BUILDING A GLOBAL FINANCIAL CENTER IN SHANGHAI

Observations from Other Centers

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June 2011

The government of the People's Republic of China has set a goal of turning Shanghai into a true global financial center by 2020, a target with which the municipal government of Shanghai is in enthusiastic agreement. This objective is a highly desirable one for Shanghai, and China as a whole, because breaking into the very exclusive inner circle of such centers would bring substantial economic gains, increased "soft" geopolitical power, and a large pool of lucrative jobs. These gains would come not just from the growth of a narrowly defined financial industry, but also from a wide range of positive spill-over effects, not the least of which is the creation, or sharp growth, of a number of related industries that are interconnected with finance.

This paper examines other global financial centers, and some regional financial centers that strove to become truly global, in order to draw lessons for Shanghai about the prerequisites for success as a global financial center. There is no rulebook that will guarantee success if followed scrupulously, since there are only a very small number of such centers from which to draw lessons and they grew in part due to very particular circumstances that could not, and probably should not, be repeated. Every city is unique and must build on its own strengths and work to shore up its own weaknesses; these strengths and weaknesses are themselves often a reflection of the time in history and the larger world and local circumstances. However, a comparison with other centers still yields a number of useful clues, some of which are intuitive and others of which are not.

The body of the paper is organized around a set of major questions:

- What is a global financial center?
- Who are the core participants in a financial center?
- Why do financial centers exist in our electronic age?
- What are the benefits of being such a center?
- What can we learn from theory?
- What can we learn from survey research?
- What do surveys and experts indicate are critical attributes necessary for success?
- What are the global financial centers today?
- What are London's overall strengths and weaknesses?
- What are New York City's overall strengths and weaknesses?
- Why is Tokyo not a truly global financial center?
- Why are Frankfurt and Paris not global financial centers?
- What are the key lessons for Shanghai from all these comparisons?

This paper was done in conjunction with a project of the American Chamber of Commerce in Shanghai. The author would like to acknowledge the helpful editorial comments of Kenneth Lieberthal and Eswar Prasad, and the research assistance of Robert O'Brien. In addition, I want to express my appreciation to John L. Thornton and the ACE Charitable Foundation, whose generous support of the John L. Thornton China Center helped make the research possible.

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What is a global financial center?

A financial center is simply a location where a substantial amount of financial business is conducted.[1] These centers come in different sizes and levels of capability, with no clear dividing line between a local financial center, a national one, a regional one, and a global one. Nonetheless, it is not that hard in practice to distinguish two global financial centers, London and New York, from the set of smaller regional and national financial centers that fall below them in the hierarchy, such as Frankfurt, Paris, or Singapore. Part of the difference is simply the scale of activity, which is much larger in the two global financial centers. More importantly, however, they are locations where a substantial amount of the business done has no inherent local connection. For example, if a Japanese company chooses to raise US dollars by issuing a bond in the London-based Eurodollar market, it is doing so in a foreign country and using a currency that is neither its own nor that of the country in which it is arranging the borrowing. The core reason for using London in this instance would be that the expertise and connections of the London investment banks will produce the funding on the best terms available in the global marketplace.

A global financial center cannot attract such business without having a very high level of financial expertise, a full range of infrastructure, including globally-oriented law firms, a trusted legal system, and connections with a wide range of investors around the world. Other attributes are also important, as will be explored in the rest of this paper.

Who are the core participants in a financial center?

At the heart of any global financial center are the institutions that arrange capital raising and financial risk management transactions for firms around the globe. Capital raising could consist of issuing debt, equity, or a more exotic financial instrument. Risk management would involve either locking in a future price, such as the price six months from now of oil or the interest rate on 10-year US Treasury bonds, or it could be the purchase of protection against an adverse price movement, such as through buying an option to purchase oil in six months at a given price, which the holder of the option would only exercise if the price of oil on the open market had risen higher than that level.

Financial centers exist to bring together the two sides to these capital raising and risk management transactions. Transactions of a size or complexity to merit execution in a global financial center generally involve a large corporation looking to raise funds or protect against financial risks, although sometimes that side of the transaction is for the benefit of a large investment firm or pension fund looking to manage a financial risk. In

[1] Jarvis (2009) follows Mainelli (2006) in defining such as center by stating "[c]ommon definitions of financial centers thus normally highlight their role as places of *intense* exchange relations which exhibit a dense clustering of a wide variety of financial businesses in one centralized location."

a capital raising, the supplier of funds is usually an end-investor, such as a pension fund, or an investment fund which represents the pooled wealth of many end-investors. However, that role can be taken by a speculator of some kind that is primarily focused on the potential for relatively short-term profit. The role of speculators tends to be even more important in risk management transactions, since there is often no natural counter-party desirous of taking the opposite side in order to reduce their own risk. (An exception is in the agricultural markets, where much of the volume involves hedging of risks by both sides of the transaction. A farmer wants to know the price at which he will be able to sell his crops at harvest time and a food processor similarly wants to know what it will have to pay at that time.)

Some transactions are arranged fairly straightforwardly through an exchange, such as a traditional stock exchange. Here brokers play an important, but limited, role by bringing their clients' requests to the exchange and finding the parties on the other side who wishes to transact at an acceptable price. However, the more complicated and lucrative transactions involve a considerably larger role for an intermediary institution that helps structure and market the transaction. These intermediaries are generally "investment banks" and this will be the term used by this paper to refer to them, but there are a number of other types of institutions that could play this role. Importantly, many universal banks do both traditional commercial banking transactions, such as making loans, but also act as investment banks. In the U.S., much of the investment banking business is performed by securities firms that are part of a larger banking group which is dominated by a commercial bank at the core of the group.

Why do financial centers exist in our electronic age?

In this age of instant electronic communication, massive computer systems and databases, and electronic trading occurring literally in nanoseconds, one might wonder why financial systems have "centers" at all. The research literature does not fully address this core question, generally taking it as a given that such centers are necessary or listing essentially anecdotal points. This is an area where the author's two decades as an investment banker serve me in good stead, because I have seen and lived the reasons why having a center matters.

