

KSRI Discussion Paper

Seoul's International Finance Environment : A Comparative Study¹

**Prepared by Hyung Cheol Kang, Hansoo Kim^{*}, Eunsook Seo,
and Min-Kyu Song²**

November, 2007

This Discussion Paper should not be reported as representing the views of the KSRI.

The views expressed in this Discussion Paper are these of the author(s) and do not necessarily represent those of the KSRI. Discussion Papers describe research in progress by the author(s) and are published to elicit comments and to further debate.

Authors E-mail Addresses: hckang@ksri.org; hanskim@ksri.org;
esseo@smu.ac.kr; mksong@ksri.org

¹ This research was supported by Seoul Metropolitan Government and presented at the Seoul International Finance Conference 2007. We have received helpful comments from Michael Mainelli (Executive Chairman, Z/Yen Group Ltd.) and Jesus Seade (Chair Professor of Economics, Lingnan University, Hong Kong). We deeply appreciate the research assistance of Bo Young Kim, Hanna Lee, Yun-Jae Lee, and Ji-A Yoon.

² Hyung Cheol Kang, Hansoo Kim, Min-Kyu Song are research fellows at the Korea Securities Research Institute. Eunsook Seo is an assistant professor of Economics at the Sangmyung University.

^{*} *Corresponding author (tel. +82-2-3771-0623).*

Seoul's International Finance Environment

A Comparative Study

November, 2007

Korea Securities Research Institute

Contents

Executive Summary.....	
I. Background	1
II. Analysis of International Financial Centers.....	5
2.1 What is International Finance Center	5
2.2 Scope and Methodology	9
III. Evaluation.....	17
3.1 Overall Evaluation.....	17
3.2 Capital Market	18
3.3 Policies and regulations	25
3.4 Labor Market	31
3.5 Miscellaneous	36
. Implications	41
. Appendix Tables	46
Bibliography	55

Abbreviation Notes

AUM: Asset Under Management

BIS: the Bank for International Settlement

CFA: Chartered Financial Analyst

CIA: Computer Industry Almanac

CIS: Collective Investment Scheme

CPA: Certified Public Accountant

EIU: Economist Intelligence Unit

ETF: Exchange Traded Fund

FTA: Free Trade Agreement

GDP: Gross Domestic Product

HDI: Human Development Index

ICI: Investment Company Institute

IFC: International Financial Center

ICT: Information and Communications Technology

IFC: International Financial Center

IFS: International Financial Statistics service of the International Monetary Fund

IMD: International Institute for Management Development

ILO: International Labour Office

ITC: International Telecommunication and Communication

ITU: International Telecommunication Union

JCI: Joint Commission International

KIC: Korea Investment Corporation

KOSPI: Korea Composite Stock Price Index

KOSDAQ: Korea Securities Dealers Automated Quotation

KSRI: Korea Securities Research Institute

MAS: Monetary Authority of Singapore

MBA: Master of Business Administration

OECD: Organisation for Economic Co-operation and Development

OTC: Over-The-Counter

PEF: Private Equity Fund

PISA: Programme for International Student Assessment

UIA: Union of International Association

UN: United Nations

UNDP: United Nations Development Programme

WFE: the World Federation of Exchange

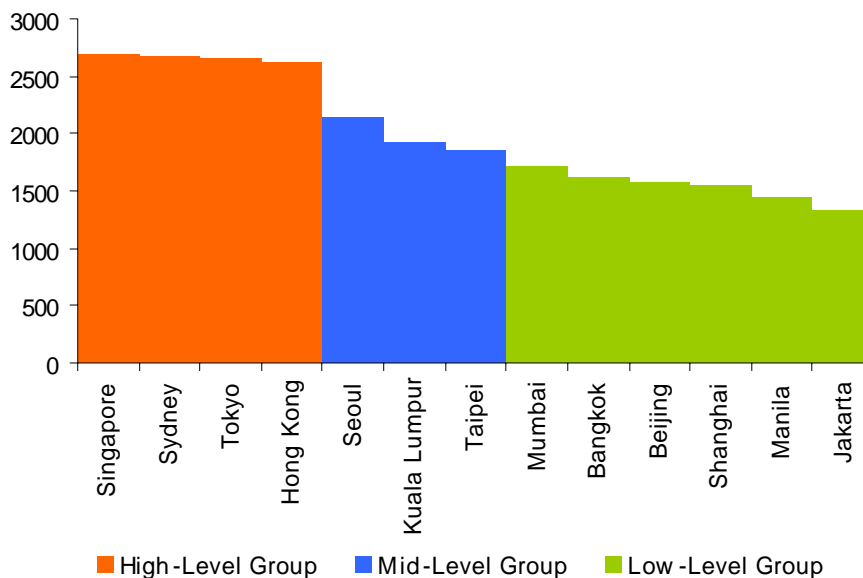
WHO: World Health Organization

Executive Summary

Following the government initiative to fashion Seoul into a financial hub, this research compares and examines the potential Seoul has to become an international financial center. Selecting 13 of the most competitive cities in the region, this analysis examines the capital market, policies and regulations, labor market and miscellaneous relevant characteristics to determine Seoul's strengths, weaknesses and placement among the other cities.

Seoul's competitive potential as an international finance center, in comparison with the most important cities of this region, is mid-level. The high-level group comprises Singapore, Sydney, Tokyo and Hong Kong. In the mid-level group, Seoul and Taipei have relatively higher capital market sizes than the low-level group and Kuala Lumpur made up for its smaller capital market size in the labor market.

International Financial Center Overall Index



As cross-border financial transactions increase, cities are fiercely competing to accommodate these transactions by constructing competitive international finance centers. An international financial center (IFC) is a district where financial transactions between international partners are concentrated. The trajectory of an international financial center is that it strengthens as demand for international transactions increases the demand for international functions.

In the beginning phases, a city can function as a *funding center* in which foreign funds supply domestic activities through intermediaries established in that city. As the domestic capital market increases, the center will adopt collecting functions, meaning that domestic funds supply foreign demands, developing into a *collecting center*. When a city has both funding and collecting functions, transaction partners and supporting services diversify, becoming a *complex financial center*.

Regional financial centers have customers from within the geographic region. *Global financial centers* have a dynamic customer base regardless of geographic region. *Offshore financial centers* normally have small economy sizes and tailored laws and regulations to attract foreign customers. The development phase of Seoul as an International Financial Center is phase 2 *collecting center*. The government initiative is to bring Korea's financial center development from a *collecting center* to a *complex financial center*. More specifically the initiative intends for the Korean hub to become a *niche financial center* and then in time, into a major financial center in northeast Asia by 2015.

