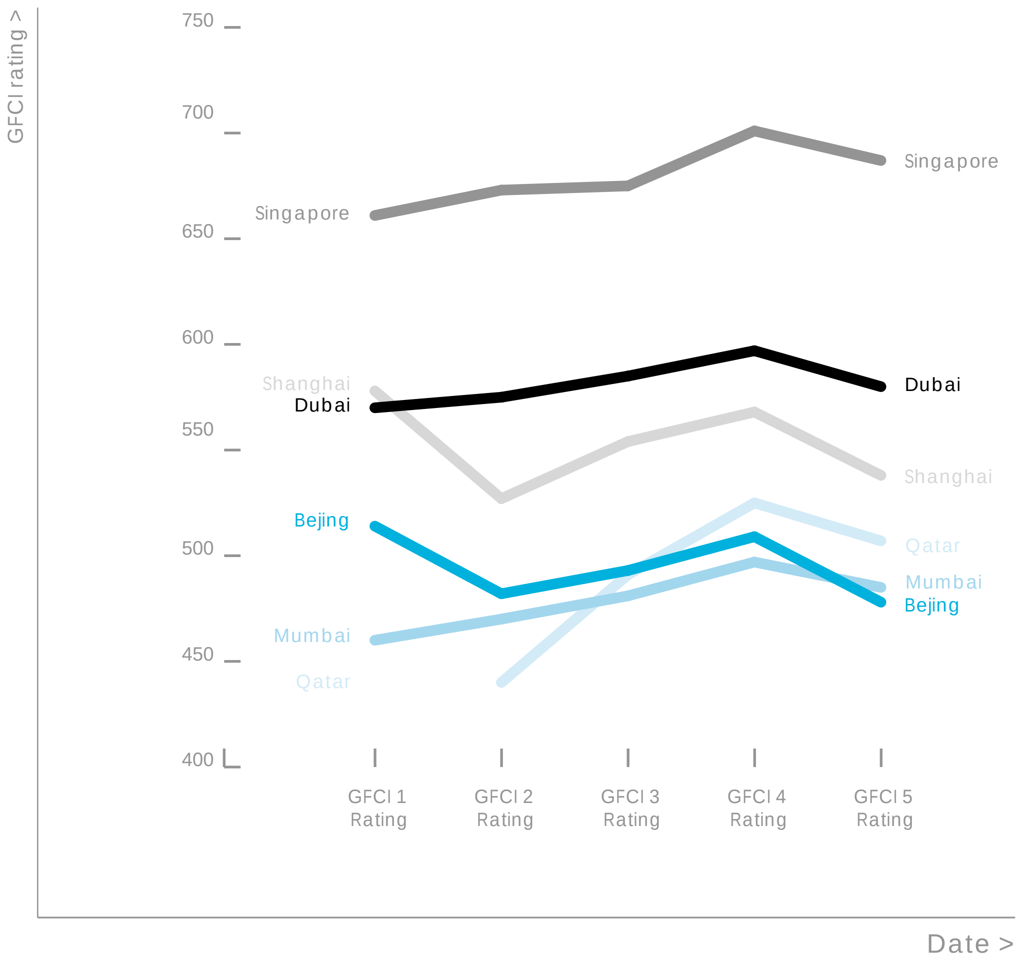


Table 18
Centres Where New Offices will be Opened

Financial Centre	Number of times mentioned
Singapore	14
Dubai	13
Shanghai	10
Hong Kong	8
Beijing	5

Singapore has done well in the overall GFCI, responding to respondents' priorities. The centre rose to 3rd place above Hong Kong in GFCI 4 and retained the position in this edition of the Index. In GFCI 5, Singapore also rose to 3rd place above Hong Kong among respondents in the Asset Management sub-index and the People sub-index.

Again, Asian centres seem to be the focus of growth, even in turbulent times, though Dubai continues to attract interest. As one respondent put it:

> *"New York, London, and Dubai are fairly aggressive in business development. Hong Kong has also been effective at it and will benefit no matter how or what Shanghai or Beijing does."*
> Hong Kong based investment banker

Other responses mention the perception of London's aging infrastructure, and diminishing focus on fostering a competitive business environment. A representative example is:

> *"London remains an important capital but I have serious concerns about tax regulatory creep, poor transport infrastructure and slow planning decision-making"*
> London based retail banking executive

While London does receive its share of criticism from respondents, it is notable that the centre consistently retains its position at the top of nine out of ten GFCI sub-indices. London also has both the history and volume of financial industries, and a sufficiently diverse number of strengths to off-set short-term negative reaction within the industry.

Regulatory burden continues to attract attention from GFCI respondents, with numerous comments criticising the continued uncertainty about changes in regulation and tax laws not just within the UK but in many developed countries. Indeed several respondents blame regulators in many leading financial centres for some of the current problems. One argument put forward is that the regulatory authorities have failed to maintain adequate competition in the market place and companies have become too big and too powerful to fail. If a company is too big to fail then the regulator looses power over that company – the company has become 'too big to regulate'.

There is also criticism that some of the international regulations are pro-cyclical and act to exaggerate the business cycle:

> *"Banks are being told on the one hand to extend more credit, and on the other hand the Basel II and IFRS regulations are encouraging banks not to lend as they have to maintain and strengthen their capital ratios."*
> Zurich based risk manager

The focus on the importance of regulatory changes and restrictions among respondents to GFCI has heightened dramatically in light of the global financial crisis with a trend in comments pointing out that the best regulations – even in turbulent times – are those generated by government in cooperation with leaders in the financial sector.

There are, of course, other factors that contribute to the success and failure of financial centres, some of which are under the control of the sector and governments that wish to encourage it, and many of which are not:

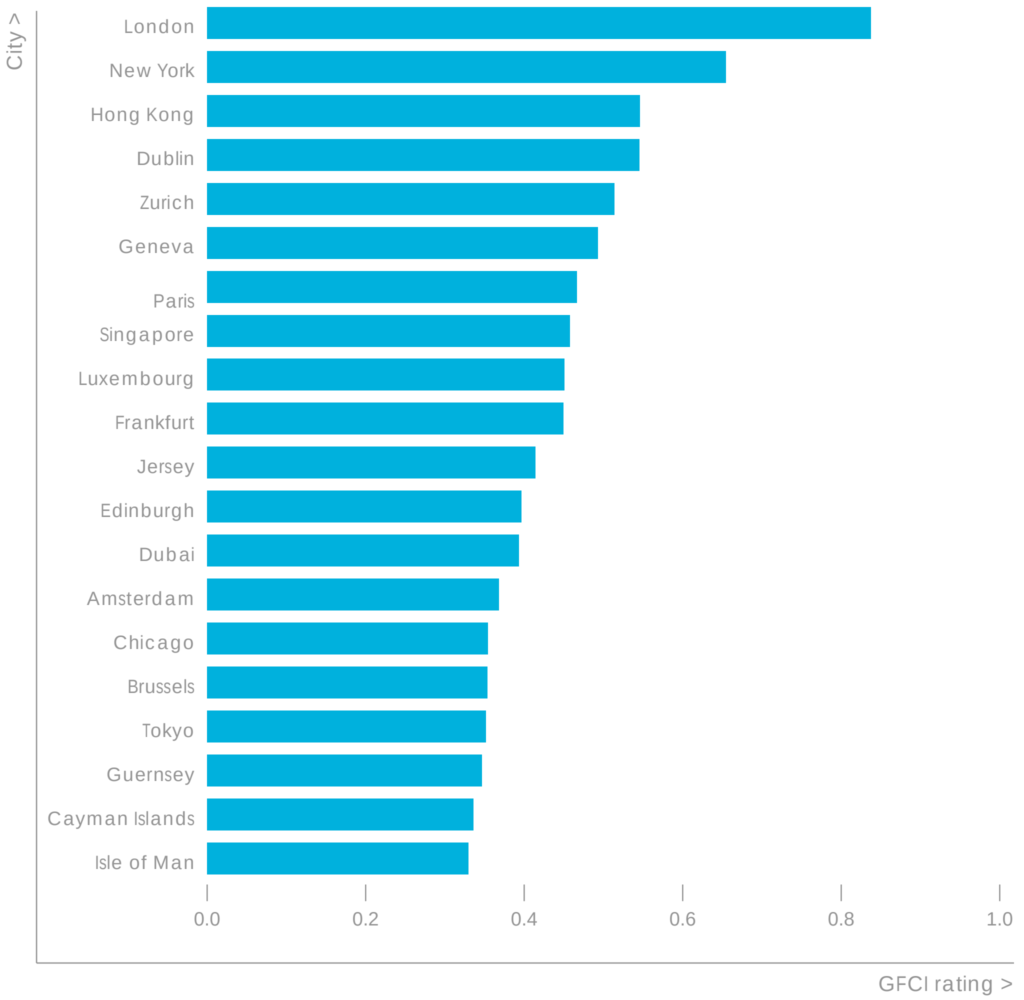
> *"The English language and time-zone factors continue to favour London. The weaker pound may help. Fiscal and monetary policy may*