The more lucrative and complex parts of finance are businesses where trust and confidence are absolutely critical. This matters, because humans evolved to communicate physically, using visual clues and even touch (such things as a firm handshake), to judge trustworthiness and the effectiveness of communication. Even in areas of finance where the minute-by-minute business is conducted by electronic means, the relationships that underlie those transactions are built through physical meetings, including informal outings to bars, restaurants, and sporting events.

Further, finance is also an "apprenticeship" business in the sense that it is learned by paying close attention to one's bosses and mentors as they operate, rather than being something that can be easily learned in school. This requires being physically adjacent to the master banker, especially as this also allows informal interchanges where a novice can ask a master why he or she did something, or can benefit from a casual explanation that no one would bother to deliver by electronic means. For that matter, legal risks can arise when some points are written down or even spoken on a recorded line. (This is not to imply that illegal activities are common. The real problem is that the threat of lawsuits or investigations hangs over every transaction that might go wrong. A blunt comment about a bank's or a client's motivations or lack of understanding of an element of a transaction can be made to look quite damning in retrospect.)

In sum, finance thrives on close physical contact even in this age of electronics and this is unlikely to change over the next decades, even if some of the less important aspects continue to migrate to electronic media. Therefore, "centers" will continue to matter. A small number of these centers will have the capacity to handle the most sophisticated or inherently global transactions and will rise to be truly global financial centers.

What are the benefits of being such a center?

There are very good reasons why cities around the world, with the aid of their national governments, are fighting hard to be one of the very small number of truly global

financial centers. The most complex and sizable transactions are already global in nature and will increasingly be so. The world only needs 3-5 global financial centers, roughly corresponding to the major swathes of time zones around the world. (People still prefer to work primarily during their own daylight hours and this is unlikely to change in the near-term.) There will be a number of regional and national financial centers, but they will not have the same kind of financial infrastructure that the global financial centers will have. This means the global financial centers will be superior to the regional and national centers in several key respects:

- The most important and lucrative deals will occur there
- The best bankers and traders will work there
- A host of ancillary businesses will make their main headquarters there in order to service the finance business, including lawyers, accountants, actuaries, specialist insurers, and many other professions
- The highly-paid professionals in finance and related businesses will employ many additional people to feed, clothe, house, entertain, and otherwise meet their needs
- The local currency will often be used as a matter of convenience in transactions

In addition to the economic gains, these factors also enhance the attractiveness of the centers as places for sophisticated and powerful people to live. They also confer elements of "soft" geopolitical power, both in terms of prestige and in terms of a deep knowledge of the world's financial flows, which provide a good guide as to what is happening in the non-financial economy that is funded by the finance industry.

What can we learn from theory?

There are conflicting theories about how and why financial centers develop where they do. Jarvis (2009) does an excellent job of summarizing these theories and this section of the paper generally follows the flow of his explanations, although the ultimate conclusions of this paper only partially overlap with his conclusions.

The earliest theories were based heavily on geography and tended to build on earlier work that explained the location of manufacturing and the more basic service industries, especially those involving physical goods. These theories, such as those of Christaller (1966), implicitly leave fairly little room for government action, since the constraints of geography – distances, locations of rivers and mountains, etc. – play the most important role in determining the hierarchy of activities among different cities. Some government infrastructure activity could change effective distances, such as by building roads or other transportation networks, but little else could be done. Some current theorists still explain financial centers using aspects of these earlier concepts.

More modern theories tend to emphasize either economies of scale or what Jarvis refers to as "endowed capacities." That is, there are clear economic advantages to concentrating financial business on a large scale in one or a small number of places. For example, transaction costs can be reduced by performing them on a larger scale. Going beyond that, there are many benefits to having a wide range of activities and types of expertise centralized in one location, as was argued strongly earlier in this paper. Cities that are already "endowed" with these capacities are at a clear advantage since they make that center the natural place for additional business to flow.

Jarvis summarizes the latter two sets of theories well, as follows:

> "Clustering arises from the efficiency gains and reduction in costs associated with financial agglomeration, where the density of financial service firms not only reduces barriers to transaction facilitation but creates information symmetries and knowledge economies that reduce operating and transaction costs. Clustering, for example, produces allied markets and agglomerates skills capacity in financial management, engineering, legal and settlement systems which reduces collective industry costs and allows competition in the provision of services because of market size and specialization. It also provides employment pools of highly skilled labour that would otherwise require large upfront sunk costs for training and skills development. Further, scale economies

and clustering allows for the emergence of trust relationships and of transactional norms that become institutionalized. Issuers of securities, project financiers, underwriters and insurers of structured financial products, for example, are able to orchestrate pools of capital, mediate transactions and secure outcomes with relatively low transaction costs in expedited timeframes. Similarly, scale economies allows for the commoditization of risk and for risk to be spread and on-sold between multiple agents who operate in specialized markets, further reducing transaction barriers.

The effects of scale economies combined with functional specialization is also used to explain the contrasting sizes, distribution and capacities of IFCs. London and New York's scale advantages in foreign exchange, international bonds and the depth of their capital markets dwarf the capacities of other European (Paris, Frankfurt) or North American (Toronto, Chicago) financial centers producing self-reinforcing comparative advantages that deepen specialization and centralization and further enhance capacity and their spatial reach over a global financial hinterland. Size, in other words, rather than distance is what matters and orders the distribution and hierarchy of London and New York as dominant actors in global capital markets (Poon, Eldredge, Yeung, 2004:414)."

However, as Jarvis points out, "the pull of centralization through scale economies and specialization obviously has explanatory limitations. By this logic there should be fewer but larger global financial centers with the tendency for regional, smaller financial centers to be made redundant. " Yet, "[i]n the Asia-Pacific, Sydney, Singapore and Hong Kong have each prospered and grown despite the scale economies enjoyed by the global three — an apparent anomaly." There are similar regional centers in Europe that cannot be explained solely by the latter two theories.

The author leans strongly towards a mix of the economies of scale and endowed capacities theories as the primary explanations of the growth of global and regional financial centers. However, there are aspects of the earlier, more geographically-based, theories that do have some merit even today. For example, Jarvis points out that the existence of major trading hubs for physical goods in Hong Kong, Shanghai, and Singapore provide a strong natural source of business for those financial centers, related to the commercial activities surrounding trade, such as foreign exchange activities, issuance of trade-based financial instruments, etc.