The Asian region should be evaluated differently from other Western cities because they are historically, politically, and economically different. This analysis has four main portions, *Capital Markets, Policies and Regulations, Labor Markets* and a *Miscellaneous* portion that ties other relevant yet less weighted characteristics. The

Capital Market is divided into 5 categories: *the stock market, the bond market, the derivatives market, asset management and the foreign exchange market. Policies and Regulations* are divided into 5 categories: *efficiency of the legal framework, government efficiency, banking and financial regulation, ease of doing business and taxation policies*. In our analysis, we analyze the *Labor Market* by breaking it down into three general categories and again into subcategories: *Overall Labor Market* (Productivity, Flexibility), *Financial Specialist* (Quality & Quantity of Skilled Financial Labor, Retention, Education) and *Globalization of the Labor Market* (Foreign Labor, International Experience). The *Miscellaneous* portion is divided into 3 general categories: *Economy & Perceptions* (Real Economy, Country Image), *Business Environment* (IT & Telecom, Infrastructure, Supporting Financial Services), and *Quality of Life* (Life in the City, Foreigner-Friendly Facilities).

Capital Markets

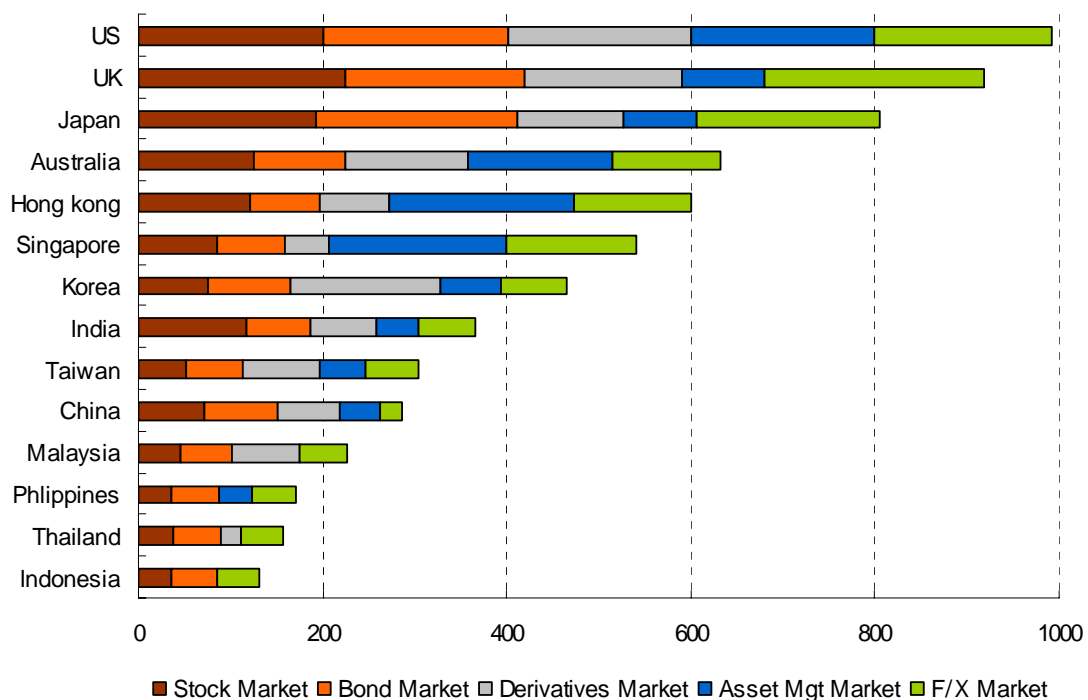
When determining the variable factors that best describe a competitive financial center, this research put its focus on the capital markets.³ This focus coincides with the government's Northeast Asia Financial Hub Initiative. Korea's capital market placed 5th behind Japan, Sydney, Hong Kong, and Singapore. No country excelled in general. Rather different countries ranked high in different categories. Japan and India had the best stock market. Japan had the best bond market. Korea had the best derivatives market, while Singapore and Hong Kong had the best asset management. Finally, Japan, Singapore and Hong Kong dominated in the foreign exchange market.

Overall, Korea did well in bonds and derivatives. Korea ranks number one in derivatives products when looking at the volume and contract price of the stock index

³ The *Capital Market* portion uses information from the country level rather than the city level.

for futures and options. However, stocks, interest, product derivatives and other miscellaneous derivatives products are less active. There must be efforts to pull our derivatives market from success in stock index derivatives into a hub for this market. Korea's large bond market is another strength because of its large volume. To improve, we need more foreign investors and foreign bonds traded on the market.

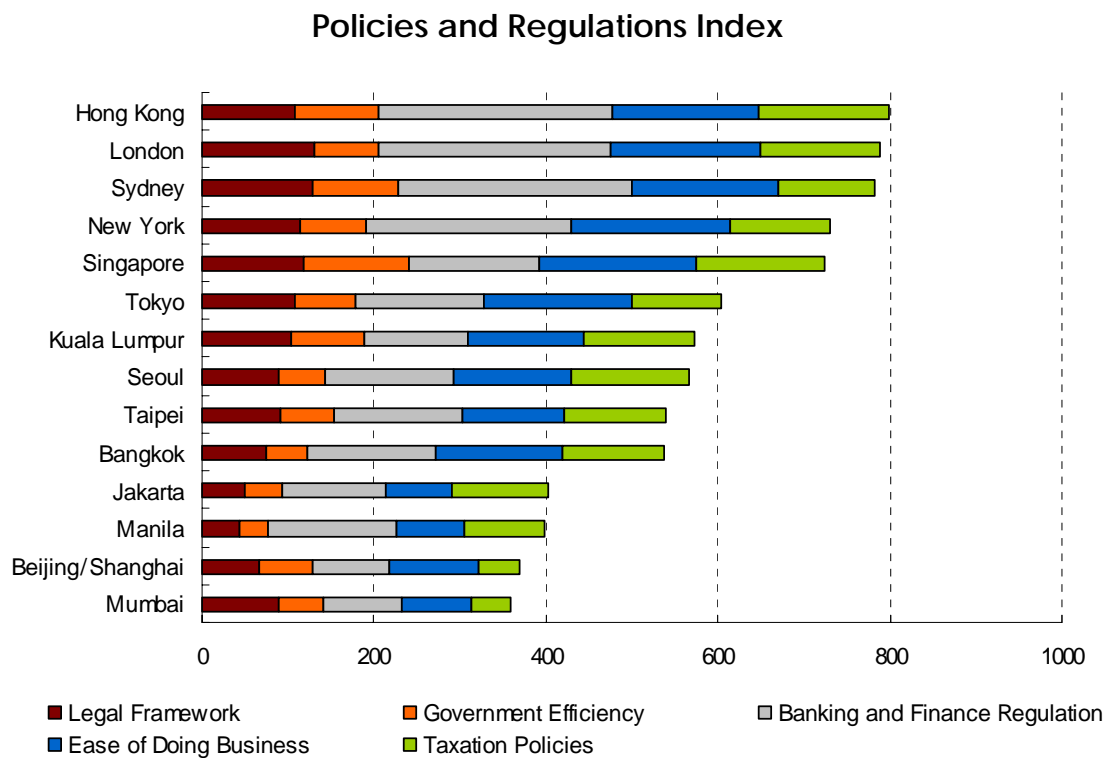
Capital Market Index



Policies and Regulations

Seoul places 6th behind Hong Kong, Sydney, Singapore, Tokyo, and Kuala Lumpur in *Policies and Regulations*. Of the 5 categories *Policies and Regulations* was divided into, Seoul ranked especially low in *government efficiency* (9th) and *efficiency of the legal framework* (7th). But in variables that describe business environment like *ease of doing business* and the *taxation policies* categories, Seoul ranked well. In addition, the newly passed “Financial Investment Services and Capital Market Act” (*aka* Capital

