March 2008

# THE GLOBAL FINANCIAL CENTRES INDEX 3


CITY OF LONDON

**The Global Financial Centres Index** is published by the City of London. The authors of the report are Mark Yeandle, Alexander Knapp, Michael Mainelli and Ian Harris of the Z/Yen Group.



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PO Box 270, Guildhall
London
EC2P 2EJ

**www.cityoflondon.gov.uk/economicresearch**

# The Global Financial Centres Index

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# Foreword

Michael Snyder

Chairman, Policy and Resources Committee, City of London

The *Global Financial Centres Index 3* (GFCI 3) is the third report produced by the Z/Yen Group for the City of London which ranks financial centres based on external benchmarking data and current perceptions of competitiveness. Previous GFCI reports, and other City of London commissioned research, such as *The Impact of Taxation on Financial Services Business Location Decisions*, show that international financial services firms, and the talented staff that they employ, are both highly mobile and responsive to a range of both market and non-market factors. These factors are important to policy makers looking to maintain or improve the competitiveness of their markets.

GFCI 3 shows that, as in the case of GFCI 1 and GFCI 2, London and New York are the leading global financial centres, with London continuing to be ahead but by a smaller margin than in the previous report. This reflects as before the excellent access of London to markets, skilled staff and a proportionate regulatory regime. With the Financial Services Action Plan being rolled out across Europe we are seeing a progressive and welcome reduction in market barriers to international financial services. In this context, infrastructure and taxation are likely to be even higher on the list of competitive factors influencing the perceptions of individuals employed in global firms. On these measures London's lead is being squeezed and there is no room for complacency if we are to safeguard and improve the resilience and competitiveness of this financial centre.

Since the publication of GFCI 2, the collapse of the sub-prime mortgage market in the US, the subsequent write down of US mortgage-backed financial products, and the dissemination of the associated credit shock and liquidity crisis through the global financial system via securitised debt products have shown that international financial markets are highly interdependent and strongly linked to the real economy. In this connection it is also worth noting the increased attention that is being paid to the role of the emerging markets of China, India and Brazil.

As in previous reports, the evidence gathered in GFCI 3 reflects the inputs by financial services respondents and I would encourage professionals around the globe to participate in the ongoing survey at www.cityoflondon.gov.uk/GFCI

*Michael Snyder*
*City of London*
*March 2008*

**Chart 1**
The GFCI World


Helsinki
Stockholm
Oslo
Glasgow
Edinburgh
Isle of Man
Copenhagen
Dublin
London
Amsterdam
Brussels
Guernsey
Paris
Frankfurt
Jersey
Munich
Luxembourg
Zurich
Vienna
Geneva
Milan
Monaco
Rome
Madrid
Gibraltar
Beijing
Tokyo
Osaka
Shanghai
Bahrain
Dubai
Qatar
Hong Kong
Mumbai
Singapore
Johannesburg
Sydney
Melbourne

# 1. Executive Summary

The City of London's Global Financial Centres Index (GFCI) was first published in March 2007. It rated and ranked each major financial centre in the world in terms of competitiveness. The original research was then updated and expanded and the results were presented in GFCI 2, published in September 2007. The growth and additional data in successive editions also enabled the Index to highlight the changing priorities and concerns of finance professionals.

The present report, GFCI 3 (the third in the series), updates some of the external indices used in the GFCI model and adds eight new indices of features contributing to competitiveness. Since GFCI 2, 411 additional respondents have filled in the online questionnaire, thereby providing 7,193 new assessments from financial services professionals across the world. The GFCI 3 model provides ratings for centres using a total of 62 external indices (called "instrumental factors") and a total of 18,878 assessments from 1,236 respondents (see Appendix A for more information on the GFCI Methodology.)

GFCI 3 contains a special chapter (Chapter 5) focusing on skills in the financial sector, a critical component of competitiveness. This chapter draws on GFCI and selected external data and analysis. The focus on skills reflects a widely-held view summed up by one respondent:

> *The availability of skilled, high quality people, and the support received from government to recruit or bring them into the jurisdiction is the single greatest multiplier in all other aspects of successful business…*

The top eight centres in GFCI 3 have maintained the same rankings as in GFCI 2. GFCI 3 shows again that London and New York are the two leading global financial centres, some 90 points ahead of the next two centres. Singapore (ranked number 4) is gaining slightly on Hong Kong (ranked number 3), with the gap between those two centres narrowing in GFCI 3 to just 20 points.

London has halved its lead over New York (dropping from 806 points to 795 out of 1,000, and a reduced lead of nine points), possibly reflecting the run on the UK bank Northern Rock and prospective changes in the UK non-domiciled taxation system, both of which generated comment from respondents. The overall rankings use a combination of questionnaire responses and external indices. Using only the 7,193 assessments collected through the online questionnaire since GFCI 2, the average assessment rating of New York actually

1 To understand the methodology used to create the GFCI, including the enhancements made to the methodology between GFCI 1 and GFCI 2, please refer to Appendix A.

exceeds the average assessment rating of London (by 839 points against 793).

London maintained its overall lead in all five areas of competitiveness, that is, people, business environment, market access, infrastructure and general competitiveness. The responses were also broken down by the sector of the respondents, and, for the first time, New York has overtaken London in the Banking Sub-Index. This may have been driven by a perception of the banking respondents that there has been a less effective regulatory response to the problems at the Northern Rock bank in the UK than by the US in general to the global liquidity shock. Chicago advanced from eighth to sixth place, despite continuing negative comment from respondents about Sarbanes-Oxley regulatory requirements in the US.

The Gulf State centres have risen strongly in the ratings between GFCI 2 and GFCI 3. Dubai continues to be identified in assessments as a key and growing regional hub, and Bahrain and Qatar have experienced the biggest increase in the ratings, by 59 and 51 points, respectively. All of the Gulf State centres seem to benefit from substantial investment in financial infrastructure.

Off-shore centres performed increasingly well across the board in GFCI 3. The two main financial centres in the Channel Islands were listed separately in this Index, with Jersey ranking 16th, and Guernsey 19th out of the top 50 (compared with their combined ranking of 23rd in GFCI 2). Gibraltar (26th) and the British Virgin Islands (27th) were new to the GFCI. Although the Cayman Islands (25th) and Hamilton, Bermuda (28th) gained eleven points in the ratings, they moved downward in the rankings because of new entries to the Index from off-shore and other centres. The Isle of Man remained in 21st place.

Johannesburg and Shanghai, both identified as "Volatile" in GFCI 2, scored substantially higher in the ratings here. Johannesburg gained 48 points in the ratings, and Shanghai 27 points, although falling from 30th to 31st in the GFCI 3 rankings. Respondents still identified them as notably dynamic on both a regional and global scale.

Among the financial centres to watch, the top three cities identified as becoming "…significantly more important over the next two to three years…" were Dubai, Shanghai, and Singapore.

Issues of regulation and access to dynamic pools of skilled labour were repeatedly identified as key concerns, though transportation infrastructure remained a frustration in the most competitive financial centres.

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

**Table 1**
The GFCI 3 Ratings of the Top Ten Financial Centres
(Figures in brackets are the ranks and ratings of GFCI 2)

| | | | |
|---|---|---|---|
| London | 1(1) | 795(806) | London remains in top place in GFCI 3, despite losing 11 points from its rating in GFCI 2, after slipping slightly across the board in assessments made after the difficulties of Northern Rock and the publication of proposed changes in the tax treatment of non-domiciled residents, and in the light of continuing criticism of its airport and other transport infrastructure. London does, however, remain in the top quartile of instrumental factors (see Appendix C), and is still rated very highly by most questionnaire respondents, demonstrating its resilience as a financial centre. |
| New York | 2(2) | 786(787) | New York also remains in the top quartile in over 80% of its instrumental factors and has only dropped by one point since GFCI 2. For the first time, respondents from the banking sector rated it more highly than London, and it remained strong in all other sectors in spite of continued criticism from respondents over burdensome regulatory requirements under Sarbanes-Oxley. |
| Hong Kong | 3(3) | 695(697) | Hong Kong remains comfortably in third place, losing only two points overall in the ratings. It also retained a strong position in the five key competitiveness areas, though slipping one place to 4th among respondents in the insurance sector. |
| Singapore | 4(4) | 675(673) | Singapore performs well in GFCI 3, moving two points closer to Hong Kong. It was one of only two of the top ten to gain points (the other being Tokyo), and was rated 5th in the world by respondents in the insurance sector, where it had failed to make the top ten previously. Singapore's banking regulatory environment is still perceived as very strong. |
| Zurich | 5(5) | 665(666) | Zurich remains the strongest niche centre in GFCI 3. Private banking and asset management are its key specialisms. Its high ratings in the key areas of competitiveness have not changed since GFCI 2 and it has gained 35 points in Insurance. |
| Frankfurt | 6(6) | 642(649) | Frankfurt remains a key European hub for finance. It improved its standing on people and labour issues since GFCI 2 among respondents, and remained strong on other competitive factors, including professional services. |
| Geneva | 7(7) | 640(645) | Geneva is the third financial centre in continental Europe, with continuing high ratings for asset management, banking, and government/regulatory issues. It has, however, slipped in ratings for insurance and professional services. |
| Chicago | 8(8) | 637(639) | The number two centre in the US received higher ratings in GFCI 3 than previously in several competitive areas, especially business environment, and general competitiveness, as well as for banking and government/regulatory issues. |
| Tokyo | 9(10) | 628(625) | Tokyo has overtaken Sydney to move into ninth place. It and Singapore are the only two centres in the top ten to gain points in the GFCI 3 ratings. Its economy continues to strengthen, and it has the second-largest stock market in the world (by capitalisation). These two features offset long-term regulatory difficulties and poor access to international financial personnel. |
| Sydney | 10(9) | 621(636) | Sydney dropped to 10th place in GFCI 3, but was rated highly by respondents in the banking sector and will continue to be a key regional hub in Asia-Pacific. In spite of its geographic isolation, it has strong advantages in English language markets, and quality of life. |

* the theoretical maximum GFCI rating is 1,000

# 2. Background

The City of London regularly commissions research on financial centre competitiveness. The Global Financial Centres Index[1] (GFCI) was designed to extend the City of London's research by providing an ongoing rating system for financial centres worldwide.

The first edition of the GFCI, published in March 2007 (GFCI 1), evaluated the competitiveness of financial centres worldwide. Both GFCI 1 and the September 2007 edition (GFCI 2) showed that London and New York were the two key global financial centres, followed at some distance by the third-placed centre, Hong Kong.

Financial centres funnel investment toward innovation and growth in their domestic economies, regionally, and globally. Vibrant, competitive financial centres give cities economic advantages in information, knowledge and access to capital. Although financial centres compete with one another, the competition is not a 'zero sum' game. A strong financial centre, whether domestic, niche, regional, international or global, connects the wider economy to the global financial community. Cities that are part of the global financial network through their financial centres gain from global trade and growth. Inward and outward investment opportunities increase the wealth of cities that have financial centres, and increase the range of opportunities for their citizens.

The GFCI is regularly updated to reflect changes over time, and this report, GFCI 3, shows the current position, and changes in ratings of competitiveness since GFCI 2.

The GFCI has also continued to mature as an index and methodology, reflecting the inherent stability of most financial centres globally. GFCI 3 has an additional 411 new respondents and 7,193 individual financial centre assessments that have contributed to a statistical 'solidity' of the resulting rankings. While there will still be volatility within centres in the Index, it will likely be as a result of more clearly identifiable stimuli, and economic/political events in the financial sector.

Over the past year, the GFCI dataset has continued to expand, as shown below:

| | 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 |

1 Z/Yen Group Limited, *The Global Financial Centres Index 1*, City of London Corporation (March 2007).

This edition adds 12 new financial centres to the model to be rated, bringing the total number of centres to 66. Seven of these new centres received fewer than 50 assessments, however, thus they were not assessed, and are excluded from the GFCI rankings here (see Table 21 for details). In addition to comprehensive coverage of financial centres, this issue also uses a clearer breakdown of centres by region in the questionnaire. In terms of the instrumental factors contributing to competitiveness, 28 of the 62 factors have been updated and eight new ones added.

One important aim of the GFCI is to stimulate debate about which factors contribute most to making a financial centre competitive by providing an ongoing rating system. Since its original publication, the GFCI has generated much comment from financial professionals around the world. The publication of GFCI 1 and 2 may also have had an impact on the perceptions of financial service professionals, as these first two editions received widespread press coverage and were distributed extensively to the financial services community.

The GFCI is based on fourteen factors of competitiveness, which were originally identified by research in 2003[2] and 2005[3]. These factors are grouped into five key areas – people; the business environment; market access; infrastructure and general competitiveness. The features (or Instrumental Factors) that contribute to the fourteen factors of competitiveness are drawn from indices compiled by external sources; the scope of the external indices used in the GFCI has been further enhanced and expanded in this report by updating the indices and adding new data.

Each of the five key areas covers several aspects of competitiveness.

- **People** involves the availability of good personnel, the flexibility of the labour market, business education and the development of 'human capital'. The research specified in footnote 3 identified human capital as the single most important factor in financial centre competitiveness. Consequently this report devotes a chapter (Chapter 5) to the topic of skills.

- **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. The online questionnaire contains a question about the most important competitive factors for financial centres and in GFCI 2 regulation

2 Centre for the Study of Financial Innovation, *Sizing up the City – London's Ranking as a Financial Centre*, Corporation of London (June 2003).
3 Z/Yen Limited, *The Competitive Position of London as a Global Financial Centre*, Corporation of London (November 2005).

was mentioned by more questionnaire respondents (41%) than any other factor. Too onerous a regulatory environment directly affects the competitiveness of a financial centre.

- **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** has to do mainly with 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.

# 3. The GFCI

The GFCI provides **ratings** for financial centres calculated by a 'factor assessment model'. This combines i) instrumental factors (external indices of features) that contribute to the fourteen factors of competitiveness (see Appendix A) with ii) the responses of financial services professionals to a comprehensive questionnaire (the assessments of financial centres):

- **Instrumental factors:** 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 62 external sources (an increase of eight over GFCI 2) were used in GFCI 3; the sources are described in detail in Appendix C. These eight new sources include, for example, Operational Risk Ratings, Business Confidence Index, e-Readiness score, Total Capitalization of Stock Exchanges, and the Tertiary Graduation Ratio. Not all financial centres are represented in all the external sources; and the statistical model takes account of these gaps.

- **Financial centre assessments:** GFCI 3 incorporates responses to an ongoing online questionnaire completed by international financial services professionals assessing financial centres with which they are personally familiar (see Chapter 7 for details). The online questionnaire runs continuously to keep the GFCI up-to-date with people's changing assessments.

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 was 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?" Full details of the methodology behind the GFCI can be found in Appendix A. The top 50 financial centres rated in GFCI 3 are shown in Table 2 (and a list of all centres in the GFCI 3 model can be found in Tables 20 and 21).

This latest version of GFCI shows that of the top 50 centres, 23 have fallen in rank, eight have risen, eleven remain unchanged, and eight are new entrants to the Index.

**Table 2**
The GFCI Financial Centre Ratings – The Top 50

| Financial Centre | GFCI 3 Rank | Change in Rank since GFCI 2 | GFCI 3 Rating | Change in Rating since GFCI 2 |
|---|---|---|---|---|
| London | 1 | - | 795 | -11 |
| New York | 2 | - | 786 | -1 |
| Hong Kong | 3 | - | 695 | -2 |
| Singapore | 4 | - | 675 | 2 |
| Zurich | 5 | - | 665 | -1 |
| Frankfurt | 6 | - | 642 | -7 |
| Geneva | 7 | - | 640 | -5 |
| Chicago | 8 | - | 637 | -2 |
| Tokyo | 9 | 1 | 628 | 3 |
| Sydney | 10 | -1 | 621 | -15 |
| Boston | 11 | 1 | 618 | -3 |
| San Francisco | 12 | 2 | 614 | 6 |
| Dublin | 13 | 2 | 613 | 8 |
| Paris | 14 | -3 | 612 | -10 |
| Toronto | 15 | -2 | 610 | -3 |
| Jersey* | 16 | 7 | 607 | 35 |
| Luxembourg | 17 | - | 605 | 9 |
| Edinburgh | 18 | 2 | 604 | 17 |
| Guernsey* | 19 | 4 | 603 | 31 |
| Washington D.C. | 20 | -2 | 597 | 8 |
| Isle of Man | 21 | - | 597 | 14 |
| Glasgow | 22 | New | 592 | New |
| Amsterdam | 23 | -7 | 585 | -14 |
| Dubai | 24 | -2 | 585 | 10 |
| Cayman Islands | 25 | -1 | 575 | 11 |
| Gibraltar | 26 | New | 574 | New |
| British Virgin Islands | 27 | New | 574 | New |
| Hamilton | 28 | -3 | 573 | 11 |
| Melbourne | 29 | -10 | 573 | -15 |
| Montreal | 30 | -2 | 560 | 22 |
| Shanghai | 31 | -1 | 554 | 27 |
| Stockholm | 32 | -6 | 553 | -1 |
| Vancouver | 33 | -2 | 548 | 23 |
| Brussels | 34 | -7 | 548 | 2 |
| Munich | 35 | -6 | 546 | 11 |
| Bahamas | 36 | New | 544 | New |
| Monaco | 37 | New | 522 | New |
| Milan | 38 | -7 | 520 | 1 |
| Bahrain | 39 | 3 | 514 | 59 |
| Helsinki | 40 | -9 | 512 | -6 |
| Johannesburg | 41 | - | 511 | 48 |
| Madrid | 42 | -10 | 509 | -7 |
| Vienna | 43 | -11 | 507 | -8 |
| Copenhagen | 44 | -9 | 502 | 14 |
| Oslo | 45 | -11 | 495 | -5 |
| Beijing | 46 | -10 | 493 | 11 |
| Qatar | 47 | -3 | 491 | 51 |
| Mumbai | 48 | -10 | 481 | 11 |
| Rome | 49 | -13 | 471 | -8 |
| Osaka | 50 | -18 | 469 | -33 |

In GFCI 2 Jersey and Guernsey were grouped together as the Channel Islands.