improve with a change of government."
Jersey based private banker

Responses to the GFCI give a strong indication of 'connectivity' – how well connected a financial centre is with other centres. Respondents are asked to rate only those centres with which they are familiar. It follows that the number of assessments given to a centre by people not based there, indicate how well that centre is known by (and possibly visited by) non-residents – at least those in financial services. Chart 6 below shows the percentage of people not based in a centre who rated it:

As might be expected, the two global centres London and New York are more familiar to foreigners than other centres. There are however, a few surprises lower down the rankings. Dublin is in 4th place, Paris is in 7th and Dubai is in 13th. These centres appear better connected than their GFCI rating would suggest. Part of this effect may be explained by geographical proximity to centres where large numbers of respondents are based, but connectivity is clearly important and these results probably bode well for the well connected centres and we will track their future progress with interest.

Chart 6
Top 20 Centres most rated by Respondents not based there



6. Instrumental Factors

Of the 57 instrumental factors used in the GFCI 5 model the top 20 in terms of correlation[7] with the final index are:

Table 19
Top 20 Instrumental Factors by Correlation with GFCI 5

Instrumental Factor	R^2 with GFCI 5
World Competitiveness Scoreboard	0.555
Global Competitiveness Index	0.547
Financial Markets Index	0.534
Competitive Alternatives Survey	0.524
Private Equity Environment	0.521
Business Environment	0.480
Capital Access Index	0.452
Index of Economic Freedom	0.449
Economic Freedom of the World	0.423
Global Office Occupancy Costs	0.405
European Cities Monitor	0.401
The Access Opportunities Index – Business	0.396
E-Readiness Score	0.381
Ease of Doing Business Index	0.374
City Brands Index	0.369
Executive MBA Global Rankings	0.367
Corruption Perception Index	0.362
Opacity Index	0.332
Super Growth Companies	0.321
JLL Real Estate Transparency Index	0.297

This list is fairly similar to previous versions of the GFCI. This similarity indicates that the key measures of competitiveness have remained fairly consistent. The more general measures of well performing cities (e.g. The World Competitiveness Scoreboard, The Global Competitiveness Index, The Competitive Alternatives Survey and the Business Environment measure) are closely correlated to the GFCI as might be expected – successful cities tend to be strong on most measures.

It is interesting to examine patterns in changes to instrumental factors (remembering that most factors are updated annually and that only 22 of the 57 factors have been updated since GFCI 4).

In such turbulent conditions, the biggest changes in the instrumental factors values are those directly relate to trading. Examining the capitalization of Stock Exchanges, the average decline for the exchanges monitored by the World Federation of Exchanges (and located within GFCI centres) is in excess of 47%. It is unsurprising that since GFCI 4 most markets have shown large losses. The biggest losses are in European markets – out of the ten worst drops in capitalization, six are in European based stock exchanges.

The volumes for share trading, investment funds and bonds have all increased (many quite sharply) which is fairly typical in times of volatility. The values of both share trading and bond trading have also increased significantly in absolute terms. However, when adjusted for the increase in volume, the value of share trading has dropped by almost 27%. The value of bond trading has increased by

7 R^2, a commonly used measure of correlation, is used here. It should be noted that correlation is not a reflection of weighting - no weighting of instrumental factors is used in the GFCI model. Correlation is a measure of the extent to which the GFCI rankings are explained by each instrumental factor.

over 20%, perhaps showing a transfer away from equity to bonds that are perceived as less risky.

Another instrumental factor showing significant changes since GFCI 4 is Economic Sentiment, an index compiled by the European Commission to gauge the level of business and consumer confidence within the EU. When GFCI 4 factors were updated in mid 2008 there was still a lot of talk in the media that Europe could avoid a deep recession. Since GFCI 4 there has been a sharp decline in Europe (more than 25% on average). This reflects the gloomy outlook for Europe's economy – it is now being predicted that Europe is heading for a deeper and longer recession than many other parts of the world.

There has been a widespread increase in Operational Risk as measured by the Economist Intelligence Unit. Amongst the markets where operational risk has increased by more than 10% are many European countries. Finland and Ireland have shown the largest rises in this measure of risk but countries such as Portugal, Belgium, the Netherlands, Sweden, Denmark and Switzerland have also shown substantial rises. Outside Europe, Australia and South Korea are among the countries where the risk rating has increased significantly. Operational Risk for Canada and the USA has remained relatively stable.

There has been an increase in levels of corruption according to the Corruption Perceptions Index. Interestingly, the UK's score has increased the most in absolute terms – although it should be noted that the UK is in 16th place overall out of 180, ahead of the USA and Japan (joint 18th), and a number of other leading countries. Perceived corruption has also increased markedly in Norway (now 14th). Other significant increases are in Russia (147th), the Philippines (141st) and Italy (55th). Countries where things have changed for the better are Indonesia (126th), South Korea (40th), Poland (58th), Qatar (28th), and Bahrain (43rd).

GFCI 5 uses a new measure for corporate taxation. PricewaterhouseCoopers (PwC) have created a measure based on a notional 'financial services' firm and calculated total taxes payable by that firm in different centres. This contrasts with the OECD measure that uses 'headline' corporation tax rates. Table 20 shows the top 20 Centres in terms of the change this makes in tax rates comparing the values of the PwC methodology with the OECD methodology.

Table 20
Top 20 Centres by Increase in Corporate tax rates as measured by PwC

Financial Centre	Corporate Tax Rates (PwC)	Corporate Tax Rates (OECD)	Change
Milan	73.3%	33.0%	40.3%
Rome	73.3%	33.0%	40.3%
Budapest	57.5%	20.0%	37.5%
Paris	65.4%	34.4%	31.0%
Vienna	54.5%	25.0%	29.5%
Frankfurt	50.5%	21.9%	28.6%
Munich	50.5%	21.9%	28.6%
Madrid	60.2%	32.5%	27.7%
Osaka	55.4%	28.0%	27.4%
Tokyo	55.4%	28.0%	27.4%
Stockholm	54.5%	28.0%	26.5%
Prague	48.6%	24.0%	24.6%
Brussels	58.1%	34.0%	24.1%
Montreal	45.4%	22.1%	23.3%
Toronto	45.4%	22.1%	23.3%
Vancouver	45.4%	22.1%	23.3%
Athens	47.4%	25.0%	22.4%
Geneva	28.9%	6.7%	22.2%
Zurich	28.9%	6.7%	22.2%
Helsinki	47.8%	26.0%	21.8%

It is notable that many European cities have far higher effective tax rates under the PwC methodology. London and New York do not feature in the top 20 – London has an increase of 5.3% over the OECD measure (from 30.0% to 35.3%) and New York has an increase of 9.6% (from 32.7% to 42.3%).