Survey research and anecdotal evidence, discussed next, strongly focus on the same factors of endowed capacities and economies of scale. The author believes this is primarily because those are indeed the factors that matter, but it is also possible that the survey designers, and those they interviewed in more depth, were simply not accustomed to focusing on the more abstract and longer-term elements represented by the earlier geographical theories.

The good news about the endowed capacities theories and, to a lesser extent, the economies of scale arguments are that they suggest paths for government activities to aid in the growth of a global financial center. Many of the important capacities may be grown, even if the original endowment is modest, and the scale of activity in various areas can also be encouraged to increase to the point where the growth, hopefully, becomes self-sustaining. This is particularly relevant to Shanghai, which would benefit, even without government action, from the continuing rapid growth of the Chinese economy and the financial transactions that it generates.

What can we learn from survey research?

Survey research provides critical evidence about what makes a great financial center, but it must be analyzed carefully, and sometimes skeptically. As noted, theory goes only so far in explaining why particular financial centers rise or fall. It is very helpful to look beyond this to the various surveys that have been conducted.

The two most useful surveys are the Global Financial Centres Index (GFCI), originally sponsored by the City of London, which examines what decision-makers consider in locating finance businesses. This includes both the senior executives who make such decisions and the

other professionals whom executives wish to lure to, or retain at, their firms. In addition, McKinsey, the consulting firm, conducted a one-off survey for a project examining the future of New York City as a global financial center. They interviewed a smaller number of respondents than for the GFCI, but concentrated on CEO's and very senior financial executives. In general, the findings of the two organizations are broadly similar, quite helpful, and match the intuition of the author based on his two decades of experience as an investment banker.

However, there are a host of hidden biases and holes that must be borne in mind with any survey of this type. First, the questions, and the interpretations of the answers, will tend to reflect the unconscious, and occasionally conscious, biases of whoever commissioned the survey. There is an old fable in which the animals of the forest debate how to select their king. The lions think bravery is critical, the owl intelligence, the fox cunning, and so on, with each animal's choice reflecting the traditional western characterizations of lions as brave, owls as intelligent, etc. This fable captures the way in which people tend to assume that the most important characteristics are the ones they have, even when trying to avoid conscious biases.

Second, survey respondents usually take key attributes for granted, giving them importance only if they see a real difference between the financial centers on them. This makes it difficult to compare rising centers with existing ones, since the attributes of rising ones are changing over time and may differ significantly from those of the existing centers. Third, respondents are often "talking their positions," knowing that the survey will be used to influence politicians and other decision-makers. For example, they are always going to push for low taxes and easy regulation, even in cases where these really are not key factors in their actual decisions, at least within the range of choices presented by the potential financial centers. Fourth, people do not always know, or admit, the true reasons for their actions. If you ask someone how they choose someone to date or marry, you can be fairly sure that their actual behavior will differ from their description.

It is also important to keep in mind that there may be a conflict between short- and long-run interests. Some of the wiser people in London feel that it was a mistake for regulators and politicians there to have given in quite so far in the 2000's to the stated desire of financial leaders for "light touch" regulation. Historically, they believe that London's rise over many decades reflected appropriate levels of regulation, rather than simply responding to the wishes of local financiers. That sometimes meant being tough, even though The City would have preferred easier options in the short-term. This is not, by any means, to suggest unnecessarily tough regulation, but rather to warn against the possibility of giving in to the temptation to lure business that is looking for excessively light regulation in activities which can blow up every decade or two.

In addition to the surveys, governments in many financial centers, and occasionally private bodies, have commissioned or produced reports on the strengths, weaknesses, and prospects of their home financial center, drawing policy recommendations based on these analyses. As shown in the Bibliography, such analyses exist for New York, London, Hong Kong, Singapore, Mumbai, and Tokyo, among others. Their findings supplement the more quantitative, and possibly more objective, survey research results. Fortunately, they generally come to similar conclusions to the theoretical and survey work.

What do surveys and experts indicate are critical attributes necessary for success?

There is a great deal of overlap between the conclusions of the various surveys and commissions. Certain attributes are clearly necessary or quite desirable:

- Availability of high quality finance professionals
    - Quality of life
    - English speaking staff
- Rule of law
- Appropriate regulation (financial stability, toughness, predictability, speed)
- Avoidance of excessive taxation
- Proximity to customers
- Core infrastructure
- High quality support services
- Reasonable operational costs
- Openness to foreign entry
- Favorable time zone

Availability of high quality finance professionals. It is a truism that the key resource of an investment bank is its employees. Their expertise, knowledge of previous transactions, and relationships brings great value and much of that value could be transferred to another firm if the employee becomes disgruntled. Attracting, retaining, and motivating their professional staff is one of the most critical sets of tasks performed by the top management of any investment bank. This was the top factor in both McKinsey's survey and in the GFCI surveys and is ranked very highly by all the surveys and commissions. The McKinsey survey also lists separately, as the fifth most important factor, "reasonable compensation levels to attract quality professional workers," and "availability and affordability of technical and administrative workers," as the seventh most important factor.

This attribute is clearly a major advantage for the existing global financial centers, which already have large numbers of high quality professionals. However, it begs the question of how a growing financial center attracts additional professionals. A number of the other attributes listed below, such as quality of life, matter principally because they are important to recruiting and retaining such high quality workers to a financial center.

Quality of Life. Finding and keeping good professionals is easier if the firm can offer employment in a place where successful professionals want to live. It must also be borne in mind that the CEO's and top executives of these firms are also humans and they have their own preferences about where to live, preferences that can color the firm's overall location decisions. (The author has observed over the years how often new US CEO's will commission a consulting firm to find the best location for the firm and the consultants will miraculously conclude, based on numerous quantitative measures, that the CEO's personal favorite city is better than where the firm has been headquartered for decades.)