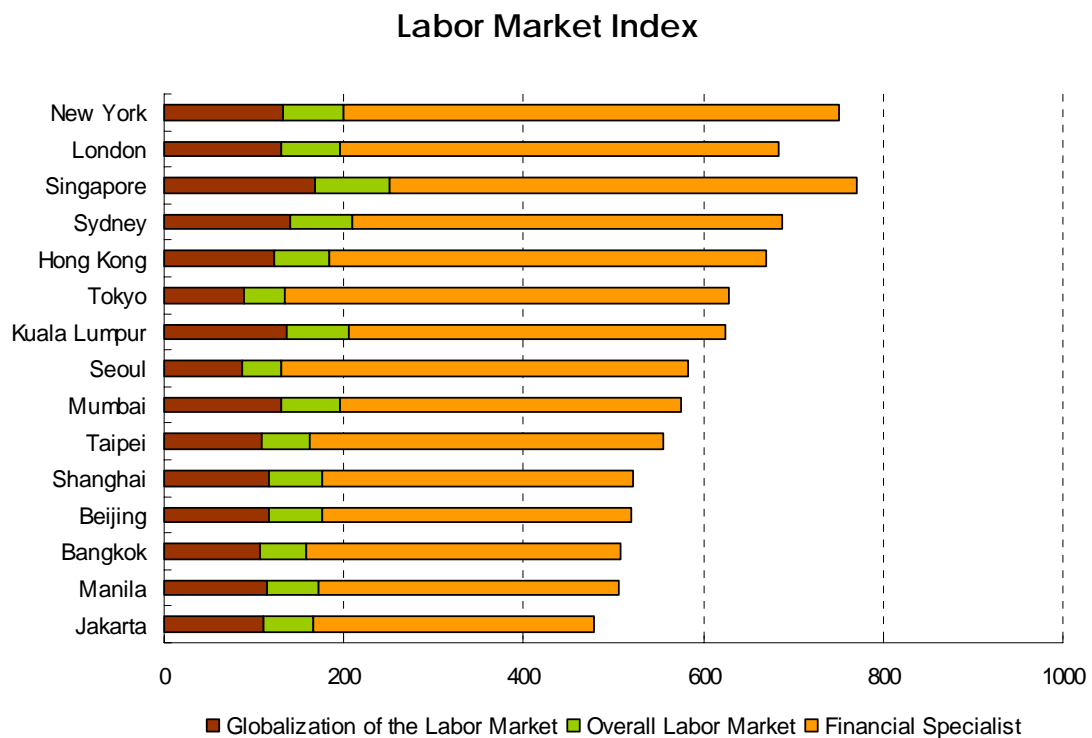
Markets Consolidation Act) will transfer institutional regulation to functional regulation. This act will raise the effectiveness of the capital market’s legal and regulatory environment, especially impacting *banking and financial regulation*.



Labor Market

Seoul ranks 6th in the *Labor Market* portion. Seoul ranks 5th of the 13 selected Asian cities. Seoul performs generally well in this portion, but performed particularly poorly in the Flexibility, International Experience and Foreign Talent subcategories. Korea has a poor reputation for its labor relations (Flexibility), and this has a negative impact on Korea’s standing in the *Labor Market* portion. Also, domestic workers have little international experience and restrictions make hiring of foreign workers difficult. However Seoul has a top-notch education system and quality skilled workers, Seoul lacks specialization in finance and must enlarge finance education institutions available.

Although Seoul does especially poorly in specific areas, in most other aspects Seoul is at par with the highly rated cities. Since the labor market has such a high weight and importance in international financial center ratings, steps toward improving areas of weakness will make it a viable competitor with the most highly rated financial centers.



Miscellaneous

The *Miscellaneous* portion includes 3 categories: *economy & perception*, *business environment*, and *quality of life*. Seoul has the 12th largest economy and the groundwork and infrastructure for that large economy is already in place in Seoul. This infrastructure, like the highly advanced IT infrastructure, is a foundation for competitiveness with other financial centers. In other areas, such as the price levels of apartments and the existence of foreigner-friendly facilities, as reflected in the availability of international schools, Seoul does fairly poorly. Overall, in the quality of

life, Seoul ranks 7th and in an index where New York is 100, Seoul scores only 81.

Rankings in the categories of Miscellaneous

Ranking	Economy & Perception	Business Environment	Quality of Life
1	Tokyo	Singapore	Singapore
2	Beijing	Tokyo	Sydney
3	Shanghai	Sydney	Tokyo
4	Hong Kong	Hong Kong	Kuala Lumpur
5	Sydney	Seoul	Hong Kong
6	Taipei	Kuala Lumpur	Taipei
7	Singapore	Taipei	Seoul
8	Seoul	Beijing	Manila
9	Mumbai	Shanghai	Bangkok
10	Kuala Lumpur	Bangkok	Shanghai
11	Bangkok	Mumbai	Beijing
12	Jakarta	Manila	Mumbai
13	Manila	Jakarta	Jakarta

Korea is making real structural changes to accommodate financial firms and institutions, in an effort to build a northeast Asian financial hub. Korea is revamping its capital market laws and its regulatory environment. Korea has established a task force and a presidential commission to oversee progress. At the city level, Seoul is establishing more international schools and expanding office space. KSRI's "Seoul's International Finance Environment" report, commissioned by the Seoul Metropolitan government will annually monitor progress. Given such strong efforts, as true weaknesses are identified, we can expect Seoul's competitiveness to rise quickly.

I. Background

In December of 2003, the Korea's national administration resolved to create a northeast Asian financial hub in Korea. The Seoul Metropolitan government is making efforts to realize this government initiative. This study is an outgrowth of these efforts and KSRI will continue to annually produce rankings in order to develop the best strategy to establish an international financial center. Major cities abroad survey their cities capacities as financial centers periodically and/or intermittently. Such reports include London's "Global International Financial Centres Index", Sydney's "International Financial Center Benchmark Report", and New York's "Sustaining New York's Global Financial Services Leadership".

KSRI's research uses understanding of Asia's financial markets as a foundation to develop a suitable regional analysis. Using this as a basis and focal point, the condition of Seoul's international financial center can be assessed more accurately. This analysis also recognizes:

- Cities in the Asia Pacific region are so unique in comparison to noted global hubs that a simple comparison will not fully reflect and reveal distinctions.
- The need for a research method that takes account of the low survey response rate of cities in the Asia Pacific region.

Globalization is a world-wide trend, especially in financial markets. Average financial globalization, measured by gross external assets and liabilities relative to the Gross Domestic Output, has approximately tripled since the mid-1970s. Financial globalization has also quickly taken place in Korea. To overcome the East Asian Financial Crisis in 1997, the government implemented policies to attract foreign investment, thereby dramatically increasing foreign investor market share in the Korean

financial market.