All of the most influential instrumental factors were examined for regional patterns and no strong correlations between regions seem to exist. Each centre appears to have a very different set of variables – perhaps another reflection of the high degree of uncertainty that exists in financial services at the moment.

7. Forecasting

Stability

The GFCI allows for analysis of the centres with the most volatile competitiveness. Chart 7 contrasts the 'spread' or variance of the individual assessments given to each of the top 25 centres with the sensitivity to changes in the instrumental factors.

Chart 7
Variance of Assessments versus Sensitivity to Instrumental Factors – Top 25 Centres

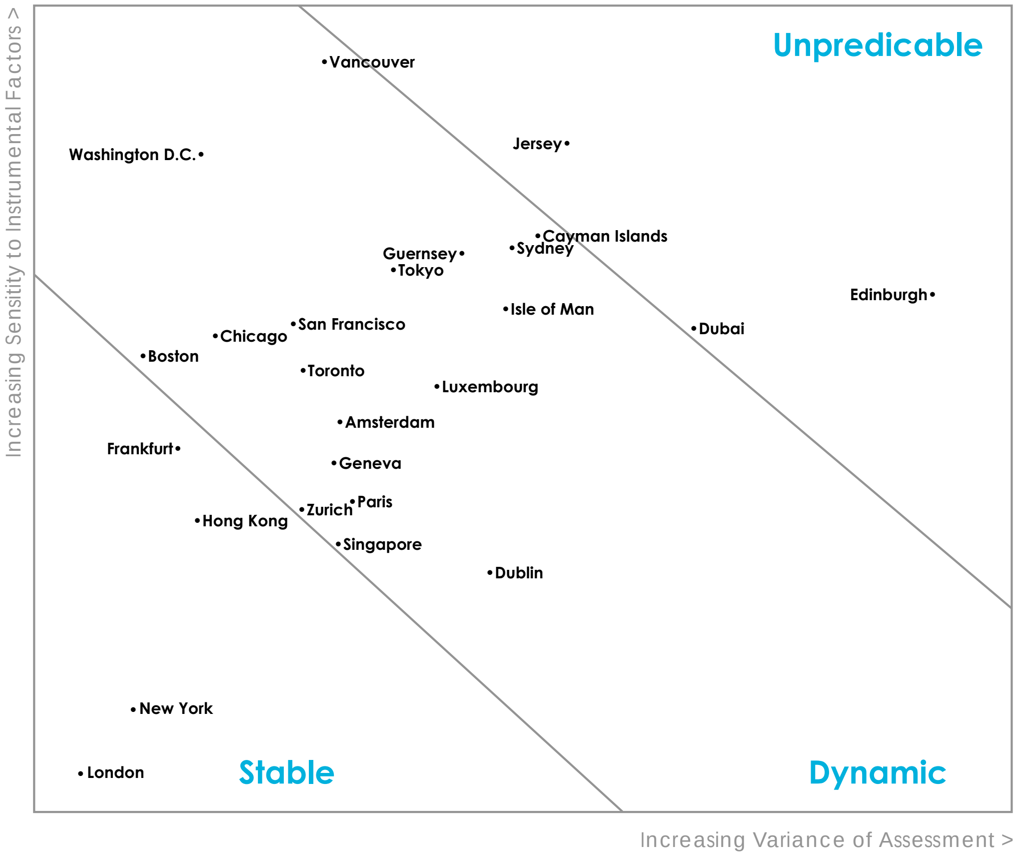


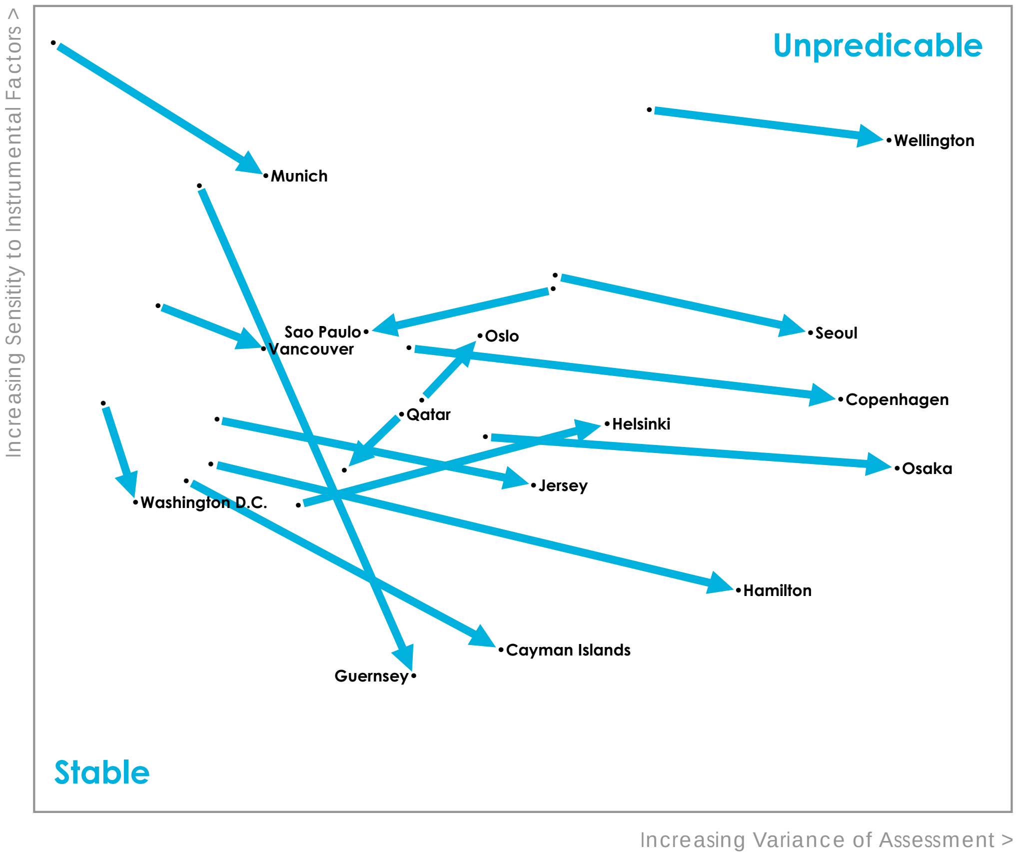
Chart 7 shows three 'bands' of financial centres. The 'Unpredictable' centres in the top right of the chart, such as Jersey, Edinburgh and Dubai, have a high sensitivity to changes in the instrumental factors and a high variance of assessments. These centres have the highest potential volatility of the top GFCI centres.

The 'Stable' centres in the bottom left of the chart such as London, New York, Hong Kong and Frankfurt, have a low sensitivity to changes in the instrumental factors and a lower variance of assessments. These centres are likely to exhibit the lowest volatility in future GFCI ratings. Looking back at previous editions of the GFCI, there is strong evidence that these centres do show much greater stability than the more volatile centres. The top 10 centres show, on average, over 25% less movement in GFCI ratings than other centres.