Note: Scores have been rounded to the nearest whole number, so where there is an apparent tie, centres have been placed according to their underlying scores.

What change in the ratings is considered significant? At this stage in the development of the GFCI, a movement of less than ten points (1% on a scale of 1,000) is considered insignificant[4]. A movement of between 10 and 30 points signifies that the competitiveness of a financial centre needs to be watched. A movement of more than 30 points shows that a major change in the competitiveness of a financial centre may be under way.

The top eight centres remain unchanged in rank since the previous index, with Sydney dropping below Tokyo from 9th to 10th. Eight centres new to GFCI made the top 50 this year.

Major movers include Jersey (+35), Guernsey (+31), Shanghai (+27), Bahrain (+59), Johannesburg (+48), and Qatar (+51). As in the previous two editions of the GFCI, this can be a result of a large variance in centre assessments (some respondents rate them highly and some respondents rate them poorly), or a high sensitivity to instrumental factors (their ratings react strongly to changes in instrumental factors), or both. Osaka showed the greatest fall in the ratings (-33), followed by Sydney and Melbourne (-15 each).

Dubai and Qatar, both identified in GFCI 2 as emerging, volatile centres, have continued to gain significance in GFCI 3, highlighting their role as important regional financial hubs in the Middle East and beyond. The consistently high price of oil and massive investments by national governments in the creation of financial hubs have helped to raise these two centres in the Index. Whether they can continue to climb depends on many factors, not least of which is broad improvement in all five competitive aspects, in particular financial infrastructure, where both received relatively low scores.

Some centres are no longer in the top 50 of GFCI 3, for a variety of reasons. Some are now substantially lower in rank without a corresponding drop in rating (Mumbai, Rome, Seoul, Wellington, Sao Paulo, Prague and Warsaw) as a result of new centres being added and scoring more highly in the Index. Osaka, in contrast, dropped 18 ranks, but also lost 33 points in the GFCI ratings, which indicates that more than just a 'displacement' effect is taking place since GFCI 2.

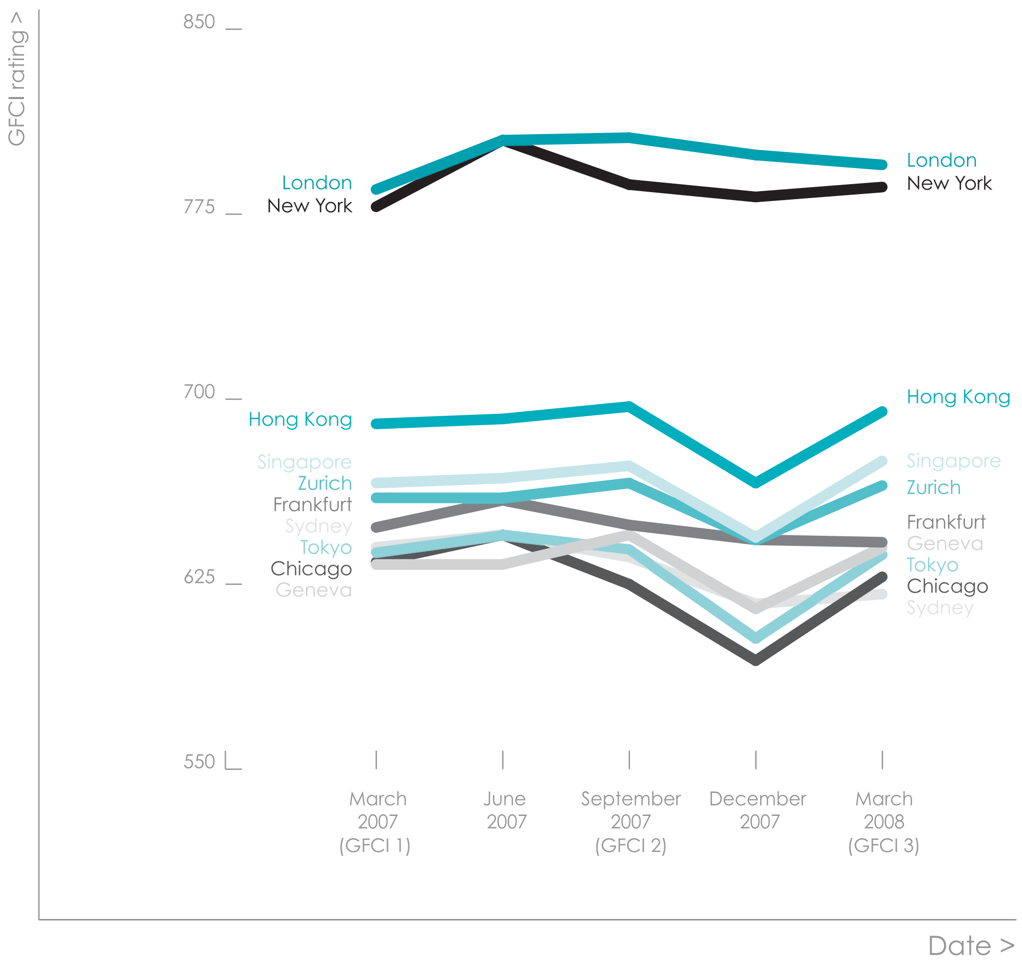
Other centres deserve note as well. Wellington, which had fallen 61 points in GFCI 2 and was highlighted as particularly sensitive, dropped completely out of the top 50 in GFCI 3. Shanghai again demonstrated its volatility, rising 27 points after dropping 49 in GFCI 2.

4 In GFCI 2 we estimated significance at 25 points, and highlighted that the threshold would fall with the expansion of the data set and duration of the GFCI.

Dubai, followed by Shanghai, continued to score well among respondents who identified them as the two centres most likely to increase in importance over the next two to three years, followed by Malta and Singapore.

Chart 1 displays the change in ratings (points scored) of the top ten centres since the publication of GFCI 1 in March 2007.

**Chart 1**
The GFCI Top Ten Financial Centres March 2007 to March 2008



As in previous editions of the GFCI, London (795) and New York (786) remain the world's leading financial centres, separated by only nine points on a scale of 1,000, and still more than 90 points higher than the next-rated centre, Hong Kong (695).

As discussed in the previous editions, successful financial centres can fulfil one or more of five different roles:

- **Global** financial centres – there are currently only two centres that can claim to fulfil this role, London and New York. Global financial centres have sufficient critical mass of financial services institutions to dispense with intermediaries and to connect international, national and regional financial services participants directly. An asset manager in Munich, for example, can trade in financial instruments directly with a broker in New York without having to go via an intermediary in, for example, Frankfurt.
- **International** financial centres conduct a significant volume of cross-border transactions – those transactions that involve at least two locations in different jurisdictions. Hong Kong, for example, is an international financial centre that is involved in a significant proportion of Asian financial transactions.
- **Niche** financial centres are worldwide leaders in one sector; several centres score highly on the basis of being strong in one particular niche of financial services, such as Zurich for private banking or Hamilton (Bermuda) for reinsurance. Although these niche financial centres will almost certainly never rival London or New York as global financial centres, they are often as strong as London or New York within their own specialist area.
- **National** financial centres conduct a significant proportion of a particular country's financial business. Toronto, for example, is the national financial centre of Canada. Where there are multiple financial centres in a country, for example, Canada, Australia, Germany or the US, the situation is complicated. In Canada, for instance, the GFCI covers Toronto (ranked 15th), Montreal (ranked 30th) and Vancouver (ranked 33rd). All three are sizeable financial centres, but Toronto is the national centre. In countries where there are several financial centres, the national centre is frequently the centre for foreign exchange transactions.
- **Regional** financial centres are defined here as centres that conduct a large proportion of regional business within one country. Chicago, as well as being an international centre, is also a regional centre for the Mid –West of the US.

The roles that the top ten financial centres can play are shown in Table 3:

**Table 3**
The Different Roles of the Top Ten Financial Centres

| Centre | Global | International | Niche | National | Regional |
|---|---|---|---|---|---|
| London | ■ | ■ | ■ | ■ | ■ |
| New York | ■ | ■ | ■ | ■ | ■ |
| Hong Kong | | ■ | | ■ | |
| Singapore | | ■ | | ■ | |
| Zurich | | ■ | ■ | ■ | |
| Frankfurt | | ■ | | ■ | |
| Geneva | | ■ | ■ | | |
| Chicago | | ■ | | ■ | ■ |
| Tokyo | | ■ | | ■ | |
| Sydney | | ■ | | ■ | ■ |

In the past, it has been assumed that international financial centres developed because of strong domestic economies. Yet the size of the domestic markets served by London and New York does not seem to be correlated with the rating of their international role in the GFCI. The US economy is at least five times larger than that of Britain's, but London and New York are rated similarly as financial centres.

In fact, 'traffic' between the domestic economy and the global financial community is critical. The key function of the domestic financial community is not its ability to service the domestic economy's needs domestically; rather it is its ability to service the domestic economy's needs wherever and however they are best serviced. Thus, a key measure for financial centres, in addition to how effective they are at providing services locally, is how effective they are at providing choice and access to global financial services. On this measure, protected domestic financial players are clearly a hindrance. Competition leads to appropriate connectivity with the global financial markets and connectivity to appropriate global finance is critical to national economic performance.

GFCI 2 showed that London was 19 points ahead of New York. In GFCI 3 this differential is reduced to nine points. This move is, in part, a result of New York's most recent centre assessments being higher than those of London – in the 7,193 'raw' assessments collected via the questionnaire since GFCI 2, the average rating for New York actually exceeds the average rating of London (839 points against 793).

The reduction in London's lead in the GFCI could be attributable to several factors:

- The reputation of the UK regulatory environment has been damaged in some markets by the financial instability at Northern Rock. It has been widely reported that the division of regulatory oversight between the Bank of England, the FSA and the UK government has led to gaps in the control of banks. A potential conflict of regulatory objectives has been identified – maintaining a stable banking system (not allowing a bank to fail) versus encouraging a greater amount of risk taking.
- The tax regime for non-domiciled UK residents is scheduled to change. Income arising overseas has not previously been taxed in the UK for non-domiciled individuals. This has given the UK significant tax advantages which are likely to reduce once proposed changes are implemented. One senior respondent to the GFCI stated:

  > *London is deluding itself to consider the Non-Dom tax factor as incidental to the success of the city as a financial centre. It's in for a rude awakening.*

  Although it remains to be seen to what extent the Government will take these considerations into account.
- The reduction in impact of certain clauses of the Sarbanes Oxley legislation together with a reported reduction in the costs of Sarbanes Oxley compliance in the US.

New York still has competitive disadvantages, including the more litigious nature of the US's business environment and higher brokerage charges than in London. Overall, London and New York continue to be very close competitively, as well as mutually supportive.

# 4. Analysis of Financial Centres

Certain trends and insights into financial centres' competitiveness are best understood when considered with more detailed analysis.

"Sensitivity", sets out the statistical analysis of factors used by GFCI to assess the competitiveness of financial centres; this subsection also assesses the sensitivity of the GFCI ratings to each of the five groups of factors of competitiveness. It also examines the potential sensitivity of the ratings to future changes in perception and circumstances. This analysis has been central in each GFCI publication and is useful in understanding both the methodology behind the ranking and ratings, and identifying notable trends and highlights among the centres.

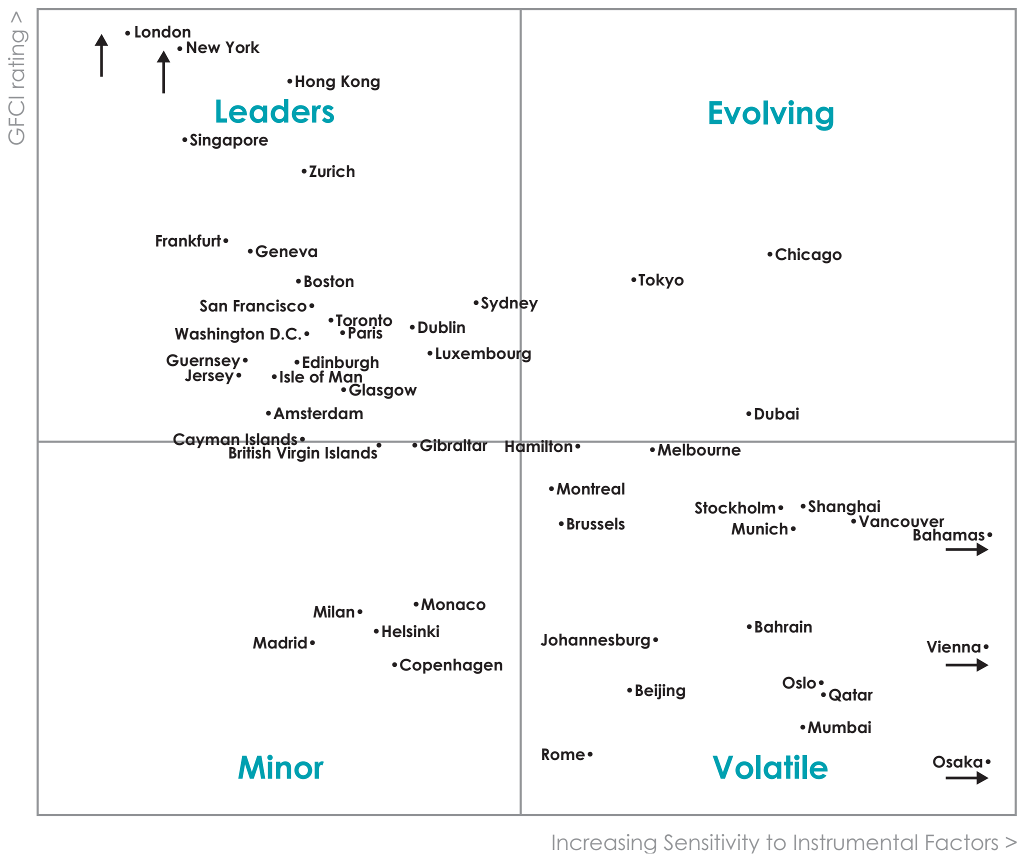
GFCI 3 can also be analysed by "Industry Sectors", setting out rankings of financial centres by type of respondent (banking, asset management, insurance, professional services and government & regulatory).

The findings of GFCI 3, as with the previous two editions, show that a centre needs to be good at most things in order to lead in financial services. Where the top centres appear to be uncompetitive in a particular factor, this may in fact be a product of its success as opposed to its failure. For example, commercial and domestic property prices are high in London because demand exceeds supply. If people did not want to locate in London, property prices would fall. The ratings of the top financial centres, such as London and New York, are less sensitive to some particular features of competitiveness and there is less variation between the assessments made of them by financial professionals than in the case of other cities. As a result, their GFCI ratings are likely to be fairly stable.

Ratings of other centres, such as Oslo and Vienna are more sensitive to particular factors and there is a wide variation in assessments of them by financial professionals; thus they may change position markedly in successive editions of GFCI.

In order to examine how stable the rankings might be in the future, the overall GFCI rating is contrasted with a centre's sensitivity to changes in the five key areas of competitiveness. The five key areas (people, business environment, market access, infrastructure and general competitiveness) were each examined to see how they changed financial centre rankings. The consequent variance of the scores is termed 'sensitivity'. If a centre's ranking changed markedly when only one of the five groups of factors is applied, we may infer that it has much potential to rise or fall in the ranking. If a centre's ranking remained stable even though only one set of factors was applied, it is more likely to remain near its present position. Chart 2 contrasts GFCI ratings with sensitivity:

**Chart 2**
The Top 50 Financial Centres GFCI 3 rating versus Sensitivity to Change in the Instrumental Factors




This categorisation identifies four types of financial centre:

- **Leaders:** obviously London and New York, but also centres with strong scores in competitive factors and strong domestic markets;
- **Minor:** centres that are not rated as highly, and are unlikely to improve in the near term;
- **Volatile:** centres that are not rated as highly, but might be able to move upwards rapidly if they could improve in some respects;
- **Evolving:** centres with high ratings, but susceptible to change. It is interesting to see that Dubai and Chicago are already matching some of the established centres and have

the sensitivity to instrumental factors to move towards the group of 'leaders'. Tokyo is classified as evolving and is a centre that used to count itself as a leader, but it is still recovering from difficulties it experienced during the 1990s.