While globalization usually means decentralization, centralization and immediacy are the characteristic trends of the financial sector.

In a centralized financial center, financial firms can cut costs because the center attracts a dynamic labor pool and facilitates information sharing. The industry's productivity increases due to accelerated knowledge transfer and the clustering of experts creates new and innovative financial products. The shared use of the labor pool increases the efficiency of matching specialized human resources.

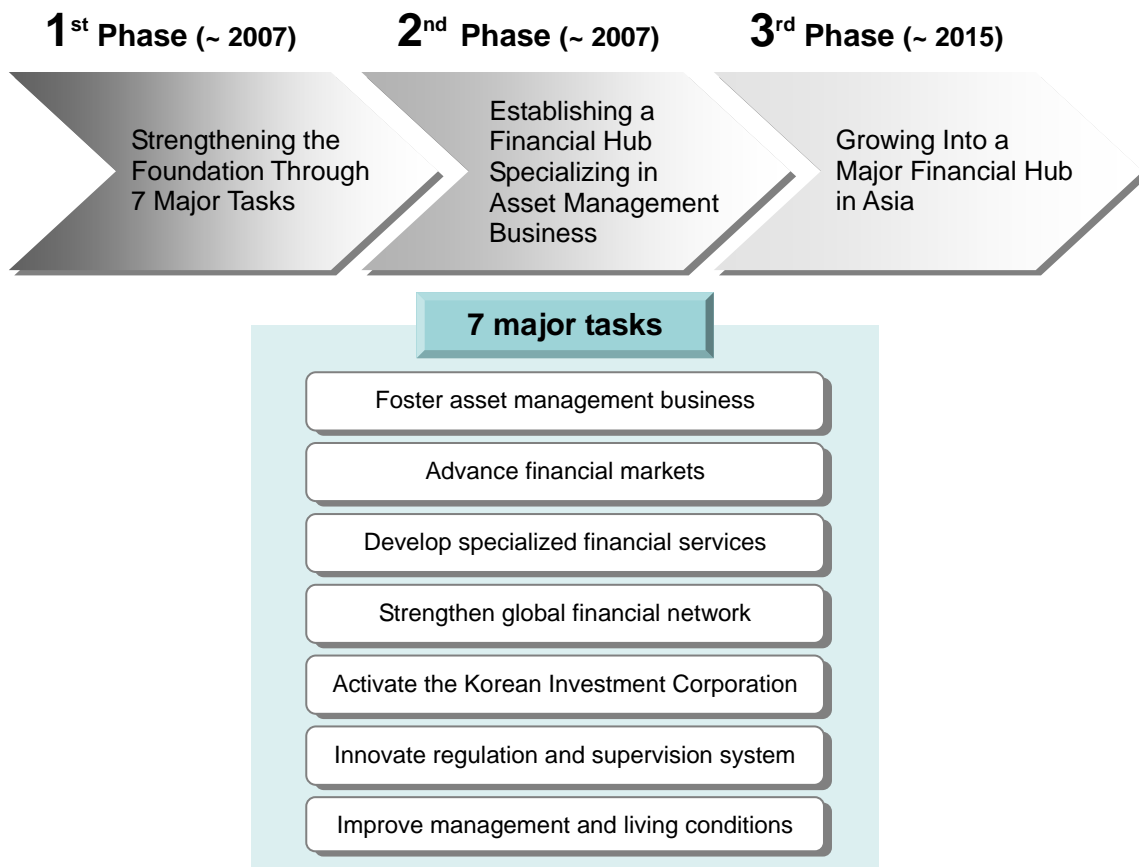
As cross-border financial transactions increase, cities are fiercely competing to accommodate these transactions by constructing competitive international finance centers. Especially in Asia, the competition over developing an international city is heightening. The Asian region has many nations with differing customs and economic traditions, and many have had a late start building their economies and their capital markets. Unlike London in Europe or New York in the Americas, no one city functions as an international finance center in the Asian region. Instead, each of the major cities functions as financial centers for their own countries or sub-region of Asia.

A strong financial services sector is critical to the development of the overall economy because financial institutions provide intermediation services to all businesses. The financial services is a major sector in most advanced economies, and one of the fastest growing sectors for emerging economies. From 2001 to 2005, the financial services sector in Asia, excluding Japan, has grown 15.5% on average every year. The financial market in Korea also has shown remarkable development since 1997. Currently, the financial market in Korea is one of the fastest growing service industries. Thus the Korean government has focused on the financial market as a pivotal growth engine.

In particular, the government focuses on constructing an international financial center to improve the overall economy. To attain this objective, the national agenda adopted the financial hub initiative which entails three major phases and seven tasks so that Korea can emerge as one of the three major financial hubs in Asia by 2015.

Chart I - 1.

3-stage 『Northeast Asian Financial Hub Promotion Strategy』⁴



In order to develop the best strategy, Seoul's competitive potential, weaknesses and strengths must be accurately determined. However, it is difficult to determine which cities have the most merit as a financial center because there is low consistency in the assessment of cities located in Asian region. London's "Global Financial Centres Index"

⁴ Ministry of Finance and Economy, Korea (www.mofe.go.kr)

ranks Seoul as 43rd out of 46 cities studied whereas Mastercard's "International's Worldwide Centers of Commerce Index" ranks Seoul as 9 out of 50 countries examined. Survey results vary as the financial institution conducting the study varies. Because of such discrepancies, the need for a study more focused and customized to the Asian region becomes obvious.

II. Analysis of International Financial Centers

2.1. What is a Financial Center?

An international financial center (IFC) is a district where financial transactions between international partners are concentrated. In an international financial center, international financial intermediation services and business factors like capital, financial institutions, skilled labor, and information sharing are widely available. Previously, an agent went through regional hubs and global hubs for international financial transactions. But now international financial transactions are occurring in most major cities. Usually, cities with a large volume of transactions have intact supporting and complementary financial services to support international transactions. Mainelli (2007) points out that an international financial transaction no longer need to go through several hubs to occur. Thus in recent analyses of financial centers, there are about 50 cities that qualify for evaluation and comparison.

The International Monetary Fund (IMF) analysis takes these several qualifying cities and classifies them into subcategories depending on their differing roles.⁵ According to the IMF, the key factor separating a *global financial center* and a *regional financial center* is the size of the domestic economy. *Global financial centers* have large economies, full financial services and legal regulatory frameworks. Although, *regional financial centers* have full financial services and a legal regulatory framework, they have relatively small economies. The IMF study also focuses especially on the magnitude of offshore activity occurs, and thus describes Hong Kong, Singapore and Luxembourg as definitive *offshore financial centers*.

⁵ IMF(2000)

The IMF's classification of international financial centers is a functional classification of mature and complex centers. It is also important to evaluate international financial centers based on maturity. Given the relative youth of Asian economies, different cities will be at different stages of development. The main goal behind this research is to identify and address the weaknesses and strengths of a city as an international financial center. Hence, knowing what stage of development a city is in and its potential trajectory is crucial to policy formation.