Although "high quality of life" ranks fairly far down in the list of factors in the McKinsey survey, it is given great prominence in the text of the accompanying report as an explanation of why New York ranked so high on the most important factor, "availability of professional workers." The study indicated that both London and New York were considered to have a quite high quality of life, but that New York's quality came at a considerably lower cost. Similarly, the GFCI places quality of life at number 11 out of 14 factors they discuss, but it is clearly an important component in their number one factor, "availability of skilled personnel." This points out one of the problems of survey research, which is that the overlap between different factors can make it hard to judge the relative importance of any single factor. Nonetheless, the author's own experience of two decades of work with financial professionals confirms the qualitative conclusions of all of the studies, that quality of life does matter a great deal in this area.

A high "quality of life" is a subjective assessment that means different things to different people, but there are a number of attributes that tend to recur:

- Attractive houses and apartments
- Good culture, entertainment, and sporting offerings
- Excellent restaurants
- Good schools of an international standard
- Low levels of pollution, filth, and noise
- Commutes that are not excessively long

English-speaking staff. Global business is very largely conducted in English these days and this is perhaps especially true of finance. This is made even more necessary by the importance of legal contracts in finance and the high likelihood that a global deal will be conducted under English or US law, meaning that the documents will be written in English and the binding interpretations of these documents will be based on English and not a translation. Therefore, the critical disclosure documents describing a transaction will also generally be in English.

As a result, a truly global financial center needs a large mass of fluent English-speakers. Even if many of the conversations inside the firm in that center take place in Chinese, for example, each of the professionals will need to be able to switch over to fluent English when dealing with other locations of their firm or with customers or investors or lawyers who do not speak Chinese. The farther down the hierarchy, the less important this becomes, but it will remain an advantage even

at lower levels. The language issue also ties into quality of life. It is at least modestly harder to persuade someone to move to a country where few people speak a language in which they are fluent and it can be considerably harder to persuade a spouse to accept such a move.

This factor does not generally show up in the quantitative surveys, which largely take it for granted, but it is discussed in several of the reports as an advantage of London, New York, and Mumbai and a potential constraint on some of the growing Asian centers. The GFCI survey lumps "culture and language" together and finds it ranks twelfth out of 14 factors.

Rule of law. Business cannot thrive unless there are predictable and reasonable rules under which it can operate. This is particularly important for the type of financial transactions one finds in a global financial center, since their complexity could produce a great deal of ambiguity if the laws were not clear. Of course, it is not sufficient for the written laws to be acceptable, they must also be enforced in a predictable and reasonable manner. This is not just true for commercial law. The key individuals working in the firm must have the personal security of knowing they live under reasonable laws which will not be enforced in an arbitrary or corrupt manner.

The various surveys take the existence of the rule of law for granted to some extent, since it is very hard for a financial center to exist without it. However, the surveys almost always show that more detailed attributes of law and regulation are critically important. The McKinsey survey of senior executives ranked "fair and predictable legal environment" as the second most important factor overall and the GFCI surveys show "the regulatory environment" as the second most critical factor, which effectively presupposes the rule of law.

Appropriate regulation. Financial firms operate inside of an extremely complex web of laws and regulations and they also rely on governments to ensure the stability of the financial system in which they operate. Nurturing a global financial center requires finding a delicate balance between excessive regulation that makes it too expensive to operate and too light a level of regulation that leaves the center exposed to financial instability. Excessively light regulation is even more immediately harmful if it is visible to outside parties, since they will have to worry about the potential repercussions on them from any problems that develop.

Finding this balance is made more difficult by the opacity of large, complex financial institutions and markets. Few regulators have the depth of expertise to know for themselves how key financial firms truly operate and make their decisions, unless they happen to have been quite senior executives in such a firm. Therefore, there is a need to listen to the stated needs and concerns of the financial industry while also recognizing that the executives, as in any other regulated industry, will often be skewing their arguments to obtain the outcome that is most profitable in the short-run. As alluded to earlier, this also means that survey results relating to the regulatory environment must also be considered critically, unlike answers to questions about quality of life, which are more straightforward.

Whatever the right answer in terms of the appropriate balance, all of the surveys show that this area is critical. The third most important factor in the McKinsey survey is "government and regulators are responsive to business needs" and the fourth is "attractive regulatory environment." In the GFCI survey, the "regulatory environment" ranks second overall as a factor and "a fair and just business environment," which likely overlaps with this, ranks sixth, with "government responsiveness" seventh.

Avoidance of excessive taxation. Corporate and personal taxes play an important role in determining the cost structure and overall profitability of financial firms. The ability of truly global business to be conducted in any of several locations means that these cost differences can have a serious effect on the growth of different financial centers. The McKinsey survey lists "favorable corporate tax regime" as the sixth most important item and the GFCI has the corporate tax regime as the eighth most important and the personal tax regime as the 14th most important.

The obvious point is that excessively high levels of taxation of financial firms or of their employees will make a financial center unattractive. However, it can be quite

difficult to determine what level is "excessive." The total cost of operating in a location includes many different items; higher taxation is acceptable if the cost is offset by other, more favorable, factors. For example, personal taxation of the key employees can be higher if their other costs of living in the center are lower, perhaps as a result of the provision of a high level of free or low-cost services that are funded by the higher levels of taxation.

Proximity to customers. As emphasized early on in this paper, financial centers exist in large measure in order to facilitate interactions between key parties, including between financial institutions and their customers. Investment banks, in particular, stand between the corporations and individuals who need funding, on the one hand, and the investors who can supply that funding. It is not absolutely essential that a global financial center be located physically adjacent to investors or borrowers, since major investment banks have offices around the world where they can develop those close relationships. However, it is a great help if the financial center does indeed provide the attraction of proximity to major suppliers or users of funds.

The GFCI survey lists "access to international financial markets" as the third most important factor, but it is difficult to know what this actually means. Assuming that it overlaps with proximity, it would provide support for the importance of this factor. More straightforwardly, the fifth most important factor is "access to customers." On the other hand, the McKinsey survey shows "close geographic proximity to other markets, customers, and suppliers" as relatively unimportant in comparison to other factors. However, that conclusion appears likely to be an artifact of the survey, since it is hard to understand why we have centers at all if it were not for such factors as this. McKinsey appeared to be most focused on New York and London, which may have caused that factor to be seen as relatively unimportant since it is easy to take for granted in such a discussion and does not differ much between those two cities.