Another measure of how volatile a financial centre's ranking might be is the 'spread' or variance of the individual assessments given to each centre (that is, the degree to which some respondents assessed them highly and other respondents assessed them poorly). In Chart 3, the sensitivity to instrumental factors (from Chart 2) and the variance of assessments are contrasted:

**Chart 3**
The Top 50 Financial Centres Variance of Assessments versus Sensitivity to Instrumental Factors

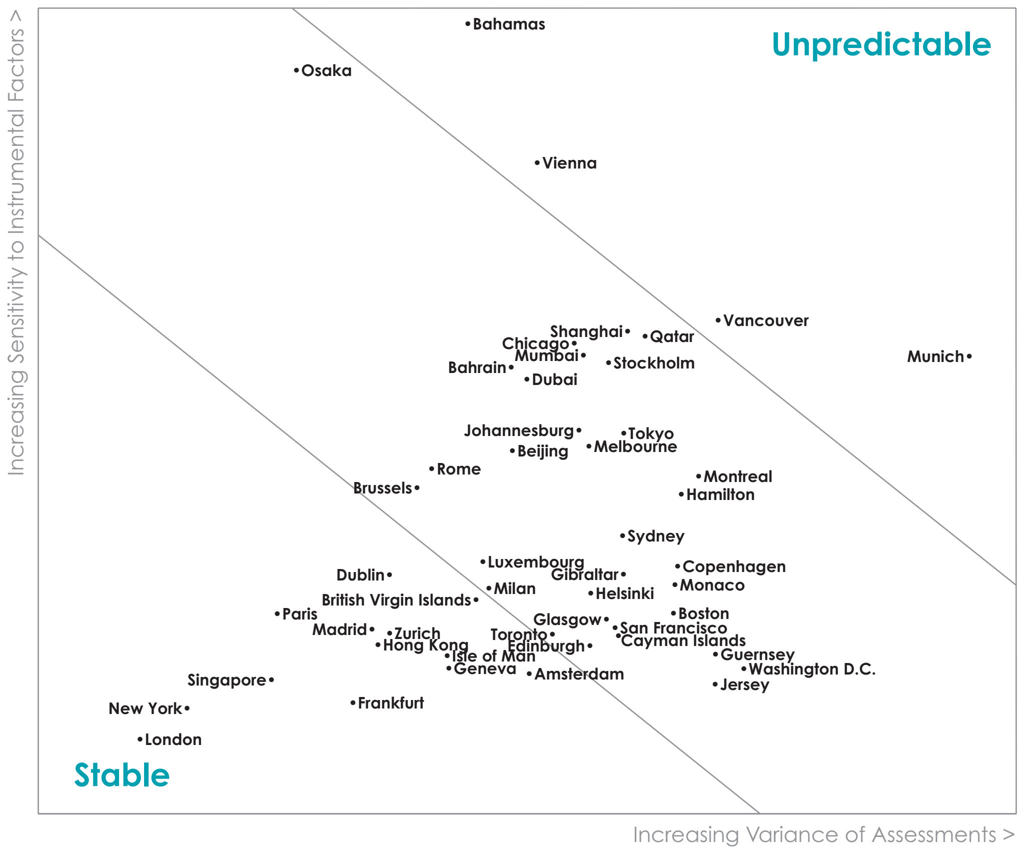


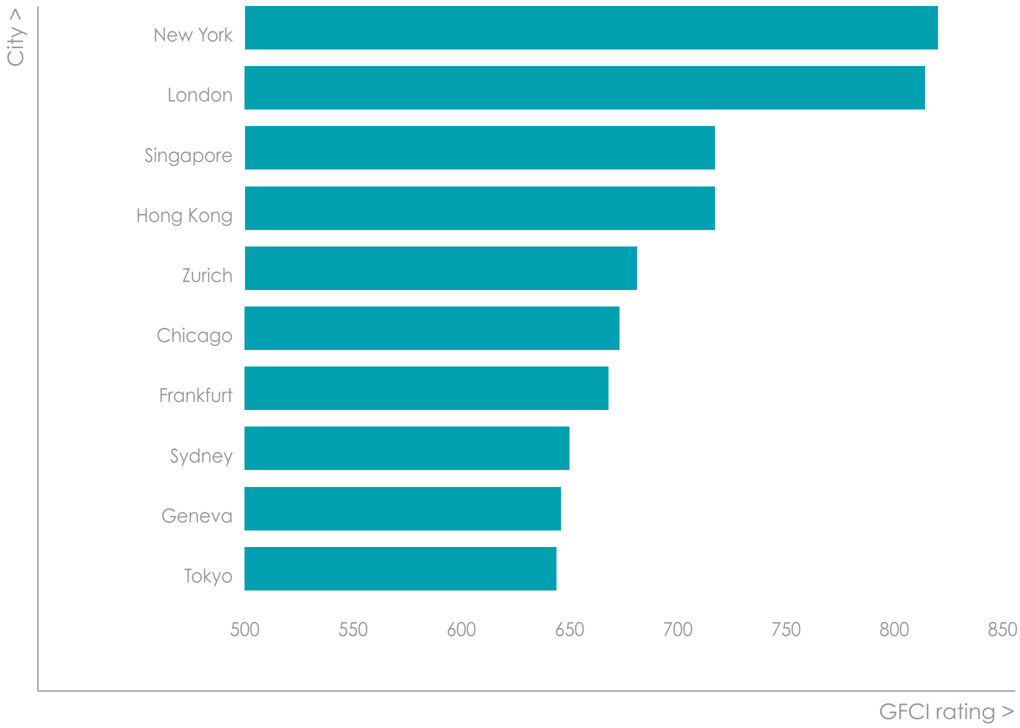

Chart 3 shows three 'bands' of financial centres. The 'Unpredictable' centres in the top right of the chart, such as Vienna, Vancouver and Munich, have a high sensitivity to changes in the instrumental factors and a high variance of assessments. These centres have the highest potential volatility in GFCI ratings.

The 'Stable' centres in the bottom left of the chart (including London, New York, Singapore, Frankfurt, Paris, Hong Kong, and Zurich) have a low sensitivity to changes in the instrumental factors and a lower variance of assessments. These centres are likely to exhibit the lowest volatility in future GFCI ratings. 'Dynamic' centres in the centre have the potential to move in either direction.

In GFCI 2, the financial centres in the extremes of the 'Unpredictable' category (those with the most potential to improve or decline) showed varying degrees of movement in GFCI 3: Oslo (-5 points), Melbourne (-15), Vancouver (+23) and Munich (+11). The first three of these centres also showed relatively large movements in GFCI 2 (Munich was new in GFCI 2). Vancouver and Munich remain in the 'Unpredictable' category in GFCI 3, and are joined by Vienna and the Bahamas.

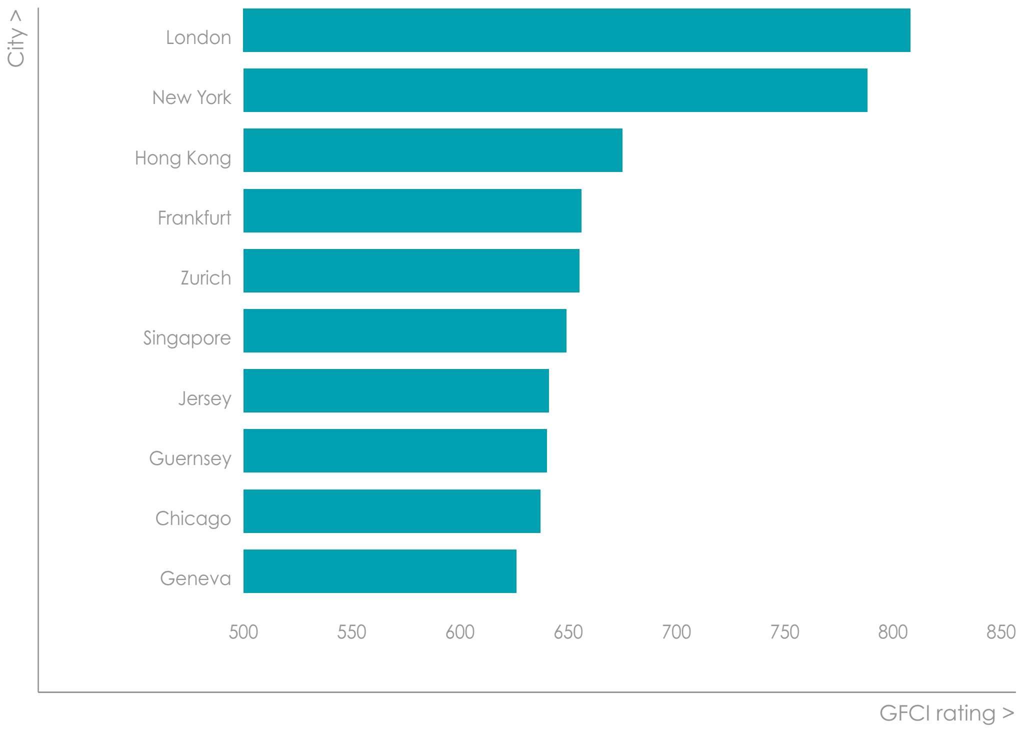
As with GFCI 2, GFCI 3 can provide 'industry sector indices' including: banking, asset management, insurance, professional services and regulatory/ government bodies. These indices were created by building the GFCI statistical models using only the questionnaire responses of respondents from the relevant industry sectors. As might be expected of the two global financial centres, London and New York retain 1st and 2nd places in all sector-specific indices. The industry sectors are listed here in decreasing order of the number of questionnaire respondents from each sector:

**Chart 4**
The Top Ten Financial Centres – Banking Respondents



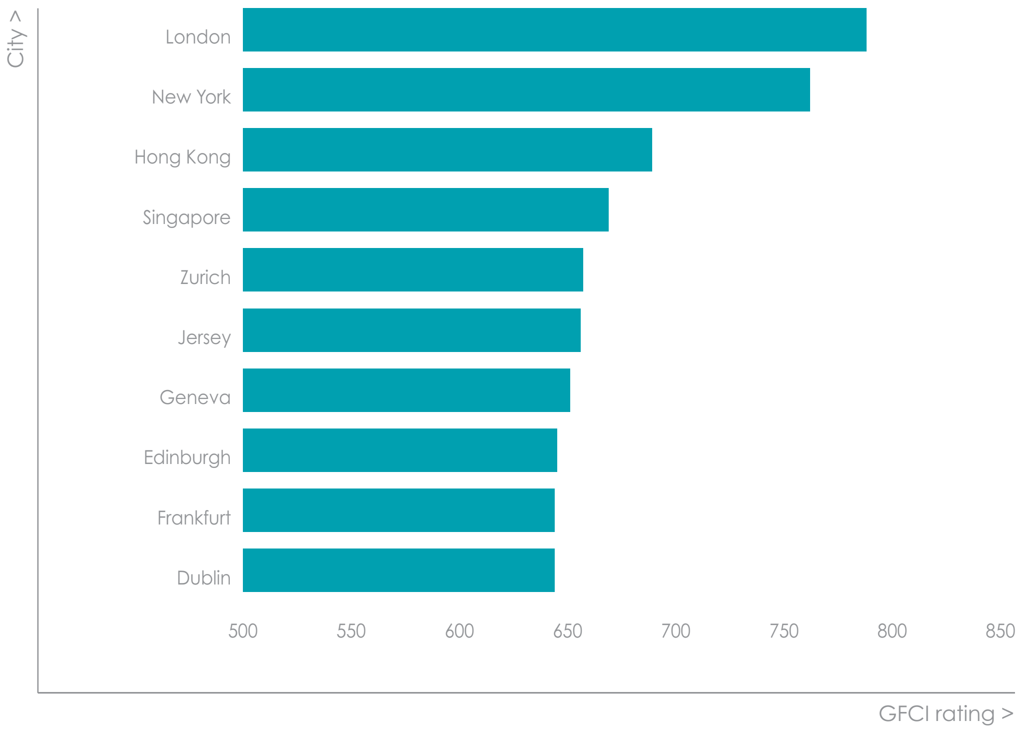

For the first time in the GFCI, New York was ranked higher than London in a sub-index. This seems to be driven by a perception of the banking respondents that there has been a less effective regulatory response to the problems at the Northern Rock bank in the UK than by the US in general to the global liquidity shock. This is despite the scale of the sub-prime mortgage crisis in the United States (which has led to an inter-bank credit crisis in the UK as well as the US) and the problems elsewhere in the EU, notably the failure of some German regional banks exposed directly to the US sub-prime market. The top ten centres overall are all featured here, although there was also some shuffling of positions in the remaining centres – the most notable of which is Chicago's jump from eighth to sixth, reflecting its effective consolidation as a centre through merger of major players.

**Chart 5**
The Top Ten Financial Centres – Professional Services Respondents



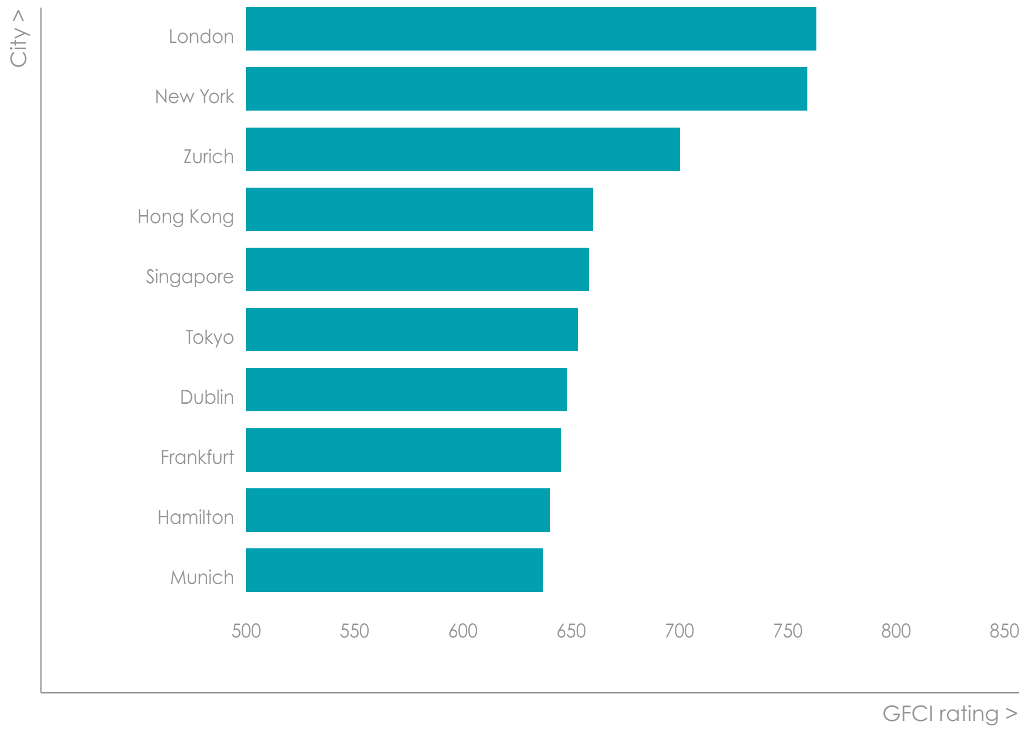

The professional services sector index in GFCI 3 is affected by Jersey and Guernsey being listed separately (formerly they were listed as the Channel Islands), and by Geneva being placed at number 10. Chicago drops from 4th to 9th place, a position that reflects its overall standing while also being a more realistic assessment of its position in the global context for this particular sector.

**Chart 6**
The Top Ten Financial Centres – Asset Management Respondents



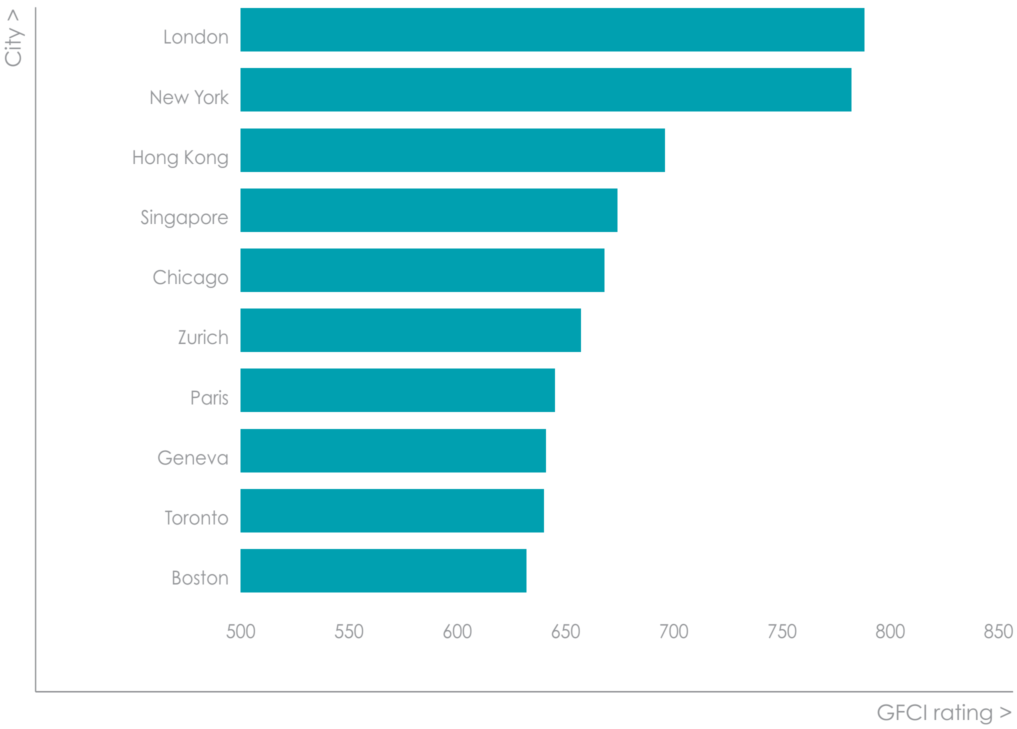

The asset management sector-specific index shows a somewhat turbulent industry globally, with Geneva and Frankfurt both falling three places since GFCI 2, and moderate gains by Zurich to 5th. Jersey and Edinburgh both ranked very well in this sub-set, with Jersey in 6th position (against 16th in the overall index) and Edinburgh in 8th place (against 18th overall). Dublin also enters the top ten in this sectoral index (against 13th overall).