The trajectory of an international financial center is that its services and the maturity of staff maturity naturally strengthens as demand for international transactions increases the demand for international functions. In the beginning phases, a city can function as a *funding center* in which foreign funds supply domestic activities through intermediaries established in that city. As the domestic capital market increases, the center will adopt collecting functions, meaning that domestic funds supply foreign demands, developing into a *collecting center*. When a city has both funding and collecting functions, transaction partners and supporting services diversify, becoming a *complex financial center*.

Table II – 1. Development phase of IFCs

	Fund demand	Intermediate	Fund supply	Role of IFC
Phase 1	Domestic	Foreign → Domestic	Foreign	Collecting Center
Phase 2	Foreign	Foreign → Domestic	Domestic	Funding Center
Phase 3	Domestic/Foreign	Domestic	Domestic/Foreign	Complex Financial Center

As the city evolves into a *complex financial center*, financial services and infrastructure will become more sophisticated. The city eventually gains multiple capacities and more corporations are established in that city. Branch offices of large financial institutions no longer send major transactions to larger IFC's and the branch offices continue to gain more functions. Also as financial functions mature, more firms and transaction makers will flock to that city.

Complex financial centers are structured in many different ways. In particular, financial centers can be distinguished by product diversity/specialty and customer base. *Niche financial centers* specialize in products, like reinsurance, derivatives, etc. Such cities often have small economies and utilize this specialization to advance its economy. For example, Zurich has a high quality private banking services that caters to all global customers.

Regional financial centers have customers from within the geographic region. *Global financial centers* have a dynamic customer base regardless of geographic region. These centers have intact financial infrastructure and all financial services and transactions are possible. In addition, such places have large domestic economies. London and New York are quintessential examples.

Offshore financial centers normally have small economy sizes and tailored laws and regulations to attract foreign customers. These cities have a variety of financial services but cater mostly to offshore customers only. Examples include Hong Kong and Singapore where the small size enables low taxes, low restrictions and other incentives to attract foreign business. Offshore centers that specialize in specific financial products are called *niche offshore financial centers*.

Table II – 2. Differing Structure Types of IFCs

			Specialized Products	Various Products
Customer Location (over 2 counterparts)	On/ Offshore	Regional	Niche Financial Center	Regional Financial Center
		Global		Global Financial Center
	Only offshore	Offshore	Niche Offshore Financial Center	Offshore Center-Global

The development phase of Seoul as an International Financial Center is phase 2 as seen in Table II – 1. In response to the financial deregulation that occurred after the Asian Financial Crisis of 1997, foreign investment in the Korean capital market increased rapidly. Foreign holdings in the Korean stock market are over 35% as of 2006. Korea graduated from the *funding center* phase into the *collecting center* phase now that Korean investors are beginning to invest in foreign markets and this number is rapidly increasing. Domestic holdings of foreign stock tripled in 2007 from the previous year, the highest value in history.

The government initiative is to bring Korea’s financial center development from a *collecting center* to a *complex financial center*. More specifically speaking, the initiative intends for the Korean hub to become a *niche financial center* and then in time, into a major financial center in northeast Asia by 2015. The initiative is to foster the asset management industry, but we also see that there is potential in other sectors as will be discussed in Chapter III.

2.2 Scope and Methodology

This research selected 15 major cities, 13 in the Asia/Pacific region and 2 global financial centers. Asian/Pacific cities that possess international networks and regionally competitive capital markets were selected for evaluation.⁶ As model global financial centers, London and New York are useful as benchmarks for analysis. The following table depicts the qualifying cities we selected for analysis and also shows which cities were examined by alternative surveys.

Table II-3. Cities selected for analyze by alternative surveys

Cities	Cities Selected for Other Surveys			
	London's ¹	Mastercard's ²	HongKong's ³	Sydney's ⁴
New York	o	o	x	Cities used selectively
London	o	o	x	
Taipei	x	x	o	
Tokyo	o	o	o	
Manila	x	x	o	
Mumbai	o	o	o	
Bangkok	x	o	o	
Beijing	o	o	o	
Shanghai	o	o	o	
Seoul	o	o	o	
Sydney	o	o	o	
Singapore	o	o	o	
Jakarta	x	x	o	
Kuala Lumpur	x	o	o	
Hong Kong	o	o	o	

1. Global Financial Centers Index, City of London, 2007

2. Worldwide Centers of Commerce, MasterCard, 2007

3. Hong Kong as a Leading Financial Centre in Asia, Securities and Futures Commission, 2006

4. Global Financial Centre Benchmark Report, Axiss Australia 2006

⁶ Research was limited to cities that were classified as at least a Gamma World City level as defined in the "World City Roster of the Globalization" and "World City Study Group and Network".

This study compares the competitive potential of each city. Vibrant capital markets, consistent regulation and low restrictions, favorable labor market conditions and some miscellaneous elements were selected as the four overall factors that described the desirable financial center. The overall rank for each city is calculated by averaging the four factors. The following will discuss the main categories that describe each portion. A description of the indicators that make up each category and/or subcategory may be seen in the Appendix Tables.

Capital Market

For analyzing the best financial center in Asia, capital markets were emphasized in this research. The City of New York report (2007) emphasizes that a deep and liquid capital market is the most important prerequisite in the formation of a financial center. In the Asian/Pacific region in particular, the capital market is the most central determinant of a competitive financial center because most Asian nations do not have the same capital market maturity as the US or UK. Also this section offers evidence on which sectors can become niche markets.

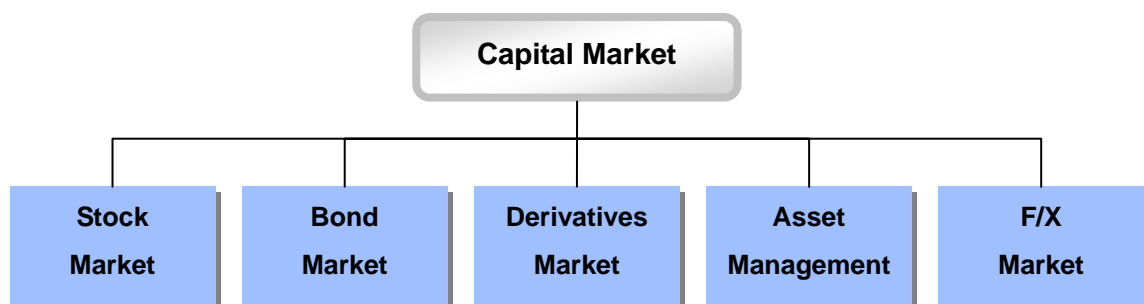
The *Capital Market* factor is made up of 5 categories: *the stock market, the bond market, the derivatives market, the asset management and the foreign exchange market*⁷, each category is weighted equally. As a local financial center, the financial infrastructure of a country's capital market usually exists within the selected city. The capital market exists for the entire country's usage. Thus, country capital market data was analyzed. The physical basis of a capital market may be located in one specific location but the capital market is an economic infrastructure used by the entire country.