Core infrastructure. Global financial institutions require a huge amount of physical infrastructure to work properly, from electricity to telecommunications to running water. Traders, in particular, will only live with extremely infrequent communications outages, since the loss of communications can be very expensive in terms of lost opportunities and the potential to be forced into holding positions that one would wish to have disposed of during the course of the outage. Similarly, weaknesses in core infrastructure would seriously diminish the quality of life available to the key staff that firms need.

The GFCI survey shows "availability of business infrastructure" as the fourth most important factor, while the McKinsey survey finds "high quality transportation infrastructure" in the middle of the list of factors. Defining infrastructure more broadly than just transportation would almost certainly have raised the ranking still higher.

High quality support services. Investment banks need access to a wide range of specialty support services that operate with a high level of expertise and quality. The most obvious is probably the help of a law firm intimately familiar with global financial transactions, including knowledge of: securities laws and regulations in the relevant jurisdictions; commercial and contract law; and bankruptcy regimes. The most important jurisdiction will be the one in which the financial center is located, but the law firm must understand the constraints and requirements of the jurisdictions of the major users and suppliers of funds. Naturally, much of this knowledge will reside in offices located in those other jurisdictions. The lawyers in the financial center itself will need access to that network of expertise and to be experienced in knowing how to structure transactions to take account of the varied national laws and regulations. Accountants can also be important partners in the deal process, as can actuaries for transactions involving statistical analyses or engineers for project finance.

In theory, these various experts could be located in other places and communicate by telephone and other electronic means, and this is, in fact, an important part of the global structuring of transactions. However, there is great benefit from having as many as possible of the key members of the transaction team in the same city, including lawyers and possibly accountants or other experts. As emphasized earlier, communication about complex and important transactions works much

better in person than it does in any other manner. Sometimes the experts are as critical to a deal team as are the investment bankers themselves and have the same need for proximity. There are also a series of services that could perhaps be provided at a greater distance, but which are just easier to provide on location, such as printing or investor/public relations services.

The GFCI survey ranks "access to suppliers of professional services" tenth and McKinsey, as already noted, shows "proximity to other markets, customers, and suppliers" fairly low on the list. Again, however, the author believes that both surveys somewhat understate the true importance of this factor, partly, perhaps, because the respondents were taking the availability for granted when they focused on other issues as being more pressing.

Operational costs. Personnel costs are the largest non-financing expense component for investment banks by a considerable margin, but there are other significant costs as well: real estate; technology; local services; etc. The cost structure varies between different cities. For example, this has definitely been a relative advantage for New York in comparison with London, an otherwise relatively similar center with a higher cost structure. The GFCI survey shows operational costs as the ninth most important factor and McKinsey shows "reasonable commercial real estate costs" as the twelfth most important factor.

Openness to foreign entry. Existing global financial centers already have a strong foreign presence, which may explain why the surveys do not dwell on it as a critical factor. (It is not listed in the GFCI and is ranked only eleventh in the McKinsey survey.) However, this is likely to be critically important for an aspiring global financial center. Trying to grow the staff, expertise, and specialized infrastructure entirely from within China, for example, would be foolish and very difficult. Therefore, the degree to which foreign personnel and institutions feel comfortable and fairly treated will matter significantly for such financial centers.

Favorable time zone. There seems to be some divergence here between the survey results and the anecdotal comments professionals make. The GFCI survey does not list this factor and McKinsey places "workday overlaps with foreign markets" dead last among the factors shown, which is the only factor they evaluate touching on time zones. However, financial professionals generally talk as if financial centers compete significantly more strongly within their broad band of time zones than they do across them. Thus, there is a view that East Asia is likely to have one, or at the most two, truly global financial centers, but no one suggests that the presence of London or New York means that Asia will not develop such a center. Some parts of the business can be performed without concern about the time of day, but other parts, like trading, do follow the sun around the world.

What are the global financial centers today?

London and New York are clearly the leading financial centers in the world today and the only two that most observers would define as truly global financial centers. It appeared in the 1980's that Tokyo would eventually also obtain this status, but the bursting of the Japanese financial and real estate bubbles, and the ensuing "lost decade," seem to have eliminated that momentum. There are also powerful forces of institutional inertia holding Tokyo back, as discussed later. Similarly, it appeared for a time that Germany would achieve its national ambition of establishing "Finanzplatz Deutschland", effectively meaning that Frankfurt would join the ranks of global financial centers on the back of its role as the economic center of a rising Europe. However, London, and, to a lesser extent, New York responded effectively to the German challenge and much of the European business that Frankfurt hoped to capture instead flowed to London or became global rather than simply European, with a piece going to New York.

Hong Kong is sometimes seen as a truly global financial center, such as in the analysis accompanying the most recent GFCI surveys. However, many other observers still see a significant gap between it and the duo of London and New York. Also, there is a concern that Hong Kong is so reliant on Chinese business that it may fall in relative terms as more of this business is conducted through Shanghai and perhaps other mainland Chinese financial centers.

What are London's overall strengths and weaknesses?

London probably has the broadest and deepest presence as a truly global financial center, that is, counting only transactions that do not have a native English element to them but which are structured and executed in London because of the strength of its people and institutions. There are experts in virtually every conceivable type of financial transaction and sub-sector of finance in London and the specialized legal and other experts to support them. English law is clear and well-understood and the courts and regulators are viewed as being generally predictable and fair. Further, the financial business is such an important part of the UK economy and of its trade balance that governments of all political parties have generally tried to promote London's status as a financial center. (This has been less true in the immediate wake of the financial crisis, but, even now, the government is leery of taking steps that might permanently impair London's position in these markets.)

London has high quality financial professionals and support services, many of them coming from other parts of Europe or from the US, lured both by the career opportunities and by the excellent quality of life available in that vibrant city.

Virtually everyone agrees that London will remain a global financial center due to its very strong position today and its long history as a leader. However, the city has weaknesses as well as strengths. It is a high cost city, both in terms of business costs and the costs of living for its professionals. Real estate is particularly expensive, partly because the traditional financial district is quite constricted geographically and subject to many building restrictions to preserve its historical character. This pressure has been partly relieved by the growth of the Canary Wharf financial district, but that has the disadvantage of being some distance from the cultural and other attractions of London. The congestion has also meant increasingly bad commuting times, made worse by infrastructure problems with the main rail lines, including the aging Underground.