**Chart 7**
The Top Ten Financial Centres – Insurance Respondents




The insurance sector index saw a great deal of adjustment since GFCI 2, in part due to a larger pool of respondents from this industry, resulting in a 'settling' of the data identifying the current top ten cities. As a result, in comparison with GFCI 2, Dublin and Frankfurt both dropped three places. Hong Kong, Singapore, Hamilton and Munich entered the top ten, because of the importance of the insurance sector in these centres. It is worth noting that three of the centres featured here (Dublin, Hamilton and Munich) do not feature in the overall GFCI 3 top ten.

**Chart 8**
The Top Ten Financial Centres – Government & Regulatory Respondents




The government and regulatory sector index shows Zurich and Chicago switching places from their positions in GFCI 2. Chicago's improvement may reflect the perceived benefits of the CME and CBOT merger. Paris and Toronto entered the top ten, displacing Frankfurt and Sydney.

# 5. Focus: Skills

Each of the three GFCI reports has identified skills as one key element of financial centre competitiveness: a local pool of, or easy access to, skilled personnel. When asked to identify factors that affect the competitiveness of financial centres, 30% of GFCI 3 respondents identified skills, high-quality people, or a dynamic and available industry-specific workforce as critical.

A number of the instrumental factors within the Index highlight the value of skilled personnel in financial services, as shown in Table 4:

**Table 4**
Skills-Related Instrumental Factors

| Financial Centre | GFCI 3 Rank | Tertiary Graduation Ratio | Number of Top Ranked EMBA Programmes | Ease of Hiring Workers (Ranked) |
|---|---|---|---|---|
| London | 1 | 39.4 | 7 | 21 |
| New York | 2 | 34.2 | 6 | 1 |
| Hong Kong | 3 | 12.0 | 4 | 23 |
| Singapore | 4 | (No Data) | 2 | 1 |
| Zurich | 5 | 25.4 | - | 20 |
| Frankfurt | 6 | 19.9 | 1 | 137 |
| Geneva | 7 | 27.4 | - | 20 |
| Chicago | 8 | 34.2 | 1 | 1 |
| Tokyo | 9 | 36.1 | - | 17 |
| Sydney | 10 | 59.4 | 1 | 8 |

Put simply, skills can either be grown or bought. Centres that invest in financial skill development at university level create conditions for on-going financial services skills development. Other centres lower administrative barriers to ‘importing’ skilled personnel, as another way of acquiring the necessary calibre of personnel.

The United States and United Kingdom both have a high percentage of their populations with advanced education (39.4% and 34.2% respectively) before entering the full-time job market. They are dwarfed, however, by Australia, which, even though it only enters the rankings in 10th place in GFCI 3, has 59.4% of its population graduating from tertiary education.

In the increasingly interdependent global market, skilled professionals will often seek (or be required) to return to education to remain competitive; centres that facilitate this enrichment process reap the benefits in competitiveness. London and New York together have nearly 50% more top global Executive MBA programmes than the other eight centres in the top ten combined.

When a centre's business needs exceed local capacity, talent can be found elsewhere and specifically brought in, or the conditions created to attract such personnel. A key factor here is the quality of life that a financial centre can offer, which is reflected in the GFCI by a number of the people factor indices; these are discussed further in section 6a. It is also the case that the company doing the hiring has a large part to play in making recruitment attractive. Finally, the regulatory structure, visa regime, and immigration policies of the country also play a critical role. Certain centres benefit greatly in this respect, in particular Singapore, New York, and Chicago, followed by Sydney (which also capitalises on its very high standard of living). Other centres, like Frankfurt, suffer from a difficult environment to find and hire staff.

Even London has difficulty with a lack of skilled personnel, however. In a recent study by the Financial Services Skills Council (FSSC)[5], employers in the London financial sector:

> *"…said that skills deficiencies have a major and growing impact on their firms:*
>
> - *More than one-half reported that the skills of existing employees (59%) and the ability to recruit quality staff (54%) were having a high or very high level of impact on their businesses.*
> - *More than two-thirds (67%) of employers reported that the availability of skills will be a key driver of productivity over the next five years.*
> - *35% found that they were able to reduce staff turnover through training and development activity."*

In the case of the UK, the Government is aware of the shortfalls, the very international nature of the industry, and the importance of a permissive environment for hiring skilled workers. For example, at The Economist's Conference, "London's Financial Markets: Where Next?", the UK Economic Secretary to the Treasury, Kitty Ussher, MP, pointed out:

> *Thirty percent of jobs [in London] are filled by people born outside the UK, including a quarter of senior managers in financial and business services – and we'll continue to welcome people with the talents and skills that London needs, including through the points-based migration system we're introducing next year*[6]

5 Financial Services Skills Council, *The Skills Bill: Analysis of skills need in UK financial services*, March 2007.

6 Speech by Economic Secretary to the Treasury, Kitty Ussher, MP, HM TREASURY News Release (137/07) issued by The Government News Network on 4 December 2007

External research and GFCI respondents identify skills as 'hard' and 'soft', varying balances of each being critical across financial industries (insurance, banking, investment, etc.) 'Hard' skills include capacities in statistical analysis, technical writing, quantitative analysis, industry-specific software packages, or market tools. 'Soft' skills encompass problem-solving, teamwork, commitment, tenacity, motivation, drive, work ethic, communication, leadership and empathy.

When considered from a recruitment perspective at the graduate level, the balance of desirable skills falls more towards interpersonal aptitude, with the expectation that more industry or company-specific knowledge can be developed once someone is hired.

> *The majority of graduates recruited by the sector fill transactional, client-facing 'front-office' roles, and over 70% of respondents placed little emphasis on disciplinary or subject knowledge, looking in the first instance for core attributes such as intelligence, confidence, analytical and critical skills, and an aptitude for learning. There remains, however, a significant minority of roles that require specialised technical skills and knowledge; most notably in the Investment Banking and Fund Management sectors in the areas of financial engineering, quantitative research, and risk management.*[7]

A third, distinct, type of skill could be described as 'globalist', incorporating foreign languages, cultural acumen, diplomatic sensitivities, ease of acclimatisation and adaptation from one region of the world to another; additionally, the ability to manage teams, projects, expectations, and sensitivities across time-zones. As one GFCI 3 respondent noted:

> *I certainly believe that a multi-lingual workforce is helpful, especially when it comes to private banking and wealth management.*

Demand for all three types of ability has spurred a new focus on the 'skills chain' in financial centres around the world, as employers and governments alike realise that, to meet the increasing demand for staff, long-term investments must include their setting up a reciprocally beneficial relationship with educational institutions. Amongst other things, this would help the educational institutions to provide 'real-world' advice about courses and curricula, guidance on placements and internship opportunities, and teaching finance and business courses in an accelerated, part-time or executive capacity.

7 Financial Skills Services Council, Graduate Skills and Recruitment in the City, September, 2006.

At the same time, universities need to recognise their responsibility to seek out business leaders' opinions on critical skills and knowledge, and continuously adapt their programs to develop leaders ready to enter the job market at the highest-possible level; indeed the best already do so. 'Classical' academic degrees, which have focused almost exclusively on theoretical materials and classroom/campus-centred experience, have had to open up to take advantage of the market, the city, and the world through partnerships with businesses. It is no accident that over half of the top ten MBA programmes globally are built on international academic partnerships (for example, Trium: HEC Paris in France, LSE in the UK and New York University: Stern in the US.). These are discussed further in section 6a.

The other key partnership for financial centres is between business and government. Visa regimes, immigration costs, and bureaucracy have significant effects on competitiveness. A report prepared by The Santangelo Group entitled "Do Visa Delays Hurt US Business?"[8] found that:

> *U.S. companies suffered $30.7 billion in financial impact between July 2002 and March 2004 due to delays/denials in the processing of business visas [and] 60% reported they had suffered a "material impact" from business travel visa processing delays, including lost sales, increased costs, need to relocate people or functions offshore, etc.*

Whilst the need for strong border security and a careful consideration of applications for long-term residents in a country is clear, overly onerous restrictions, lengthy delays, and opaque procedures can reduce a financial centre's attractiveness. "Highly-Skilled Migrant" schemes (as in Australia, New Zealand, Canada and the United Kingdom), are serving to counter-balance 'brain-drain' in recent decades as some of their best and brightest emigrated outward for business and academic reasons.

The skills challenge is an ongoing issue in financial services, and it becomes even more urgent as a result of the growth and increasing interdependence of the sector. As another GFCI 3 respondent summed up:

> *The availability of skilled, high quality people, and the support received from government to recruit or bring them into the jurisdiction is the single greatest multiplier in all other aspects of successful business…*

8 The Santangelo Group, Inc., "Do Visa Delays Hurt US Business", 02 June, 2004 – http://www.nftc.org/default/visasurveyresults%20final.pdf

As with innovation, emerging markets, and technology, the financial sector may also be the best-qualified driver not just for identifying and employing the highest-caliber personnel, but also for defining and creating them.

# 6. The Five Key Areas of Competitiveness

This section examines the Instrumental Factors (external indices of features relevant to competitiveness), grouped under the five key areas of financial centre competitiveness: people, business environment, market access, infrastructure and general competitiveness. The GFCI factor assessment model was run with one set of factors at a time and the results compared, to identify which factors influence which centres.

Of the 62 Instrumental Factors used in the GFCI, 38 are ratings of countries rather than financial centres. There are, of course, regional variations within countries that are not accounted for by the country ratings. Overall, however, there are sufficient financial centre ratings to provide an accurate rating of each financial centre in most of the key areas. Details of all of the instrumental factors used in the GFCI are shown in Appendix C.

## 6a. People Factors

The people related instrumental factors (people factors) used in the GFCI are:

The indices for people factors used in the GFCI are:

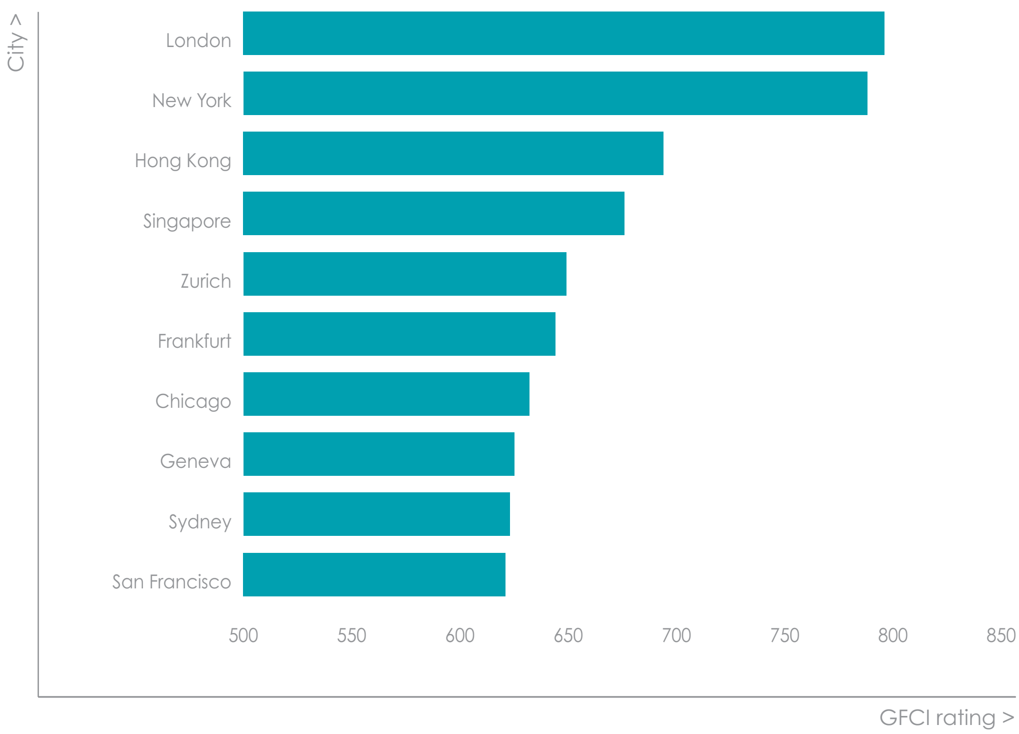
- Executive MBA Global Rankings, Financial Times⚬
- European Human Capital Index, Lisbon Council⚬
- Human Development Index, UNDP⚬
- Education Expenditure, OECD⚬
- World's Top Tourism Destinations, Top Tourism Organisation⚬
- Labour Productivity, OECD
- Quality of Living Survey, Mercer HR
- Happiness Scores, NationMaster
- Average Days With Precipitation, Sperling's Best Places
- Tertiary Education Graduates Ratio, UNESCO*
- Murder Rates per Capita, NationMaster*
- Total Number of Terrorism Fatalities, NationMaster*

⚬ – This index has been updated since GFCI 2

* – This index has been added since GFCI 2.

Chart 9 shows the top ten centres by GFCI rating when using only the people factors.

**Chart 9**
The Top Ten Financial Centres on the basis of People Factors



As in previous editions of the GFCI, London and New York rank highest on people factors, at least in part because their global stature in the financial industry attracts the best personnel. Hong Kong follows in third place, as in GFCI 2, then Singapore, Zurich and Frankfurt, the first and third of which moved up in this edition of GFCI compared with GFCI 2. San Francisco dropped four places to 10th, and Sydney entered the top ten for the first time.

All three editions of the GFCI, and related research[9], have identified the availability of skilled personnel and the flexibility of the labour market as the most important factors in the competitiveness of a financial centre. Financial services professionals are often flexible about where they work and factors such as the quality of life, culture and language seem to play an increasingly significant part in their location decisions. As one respondent in GFCI 3 said:

> *Competitiveness is dependent upon direct access to an educated labour and talent pool, or a quality of life story that can attract them…*

One of the key supports to the competitiveness of financial centres is continuing education, particularly that which is highly skills-based, and supplemented with regular access to real-world

9 Z/Yen Limited, op. cit., (November 2005)

**Table 5**
Executive MBA Global Rankings – Selected Centres*

| Financial Centre | Number of Top Ranked EMBA Programmes |
|---|---|
| London | 7 |
| New York | 6 |
| Hong Kong | 4 |
| Paris | 4 |
| Madrid | 3 |
| Toronto | 3 |
| Shanghai | 2 |
| Singapore | 2 |
| Budapest | 1 |
| Chicago | 1 |
| Edinburgh | 1 |
| Frankfurt | 1 |
| Prague | 1 |
| San Francisco | 1 |
| Sydney | 1 |
| Washington DC | 1 |

***Source:** Financial Times, 2007

experience and educators. The presence of top-rated Executive Masters of Business Administration (EMBA) programmes is often an indicator of healthy pools of skilled personnel, and the market benefits of both theoretical and applied research present and interacting (in both directions) with a dynamic business sector.

London and New York have a clear lead, followed by Hong Kong and Paris in joint-third place. In the case of Paris, this reflects the historic excellence of its universities and its efforts to keep up with the international market by strategic partnerships with universities outside France.

A key feature in attracting and retaining high-quality skilled personnel is found in the quality of life in the financial centre and its environs (including transport links to leisure and other areas.) Many elements contribute to quality of life, including age demographics, cost of living versus perceived benefits, social welfare, and safety. In GFCI 3, we have for the first time made use of two indices on crime and terrorism, issues that unfortunately must be considered in relation to quality of life. See Table 6, for example, (further details of these indices can be found in Appendix C).