The centres in the central band might be classed as 'dynamic' and have the potential to move in either direction. The 'flight to safety' that GFCI 5 demonstrates is, in effect, a movement in favour of centres in the bottom left of the chart (stable centres) from the top right of the chart (unpredictable centres).

Chart 8 shows the 15 centres that appeared to be most volatile in GFCI 4. The movement in sensitivity is indicated by arrows showing where the centres moved to in the GFCI 5 model. For example, Guernsey has moved sharply downwards (indicating a reduction in its sensitivity to changes in instrumental factors) and a little to the right (indicating a small rise in its sensitivity to variance in the assessments it receives).

Chart 8
Most Volatile Centres in GFCI 4



The majority of the centres identified as 'volatile' can be seen to have moved – they have demonstrated their volatility. Analysis of ratings in previous editions of GFCI confirms that these centres are indeed volatile – the average change in their GFCI ratings over time is over 55% greater than the average change of all GFCI centres.

Virtually all the volatile centres have shown an increase in their sensitivity to the variance of their assessments. Sao Paulo and Qatar are the only two centres demonstrating a decrease in their sensitivity to assessments.

Reputation

Another source of insight into how a centre might perform in the future is its reputation as a financial centre. One potential measure of reputation, here termed 'reputational advantage' is based directly on the GFCI model. There are two measures of the competitiveness of a financial centre that are available from the GFCI model:

- the average assessment given to a centre by respondents to the online questionnaire;
- the GFCI rating (which is effectively the average assessment adjusted to reflect the instrumental factors).

If a centre receives a higher average assessment than the GFCI rating, this indicates that perceptions about a centre (a measure of reputation) are higher than the quantitative measures alone would suggest. Table 21 shows the 20 centres with the highest difference between average assessment and GFCI rating referred to here as 'reputational advantage'.

Table 21
Top 20 Centres by 'Reputational Advantage'

City	Reputational Advantage
Singapore	61
Sydney	60
Toronto	60
Tokyo	57
Jersey	48
Zurich	47
Guernsey	47
Isle of Man	43
Chicago	42
Hong Kong	41
New York	41
San Francisco	39
Geneva	37
Edinburgh	34
Luxembourg	34
Boston	32
Frankfurt	31
Dublin	27
Paris	21
London	14

This measure of reputational advantage shows that centres which actively promote their competitiveness for financial services (including Singapore, Sydney and Toronto) seem to gain a reputational edge. Toronto in particular has improved its reputation over the past two years by consistent marketing. Similarly, the off-shore centres led by Jersey, Guernsey and the Isle of Man, all of which also rigorously promote their status, appear to have generated a reputational advantage (that is, perceptions of a centre's competitiveness are more positive than instrumental factors alone show).

Interestingly, this measure of reputational advantage shows New York and London well down the list. This might be due to the reputational damage they have suffered as a direct result of the financial crisis – although it should be noted that this is not a measure of how highly a centre is regarded (where New York and London lead the field), but how large the disparity is between respondents' scores and the underlying data.

8. Conclusions

This latest version of GFCI reflects the recent global turbulence in the current economic climate – for the first time, all centres have seen their ratings fall. In previous GFCIs, over half of the centres have experienced rises in their ratings. The magnitude of these decreases has been particularly severe towards the lower end of the rankings, with an average drop of 40 points for the bottom ten centres, compared with an average fall of nine points for the top ten. The degree of volatility in the GFCI 5 assessments displays evidence of great uncertainly about the global economy. This uncertainly seems to have led to a 'flight to safety' with greater faith placed in the leading, established, financial centres than in less-established and emerging centres.

The GFCI 5 model utilises 57 instrumental factors, of which two are replacements for less relevant indices; 22 have been updated since GFCI 4. A total of 26,629 financial centre assessments from 1,455 financial services professionals have been used to compute GFCI 5 and produce the rankings. Of the 62 centres rated, 18 have risen in the rankings, 28 have fallen, 13 have remained unchanged and 3 are new entrants.

Reflecting the greater stability at the top of the rankings, the leading six centres have remained in the same positions as in GFCI 4. London remains in 1st place in the GFCI with a small lead over New York. Overall, the average assessments of New York are slightly higher than those of London. The gap between the top two centres and third placed Singapore has widened slightly. London and New York remain the only two genuinely 'global' financial centres and are inextricably interdependent. Whilst competitive, they are mutually supportive. The main threats to London and New York are perceived to be regulatory knee-jerk reactions to the credit crunch and the economic losses from the credit crunch and national recessions.

Singapore, Hong Kong, Zurich, Geneva, Chicago, Frankfurt, Boston and Dublin make up the rest of the top ten, with Boston and Dublin rising from 11th and 13th place respectively. Tokyo and Sydney have both fallen out of the top ten from GFCI 4, now featuring at 15th and 16th place respectively. Other large falls in the rankings were experienced by Gibraltar, the British Virgin Islands and Seoul. Vancouver and Montreal rose the most in the rankings.

Secondary centres in large regional markets have also withstood the storm relatively well, with Chicago, Frankfurt, Boston, and Dublin all in the top ten. These centres have also maintained or advanced their positions in the industry sector and areas of competitiveness sub-indices.

The volatility of ratings and changes in rankings has always been common among centres in the bottom half of the Index. The volatility of changes between GFCI 4 and GFCI 5 has increased markedly, however, another demonstration of the uncertainty that many in the financial services sector feel at present.

The GFCI is built to reflect evolution in the long-term competitiveness of financial centres. It responds to growth, investment, and innovation in financial centres. The model continues to grow and reflects changes in financial centres globally. Additional questionnaire responses and updated instrumental factors will continue to develop the Index over time.

Please make your views known by participating in the GFCI by rating the financial centres you are familiar with at: www.cityoflondon.gov.uk/GFCI. GFCI 6 will be published in September 2009.

Appendix A – 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 57 external sources were used in GFCI 5. 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 now have 26,629 financial centre assessments drawn from 1,455 respondents. Respondents assess the competitiveness of financial centres that they know. The online questionnaire is ongoing to keep the GFCI up-to-date with people's changing assessments.

The 57 instrumental factors were selected because the features they measure contribute in various ways to the fourteen competitiveness factors identified in previous research[8]. These are shown in Table 22.

8 Source: Z/Yen Limited, The Competitive Position of London as a Global Financial Centre., (November 2005).

Table 22
The Relative Importance Competitiveness Factors

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

Financial centres are added to the GFCI model when they receive five or more mentions in Question 15 of the online questionnaire – "Are there any financial centres that might become significantly more important over the next 2 to 3 years?" A centre is only given a GFCI rating and ranking if it received more than 100 assessments in the online questionnaire.

At the beginning of work on the GFCI, a number of guidelines were set out, to ensure that centre assessments and instrumental factors were selected and used so as to generate a credible, dynamic rating of competitiveness for financial centres. Additional Instrumental Factors are added to the GFCI model when relevant and meaningful ones are discovered.

The guidelines for independent indices used as instrumental factors are:

- 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 ideally be regularly updated.
- Relevant indices can be added to the GFCI model at any time.
- Updates to the indices are collected and collated at the end of each quarter.
- 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 ten centres will be included.