Crime has also become an increasing problem in terms of recruitment to London, especially as crime rates in its main competitor, New York City, have dropped sharply in the last two decades. Most of the crime in London is petty theft, but it has helped to induce a feeling of insecurity among many residents and potential residents.

Perhaps most importantly, there is a great deal of flux at the moment in its legal and regulatory environment. Like other major countries, it is in the process of making very substantial changes to how it regulates the financial industry. In the previous decade, London was quite proud of its "light touch" regulatory system which purportedly delivered safety while allowing businesses to operate with the minimum reasonable level of interference from the government. However, the financial crisis completely changed perceptions among politicians, regulators, and the public and the result has been a clear move towards much stiffer regulation. This is exacerbated by increasingly firm regulation from Brussels, to which UK businesses are subject. One of the fears of the financial community is that European Union legislation and regulation will not take account of the global financial role played by London, which has always been on the minds of purely British rule-makers in the past.

Nonetheless, London is almost certain to remain a leader for many years, both because the government and the financial industry are determined to do whatever is necessary to maintain that status and because London starts in such a strong position in the first place. It is much easier to maintain status as a global financial center than it is to obtain it.

What are New York City's overall strengths and weaknesses?

New York's story is quite similar to London's in that it is the other great world financial center and has been for many years. Thus, it also has a wide and deep set of markets, personnel, and institutions that give it a strong position for the future. One of the differences is that New York is somewhat less global than London, in that a substantial portion of the business has a natural American connection, with one or both sides of the transaction are based in the US. This is a great strength of New York, since its vast hinterland in the US means that even if its global competitiveness temporarily slips, it will be able to maintain a very large volume of

business, and the people and institutions it supports, based purely on the American business. This would make it easier to overcome temporary bumps in the road.

The more domestic focus in New York does have the potential disadvantage that it could lead to greater insularity and a loss of the "edge" that is necessary to compete in global markets. However, history has shown that the US investment banks have expanded to become very strong competitors in Europe while European players have not had quite the same level of success in coming to the US and Asian firms play a fairly limited role in the US market. In addition, New York has generally been rated as more innovative than London, even in recent surveys, although Londoners protest loudly at this characterization. There may also be a reassessment over time of that innovation, if the view of some observers gains wider acceptance, that much of the financial innovation in the US was actually harmful.

As noted, New York is seen as relatively cheaper and safer than London. On the other hand, there is great concern among many foreigners about the tendency of Americans to pursue what many see as an excessive level of litigation and to win what they view as excessive awards. The US, like London, is also going through major changes to its legislation and regulation regarding financial institutions. Many in the industry fear that the results will be punitive, although it is not clear that the regulatory burdens will become worse relative to London or Europe. On the other hand, regulation on both sides of the Atlantic is likely to become tougher at the same time as Asian financial regulation is undergoing less change, which should make financial institutions more willing to expand in Asia than they were before. This comes on top of a keen interest in tapping into the rapidly growing Asian markets even absent a relative improvement in the burden of regulation.

Again, however, as with London, it is a safe bet that New York will be a major global financial center for many years to come.

Why is Tokyo not a truly global financial center?

Many believed in the 1970's, and into the 1980's, that Tokyo would inevitably become a major global financial center. It was the major business city in Asia and was at the heart of the second-largest economy in the world. That economy had succeeded remarkably in the preceding decades, helping to propel its financial markets to record highs in terms of price levels and volumes of activity. As a result, foreign investment and commercial banks generally put their Asian headquarters in Tokyo or, at the least, established a major presence in Tokyo.

Yet, today, several decades later, Tokyo is not a truly global financial center and there are relatively few who believe it will become one soon. What stopped it? Clearly, the bursting of its major bubbles in real estate and equity markets, followed by well over a decade of anemic overall growth in the economy, were major factors. However, there are a number of institutional and policy factors that contributed mightily to the failure, which Shanghai would be well-advised to avoid.

First, regulatory and political decisions, and the resulting institutional structures and operations, were very largely designed with an inward-looking view. Perhaps its rapid success, pulled off in its own unique way and not in straightforward imitation of Western development, contributed to a tendency to find "Japanese" solutions that were highly tailored to domestic requirements and perceptions. In addition, there were close ties between the Japanese financial firms and the larger business community, through the "keiretsu" structure of quasi-conglomerates and also through other means. The business community in turn had close ties to the long-ruling Liberal Democratic Party and the powerful bureaucracy and tended to use these ties to protect the status quo and to make it more difficult for outsiders, including foreigners, to compete.

Second, and partly as a result of the first point, Japan tended to regulate finance in a way that stifled new products and ways of doing business. New techniques that were developed in London or New York generally took many years to work their way into use in Japan. (It is telling, for example, that Singapore began trading futures on the Nikkei 225 stock index two years before Japan did.) This made it difficult to lure foreign business to Japan, since there were often more effective transaction structures available in other financial centers.

Even outside those constraints, Japan made relatively little effort to bring global business back to Tokyo. Japanese financial firms did play a major role in channeling the huge pool of Japanese private savings into foreign markets, but most of this business ran through New York or London, rather than being structured and run through Tokyo. The lack of foreign expertise coming to Japan and the inability to use many more advanced structures also kept Tokyo from developing a pool of highly qualified financial professionals, and the legal and other experts who support them. IBA-Japan (2007) stated clearly that their member institutions found "there is a lack of supply of good local and foreign employees available to work in their firms." Similarly, their members "have encountered great difficulty in hiring highly trained Japanese lawyers to work in their financial institutions. In addition, there are insufficient legal services personnel within Japanese law firms capable of working on complex cross-border financial transactions." The same kinds of problems were true with accountants.

Tokyo also used Japanese law and the Japanese language for most of their transactions, making it still more difficult to encourage foreign participation and the spread of global knowledge. IBA-Japan (2007) noted that there was a real difficulty in finding professionals with fluency in English. In comparison, their firms reported finding this to be substantially less of a problem with young recruits in China.