⁷ Most capital market analyses do not include the foreign exchange market. However, since international transactions are necessities for an international finance center, the exchange market category was included in the analysis.

Cities that have capital market infrastructure are local financial centers. Thus it is reasonable to compare capital market variables at the country level instead of limiting it to the city level

We chose indicators commonly accepted as the quality and quantity measures of the categories. Also, we focused on variables that were most likely to be available for all the selected cities with minimal missing values, and where yearly data was available.⁸ The indicators were weighted using New York and London as benchmarks. Regarding New York and London as the archetype of an international financial center, categories and indicators that ranked New York and London as the best center were given higher weights, whereas indicators where New York or London ranked low, were given lower weights. Thus weights were determined endogenously. The following Figure displays the structure of each indicator and category. The rankings were found by normalizing each indicator value and converting with a Tobit.

Figure II -1. Breakdown of Capital Market



⁸ See the Appendix Tables for detailed information on each indicators used in the study.

Policies and Regulations

The *Policies and Regulations* Section is divided into 5 categories: *efficiency of the legal framework*, *government efficiency*, *banking and financial regulation*, *ease of doing business* and *taxation policies*. To raise regulation effectiveness and create a comfortable business environment, the government and judicature must improve the legal framework, and administer justice in a fair and equitable way. The key ingredients to the *efficiency of the legal framework*, consistent with economic freedom, are the rule of law, security of property rights, an independent judiciary, and an impartial court system. *Government efficiency* measures how much a government's policies and intentions promote or limit a firm's economic capacity.

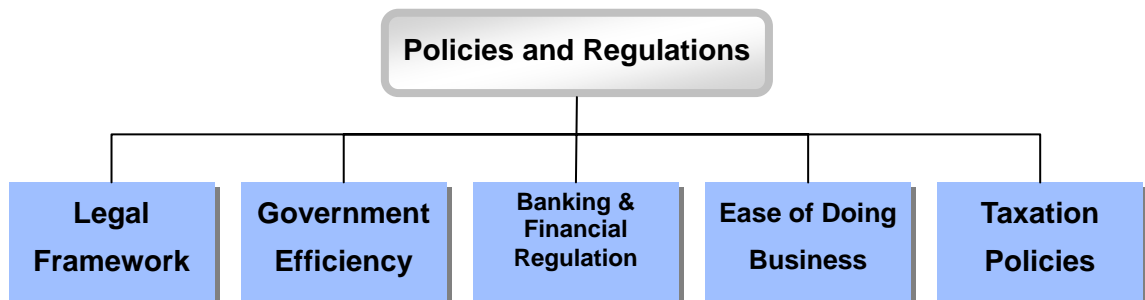
Banking and financial regulation was formed using the financial freedom index from the Heritage Foundation. It measures the freedom financial institutions have to provide a variety of products and services and the extent of restrictions placed upon the institutions. This category is important because "State ownership of banks and other financial institutions such as an insurer and capital markets is an inefficient burden, and political favoritism has no place in a free capital market...[The] index measures the relative openness of each country's banking and finance system."⁹ *Ease of doing business* describes how comfortable it is for firms to enter, operate in and exit the market. Lastly, *taxation policies* examine how light the tax burden is for firms.

The five categories above are weighted differently. The reasoning for these weights arise from a survey of expert interviews who revealed that banking and financial regulation and taxation policies were more important factors. *Banking and financial regulation* was considered most important and was given a weight of 30%.

⁹ Heritage Foundation, Index of Economic Freedom, Freedom #7. <http://www.heritage.org/index/> last accessed September 11, 2007.

Ease of doing business has a weight of 20%, and *taxation policies* 20%. The *efficiency of the legal framework* and *government efficiency* each have a weight of 15%.

Figure II -2. Breakdown of Policies and Regulations



Labor Market

In our analysis, we analyze the *Labor Market* by breaking it down into three general categories. In this portion, each category was again divided into subcategories.

¹⁰ The first category, weighted at 20%, is the *overall labor market*. This category is divided into two subcategories: Productivity and Flexibility (labor market flexibility). The quality of the labor market affects the productivity of the financial sector. Other studies focus mostly on labor force characteristics relevant to financial services, implicitly assuming that other labor market conditions are similar. However, labor market characteristics vary widely across Asia and these differences must be included. Flexibility describes turnover variables like the ease of hiring and firing employees and how labor regulations and unions affect the workforce.

The second category, which was given the most weight, 50%, is *financial specialist* which is subdivided into three subcategories: Quality and Quantity of a

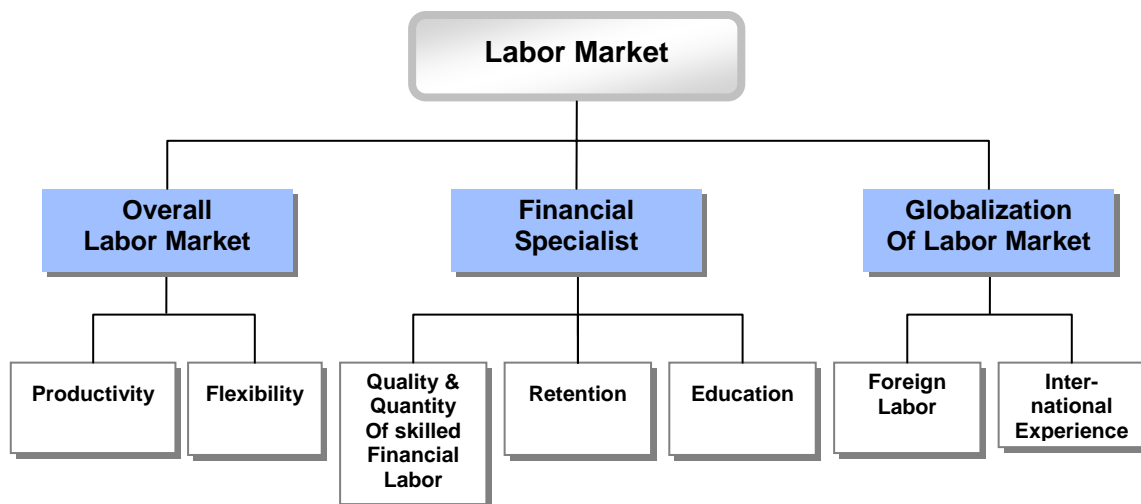
¹⁰ See the Appendix Tables for the indicators that make up each subcategory.

Skilled Labor Force, Retention (the retention rate of that skilled labor force) and Education (the quality of the domestic education system). Most studies focus only on the Quality and Quantity of a Skilled Labor Force. However, since turnover is frequent, high retention of skilled workers is attractive to firms¹¹.

Also, the education system reflects the potential growth of the pool of financial specialists.

The final category is the *globalization of the labor market*, given a 30% weight, which is subdivided into 2 subcategories: Foreign Labor and International Experience. Foreign labor evaluates the flexibility of acquiring foreign un/skilled labor. International Experience describes the effectiveness of the domestic labor force in international financial services.