**Table 6**
Murder Rate per Capita – Selected Cities*

| **City** | **Murder Rates per Capita (per 1 million)** |
|---|---|
| Tokyo | 5 |
| Osaka | 5 |
| Hong Kong | 5.51 |
| Geneva | 9.21 |
| Zurich | 9.21 |
| Wellington | 11.15 |
| Jersey | 11.15 |
| Isle of Man | 11.15 |
| Glasgow | 11.15 |
| Amsterdam | 11.15 |
| Frankfurt | 11.65 |
| Munich | 11.65 |
| Edinburgh | 14.06 |
| London | 14.06 |
| Guernsey | 14.06 |
| Montreal | 14.91 |
| Toronto | 14.91 |
| Vancouver | 14.91 |
| Melbourne | 15.03 |
| Sydney | 15.03 |
| Prague | 16.99 |
| Mumbai | 34.41 |
| Boston | 42.80 |
| Chicago | 42.80 |
| New York | 42.80 |
| San Francisco | 42.80 |
| Washington D.C. | 42.80 |

***Source:** NationMaster

## 6b. Business Environment Factors

The indices for business environment factors used in the GFCI are:

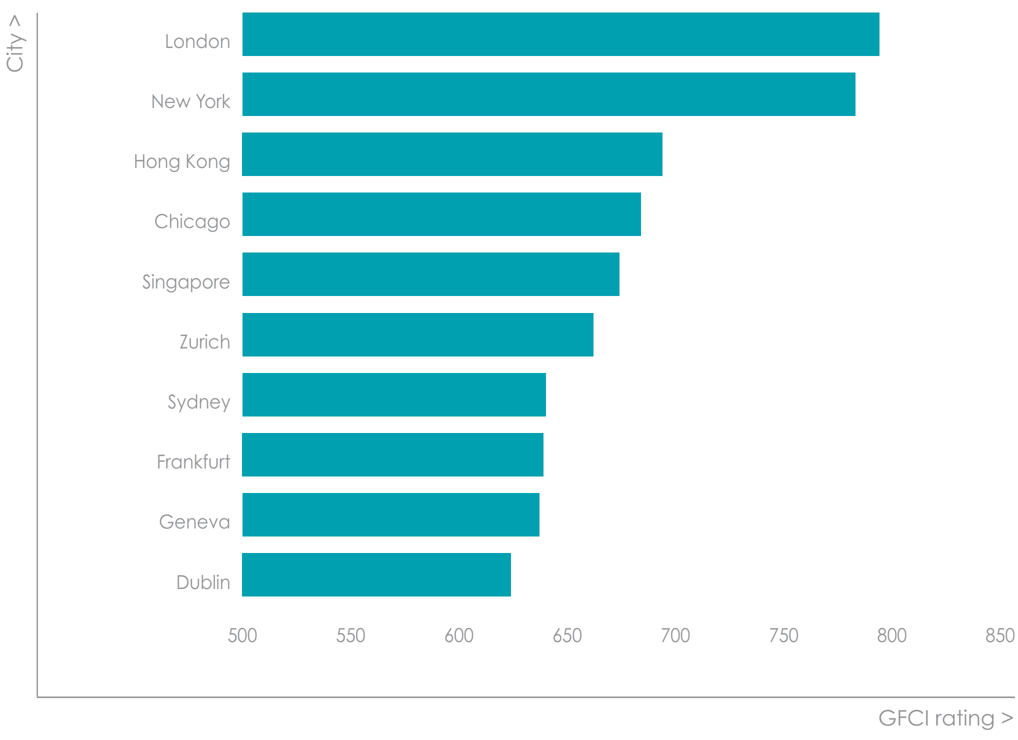
- Business environment, Economist Intelligence Unit●
- Total Tax Rates, OECD●
- Corporate Tax Rates, OECD●
- Employee Tax Rates, PwC●
- Personal Tax Rates, OECD●
- Tax as % of GDP, OECD●
- Ease of Doing Business, World Bank●
- Corruption Perception Index, Transparency International●
- Economic Freedom of the World, Fraser Institute●
- Financial Market Index, Maplecroft●
- Administrative and Economic Regulation, OECD
- Wage Comparison Index, UBS
- Opacity Index, Kurtzman Group
- Index of Economic Freedom, Heritage Foundation
- Political Risk, Exclusive Analysis
- Operational Risk Rating*

● – This index has been updated since GFCI 2

* – This index has been added since GFCI 2.

Chart 10 shows the top ten centres by GFCI ranking when using only the business environment factors.

**Chart 10**
The Top Ten Financial Centres on the basis of Business Environment Factors



Very little has changed in this sub-sector since GFCI 2. Frankfurt and Sydney have swapped places in the ranking, but all other centres have held onto their positions. Previous research has indicated that the regulatory environment, a strong component of what is referred to here as the 'business environment', is one of the most important competitiveness factors for a financial centre. London and New York are still seen as having generally good regulatory environments, although a number of people have been critical of the US, with regard to what is seen as a 'heavy-handed' approach to regulating financial services. For example:

> *Financial regulations are better in Western Europe. The US is over regulated – and the Middle East and Russia have a long way to go. However, Hong Kong and Tokyo are actually competitive with Western Europe.*

Regulatory structures are just one aspect of competitiveness in this area. The Economist Intelligence Unit's Business Environment Ranking assesses the world's 82 largest economies, accounting for more than 98% of global output, trade and foreign direct investment. The Ranking measures the quality or attractiveness of a country's business environment (adjusted for its size), and its components, which include: political and institutional environment, macroeconomic stability, market opportunities, policy towards private enterprise, policy towards foreign investment, foreign trade and exchange regime, tax system, financing the labour market, and infrastructure. The top ten countries, with some other countries selected for comparison, are shown in Table 7.

**Table 7**
Business Environment Ranking – Selected Countries*

| Country | Rank 2006 |
|---|---|
| Denmark | 1 |
| Finland | 2 |
| Canada | 3 |
| Singapore | 4 |
| Netherlands | 5 |
| Ireland | 6 |
| United Kingdom | 7 |
| United States | 8 |
| Hong Kong | 10 |
| Taiwan | 19 |
| Chile | 19 |
| Israel | 22 |
| Malaysia | 23 |
| South Korea | 25 |
| Czech Republic | 26 |
| Poland | 27 |
| Thailand | 37 |
| South Africa | 40 |
| Mexico | 41 |
| Brazil | 42 |
| China | 45 |
| Argentina | 50 |
| India | 57 |
| Russia | 58 |
| Pakistan | 62 |
| Venezuela | 74 |

***Source:** Economist Intelligence Unit

Unlike other indices, London (represented by the UK), New York (represented by the US), and Hong Kong do not feature in the top three in this index. This reveals that the size of a financial centre does not necessarily accompany a flexible and welcoming business environment. The smaller countries are rated more highly in this respect. Along these lines, one respondent notes:

> *Dublin is excellent – good reputation and very pragmatic regulation, genuinely keen to encourage business. It also has a good tax environment. Over time, it's become expensive but good staff can be found…*

Another key factor in maintaining a competitive advantage globally is taxation. The Total Corporate Tax Rate Index measures the amount of tax payable by the business in the second year of operation, expressed as a share of commercial profits. The total amount of taxes is the sum of all the different taxes payable after accounting for deductions and exemptions. The taxes withheld (such as sales tax or value added tax) but not paid by the company are excluded. The taxes included can be divided into five categories: profit or corporate income tax, social security contributions and other labour taxes paid by the employer, property taxes, turnover taxes, and other small taxes (such as municipal fees and vehicle and fuel taxes). Table 8 shows a selection of cities and their rates (from highest to lowest).

**Table 8**
Total Corporate Tax Rate Index – Selected Cities *

| City | Total Tax Rate | City | Total Tax Rate |
|---|---|---|---|
| Beijing | 73.9% | Boston | 46.2% |
| Shanghai | 73.9% | Chicago | 46.2% |
| Sao Paulo | 69.2% | New York | 46.2% |
| Paris | 66.3% | San Francisco | 46.2% |
| Brussels | 64.3% | Washington D.C. | 46.2% |
| Madrid | 62.0% | Montreal | 45.9% |
| Budapest | 55.1% | Toronto | 45.9% |
| Vienna | 54.6% | Vancouver | 45.9% |
| Stockholm | 54.5% | Johannesburg | 37.1% |
| Osaka | 52.0% | Edinburgh | 35.7% |
| Tokyo | 52.0% | London | 35.7% |
| Moscow | 51.4% | Luxembourg | 35.3% |
| St Petersburg | 51.4% | Wellington | 35.1% |
| Frankfurt | 50.8% | Geneva | 29.1% |
| Munich | 50.8% | Zurich | 29.1% |
| Melbourne | 50.6% | Dublin | 28.9% |
| Sydney | 50.6% | Hong Kong | 24.4% |
| Tallinn | 49.2% | Singapore | 23.2% |
| Helsinki | 47.8% | Dubai | 14.4% |

***Source:** World Bank

Although taxes aren't the only key to a competitive business environment rating on the GFCI, they certainly contribute to a dynamic and international presence. An additional level of complexity comes from federalised political and economic systems (states and national government in the US, or member-states of the European Union):

Some financial services centres are dependent on concessions from trading blocks to continue to offer the transparent tax regimes necessary for financial services (EU centres). They are less attractive than centres which are in full control of their fiscal policies.

Respondents to GFCI 3 are active in more than one financial centre, and noted that business environments varied greatly from one city to another, presenting challenges for companies with a global footprint.

The Ease of Doing Business Index has been updated in GFCI 3, and ranks economies on the simple average of country percentile rankings on each of the following ten activities:

- Starting a business
- Protecting investors
- Dealing with licences
- Employing workers
- Registering property
- Getting credit
- Paying taxes
- Trading across borders
- Enforcing contracts
- Closing a business

Each indicator set studies a different aspect of the business environment and country rankings vary, sometimes substantially, across indicator sets. The overall ranking and rankings for selected activities are shown in Table 9.

**Table 9**
Ease of Doing Business Index – Selected Activities *

| Country | Overall Ranking | Starting a Business | Employing Workers | Getting Credit | Paying Taxes |
|---|---|---|---|---|---|
| Singapore | **1** | 9 | 1 | 7 | 2 |
| New Zealand | **2** | 3 | 13 | 3 | 9 |
| United States | **3** | 4 | 1 | 7 | 76 |
| Hong Kong | **4** | 13 | 23 | 2 | 3 |
| Denmark | **5** | 18 | 10 | 13 | 13 |
| United Kingdom | **6** | 6 | 21 | 1 | 12 |
| Canada | **7** | 2 | 19 | 7 | 25 |
| Ireland | **8** | 5 | 37 | 7 | 6 |
| Australia | **9** | 1 | 8 | 3 | 41 |
| Iceland | **10** | 14 | 42 | 13 | 27 |
| Norway | **11** | 28 | 94 | 36 | 16 |
| Japan | **12** | 44 | 17 | 13 | 105 |
| Finland | **13** | 16 | 127 | 26 | 83 |
| Sweden | **14** | 22 | 107 | 36 | 42 |
| Thailand | **15** | 36 | 49 | 36 | 89 |
| Switzerland | **16** | 35 | 20 | 26 | 15 |
| Estonia | **17** | 20 | 156 | 48 | 31 |
| Georgia | **18** | 10 | 4 | 48 | 102 |
| Belgium | **19** | 19 | 36 | 48 | 65 |
| Germany | **20** | 71 | 137 | 3 | 67 |

***Source:** World Bank

## 6c. Market Access Factors

The indices for market access factors used in the GFCI are:

- Five Measures from the World Federation of Exchanges: Value of Share Trading, Volume of Share Trading, Volume of Investment Funds, Value of Bond Trading, Volume of Bond Trading⊙
- Capital Access Index, Milken Institute
- Securitisation, IFSL
- Global Banking Service Centres, GaWC Research
- Global Accountancy Service Centres, GaWC Research
- Global Legal Service Centres, GaWC Research
- International Finance Index, Dariusz Wojcik
- International Finance Location Quotient, Dariusz Wojcik
- International Finance Diversity Index, Dariusz Wojcik
- Master Card Global Connectivity, Mastercard
- Total Capitalization of Stock Exchanges✱

⊙ – This index has been updated since GFCI 2

✱ – This index has been added since GFCI 2

**Chart 11**
The Top Ten Financial Centres on the basis of Market Access Factors

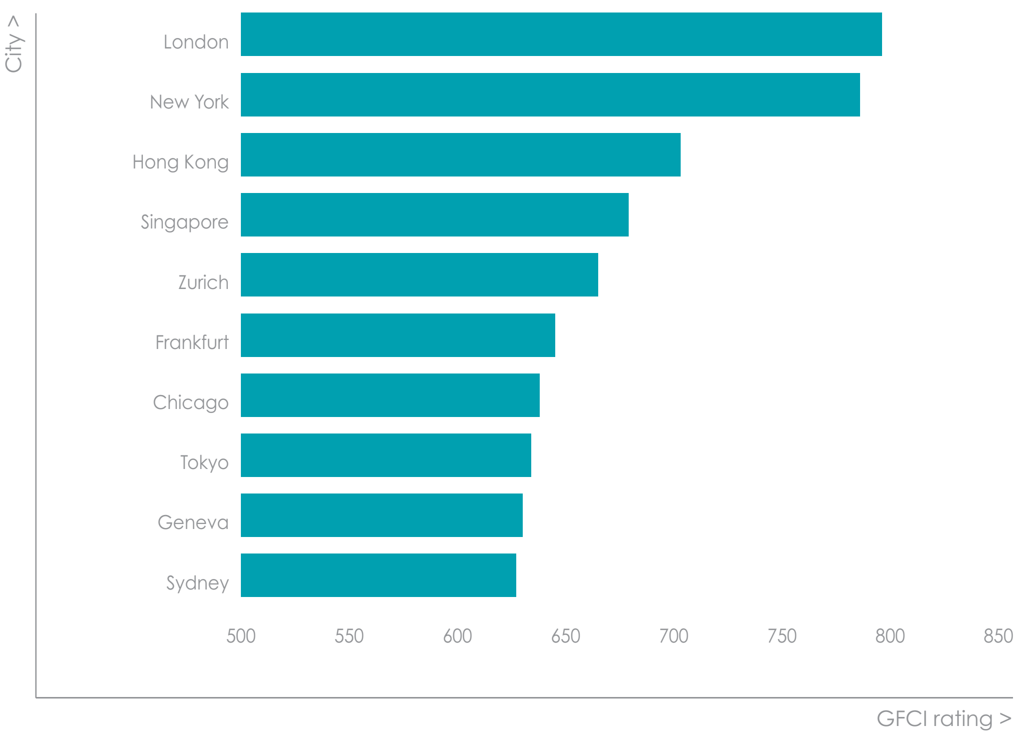


**Table 10**
Value and Volume of Shares Traded*

| City | Value of Shares Traded (in USD millions) | Volume of Shares Traded (in thousands) |
|---|---|---|
| New York | 4,552,247 | 390,291 |
| London | 627,072 | 13,978 |
| Tokyo | 553,530 | (No Score) |
| Paris | 547,238 | 14,567 |
| Frankfurt | 374,814 | 12,596 |
| Hong Kong | 339,667 | 14,618 |
| Shanghai | 326,272 | 122,558 |
| Madrid | 284,467 | 3,300 |
| Seoul | 254,744 | 68,231 |
| Milan | 239,938 | 5,898 |
| Stockholm | 193,199 | 4,723 |
| Toronto | 179,582 | 12,582 |
| Mumbai | 166,451 | 178,336 |
| Zurich | 162,690 | 3,052 |
| Sydney | 136,215 | 6,733 |
| Taipei | 107,884 | 20,954 |
| Sao Paulo | 81,015 | 3,208 |
| Oslo | 64,591 | 1,218 |
| Johannesburg | 50,401 | 1,244 |
| Singapore | 46,901 | (No Score) |
| Osaka | 34,084 | (No Score) |
| Athens | 17,143 | 953 |
| Bangkok | 14,898 | 2,410 |
| Kuala Lumpur | 14,730 | 2,219 |
| Jakarta | 13,185 | 1,204 |
| Vienna | 11,336 | 502 |
| Dublin | 11,100 | 84 |
| Warsaw | 7,866 | 1,098 |
| Budapest | 3,620 | 118 |
| Manila | 2,525 | 272 |
| Wellington | 1,927 | 43 |
| Luxembourg | 37 | 1 |
| Hamilton | 12 | (No Score) |

***Source:** World Federation of Exchanges, October 2007, data are for month of October 2007.

Of the major financial centres, the top six do not change positions (and have not done so since GFCI 1). This comes as little surprise as major financial centres have good access to financial markets. Chicago climbs to 7th place and Tokyo rises by two places, Paris has left the top ten since GFCI 2 and Sydney has joined the list in tenth place.

When considered from the perspective of exchanges, New York (combining the NYSE and NASDAQ) is the clear leader in value and volume of shares traded, accounting on each measure for more than the next fifteen centres combined.

Market access as a competitive area is not only defined by the degree of connection to necessary, complementary, financial and support services in the same centre, but also in the number and strength of connections to other financial centres globally.

As discussed in the special focus section in GFCI 2, connectivity is an important aspect of competitiveness. Beaverstock et. al.[10] studied the connectivity of two European centres (London and Frankfurt), and the conclusions can be seen to apply across financial centres. The global financial services 'industry' can be thought of as a network of centres that are connected by flows of financial transactions, people, knowledge, and innovation.

Financial centres do not operate as separate 'islands' of financial activity, but as part of a network of financial centres. The genuinely global financial centres of London and New York are extremely complex networks of connectivity. Global centres continuously connect with international and national centres. They also connect regional and niche participants directly with each other, without using international or national financial centres as hubs. Often centres are specialised and deal in a limited number of types of transaction.

Centres rich in such connections do well in the GFCI analysis.

New York far exceeds all other stock exchanges in terms of capitalisation of firms listed on the exchange (see Table 11). This is a new measure introduced into GFCI 3; it has been added to the GFCI model as an indicator of the relative sizes of the firms listed on exchanges in different financial centres. It is interesting to note that Tokyo is in 2nd place here, but 3rd in terms of the value of shares traded (Table 10) and Frankfurt is 9th in terms of market capitalisation but 5th in terms of the value of shares traded (that is, it is a smaller market but with greater trading liquidity).