These major problems kept Tokyo from taking advantage of some very strong positives. First, Japan has massive amounts of private savings that are available for investment around the world and, in consequence, some of the largest financial institutions in the world. These institutions are largely concentrated in Tokyo itself, potentially substantially aiding its development. Second, Tokyo has a highly educated workforce that is willing to work long hours. On top of this, Tokyo has a very high quality of life in most ways, including truly world-class restaurants, excellent healthcare, and the least crime of any of the major financial centers.

In sum, Tokyo seems to be an example of a potential global financial center whose governmental policies and overall structure of business and government held it back from gaining true global status, despite major advantages.

Why are Frankfurt and Paris not global financial centers?

There appear to be several reasons why Frankfurt and Paris are dwarfed by London in terms of global financial transactions. Frankfurt is a particularly good test case, since it aspired quite strongly to rival London and had a goal of being Europe's global financial center. If Frankfurt had been able to concentrate the business coming from the rest of Continental Europe, as well as Germany itself, it might indeed have come to equal or exceed London. However, this has not happened and appears unlikely to happen in the future.

The Continental European centers started with the fundamental disadvantage that London already existed as a global financial center just a short distance away, separated by only a single time zone. It is much easier for an existing center to maintain its relative position than it is for a new center to lure business away. All of the advantages of proximity to services, clients, and other market participants already existed in London and would have had to be built in Frankfurt or Paris.

Second, London's regulatory environment was viewed by most market participants as more favorable, with the famous "light touch" discussed earlier. In addition to being viewed as attractive, it also allowed new products and services to be created more quickly than in Continental Europe, which was particularly important in the last two decades, as product innovation transformed markets quite frequently. (Dramatic improvements in information technology combined with an increasing willingness to take chances on new products during this period, in addition to other factors, propelled financial innovation, some of it in retrospect excessive.)

Third, Frankfurt was viewed by most non-German market participants as a considerably less interesting city in which to live than the vibrant and diverse city of London. (This was less of an issue for Paris, which is on most people's lists of the great cities of the world.)

Fourth, although it is hard to define, the culture of finance in London was more conducive to success in recent decades than the traditionally more staid and perhaps overly conventional culture in Frankfurt and, to a

lesser extent, in Paris. A related issue is that compensation in London was generally higher than in Continental Europe for those in finance who performed well, creating another pull towards London for the best and most ambitious financial professionals.

Fifth, Paris, and to a lesser extent, Frankfurt were viewed as suffering from an excessively close relationship between the state and the financial industry. For example, many of the CEO's and top executives of major French financial institutions were former high-ranking civil servants who were often seen as being too responsive to government desires. This was also seen as bringing government favors, but this closeness to the government created a competitive environment that felt somewhat tilted against new entrants and foreign firms. It was also a factor in the individual calculations of senior financial professionals who feared that their prospects might be somewhat limited without those same government connections.

What are the key lessons for Shanghai from all these comparisons?

Shanghai starts with major advantages that give it a strong shot at developing into a truly global financial center. Even if it were to fail to meet this lofty goal anytime soon, (and there are many major world cities that have aspired to this role without success), it is a virtual certainty that Shanghai will become a major Asian regional financial center and perhaps the dominant one.

The city should work hard to ensure that it maintains its advantages and gains the maximum marketing benefit from them in terms of raising its desirability to global institutions and financial professionals. On the other hand, there are clearly some genuine disadvantages, plus some perceived ones, on which the city should work. It should eliminate or counteract the true negatives and ensure that foreigners gain a better understanding of the actual situation in the case of excessively negative perceptions. The author is not a sufficient expert on Shanghai to distinguish between false and true negative perceptions and therefore will not attempt to break the perceived problems into those two categories.

It should be emphasized that the municipal government of Shanghai is clearly very aware of the issues and has put forth plans to build on its strengths and to repair its weaknesses. This section is not intended to suggest a dramatic departure from the city government's current plans, but simply to give the author's views of the key points to keep in mind, based on the lessons to be learned from other global financial centers and aspiring centers.

Advantages

The positives include:

- Access to a huge and growing Chinese financial market
- The clear backing of the national and municipal governments
- Existence of futures and options markets
- A vibrant city
- Great progress with "hard" infrastructure

Access to a huge and growing Chinese financial market. There is no doubt that Shanghai's strongest advantage is its potential ability to function as the access point to China. The financial world is well aware that Chinese needs for capital and risk management products are already large and are growing rapidly. (Virtually every overview discussion with executives about the future of finance ends up with a significant focus on China.) If a sizable fraction of those needs are met through Shanghai, it will guarantee a very considerable role as, at the least, a major regional financial center with the potential to be a truly global one.

The clear backing of the national and municipal governments. The Chinese government is in a position to encourage a high percentage of that growing volume of Chinese financial transactions to flow through Shanghai. It can do this through law and regulation, such as by licensing exchanges and activities to occur principally in Shanghai. It can also do this through moral suasion, by making clear that it will look more favorably on foreign and domestic institutions that use Shanghai as their Chinese headquarters for financial activities or by otherwise providing a clear direction. Tax subsidies could also be used, of course.

China and Shanghai can also dedicate themselves to tackling the regulatory, infrastructure and other obstacles that would otherwise hold the city back as a global financial center. Government encouragement and resources are likely to add the most value in a situation such as Shanghai's where the financial center is undergoing rapid growth.

Existence of futures and options markets. Modern global finance relies increasingly on derivatives transactions and Shanghai starts with one of the few derivatives exchanges in China. This is an area of relative expertise that would be well worth building upon and now is an opportune time to do so, since much of the rest of the world is adding substantially to the regulatory burden on derivatives transactions. China should *not* look to be the leader in light regulation of this area, but the upheavals do mean that it has a chance to pick up business that would not otherwise be looking to move.

A vibrant city. Shanghai is the commercial center of China, which opens many business opportunities, as alluded to previously. In addition, the city has a range of entertainment, dining, and cultural options that could be attractive to many expatriates as well as Chinese nationals.