Figure II –3. Breakdown of Labor Market



¹¹ One of our reviewers pointed out that high-retention could be a counter-productive factor in some cases because it could be a reflection of labor restriction. To eliminate such a bias, we limited this factor to include only income levels of various employment positions.(See Appendix for details)

Miscellaneous

The *Miscellaneous* portion includes an array of variables that are important to the analysis of the international financial center yet whose individual importance is not as significant as the *Capital Market*, *Policies and Regulations*, and the *Labor Market* portions. This portion looks at variables such as gross output, international trade, country reputation, airport, telecommunications, business environment, living conditions, facilities for foreigners and the language and culture of the major cities in consideration.

The *Miscellaneous* portion is organized into three major categories: *economy & perceptions* (40%), *business environment* (30%) and *quality of life* (30%). These tied variables describe 25% of the total international financial center index score thus the contribution of each category is 10%, 7.5% and 7.5% respectively.

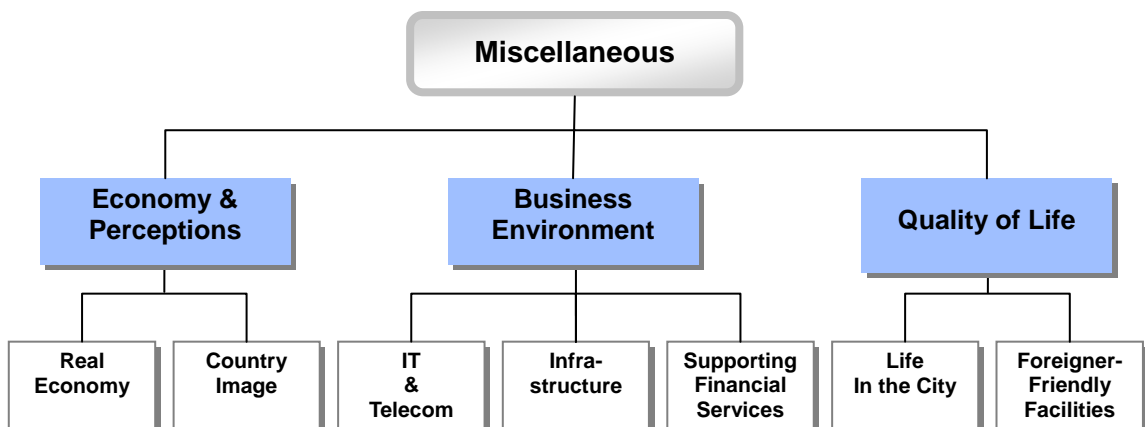
The *economy & perceptions* category is subdivided into two subcategories: Real Economy and Country Image. The real economy is the basis for the development of the capital markets and for the demand and supply of funds. This subcategory also includes variables that reveal the degree of openness the domestic real economy has to globalization.

Business environment is an important category that indicates how easily a city can be utilized by finance firms. The *business environment* category is divided into three subcategories: IT and Telecommunications, Infrastructure and the Supporting Financial Services. These three subcategories are physical foundations for an international financial center. Information and telecommunication technology advances contribute the most to the overall productivity in finance. Other economic infrastructure affiliated with transportation is also basic necessities of an IFC. Supporting Financial Services describes the availability of service firms outside the finance sector that

support and complement international financial intermediation services.

Finally, the *quality of life* is divided into two subcategories: Life in the City and Foreigner-Friendly Facilities. The Life in the City subcategory describes how comfortable a city is to lead a good life and generally pursue happiness. This subcategory is averaged varying composite indices since this is a very subjective category. Also, specific indicators that measure the living conditions of a financial center were chosen to construct this new index. The other subcategory, Foreigner-Friendly Facilities, measures how accessible a city is for foreigners who make frequent business trips. For this subcategory, embassies or city governments were directly telephoned or surveyed due to a lack of previous research.

Figure II -4. Breakdown of the Miscellaneous

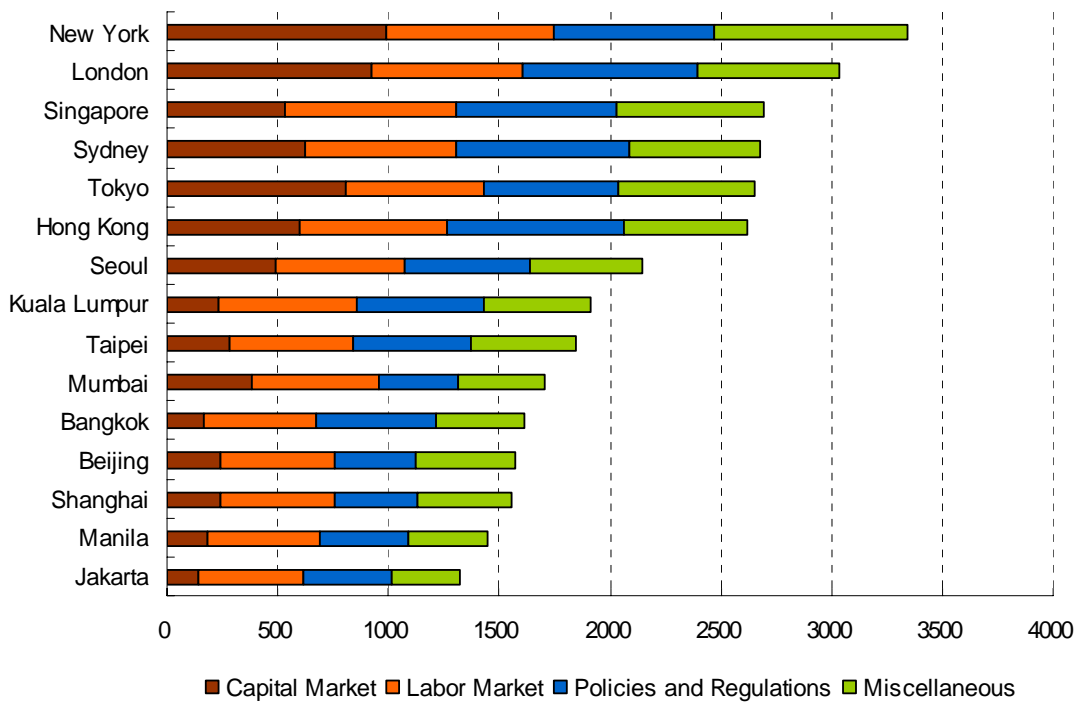


III. Evaluation

3.1 Overall Evaluation

Seoul ranks 5th out of the selected cities in the Asia Pacific. Along with Kuala Lumpur and Taipei, Seoul ranks in the mid-level group. Although, in comparison, Korea’s capital market dominant, Seoul loses points from *Policies and Regulations* and *Miscellaneous* categories like the *quality of life*.