10 JV Beaverstock et al, *Comparing London and Frankfurt as World Cities: A Relational Study of Contemporary Urban Change*, Anglo-German Foundation for the Study of Industrial Society, (August 2001).

**Table 7**
Capitalisation of Firms Listed*

| City | Capitalisation of Firms Listed on the Stock Exchange (in USD millions) |
|---|---|
| New York | 20,934,263 |
| Tokyo | 4,626,825 |
| Paris | 4,418,326 |
| London | 4,207,016 |
| Mumbai | 3,066,087 |
| Shanghai | 3,018,090 |
| Hong Kong | 2,973,765 |
| Toronto | 2,294,468 |
| Frankfurt | 2,119,141 |
| Madrid | 1,832,124 |
| Sydney | 1,452,260 |
| Sao Paulo | 1,402,585 |
| Stockholm | 1,378,218 |
| Zurich | 1,325,723 |
| Seoul | 1,255,553 |
| Milan | 1,134,024 |
| Johannesburg | 940,002 |
| Taipei | 747,795 |
| Singapore | 568,685 |
| Oslo | 372,400 |
| Kuala Lumpur | 316,341 |
| Athens | 269,655 |
| Vienna | 246,695 |
| Warsaw | 231,361 |
| Osaka | 225,750 |
| Luxembourg | 220,814 |
| Bangkok | 206,293 |
| Jakarta | 204,267 |
| Dublin | 160,624 |
| Manila | 102,007 |
| Budapest | 48,563 |
| Wellington | 48,315 |
| Hamilton (Bermuda) | 2,785 |

***Source:** Economist Intelligence Unit

## 6d. Infrastructure Factors

The indices for infrastructure factors used in the GFCI are:

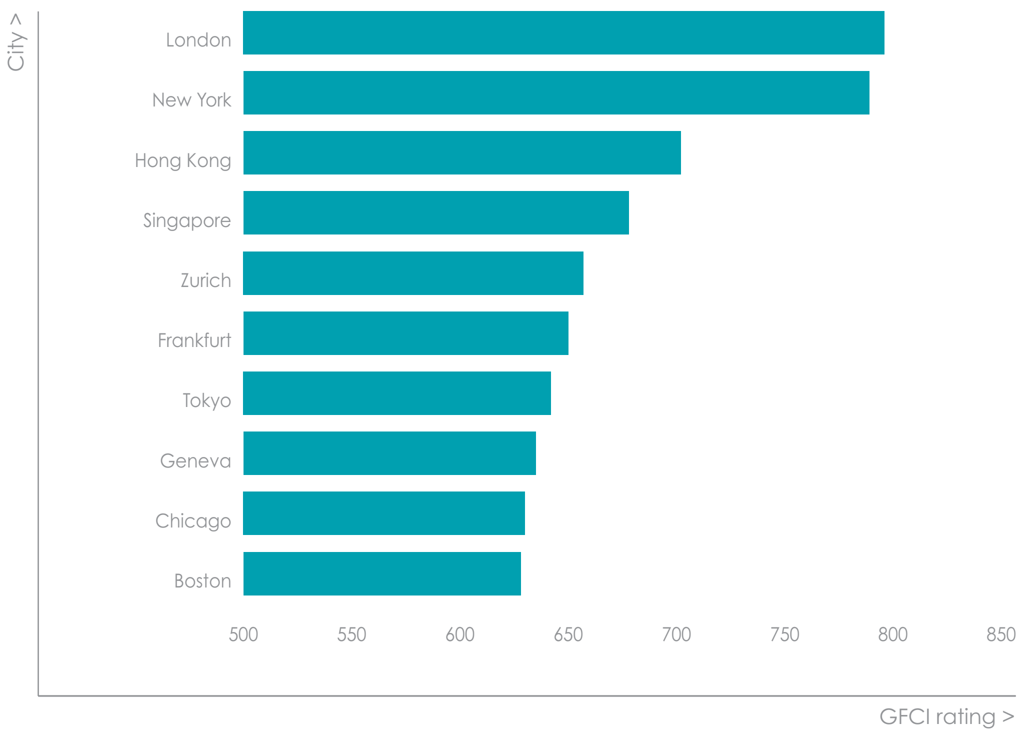
- Office Space Around the World, Cushman & Wakefield⭘
- European Cities Monitor, Cushman & Wakefield⭘
- Global Property Index, IPD⭘
- Global Office Occupancy Costs, DTZ
- Competitive Alternatives Survey, KPMG
- Offices With Air Conditioning, Gardiner & Theobald
- JLL Direct Real Estate Transaction Volumes, Jones Lang LaSalle
- Real Estate Transparency Index, Jones Lang LaSalle
- e-Readiness Score✱

⭘ – This index has been updated since GFCI 2.

✱ – This index has been added since GFCI 2.

Chart 12 shows the top ten centres by GFCI ranking when using only the infrastructure factors in the prediction model:

**Chart 12**
The Top Ten Financial Centres on the basis of Infrastructure Factors



On this measure, the top eight centres remain in the same positions as in GFCI 2, but Sydney and Paris, which were in 9th and 10th place in GFCI 2, have been replaced by Chicago and Boston, respectively.

One of the fundamental infrastructure factors is the cost of office space, a consideration that can often persuade a company to locate in a secondary city rather than in the primary financial centre of a country (for example, choosing Edinburgh because its base cost is 52% lower than in London). Where there are sufficiently robust transportation and communication links, and skilled staff are available or can be 'imported', reduced office costs contribute greatly to the growth of secondary or regional financial hubs. Selected cities from the GFCI 3 list of financial centres are ranked in Table 12 in descending order of cost of office space.

**Table 12**
Office Space Around the World – Top 20 Centres

| City | Cost of Office Space (in Euro per metre2 per year) |
|---|---|
| Tokyo | 1,493 |
| Hong Kong | 1,271 |
| London | 901 |
| Mumbai | 752 |
| Paris | 694 |
| Moscow | 602 |
| Zurich | 592 |
| New York | 564 |
| Dubai | 552 |
| Geneva | 518 |
| Singapore | 517 |
| Dublin | 486 |
| Luxembourg | 480 |
| Washington D.C. | 459 |
| Boston | 443 |
| Seoul | 434 |
| Edinburgh | 431 |
| Glasgow | 431 |
| Shanghai | 423 |
| Milan | 422 |

***Source:** Cushman and Wakefield, 2007

The e-Readiness index, new to GFCI 3, calculates the technological, economic, political and social assets of 69 countries and the cumulative impact of these assets on their respective information economies. E-readiness is the "state of play" of a country's information and communications technology (ICT) infrastructure and the ability of its consumers, businesses and governments to use ICT to their benefit. The assumption is that when a country does more online (or, as is increasingly the case, wirelessly), its economy becomes more transparent and efficient. Selected data from the index are presented in Table 13.

**Table 13**
Global e-Readiness Score – Top 20 Centres*

| **City** | **e-Readiness Score (Maximum 10.00)** |
|---|---|
| Copenhagen | 8.88 |
| Stockholm | 8.85 |
| Boston | 8.85 |
| Chicago | 8.85 |
| New York | 8.85 |
| San Francisco | 8.85 |
| Washington D.C. | 8.85 |
| Hong Kong | 8.72 |
| Geneva | 8.61 |
| Zurich | 8.61 |
| Singapore | 8.60 |
| Edinburgh | 8.59 |
| London | 8.59 |
| Hamilton | 8.59 |
| Cayman Islands | 8.59 |
| Jersey | 8.59 |
| Isle of Man | 8.59 |
| Glasgow | 8.59 |
| Guernsey | 8.59 |
| Gibraltar | 8.59 |

***Source:** Cushman and Wakefield, 2007

Each financial centre is assigned the e-readiness score of its country. The e-readiness scores fall into three bands. The two Scandinavian cities and the US cities are in the top band, Hong Kong in the second band and all the other centres in the third band. The fact that London is in the third band may reflect the slower deployment of broadband in the UK.

## 6e. General Competitiveness Factors

In some financial centres, many of the competitiveness factors come together and form what might be described as a competitive critical mass where the whole is greater than the sum of the parts. The GFCI model uses the following indices of general competitiveness:

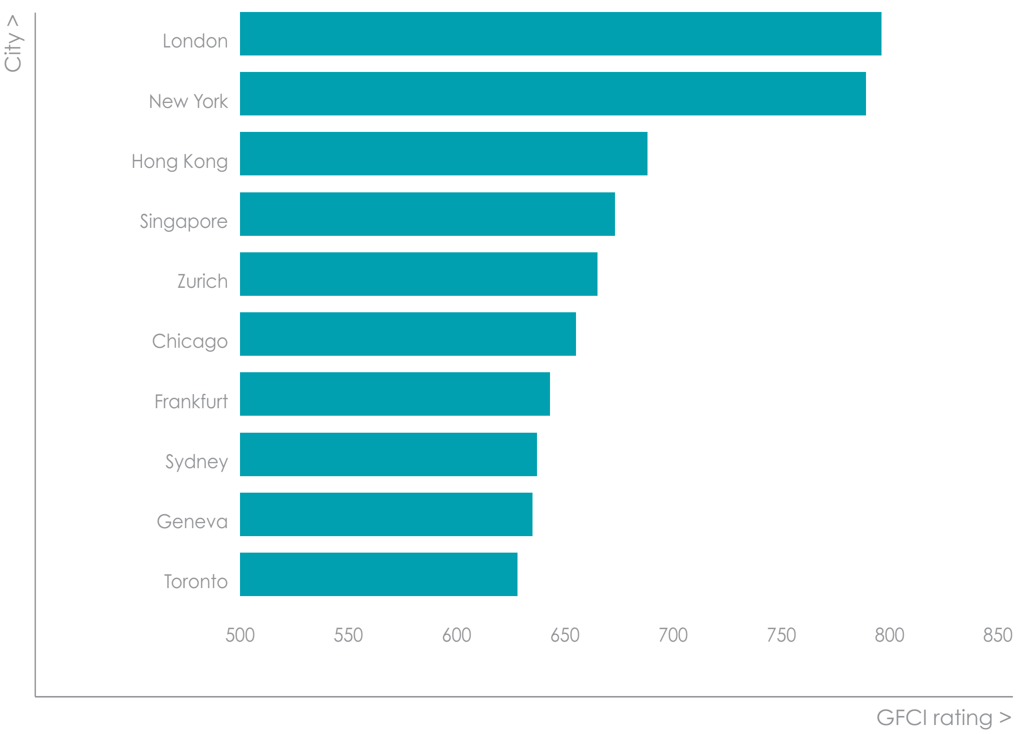
- Economic Sentiment Indicator, European Commission●
- Super Growth Companies, Grant Thornton●
- Retail Price Index, The Economist●
- Nation Brands Index, Anholt●
- Global Competitiveness Index, World Economic Forum●
- World Competitiveness Scoreboard, IMD
- Price Comparison Index, UBS
- City Brands Index, Anholt
- Global Business Confidence, Grant Thornton_
- Business Trip Index*

● – This index has been updated since GFCI 2.

* – This index has been added since GFCI 2.

Chart 13 shows the top ten centres by GFCI ranking when using only the general competitiveness factors.

**Chart 13**
The Top Ten Financial Centres on the basis of General Competitiveness Factors



The top three centres are the same as in GFCI 2 but there have been some slight shifts in position for the remaining centres, with Singapore and Zurich swapping places, Chicago and Frankfurt swapping places, and Geneva dropping one place in the rankings. Tokyo and Paris left the top ten, and were replaced by Sydney and Toronto in 8th and 10th place, respectively.

Grant Thornton's International Business Report (IBR) surveys the opinions and expectations of chief executive officers, managing directors, chairmen or other senior executives to determine a broad index of business confidence. The figure is the balance of the respondents who are optimistic less those who are pessimistic. The highest possible figure countries are able to record is +100% and the lowest is -100%. This index is new in GFCI 3.

**Table 14**
Business Confidence Index*

| City | BCI Score | City | BCI Score |
|---|---|---|---|
| Mumbai | 97 | London | 43 |
| Manila | 88 | Madrid | 43 |
| Beijing | 85 | Jersey | 43 |
| Shanghai | 85 | Isle of Man | 43 |
| Singapore | 84 | Glasgow | 43 |
| Dublin | 82 | Guernsey | 43 |
| Amsterdam | 81 | Gibraltar | 43 |
| Johannesburg | 74 | Warsaw | 42 |
| Hong Kong | 69 | Wellington | 42 |
| Stockholm | 67 | Kuala Lumpur | 38 |
| Frankfurt | 66 | Paris | 30 |
| Munich | 66 | Bangkok | 30 |
| Melbourne | 61 | Athens | 27 |
| Sydney | 61 | Rome | 21 |
| Montreal | 60 | Boston | 14 |
| Toronto | 60 | Chicago | 14 |
| Vancouver | 60 | New York | 14 |
| Moscow | 57 | San Francisco | 14 |
| St. Petersburg | 57 | Washington D.C. | 14 |
| Luxembourg | 49 | Taipei | -3 |
| Sao Paulo | 47 | Tokyo | -5 |
| Edinburgh | 43 | Osaka | -5 |

***Source:** Grant Thornton

Because the Index is country-based, the scores for cities in Table 14 are the scores for the corresponding countries, rather than specific to the centres.

Asian business owners continue to be the most confident in the world, with cities in India, the Philippines, Mainland China and Singapore taking the top four positions in the survey. India's position at the top of the optimism/pessimism league table has strengthened to an unprecedented +97% up from +93% in 2006. Japan's figures reflect a steady economic recovery over the past five years from an optimism/pessimism balance of -71% in 2003 to just -5% in 2007.

Interestingly, there is very little correlation between overall business confidence and the rating of the top centres in the World Economic Forum's Global Competitive Index. This implies that optimism about financial conditions and potential are not based only upon financial, logistical, and personnel factors, but also on cultural and broader social considerations not generally taken into account by other surveys. As one respondent put it:

It's a combination of many things: low costs, favourable tax and legal system, strong public sector, attractive location, positive country image, highly educated experts in different industries, top-level business advisory services – no centre has all of them, unfortunately.

The Global Competitiveness Index rankings are drawn from a combination of 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 (leading research institutes and business organisations). Table 15 shows the top 20 financial centres on this index. Again, because the index is country-based, the scores for cities in Table 15 are the scores for the corresponding countries.

**Table 15**
Global Competitiveness Index – Top 20 Centres*

| City | Global Competitiveness Index |
|---|---|
| Boston | 5.67 |
| Chicago | 5.67 |
| New York | 5.67 |
| San Francisco | 5.67 |
| Washington D.C. | 5.67 |
| Geneva | 5.62 |
| Zurich | 5.62 |
| Copenhagen | 5.55 |
| Stockholm | 5.54 |
| Frankfurt | 5.51 |
| Munich | 5.51 |
| Helsinki | 5.49 |
| Singapore | 5.45 |
| Tokyo | 5.43 |
| Osaka | 5.43 |
| Edinburgh | 5.41 |
| London | 5.41 |
| Hamilton | 5.41 |
| Cayman Islands | 5.41 |
| Jersey | 5.41 |

***Source:** World Economic Forum, 2007

The US centres score highest on this measure of competitiveness, followed by a mix of European and Asian cities. Tokyo and Osaka, both of which had a negative confidence score in the Business Confidence Index, receive reasonably high scores on this measure, higher even than the leading UK financial centres, London and Edinburgh.

Another new Instrumental Factor in GFCI 3 is the Business Trip Index, developed by the Economist Intelligence Unit. This ranks the best – and worst – destinations for business travel. Surveys of this kind usually focus exclusively on costs. This ignores, however, the aspects that help to make business tolerable, or even a pleasure – after all, conventions, training, corporate meetings and seminars are now more common reasons for business travel than simple sales calls. Crime, climate, transport and recreation all play a part in the index, along with airport distances and the availability of good hotels.

**Table 16**
Business Trip Index – Top Ten Centres*

| Rank | Score | City | Country |
|---|---|---|---|
| 1 | 4.60 | Vancouver | Canada |
| 2 | 4.90 | Calgary | Canada |
| 3 | 5.40 | Toronto | Canada |
| 4 | 8.10 | Adelaide | Australia |
| 5 | 8.40 | Honolulu | US |
| 6 | 8.70 | Cleveland | US |
| 6 | 8.70 | Brisbane | Australia |
| 8 | 9.20 | Perth | Australia |
| 9 | 9.50 | Montreal | Canada |
| 9 | 9.50 | Melbourne | Australia |

***Source:** Economist Intelligence Unit, 2006

Canada and Australia dominate the list, with nearly all of their major metropolitan centres in the top ten. In sharp contrast, Hong Kong ranks 39th, New York is 47th, and London 72nd. Persistent criticism by respondents to our online questionnaire of London's transport infrastructure (both airports and public transit within the city) bears out and is in line with this ranking.