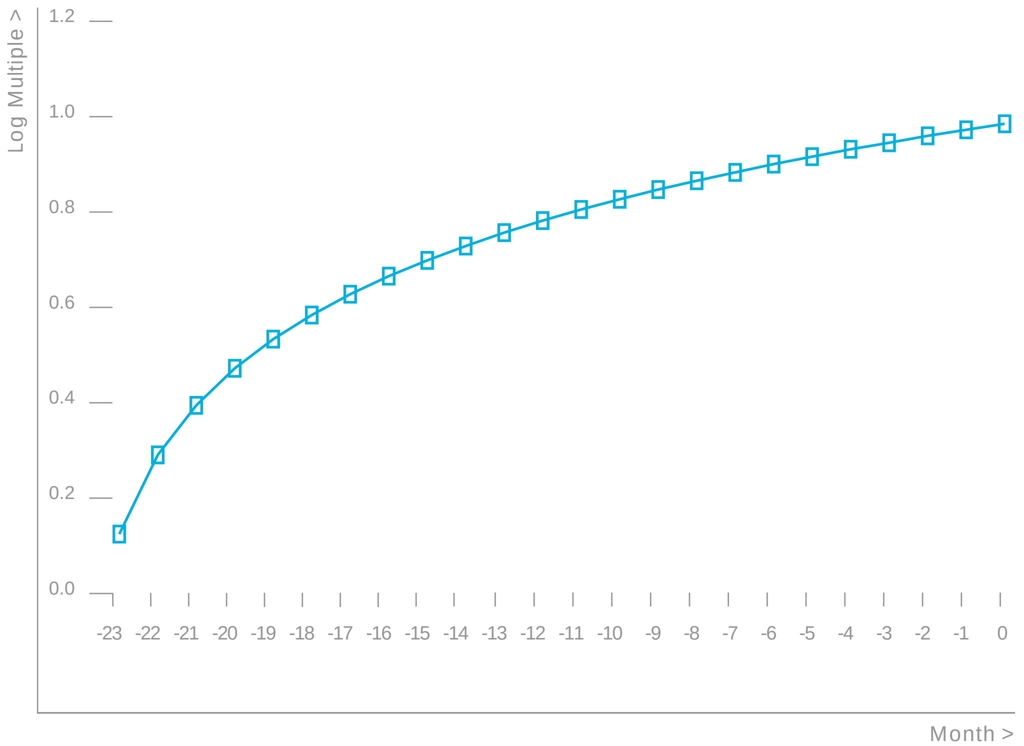
Creating the GFCI does not involve totaling or averaging scores across instrumental factors. An approach involving totaling and averaging would involve a number of difficulties:

- 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.
- 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 9
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 building of 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?

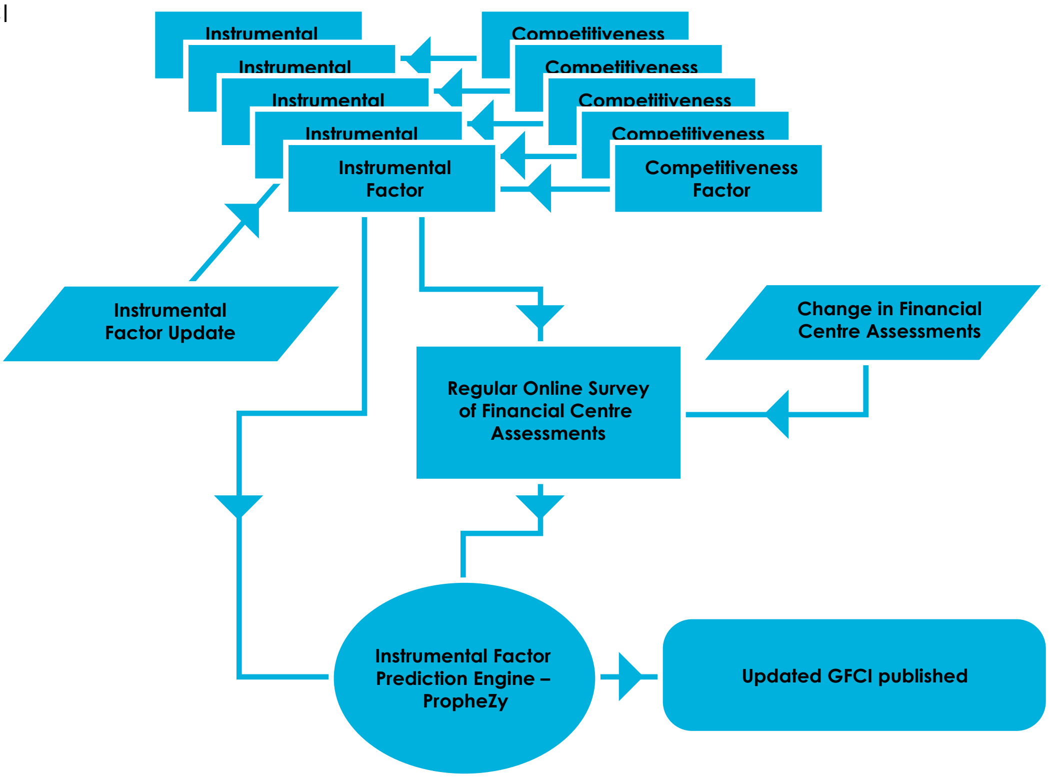
Or

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 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 in Chart 10.

Chart 10
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 and there are likely to be alternatives available once the GFCI is established.
- A strong international group of 'raters' can be developed as the GFCI progresses.
- Sector-specific ratings are being developed by using the business sectors represented by questionnaire respondents. This could make it possible to rate London as competitive in Insurance (for instance) while less competitive in Asset Management (for instance).

Part of the process of building the GFCI was extensive sensitivity testing to changes in factors of competitiveness and financial centre assessments. The accuracy of predictions given by the SVM was tested against actual assessments. Over 80% of the predictions made were accurate to within 5%.

Appendix B – The Online Questionnaire

The online questionnaire runs continuously and an emailed copy of the updated report is sent to all respondents.

The questions in the most recent version of the questionnaire are as follows:

1 Your name:

2 What is your job title/main area of responsibility?

3 The name of your organisation:

4 In which industry is your organisation?
- Investment Banking
- Commercial Banking
- Retail Banking
- Insurance
- Asset Management
- Legal Services
- Accounting Services
- Trade Association
- Regulatory Body/Central Bank
- Government
- Other – Please Specify

5 In which centre are the headquarters of your organisation?

6 Approximately how many employees are there at the headquarters of your organisation?
- Fewer than 100
- 100 to 500
- 500 to 1,000
- 1,000 to 2,000
- 2,000 to 5,000
- More than 5,000

7 Approximately how many employees does your organisation have worldwide?
- Fewer than 100
- 100 to 500
- 500 to 1,000
- 1,000 to 2,000
- 2,000 to 5,000
- More than 5,000

8 In which financial centre are you based?

9 If you would prefer to receive a copy of the research findings electronically, please enter your email address (this will not be passed to any third parties). Or if you've already given us your email address, just tick the box.

10 If you are familiar with any of the following European financial centres, please rate them as locations in which to conduct your business (1 being Very Poor and 10 being Excellent):
- Amsterdam
- Athens
- Brussels
- Budapest
- Copenhagen
- Dublin
- Edinburgh
- Frankfurt
- Geneva
- Glasgow
- Helsinki
- Lisbon
- London
- Luxembourg
- Madrid
- Milan
- Monaco
- Moscow
- Munich
- Oslo
- Paris
- Prague
- Rome
- St Petersburg
- Stockholm
- Tallinn
- Vienna
- Warsaw
- Zurich

11 If you are familiar with any of the following financial centres, please rate them as locations in which to conduct your business (1 being Very Poor and 10 being Excellent):
- Boston
- Buenos Aires
- Chicago
- Montreal
- New York
- Rio de Janeiro

- San Francisco
- Sao Paulo
- Toronto
- Vancouver
- Washington D.C.