Great progress with "hard" infrastructure. Shanghai has invested in massive construction of infrastructure in recent years, which will be helpful as it seeks to be a global financial center. For example, Eoyang et. al. (2010) points out that "much of the basic 'hard' infrastructure has been built, much of it in advance of the World Expo. Shanghai now has two world-class airports, a high-speed mag-lev airport train, the longest metro network in the world (11 lines), and six toll-free elevated expressways." In addition, the bullet train to Beijing will provide major benefits.

Disadvantages

The negatives include:

- Limited ability to use sophisticated financial products
- Limited global use of the renminbi
- Opaque political decision processes
- Concern with political favoritism
- Distance from Beijing's financial institutions
- Hesitation about use of Chinese law for global transactions
- Still modest presence of related services
- Further need to develop "soft" infrastructure more generally

Limited ability to use sophisticated financial products. Chinese law and regulation has been quite conservative about what financial products are allowed in the market. Many of the more sophisticated products, especially in the derivatives area, are not allowed in China. Even some of the more basic products are only partially available. This makes it harder to capitalize on Shanghai's potential to dominate Chinese derivatives transactions by building on its commodities exchange, for example. It may be that conservative regulation remains appropriate, but it does have the effect of limiting potential market growth.

It is difficult to overstate the importance of this issue. Global financial centers thrive on their ability to provide a full range of sophisticated products and services. Being very good at half or three-quarters of an overall task is not good enough, since it is relatively easy to choose London or New York instead, locations where everything can be done efficiently.

Shanghai's municipal government is clearly very aware of the need to expand the range of financial products and institutions in the city in order to be a truly global financial center.[2] However, forward progress will depend on decisions by the central government of China, since Shanghai's municipal government has no authority to make decisions on these issues. China appears to be moving in the direction necessary for Shanghai's development, but at a quite measured pace, which may leave Shanghai at a major disadvantage for years.

Limited global use of the renminbi. Although it is not an absolute requirement, the ability to use the local currency in global transactions can be a real benefit for a

[2] See, for example, the summary table of Shanghai's goals for increased financial sophistication contained on page 8 of Eoayang et. al. (2010)

financial center; for example, the dollar's global role has certainly been an aid over the years to New York. (Look at the problems during the financial crisis for European banks that had been transacting in dollars and were therefore reliant on indirect liquidity assistance from the Fed, rather than being able to rely solely on their own central banks.) The Chinese central government has indicated a plan to gradually introduce more global use of the renminbi, which should help, but the timetable appears to be a very gradual one, reducing the short- and medium-term benefits.

Opaque political decision processes. Foreigners, and even many Chinese nationals, find it difficult to ascertain how major policy decisions are made. They also have difficulties in discerning when and whether a policy or important decision might be reversed. This is critically important, since finance and government are closely intertwined throughout the world. In particular, governments can dramatically shift the overall costs of financial institutions by changes in capital, reserve, or liquidity requirements, as well as by other regulatory choices. Financial institutions and markets can live with some uncertainty, but it is particularly hard to live with uncertainty about the *process* of decision-making, since this makes it hard to estimate the likely outcomes.

Concern with political favoritism. On top of this opacity, there is a concern that some regulatory and legal decisions may reflect internal politics more than the merits of the substantive arguments. This is not a concern unique to China, but foreigners tend to believe that the risks are considerably higher with China, perhaps partly due to their inability to clearly see the process.

Distance from Beijing's financial institutions. Commercial and universal banks, as well as insurance companies, are major participants in the markets for capital and risk management products. They are among the more important customers for the investment banks, therefore it is at least a modest disadvantage that China's largest financial institutions are based in Beijing. New York certainly benefits from having so many of the country's largest financial institutions located in its major financial center, as done London for business that has a British connection. Perhaps the advent of the bullet train from Beijing to Shanghai will help reduce the sense of distance, but there will always be the issue that one is more likely to trust and to deal most frequently with people that one meets in informal settings and not just on occasional business trips.

Hesitation about use of Chinese law for global transactions. London benefits strongly from the wide usage and respect given to English law in regard to financial contracts. New York has a similar advantage with US financial law, although it is diminished somewhat by a widespread fear about excessive litigation in the US. It appears that it would take major changes in the theory and practice of Chinese contract law, and many years, before foreign participants would be completely comfortable with the use of Chinese law for global transactions. This will tend to make it easier for a truly global transaction to be allocated to London or New York. It is, at the very least, a tie-breaker and may even be of greater importance than that. Choice of English law, for example, would immediately suggest the use of a top English law firm, whose best talent and central resources are likely always to be in London. If the lawyers are in London, it becomes easier to base the whole transaction there.

Still modest presence of related services. Shanghai does not yet have the volume or level of expertise in its service industries that a global financial center will need. Much of this growth and improvement will occur naturally, due to market forces, as the center itself expands in importance, however Shanghai is wise to look for ways to increase its attractiveness to world class service firms, as it is doing.

Further need to develop "soft" infrastructure more generally. There is much still to be done to make Shanghai a place that talented financial professionals wish to live for reasons beyond pure career advancement. The 2009 survey by the Economist Intelligence Unit ranked Shanghai at 84th among the cities it surveyed, indicating a great deal still needs to be done. Issues appear to exist in terms of many areas, including the crucial areas of air quality, education, and healthcare. For domestic Chinese workers, there is a real issue of housing affordability, although this is largely a function of relatively low wages compared to other financial centers around the world, which does have an

offsetting advantage for the firms who employ them. Real estate prices in absolute terms remain fairly low by global standards, although this may change over time. Although it is difficult to compare living costs for expatriates on a uniform basis around the world, it appears that Shanghai currently falls between London and New York on that measure, which would suggest Shanghai is neither at a large advantage nor disadvantage.

Conclusions

Shanghai clearly has a shot at becoming a truly global financial center, but it will take many years of hard work and a focused dedication to that goal. Its biggest advantage is the massive size of the potential Chinese financial market and the very strong projected growth rate of that market. It faces a number of disadvantages, but the largest is simply that there are strong forces that benefit the incumbent global financial centers. To some extent, the "rich will get richer" as the forces of financial centralization continue to favor the existing leaders, New York and London. The second biggest problem is likely to be the strong limitations that remain on many types of financial products in China that are already part of the accepted tool-box elsewhere in the world.

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