# 7. Financial Centre Assessments

This chapter examines the responses of financial services professionals to the GFCI questionnaire, which has run continuously online over the past two years, with the format being updated at intervals. Web links to the questionnaire sites have been e-mailed to senior financial services professionals worldwide. Since the beginning of work on GFCI, 1,236 questionnaire responses have been received, and these findings have been incorporated into the model, using the logarithmic scale for time weightings outlined in Appendix A. These responses provided a total of 18,878 centre assessments. An outline of the responses is given in Tables 17 to 23:

**Table 17**
Questionnaire Responses by Sector

| Sector | Number of Responses |
|---|---|
| Banking | 302 |
| Asset Management | 159 |
| Insurance | 107 |
| Other Financial Services | 210 |
| Professional Services | 233 |
| Regulatory & Government | 61 |
| Trade Associations | 40 |
| Other | 124 |
| TOTAL | 1,236 |

**Table 18**
Questionnaire Responses by Number of Employees in Organisation

| Number of Employees Worldwide | Number of Responses |
|---|---|
| Fewer than 100 | 394 |
| 100 to 500 | 190 |
| 500 to 1,000 | 91 |
| 1,000 to 2,000 | 81 |
| 2,000 to 5,000 | 77 |
| More than 5,000 | 329 |
| Unspecified | 74 |
| TOTAL | 1,236 |

**Table 19**
Questionnaire Responses by Location

| Location | Number of Responses* | |
|---|---|---|
| Europe[11] | 764 | 62% |
| North America | 79 | 6% |
| Asia | 66 | 5% |
| Offshore | 197 | 16% |
| Multiple or Other | 130 | 11% |
| TOTAL | 1,236 | 100% |

11 Of these responses, 560 came from London

**Table 20**
Number of Assessments by Financial Centre

| Financial Centre | GFCI 3 Rank | Number of Assessments | Average Assessment | Standard Deviation of Assessments |
|---|---|---|---|---|
| London | 1 | 1,135 | 806 | 148 |
| New York | 2 | 904 | 820 | 159 |
| Hong Kong | 3 | 548 | 726 | 194 |
| Singapore | 4 | 474 | 707 | 189 |
| Zurich | 5 | 508 | 692 | 196 |
| Frankfurt | 6 | 711 | 669 | 176 |
| Geneva | 7 | 464 | 645 | 206 |
| Chicago | 8 | 365 | 652 | 216 |
| Tokyo | 9 | 363 | 636 | 227 |
| Sydney | 10 | 294 | 641 | 232 |
| Boston | 11 | 324 | 619 | 231 |
| San Francisco | 12 | 293 | 614 | 230 |
| Dublin | 13 | 530 | 619 | 196 |
| Paris | 14 | 751 | 633 | 177 |
| Toronto | 15 | 304 | 609 | 222 |
| Jersey | 16 | 415 | 622 | 245 |
| Luxembourg | 17 | 450 | 616 | 211 |
| Edinburgh | 18 | 426 | 612 | 228 |
| Guernsey | 19 | 356 | 619 | 249 |
| Washington D.C. | 20 | 294 | 550 | 245 |
| Isle of Man | 21 | 283 | 592 | 218 |
| Glasgow | 22 | 79 | 556 | 239 |
| Amsterdam | 23 | 393 | 586 | 206 |
| Dubai | 24 | 347 | 587 | 218 |
| Cayman Islands | 25 | 322 | 569 | 232 |
| Gibraltar | 26 | 82 | 539 | 232 |
| British Virgin Islands | 27 | 74 | 592 | 212 |
| Hamilton | 28 | 285 | 566 | 243 |
| Melbourne | 29 | 213 | 542 | 232 |
| Montreal | 30 | 225 | 521 | 240 |
| Shanghai | 31 | 268 | 561 | 227 |
| Stockholm | 32 | 283 | 524 | 230 |
| Vancouver | 33 | 218 | 512 | 245 |
| Brussels | 34 | 393 | 542 | 201 |
| Munich | 35 | 243 | 584 | 278 |
| Bahamas | 36 | 54 | 580 | 209 |
| Monaco | 37 | 53 | 485 | 240 |
| Milan | 38 | 298 | 511 | 211 |
| Bahrain | 39 | 179 | 483 | 216 |
| Helsinki | 40 | 243 | 464 | 227 |
| Johannesburg | 41 | 186 | 485 | 226 |
| Madrid | 42 | 322 | 492 | 194 |
| Vienna | 43 | 259 | 492 | 220 |
| Copenhagen | 44 | 270 | 476 | 239 |
| Oslo | 45 | 225 | 442 | 235 |
| Beijing | 46 | 240 | 470 | 216 |
| Qatar | 47 | 154 | 456 | 233 |

continued

| | | | | |
|---|---|---|---|---|
| Mumbai | 48 | 242 | 470 | 226 |
| Rome | 49 | 257 | 427 | 203 |
| Osaka | 50 | 128 | 392 | 220 |
| Seoul | 51 | 183 | 426 | 234 |
| Wellington | 52 | 167 | 437 | 252 |
| Sao Paulo | 53 | 135 | 411 | 231 |
| Prague | 54 | 241 | 426 | 223 |
| Warsaw | 55 | 228 | 397 | 220 |
| Moscow | 56 | 273 | 368 | 213 |
| Lisbon | 57 | 229 | 382 | 206 |
| Budapest | 58 | 228 | 366 | 218 |
| Athens | 59 | 254 | 338 | 193 |

**Table 21**
Financial Centres with too Few Assessments to Appear in GFCI Ratings

| Financial Centre | GFCI 3 Rank | Number of Assessments | Average Assessment | Standard Deviation of Assessments |
|---|---|---|---|---|
| Taipei | - | 28 | 550 | 186 |
| Bangkok | - | 38 | 534 | 230 |
| Kuala Lumpur | - | 34 | 556 | 218 |
| Manila | - | 23 | 396 | 180 |
| Tallinn | - | 36 | 539 | 308 |
| Jakarta | - | 27 | 404 | 187 |
| St. Petersburg | - | 27 | 374 | 240 |

The questions asked in the latest online questionnaire are set out in Appendix B and analysed below. Table 22 shows the percentage of responses since GFCI 2 that mention each of the four specific key areas of competitiveness.

**Table 22**
Key Areas of Competitiveness

| Area of Competitiveness | Percentage of people who responded | Main Concerns Raised |
|---|---|---|
| Business Environment | 40.91% | Clear and stable regulatory and tax regime, EU bureaucracy |
| People | 30.45% | Experience and quality of staff, permissive visa/immigration regime |
| Infrastructure | 19.55% | Ease of transport, particularly airline connections and intra-city links |
| Market Access | 4.55% | Openness to foreigners and international trade, and legal predictability |

As in GFCI 2, the business environment, in terms of the tax and regulatory regime, is the greatest concern expressed by respondents; as one person put it:

> *Bottom line is, it's still all about tax.*

The presence of a broad talent pool is the second-most important issue identified in GFCI 3, with specific reference being made to local knowledge of cultural sensitivities and traditions, as well as skills in several foreign languages.

Infrastructure issues were placed third. There were many references to the 'one carry-on bag policy' at London Heathrow. It is true that this has recently been lifted, but, not before being identified as an explicit reason for avoiding doing business in London. Market access was placed fourth, with most answers emphasising the importance of a 'critical-mass' of financial services with broad international ties and fluency.

Question 13 asked if there are any financial centres that respondents felt might become significantly more important over the next two to three years. The five centres mentioned the most (based on responses received since GFCI 1) are shown in Table 23.

**Table 23**
Top Five Financial Centres That Might Become Significant *

| Financial Centre | Number of times mentioned |
|---|---|
| Dubai | 23 |
| Shanghai | 12 |
| Singapore | 10 |
| Malta | 7 |
| Beijing | 4 |

* See the note in Appendix A about removing home bias.

Question 14 asked in which financial centre (or centres) is the respondent's organisation most likely to open up a new operation within the next two to three years. The five centres mentioned the most (based on responses received since GFCI 1) are shown in Table 24:

**Table 24**
Top 5 Financial Centres where Organisations may Open New Operations in the Next Two to Three Years

| Financial Centre | Number of times mentioned |
|---|---|
| Dubai | 22 |
| Luxembourg | 11 |
| Singapore | 9 |
| Mumbai | 6 |
| Malta | 5 |

Dubai is the clear leader in perceptions of potential growth as a financial centre; its GFCI rating has increased by ten points since GFCI 2, where it also came top in the equivalent questions. Singapore has also improved since GFCI 2, where respondents also considered it 'one-to-watch'. Luxembourg is a little surprising in this category, although it retained 17th place in the GFCI 3 rankings with an increase of nine points. Malta also appeared on both lists, and is worth watching as it consolidates its position in the EU after adopting the Euro at the beginning of 2008.

# 8. Conclusion

In GFCI 3, the top eight centres have maintained the same rankings as in GFCI 2, although a large degree of movement has taken place within the top 50 centres, as well as within different sectors and competitive areas.

Major events in 2007 affected the financial services industry since the publication of GFCI 2, and the public perception of this sector. The sub-prime mortgage crisis in the US caused reverberations around the world in the banking sector, with direct and indirect impacts exposing banks and regulatory authgorities. The direct exposure to the US sub-prime market of some German regional Banks saw their effective collapse followed by substantial state support from German regional and national government. The associated wholesale money market liquidity crisis hit Northern Rock in the UK and the subsequent government bail-out highlighted gaps in supervision between the Bank of England and the Financial Services Authority (FSA) and the Treasury. Finally, for the UK changes proposed to the UK's 'non-domiciled' tax status will reduce a significant benefit and appeal of living in London, but the full effects will be seen only when (and if) the changes come into effect in April 2008.

London still leads the GFCI rankings in 1st place, though by eleven points less than in GFCI 2, bringing the distance between it and New York to only nine points. This decreasing gap reflects the fact that New York pulled ahead of London in the most recent questionnaire responses; underpinning this, for the first time New York overtook London on one of the subsets of respondents, moving to first place on assessments from the banking sector. London and New York together still represent the only two truly global financial centres, both about 90 points ahead of Hong Kong and Singapore, in 3rd and 4th places.

Other changes among the top 50 financial centres in GFCI 3 include:

- 26 centres have fallen in rank, eight have risen, eleven remain the same, and five are new to the Index.
- The Gulf States have risen strongly in the ratings, with Bahrain and Qatar rising by 59 and 51 points, respectively.
- Off-shore centres continue to do well across the board, with all of them maintaining their rating or rising (although in some cases this was accompanied by a drop in rank).
- A number of centres are identified as being worth watching, including Shanghai, Dubai and Singapore.

These findings, in particular the importance of off-shore centres, and the dynamic positioning of the Gulf States, Shanghai and

Singapore, reinforce the initial indications from GFCI 2 that they would be important forces helping to shape 21st century finance.

The third edition of GFCI now draws upon 1,236 total responses from professionals in the financial services industry for a total of 18,878 city assessments. The model itself is mature enough to reflect statistical relevance and represent changes in financial centres globally. Additional questionnaire responses, and updated instrumental factors will continue to focus the Index over time.

GFCI 3 reinforces the view that financial centre competitiveness is not a 'zero-sum' game, and that advances in one city will benefit others with which it is interdependent. Regulatory structure and access to highly-skilled personnel are key multipliers in competitiveness, and transport infrastructure and convenience continue to be common subjects for comment (or complaint) among respondents. As one person put it:

A balance of bureaucracy, tax, geographical location, and people skills are the four key drivers in competitiveness. There is still a vacancy for a city to successfully have all four.

It remains to be seen to what extent any financial centre can achieve that goal, although an increasing number aspire to it.

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

# 9 Appendices

## 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 62 external sources (an increase of eight over GFCI 2) were used in GFCI 3; the sources are described in detail in Appendix C. These eight new sources include, for example, Operational Risk Ratings, Business Confidence Index, e-Readiness score, Total Capitalization of Stock Exchanges, and the Tertiary Graduation Ratio. 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 2006, we now have 18,878 financial centre assessments drawn from 1,236 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 62 instrumental factors were selected because the features they measure contribute in various ways to the fourteen competitiveness factors identified in previous research[12]. These are shown in Table 25:

Financial centres are added to the GFCI model when they receive five or more mentions in Question 15 (Appendix B). A centre is only given a GFCI rating and ranking if it received more than 50 assessments in the online survey.

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.

12 Source: Z/Yen Limited, op. cit., (November 2005).

**Table 25**
Competitiveness Factors and their relative importance

| Competitiveness Factors | Rank | Average Score |
|---|---|---|
| The availability of skilled personnel | 1 | 5.37 |
| The regulatory environment | 2 | 5.16 |
| Access to international financial markets | 3 | 5.08 |
| The availability of business infrastructure | 4 | 5.01 |
| Access to customers | 5 | 4.90 |
| A fair and just business environment | 6 | 4.67 |
| Government responsiveness | 7 | 4.61 |
| The corporate tax regime | 8 | 4.47 |
| Operational costs | 9 | 4.38 |
| Access to suppliers of professional services | 10 | 4.33 |
| Quality of life | 11 | 4.30 |
| Culture & language | 12 | 4.28 |
| Quality / availability of commercial property | 13 | 4.04 |
| The personal tax regime | 14 | 3.89 |

* See the note in Appendix A about removing home bias.

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.

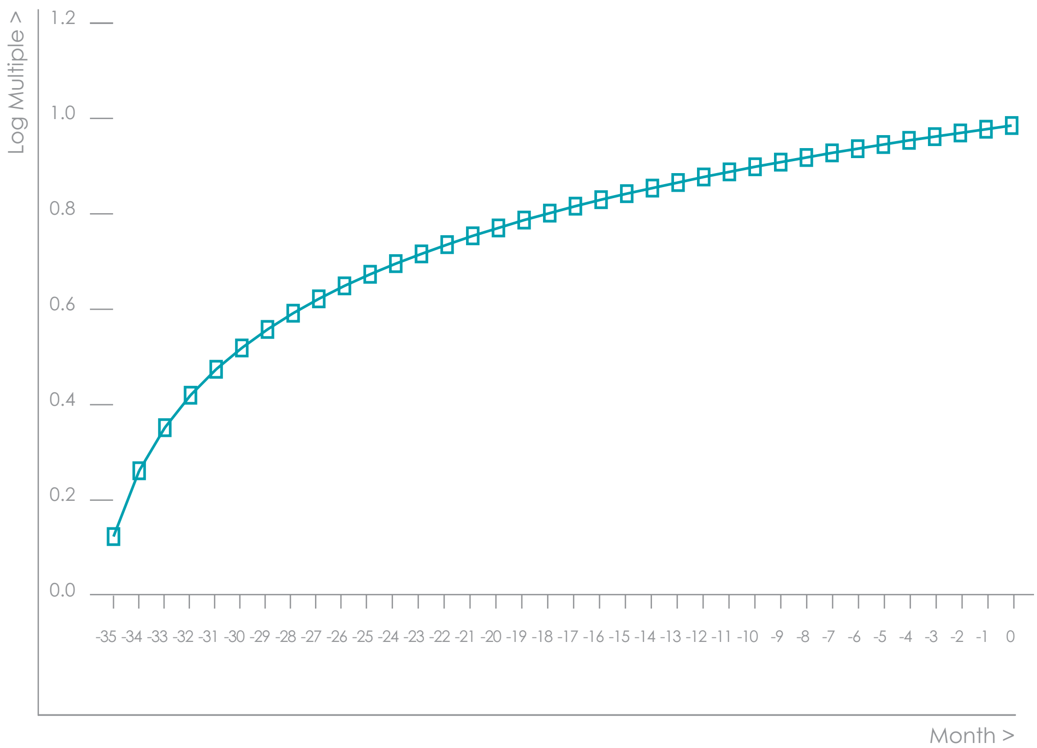
The guidelines for financial centre assessments by respondents are:

- 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.
- Financial centre assessments will be included in the GFCI model for 36 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. This scale has been revised between GFCI 1 and GFCI 2 to enhance its effectiveness, and used again for GFCI 3, as shown in Chart 14:

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. This change was made in GFCI 2, and it represents an improvement to the methodology by further reducing the risk of home bias. The model then predicts how respondents would have assessed centres

**Chart 14**
Log Scale for time weightings




they are not familiar with, by answering questions such as:

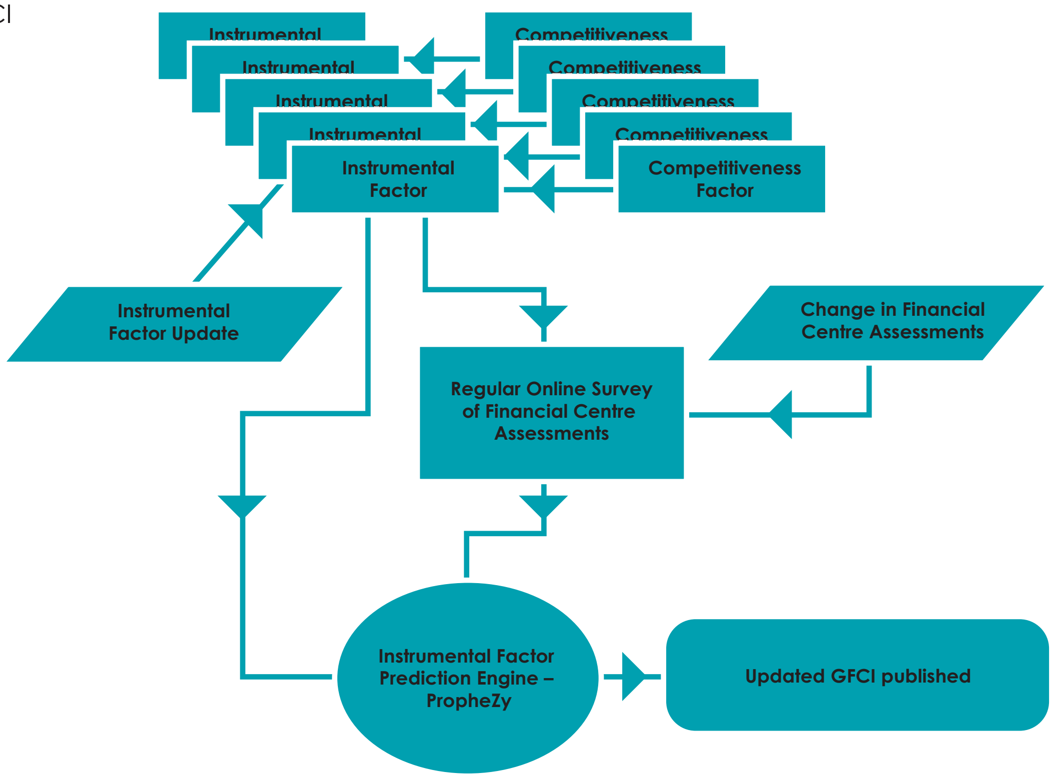
*If an investment banker gives Singapore and Sydney certain assessments then, based on the relevant data for Singapore, Sydney and Paris, how would that person assess Paris?*

*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 diagrammatically in Chart 15

**Chart 17**
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).
- Over time, as confidence in the GFCI increases, the factor assessment model can be queried in a 'what if' mode - "how much would London rental costs need to fall in order to increase London's ranking against New York?"