12 If you are familiar with any of the following financial centres, please rate them as locations in which to conduct your business (1 being Very Poor and 10 being Excellent):
- Bahrain
- Bangkok
- Beijing
- Dubai
- Hong Kong
- Jakarta
- Kuala Lumpur
- Manila
- Mumbai
- Osaka
- Qatar
- Seoul
- Shanghai
- Shenzhen
- Singapore
- Taipei
- Tokyo

13 If you are familiar with any of the following financial centres, please rate them as locations in which to conduct your business (1 being Very Poor and 10 being Excellent):
- Gibraltar
- Guernsey
- Hamilton (Bermuda)
- Isle of Man
- Jersey
- Johannesburg
- Malta
- Mauritius
- Melbourne
- Sydney
- The Bahamas
- The British Virgin Islands
- The Cayman Islands
- Wellington

14 Do you have any comments regarding the competitiveness of the financial centres mentioned?

15 Are there any important financial centres we have missed?

16 Are there any financial centres that might become significantly more important over the next 2 to 3 years?

17 In which financial centre (or centres) is your organisation most likely to open up a new operation within the next 2 to 3 years?

18 Do you have any comments on the factors that affect the competitiveness of financial centres?

19 We are keen to track changes in people's perceptions about city competitiveness over time. Would you be prepared to participate in this questionnaire on a regular (approximately every six months) basis? In return you would receive a regular update on the Global Financial Centres Index.

20 Do you have any business contacts or associates who may be interested in helping us with this questionnaire? If so, please forward them a link to this questionnaire or enter their email address here (it will be used for no other purpose).

Appendix C – The Instrumental Factors

The instrumental factors are provided by a number of reputable organisations. The majority of these indices are publicly available and updated regularly. In the following descriptive list we mark those that have been updated between GFCI 4 and GFCI 5.

● – This index has been updated since GFCI 4

✱ – This index has been changed from a less relevant one since GFCI 4

Instrumental Factors for People

Executive MBA Global Rankings, Financial Times (2008)● – 109 business schools and their alumni were contacted, of which 101 were ranked and 8 excluded because there were too few alumni responses (a minimum alumni response rate of 20% was needed for valid data analysis). There are 20 different criteria used to determine the rankings, with weighted salary and salary percentage increase accounting for 40% of the weighting.
Source: http://rankings.ft.com/emba-rankings

Graduates in Social Science, Business and Law, World Bank (2008)● – A detailed outlook of the qualified work force available. It represents the share of graduates in social science, business and law as percentage of all tertiary education graduates, which is an indicator of the availability of graduates with education most relevant to the financial sector.
Source: www.worldbank.org/education

Gross Tertiary Education Ratio, World Bank (2008)● – A measure of the present and future composition of a country's workforce, in terms of skills. It represents the ratio of people that take tertiary education degrees as opposed to all of the country's population at graduation age, thus indicating the availability of people with higher education degrees as a share of the overall work force.
Source: www.worldbank.org/education

Human Development Index, UNDP (2007) – A measure of the average achievements in a country in three basic dimensions of human development: a long and healthy life, knowledge and a decent standard of living. It is calculated for 177 countries and areas for which data are available. In addition, human development indicators are presented for another 17 UN member countries for which complete data are not available.
Source: http://hdr.undp.org

Quality of Living Survey, Mercer HR (2008) – A survey basing its ranks on 39 key quality of living criteria which is regularly updated to take account of changing circumstances. A total of 215 cities have been considered in the latest rankings, with New York given an index of 100 and used as the base score.
Source: www.mercerhr.com

Happiness Scores, New Economic Foundation (2006) – The Happiness scores are compiled from responses to the survey question: "Taking all things together, would you say you are: very happy, quite happy, not very happy, or not at all happy?" The statistic was then obtained by adding the percentage of people who consider themselves quite happy or very happy and subtracting the percentage of people who consider themselves not very happy or not at all happy. The index is then adjusted for life expectancy and ecological footprint in order to measure the sustainability of happiness in terms of the country's resources that are needed for it.
Source: www.happyplanetindex.com

Personal Safety Index, Mercer HR (2008) – A personal safety ranking that covers 215 cities worldwide. Based on internal stability, crime, effectiveness of law enforcement and relationships with other countries. Personal safety is of utmost importance for employees that consider opportunities to work abroad. Companies that operate in places considered less safe may have difficulties in attracting skilled professionals.
Source: www.mercerhr.com

Number of Terrorism Fatalities, Nation Master (2007) – The number of terrorist incidents is an indicator of personal safety and quality of life as a whole. For our survey we used a total number of terrorist fatalities rather than fatalities per capita – the latter approach puts certain low-populated countries at a

significant disadvantage, namely the off-shore financial centres considered in the survey. For example using a per capita ratio ranks Gibraltar in 6th place, ahead of Afghanistan, which is ranked 11th.
Source: www.nationmaster.com

World's Top Tourism Destination, Euromonitor Archive (2007) – The World's Top 150 Tourism Destinations ranks cities by the number of international arrivals over a year. It is estimated that around 80% of arrivals are tourists but there is also an increasingly important constituent – the MICE (Meetings, Incentives, Conventions and Exhibitions) travellers. International top tourist destinations have a powerful incentive to invest in travel infrastructure, hotels and convention centres and thus improve the overall quality of living and working there,
Source: www.euromonitor.org

Average Days with Precipitation per Year, Sperling's BestPlaces (2008) – An indication of typical weather experienced in cities around the world. Precipitation is defined here as any product of the condensation of atmospheric water vapour that is deposited on the earth's surface i.e. rain, snow, hail, sleet and virga (precipitation that begins falling to the earth but evaporates before reaching the ground).
Source: www.bestplaces.net

Instrumental Factors for Business Environment

Business Environment, the Economist Intelligence Unit (2007) – Measures the quality of their business environment (adjusted for size) of the world's 82 largest economies (accounting for more than 98% of global output, trade and FDI). The model is also used to generate scores and rankings for the last five years and a forecast for the next five years.
Source: www.economist.com/markets/rankings

Ease of Doing Business Index, The World Bank (2008)o – A ranking was given to 181 economies based on their ease of doing business. A high ranking indicates that the regulatory environment is conducive to the operation of business. The index averages the country's percentile rankings on ten topics, made up of a variety of indicators, giving equal weight to each topic.
Source: www.doingbusiness.org/economyrankings

Operational Risk Rating, EIU (2008)o – An indicator of operational risk that monitors 150 countries and is updated every quarter or if certain events require it. The index is composed of ten different indicators weighted to reflect their importance from a business point of view. The underlying categories are: macroeconomic; foreign trade and payments; financial; tax policy; legal and regulatory; security; political stability; government effectiveness; labour market; and infrastructure.
Source: www.viewswire.com

Private Equity Environment, the Economist Intelligence Unit & the Apax Partners (2007) – This reflects how favourable a country's environment is for private equity and venture capital, which essentially provides an insight of how favourable the environment is for entrepreneurs. The index comprises 6 sub-indices with neutral weightings as follows: Overall environment for private enterprise; Financing environment; Market opportunities; Legal and policy environment; Entrepreneurial environment; Risk. **Source:** www.economist.com/markets/rankings

Global Services Location Index, AT Kearney (2008) – Designed as a measure of how attractive a destination is for off-shoring. It ranks 50 countries based on 43 indicators grouped in three major factors: Financial attractiveness – weighted 40% and covering compensation, tax and regulatory costs and infrastructure; People and skills availability – weighted 30% and covering experience and quality rating in remote services sector, labour force availability, education and attrition risk; Business environment – weighted 30% and covering country environment, infrastructure, cultural exposure and security of intellectual property. **Source:** www.atkearney.com

Opacity Index, Milken Institute / Kurtzman Group (2008) – 65 objective variables from 41 sources are used to obtain the index, which is a score between 0 and 100, calculated by averaging the scores given to each of five sub-indices (corruption, efficacy of legal system, deleterious economic policy, inadequate accounting/governance practices and detrimental regulatory structures). **Source:** www.milkeninstitute.org/publications

Corruption Perceptions Index, Transparency International (2008)○ – Expert assessments and opinion surveys are used to rank more than 180 countries by their perceived levels of corruption. Data were gathered from sources spanning the last three years. **Source:** www.transparency.org/publications

Wage Comparison Index, UBS (2008) – A study comparing gross and net wages of workers across 71 cities, using New York as the base city (with an index of 100). The indices were created using effective hourly wages for 14 professions, weighted according to distribution, net after deductions of taxes and social security. The GFCI uses the gross wage index. **Source:** www.ubs.com

Corporate Tax Rates, PwC (2008)✱ – PwC provided specific figures for the GFCI based on firms in the financial services industry. **Source:** PwC

Employee Effective Tax Rates, PwC (2008)○ – The tax rates were calculated by dividing the net compensation for each city by its gross compensation. PwC provided specific figures for the GFCI based on a more typical financial service employee.
Source: PwC

Personal Tax Rates, OECD (2008)○ – The OECD provides annual figures of average personal income tax rates at average wages, by family type. For the purposes of this study, the all-in rate (a combination of central and sub-central government income tax, plus employee social security contribution, as a percentage of gross wage earnings) for a single person with no children was used. **Source:** www.oecd.org

Total Tax Receipts (As a Percentage of GDP), OECD (2008)○ – The statistics are taken from the taxation table in the report "OECD in Figures".
Source: http://oberon.sourceoecd.org

Index of Economic Freedom, the Heritage Foundation (2008) – A study of 162 countries against a list of 50 independent variables divided into ten broad factors of economic freedom. The higher the score on a factor, the greater the level of government interference in the economy and the less economic freedom a country enjoys. **Source:** www.heritage.org/index/countries.cfm

Economic Freedom of the World Index, the Fraser Institute (2008)○ – This is a joint venture involving seventy-one research institutes in seventy-one countries around the world. The index ranks 130 countries according to 42 different indicators split into five components – size of government, legal structure/security of property rights, access to sound money, freedom to trade internationally and regulation of credit, labour and business.
Source: www.freetheworld.com/release.html

Financial Markets Index, Maplecroft (2007) – Scores were given to countries based on their specific risks to financial system stability over a short-term financial investment time horizon. The index focuses on five different types of risk – economic, sovereign, banking system, stock market and corporate sector – with each containing several different components.
Source: http://maps.maplecroft.com

Political Risk Index, Maplecroft (2008) – Countries are given scores most commonly based on analysis of the past, present and future political situation and the related effects on the investment climate. The measure of political risk is based on 2006 country data provided by the World Bank Institute.
A composite indicator is derived from six separate WBI governance datasets: voice and accountability, political stability, government effectiveness, regulatory quality, rule of law and control of corruption.
Source: http://maps.maplecroft.com

Instrumental Factors for Market Access

Capital Access Index, Milken Institute (2008) – A study looking at 122 countries representing 99% of global GDP, and ranking them on more than 58 measurements, including the strength of their banking systems and the diversity and efficiency of financial markets.
Source: www.milkeninstitute.org/research

Master Card Centres of Commerce, Master Card (2008) – This index is developed by a world renowned panel of expert in economics, sociology and urban studies. It classifies 75 famous world cities according to their significance in international commerce and as global and regional economic and cultural centres. It groups 43 indicators and 74 sub-indicators with different weightings into 7 major factors: Legal and political framework; economic stability; ease of doing business; financial flow; business centre; knowledge creation and information flow; liveability.
Source: www.mastercard.com/us/company/en/wcoc/index.html

Access Opportunities Index, SRI International (2008)✱ – Access is described as "a catalytic process that enables interactions, contacts and exchanges among people, businesses and nations." The concept of the index is to display how accessible different countries are or how easy it is for international market transactions to be implemented. It consists of 22 variables that measure physical and information access for 75 countries in three different classifications of access opportunities – those for people, businesses and nations.
Source: www.sri.com/news/releases

Securitisation, International Financial Services London (2008) – A list of countries, ordered by their annual value of securitisation issuance. Securitisation offers a way for an organisation to convert a future stable cash flow into a lump sum cash advance. This conversion is achieved by converting the future cash flows into tradable securities which are sold as a means of raising capital.
Source: www.ifsl.org.uk

Six measures from the World Federation of Stock Exchanges (2008)● – Capitalisation of Stock Exchanges/Value of Share Trading/Volume of Share Trading/Volume of Trading in Investment Funds/Value of Bond Trading/Volume of Bond Trading. The World Federation of Exchanges provides a monthly newsletter called Focus, which contains monthly statistics tables. For all of the indicators, the latest available year-to-date figures were used.
Source: www.world-exchanges.org

International Finance Index, Oxford University Centre for the Environment (Dariusz Wojcik) (2007) – This displays the average of a country's share in international financial services activities. It consists of four major groups of services that are characteristic for international finance: external bank loans and deposits, trading of cross-listed stocks, international debt securities and over-the counter trading of foreign exchange plus derivatives based on interest rates. The last two components are combined as they are very closely related to each other. The index is derived from a sample of 41 countries that account for 91% of the world's GDP, including all significant international financial centres.
Source: http://papers.ssrn.com

International Finance Location Quotient, Oxford University Centre for the Environment (Dariusz Wojcik) (2007) – This displays the relation of a country's share in international financial services to its share of GDP in a sample of 41 countries that account for 91% of world's GDP (i.e. all major world economies). Countries with high IFLQ have a developed international financial services sector but the higher the score, the more dependent their economy is on international financial services.
Source: http://papers.ssrn.com

International Finance Diversity Index, Oxford University Centre for the Environment (Dariusz Wojcik) (2007) – This is a measure of the diversification of a country's international financial services sector. Financial services are divided into four major groups: external bank loans and deposits, international debt securities, trading of cross-listed stocks and

over-the-counter foreign exchange plus derivatives based on interest rates. The more these services are diversified the higher the value of the index, a value of 1 meaning that the four major groups are equally diversified and a value of 0 meaning that the relevant country's whole international financial sector is based on only one of these groups.
Source: http://papers.ssrn.com

Instrumental Factors for Infrastructure

Global Office Occupancy Costs, DTZ (2007) – A guide to accommodation costs in prime office locations, covering 137 business districts in 49 countries worldwide, comparing the occupancy costs per workstation as opposed to unit area, in order to better reflect the true costs of accommodation. To facilitate ranking on a global scale, total occupancy costs per workstation are expressed in US$.
Source: www.iproperty.com.my

Office Space Across the World, Cushman & Wakefield (2008) – A report focusing on occupancy costs across the globe over the preceding twelve months, ranking the most expensive locations in which to occupy office space.
Source: www.cushwake.com/cwglobal

Competitive Alternatives Survey, KPMG (2008) – A measure of the combined impact of 27 cost components that are most likely to vary by location, as applied to specific industries and business operations. The eight month research programme covered more than 100 centres in nine industrialised countries, examining more than 2,000 individual business scenarios, analysing more than 30,000 items of data. The basis for comparison is the after-tax cost of start-up and operations, over ten years.
Source: www.competitivealternatives.com