Part of the process of building the GFCI 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
- 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 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

10 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
- Chicago
- Montreal
- New York
- San Francisco
- Sao Paulo
- Toronto
- Vancouver
- Washington D.C.

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):

Bahrain
Bangkok
Beijing
Dubai
Hong Kong
Jakarta
Kuala Lumpur
Manila
Mumbai
Osaka
Qatar
Seoul
Shanghai
Singapore
Taipei
Tokyo

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):

Gibraltar
Guernsey
Hamilton (Bermuda)
Isle of Man
Jersey
Johannesburg
Melbourne
Sydney
The Bahamas
The British Virgin Islands
The Cayman Islands
Wellington

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

14 Are there any important financial centres we have missed?

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

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

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

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

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

20 Address & Telephone Number:

21 Email address:

## 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 2 and GFCI 3 and those that have been added in GFCI 3, as follows:

○ – This index has been updated since GFCI 2

✱ – This index has been added since GFCI 2

### Instrumental Factors for People

**Executive MBA Global Rankings, Financial Times (October 2007)○** – 149 business schools and their alumni were contacted, of which 112 were ranked and 37 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:** www.ft.com

**European Human Capital Index, Lisbon Council (October 2007)○** – The index is used as a measure of human capital stock, deployment, utilisation and evolution in thirteen EU countries, which are ranked on ability to develop human capital to meet the challenge of globalisation. The rankings are based on how each country scores in each of four individual human capital categories (Endowment, Utilisation, Productivity and Demography), with the best possible ranking being 4 and the worst 52.
**Source:** www.lisboncouncil.net

**Human Development Index, UNDP (October 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

**Labour Productivity, OECD (October 2007)** – The OECD provides several estimators of labour productivity, based on GDP and employment from its Annual National Accounts and hours worked from its Employment Outlook, Annual National Accounts and national sources. The indicator used is GDP per hour worked, an Index using the US as the base, with an index of 100.
**Source:** www.oecd.org

**Education Expenditure, OECD (October 2007)○** – The OECD statistics database provides figures for expenditure on educational institutions. The GFCI uses the sum of private and public expenditure, expressed as a percentage of GDP.
**Source:** www.oecd.org

**Quality of Living Survey, Mercer HR (April 2007)** – 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, NationMaster (January 2006)** – The Happiness scores are compiled from responses to the 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 rating themselves quite happy or very happy and subtracting the percentage rating themselves not very happy or not at all happy.
**Source:** www.nationmaster.com

**World's Top Tourism Destination, World Tourism Organisation (October 2007)○** – The 25 most popular tourist destinations in the world are ranked, based on the number of international tourist arrivals over the last year.
**Source:** www.unwto.org

**Average Days with Precipitation per Year, Sperling (December 2007)** – 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

**Tertiary Graduation Ratio*, UNESCO (March 2007)** – This is an indicator of the present and future composition of a country's workforce in terms of skills. It represents the ratio of people that obtain tertiary education degrees opposed to all of the country's population at graduation age. The statistics obtained from UNESCO data bases divide tertiary education into Type A – mainly theoretically based and designed to lead to advanced research programmes and highly skilled professions; Type B – more occupationally specific and designed to lead straight to the labour market; and advanced research programmes.
The ratio used for our survey applies to the type A tertiary graduates as these are the graduates most commonly hired by the financial industry. Apart from OECD countries the statistical database includes 19 other countries that participate in the World Education Indicators (WEI) programme – mostly developing countries with significant populations and increasing importance in the world economic and financial landscape.
**Source:** www.uis.unesco.org

**Murder Rate per Capita*, Nation Master (November 2007)** – Murder rates per capita is an indicator of the levels of violent crime. Personal safety is essential for employees and businesses and could well influence individuals in their choice of where to live and pursue a career. For example a financial specialist could turn down a prospective job offer if this would require them to move along with their family in to a very dangerous area. We have used the statistics of intentional homicides per capita rather than total crime rate because crime is defined differently in different jurisdictions and because it includes petty crime.
**Source:** www.nationmaster.com

**Number of Terrorism Fatalities*, Nation Master (March 2007)** – The number of terrorist incidents is an indicator of personal safety and quality of life as a whole. We have 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 offshore financial centres considered in our survey. For example using a per capita ratio ranks Gibraltar in 6th place, ahead of Afghanistan, which is ranked 11th.
**Source:** www.nationmaster.com

## Instrumental Factors for Business Environment

**Administrative and Economic Regulation, OECD (Latest Available)** – The OECD conducted a study on product market regulation, calculating indicators for both administrative and economic regulation. The average of these indicators is used as a combined measure of both forms of regulation.
**Source:** www.oecd.org

**Business Environment, Economist Intelligence Unit (October 2007)°** – A ranking model applied to the world's 82 largest economies (accounting for more than 98% of global output, trade and FDI). It measures the quality of their business environment (adjusted for size) and its components. The model is also used to generate scores and rankings for the last five years and a forecast for the next five years.
**Source:** http://store.eiu.com

**Total Tax Rates, World Bank/PwC (November 2007)°** – The Total Tax Rate measures the amount of tax payable by the business in the second year of operation, expressed as a share of commercial profits. It is the sum of all the different taxes payable after accounting for deductions and exemptions. The taxes withheld (such as sales tax or value added tax) but not paid by the company are excluded. The GFCI uses figures provided by PwC for a fictional financial services company, rather then for a manufacturing company as used for the World Bank.
**Source:** www.doingbusiness.org

**Corporate Tax Rates, OECD (September 2007)°** – The OECD provides annual figures of Central Government Corporate Income Tax Rates. The basic rate (inclusive of surtax) is used and adjusted to show the net rate where the central government provides a deduction in respect of sub-central income tax.
**Source:** www.oecd.org

**Employee Effective Tax Rates, PwC (July 2007)°** – 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.

**Wage Comparison Index, UBS (September 2006)** – 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

**Personal Tax Rates, OECD (September 2007)°** – 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 (September 2007)°** – The statistics are taken from the taxation table in the report OECD in Figures.
**Source:** www.oecd.org

**Ease of Doing Business Index, World Bank (November 2007)°** – A ranking was given to 175 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

**Opacity Index, Kurtzman Group (Latest Available)** – 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.opacityindex.com

**Corruption Perceptions Index, Transparency International (September 2007)°** – Expert assessments and opinion surveys are used to rank more than 150 countries by their perceived levels of corruption. Data were gathered from sources spanning the last three years.
**Source:** www.transparency.org

**Index of Economic Freedom, Heritage Foundation (June 2007)°** – A study of 161 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

**Economic Freedom of the World Index, Fraser Institute (September 2006)°** – This is a joint venture involving seventy-one research institutes in seventy-one countries around the world. The index is divided 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

**Financial Markets Index, Maplecroft (January 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 Score, Exclusive Analysis (November 2007)** – Scores were given to specific countries based on forecasts of violent and political risk worldwide, made by a team of more than 200 political risk experts located throughout the world.
**Source:** www.exclusive-analysis.com

**Operational Risk Rating, EIU (May 2007)*** – The Economist Intelligence Unit has developed an indicator of operational risk that monitors 150 countries and is updated every quarter and if certain events require it. The index is composed of ten different indicators that have different weightings allocated reflecting 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

## Instrumental Factors for Market Access

**Capital Access Index, Milken Institute (June 2007)** – A study looking at 121 countries representing 92% of global GDP, and ranking them on more than 50 measurements, including the strength of their banking systems and the diversity and efficiency of financial markets.
**Source:** www.milkeninstitute.org

**Securitisation, IFSL (June 2007)** – 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 (November 2007)*** – Value of Share Trading/Volume of Share Trading/Volume of Trading Investment Funds/Value of Bond Trading/Volume of Bond Trading, Capitalisation of Stock Exchanges. 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

**Global Banking Service Centres, GaWC Research (Latest Available)** – Data for ten of the top 25 banks in the world were used to define significant presences. For each significant presence a city had, it was awarded one point.
**Source:** www.lboro.ac.uk

**Global Accountancy Service Centres, GaWC Research (Latest Available)** – Data from five of the six largest accountancy firms in the world were used to define significant presences, with each city scoring one point for each significant presence.
**Source:** www.lboro.ac.uk

**Global Legal Service Centres, GaWC Research (Latest Available)** – Centres are scored based on the number of particular law branches they contain. For the UK and the US, centres score points according to the number of law firms with foreign branches and for the rest of the world, centres are scored based on the number of UK/US law branches in the city.
**Source:** www.lboro.ac.uk

**The International Finance Index, Dariusz Wojcik (June 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:** Dariusz Wojcik – Oxford University Centre for the Environment and St. Peter's College

**The International Finance Location Quotient, Dariusz Wojcik (June 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:** Dariusz Wojcik – Oxford University Centre for the Environment and St. Peter's College

**The International Finance Diversity Index, Dariusz Wojcik (June 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:** Dariusz Wojcik – Oxford University Centre for the Environment and St. Peter's College

**Relative Global Network Connectivity, Mastercard (March 2007)** – This study examines the patterns of connection between centres through the office networks of 100 leading firms offering specialised corporate services to the financial sector (including law, advertising, consulting, accounting and insurance).
**Source:** www.mastercard.com

### Instrumental Factors for Infrastructure

**Global Office Occupancy Costs, DTZ (June 2007)** – A guide to accommodation costs in prime office locations, covering 111 business districts in 43 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.propertyoz.com.au

**Office Space Across The World, Cushman & Wakefield (February 2007)°** – 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.cushmanwakefield.com

**Competitive Alternatives Survey, KPMG (January 2006)** – 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 128 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

**Offices With Air Conditioning, Gardiner & Theobald (June 2007)** – Using data from the International Construction Cost Survey.
The GFCI uses the mid point of the lowest and highest cost of an office with air conditioning (given in US$ per square foot).
**Source:** www.gardiner.com

**European Cities Monitor, Cushman & Wakefield (October 2007)°** – 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 507 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.cushmanwakefield.com

**Global Property Index, IPD (November 2007)°** – The IPD global property index is intended to measure the combined performance of real estate investments held in mature investment markets worldwide. This index represents IPD's first attempt to create a composite global index that will be properly rebalanced to accurately reflect national market sizes and that will report global real estate investment performance in all major investor currencies back to the start of this decade. The index is based on the IPD indices for Austria, Canada, Denmark, France, Germany, Ireland, Italy, Netherlands, Norway, Portugal, South Africa, Spain, Sweden, Switzerland and the UK.
**Source:** www.ipdglobal.com

**Direct Real Estate Volumes, Jones Lang LaSalle (July 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 (July 2007)** – 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 (August 2007)*** – 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 69 different countries with scores from zero to ten, zero being the lowest and ten the highest score.
**Source:** www.economist.com

## Instrumental Factors for General Competitiveness

**Economic Sentiment Indicator, European Commission (November 2007)°** – 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

**Super Growth Companies, Grant Thornton (November 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 30 different countries.
**Source:** www.grantthorntonibos.com

**World Competitiveness Scoreboard, IMD (June 2007)** – An overall competitiveness ranking for the 61 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

**Retail Price Index, The Economist (November 2007)°** – 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

**Price Comparison Index, UBS (September 2006)** – Living costs across 71 metropolises are compared using a basket of 95 goods and 27 services. The results are used to compile two indices, one including the costs of housing and energy (which is the version used for the GFCI) and the other excluding such costs. New York was used as the base city, with an index of 100.
**Source:** www.ubs.com

**Nation Brands Index, Anholt (Latest Available)°** – An analytical ranking of the world's nation brands, updated each quarter using survey responses from 25,900 consumers in 35 nations. The survey measures the power and appeal of a nation's brand image, showing how consumers around the world see the character and personality of the brand.
**Source:** www.nationbrandindex.com

**City Brands Index, Anholt (Latest Available)** – 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.citybrandsindex.com

**Global Competitiveness Index, World Economic Forum (September 2007)°** – 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 125 economies worldwide.
**Source:** www.weforum.org

**Global Business Confidence, Grant Thornton (September 2007)*** – The International Business Report (IBR) studies the views and expectations of the top business people across 20 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

**Business Trip Index, EIU (December 2006)*** – 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

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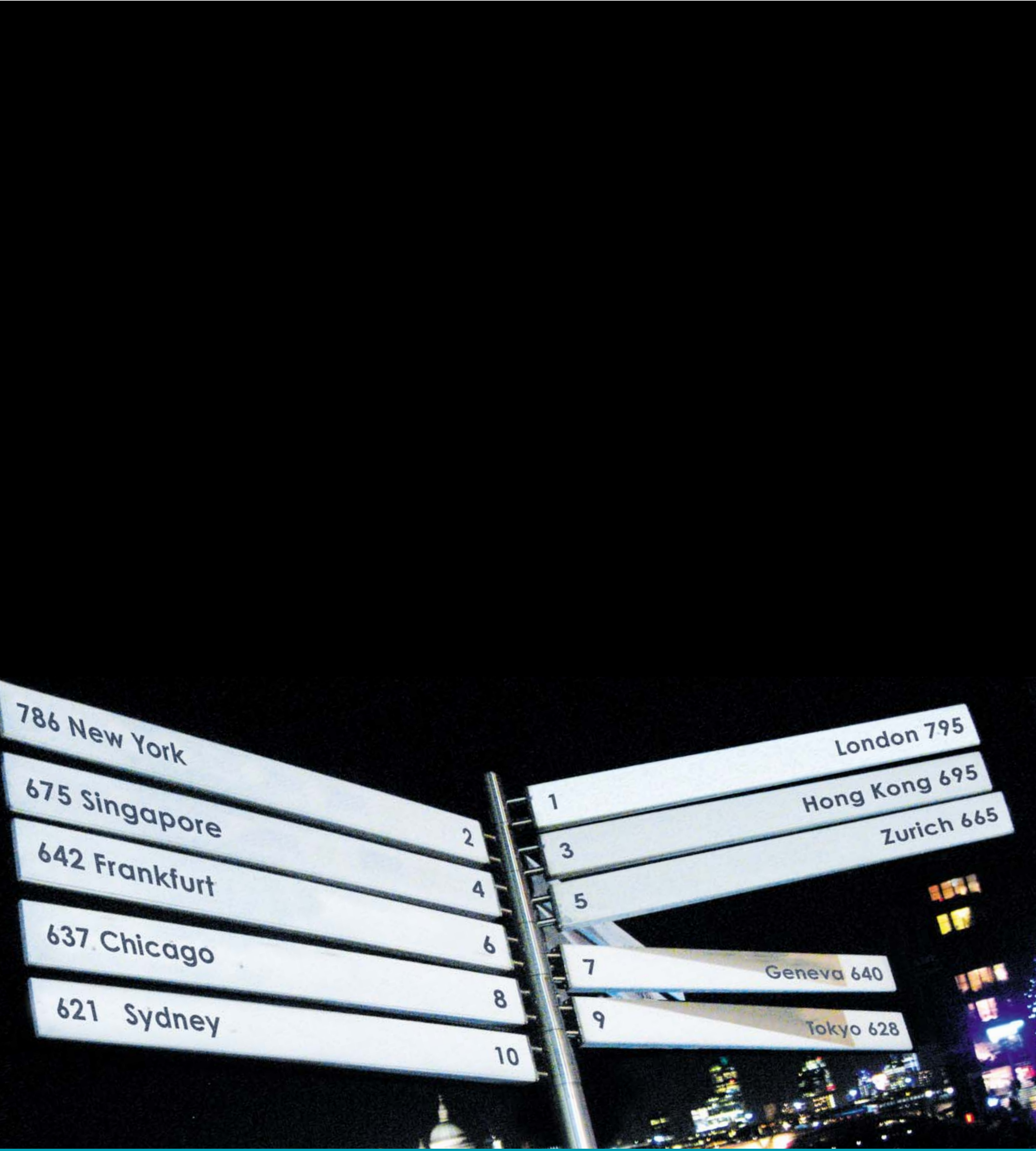
# The City of London Corporation

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.

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