European Cities Monitor, Cushman & Wakefield (2008)o – An annual study examining the issues that companies regard as important in deciding where to locate their business. There are a total of twelve issues and the overall scores are based on survey responses from 500 companies in nine European countries, with each respondent ordering the twelve issues in terms of importance. A weighting system is then used to determine the overall city scores.
Source: www.cushwake.com/cwglobal

Direct Real Estate Volumes, Jones Lang LaSalle (2007) – This measures the total value of commercial real estate traded in a market during a 12 month period (including Office, Retail, Industrial and Hotel investments). Residential, Development and Entity-level deals are excluded. Data come from more than 150 offices worldwide as well as third-party data providers. **Source:** www.joneslanglasalle.co.uk

Real Estate Transparency Index, Jones Lang LaSalle (2008)o – The transparency of global real estate markets is ranked according to responses to 27 questions on a questionnaire – with a score of one being 'transparent' and a score of five being 'opaque'. Ranking is qualitative following global categorisation standards and is conducted by Jones Lang LaSalle research and capital markets professionals and partners.
Source: www.joneslanglasalle.co.uk

E-Readiness Ranking, EIU (2008) – The E-readiness score is published annually by the Economist Intelligence Unit. It ranks countries according to the state of their information and communications technology (ICT) and the ability of its businesses, governments and consumers to make use of it. The need for such an index arises from the reasoning that the more a country does on line the more efficient (and transparent) its economy will be. The index evaluates the way a country influences its information and communications infrastructure through political, economic, technological and social means. It is composed of nearly 100 criteria with different weightings that are grouped in six main categories: connectivity, business environment, social and cultural environment, legal environment, consumer and business adoption (in other words, the scale on which businesses and consumers use ICT), as well as government and policy vision (in other words, how committed the country's government is). The latest survey includes different countries with scores from zero to ten, zero being the lowest and ten the highest score. **Source:** www.economist.com/markets/rankings

Airport Satisfaction, Skytraxx (2008) – This ranks a number of international airports based on airport quality service audits (tailored to the individual client) and airport customer satisfaction surveys. All products and services delivered in an airport are taken into account including retail outlets and restaurants, since they are all part of the overall airport experience. The ranking uses star ratings with five stars being the highest and 1 the lowest. **Source:** www.airlinequality.com/AirportRanking/ranking-intro.htm

Instrumental Factors for General Competitiveness

World Competitiveness Scoreboard, IMD (2008) – An overall competitiveness ranking for the 55 countries and regional economies covered by the World Competitiveness Yearbook. The economies are ranked from the most to the least competitive and performance can be analysed on a time-series basis. **Source:** www.imd.ch/research

Global Competitiveness Index, World Economic Forum (2008)o – Publicly available hard data and the results of the Executive Opinion Survey (a comprehensive annual survey conducted by the World Economic Forum, together with its network of partner institutes in the countries covered by the report) were used to create rankings of global competitiveness. The latest survey polled over 11,000 business leaders in 131 economies worldwide. **Source:** www.weforum.org

Economic Sentiment Indicator, European commission (2008)o – An indicator of overall economic activity, based on 15 individual components, split between five confidence indicators, which are weighted in order to calculate the final score. The confidence indicators (and their weightings) are: industry (40%), services (30%), consumer (20%), retail trade (5%) and construction (5%). **Source:** http://ec.europa.eu/economy_finance

Global Business Confidence, Grant Thornton (2008) – The International Business Report (IBR) studies the views and expectations of the top business people across 34 different countries and it is used to measure the overall business confidence of the relevant country. The survey shows the balances of the percentage of respondents with rising confidence over the percentage with falling confidence. A large number of empirical studies indicate high level of correlation with economic time series and suggest that it performs no worse than other much more complicated methods for analysing business sentiment to predict economic results.
Source: www.grantthorntonibos.com

FDI Inflows as Percentage of Gross Fixed Investment, EIU (2008) – As the world is becoming increasingly globalised, FDI is becoming an ever more important part of a country's economic landscape and one that requires expertise in distribution of capital, i.e. financial services. FDI inflows are also a good indicator of the degree to which a country's economy is open and business friendly (or offers high return on investment) according to foreign businesses perceptions. The data is compiled by the Economist Intelligence Unit and the measure used for GFCI is FDI inflows as a percentage of gross fixed investment.
Source: www.economist.com/markets/rankings

Super Growth Companies, Grant Thornton (2007) – A ranking of countries based on the proportion of Super Growth Companies (companies which have grown considerably more than the average measured against key indicators including turnover and employment) within the country. The index forms part of the Grant Thornton International Business Owners Survey (IBOS), which surveys more than 7,000 business owners in 34 different countries.
Source: www.grantthornton.com.sg

Retail Price Index, the Economist (2008)o – The Economist provides weekly economic and financial indicators, including a chart on prices and wages. The GFCI uses the percentage change in consumer prices over the last year as a measure of Retail Price Index. **Source:** www.economist.com/markets/indicators

Cost of Living Survey, Mercer HR (2008)● – The survey is designed to help multinational companies and governments establish the compensation allowances for their expatriate employees. It measures the relative cost, in US dollars, of 200 different items, including food, household goods, clothing, housing, transport and entertainment. New York is used as the base of comparison with a score of 100. **Source:** www.mercerhr.com

City Brands Index, Anholt (2007) – An analytical ranking of the world's city brands, updated quarterly using survey responses from nearly 20,000 consumers in 18 countries. The results determine how centres are perceived by others in terms of six components – international status/standing, physical attributes, potential, pulse and basic qualities (which include hotels, schools, public transport and sports). **Source:** www.simonanholt.com

Business Trip Index, EIU (2007) – The Economist Intelligence Unit's business trip index aims to rank the best and worst destinations for business travel. It monitors 127 cities worldwide and is a useful measure of all the aspects that can turn a business trip into a pleasurable or into a nightmarish experience. Unlike most such surveys this one is not solely focused on costs although they are included with significant weighting (20%). Apart from costs the survey factors in characteristics such as prevalence of crime (petty and violent crime are quantified separately), the threat of terrorism, discomfort of climate, culture, food and drink, social and religious restrictions, the availability of quality hotels, distance to the nearest airport, quality of the road network, public transport, healthcare and several others, all with different weightings according to their significance. The most preferred destination – in this case Vancouver – has the lowest score in the range zero to 100, whereas the worst – Port Moresby in Papua New Guinea – has the highest.
Source: www.economist.com/media/pdf/BUSINESS_TRIP_INDEX.pdf

The City of London

The City of London is exceptional in many ways, not least in that it has a dedicated local authority committed to enhancing its status on the world stage. The smooth running of the City's business relies on the web of high quality services that the City of London Corporation provides.

Older than Parliament itself, the City of London Corporation has centuries of proven success in protecting the City's interests, whether it be policing and cleaning its streets or in identifying international opportunities for economic growth. It is also able to promote the City in a unique and powerful way through the Lord Mayor of London, a respected ambassador for financial services who takes the City's credentials to a remarkably wide and influential audience.

Alongside its promotion of the business community, the City of London Corporation has a host of responsibilities which extend far beyond the City boundaries. It runs the internationally renowned Barbican Arts Centre; it is the port health authority for the whole of the Thames estuary; it manages a portfolio of property throughout the capital, and it owns and protects 10,000 acres of open space in and around it.

The City of London Corporation, however, never loses sight of its primary role – the sustained and expert promotion of the 'City', a byword for strength and stability, innovation and flexibility – and it seeks to perpetuate the City's position as a global business leader into the new century.

DOMINE DIRIGE NOS

CITY OF LONDON