Chart -1. Overall Score



As benchmarks, London and New York can be grouped as ultimate examples,¹² for an international financial center. Singapore, Sydney, Tokyo, and Hong Kong make up the top-level group as the most competitive cities. These four cities received similar

¹² Because the purpose of this research is to evaluate which city is best suited as an international financial center in the Asian region, the comparisons of New York and London are different from that of other surveys. Please see the Scope and Methodology chapter in Section 2.2.

ratings with Singapore and Hong Kong generally doing well in most categories while Tokyo and Sydney received highest markets in the *Capital Market* portion. Seoul, Kuala Lumpur and Taipei make up the mid-level group.¹³ Kuala Lumpur rates well in the *Labor Market* portion and popular for its foreigner-friendly facilities. Korea and Taipei received high ratings in the *Capital Markets* portion. Detailed results from the analysis of each of the factors will be discussed in the next parts.

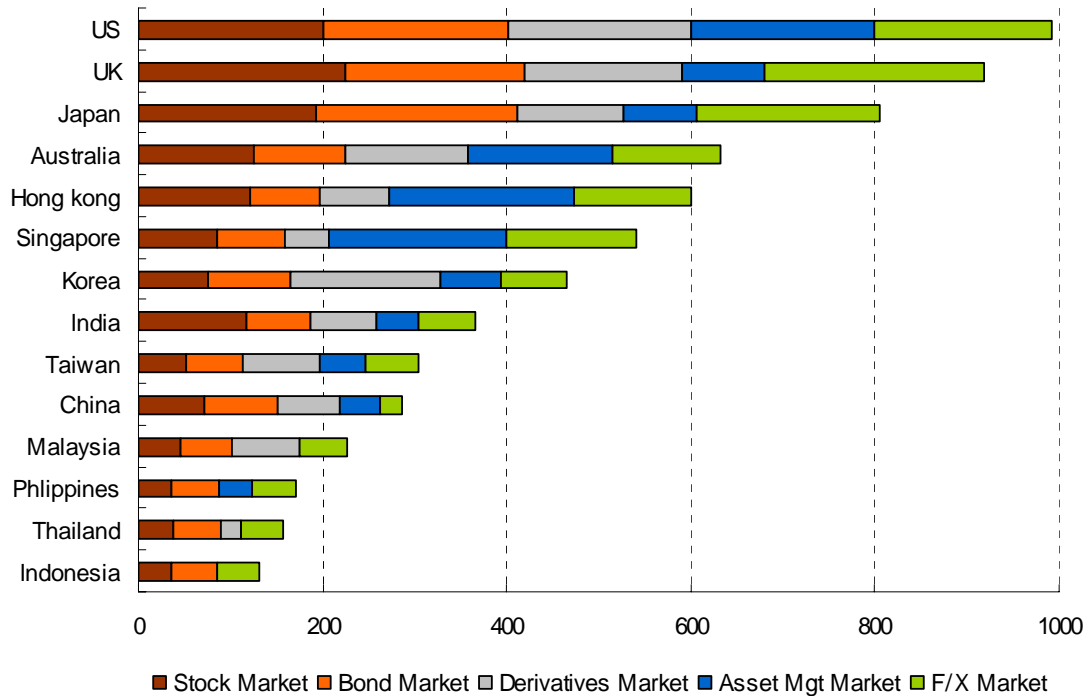
3.2 Capital Market

Examining capital markets is critical when evaluating potential international financial centers. Most of the Asian nations do not have the same capital market maturity as do countries like the US or the UK; some lack basic capital market structures while others only have small capital markets. Even in the case of Korea, the dominance of indirect financing reveals how much more direct financing related to capital markets must develop.

In our capital market evaluation, Korea ranks 5th after Japan, Australia, Hong Kong and Singapore. No nation in Asia excels in all five categories. Japan and India excel in the *stock market* category. Japan excels in the *bond market* category. Korea excels in *derivatives market*. Hong Kong and Singapore excels in the *asset management* and Japan, Singapore and Hong Kong in the *foreign exchange market*. In particular, Korea is advanced in the derivatives market and the bond market in comparison to the other Asian nations. It ranked 1st in the *derivatives market* and 4th in the *bond market* (2nd, 3rd and 4th place are very closely ranked).

¹³ Although Mumbai may be considered mid-level group by points, we excluded it from this grouping because of its low ratings in *Politics and Regulations* and *Miscellaneous* portions.

Chart -2. Capital Market Index¹⁴



Korea ranks 7th of the 12 selected countries¹⁵ for the stock market category. The lack of foreign listed firms is one current weakness of Korea. Without more international diversity, the stock exchange cannot support an international financial center. However, currently Japanese and Chinese firms are researching and showing interest in Korea's stock market.

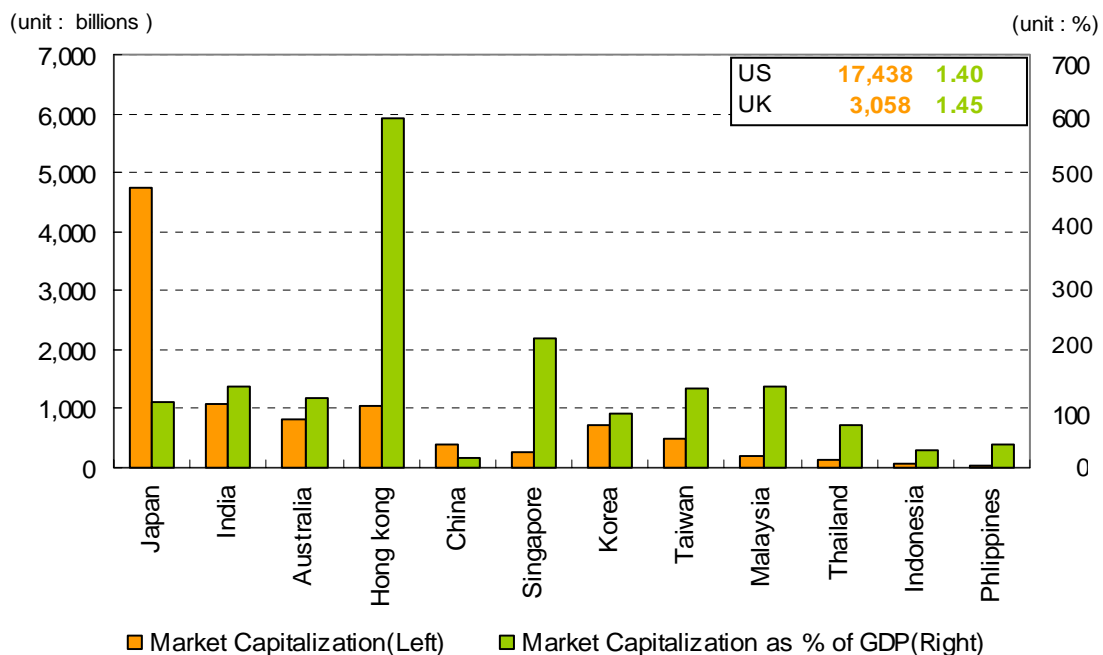
Another weakness is that Korea must still fully utilize its market capitalization potential but should see improvement in the near future. The 2006 market capitalization for Korea was 830 billion USD, ranking 6th in Asia. However, the market capitalization as a percentage of GDP of Korea was only 90% in 2005, which is very low in comparison to Japan, Hong Kong and Singapore. This demonstrates that Korea's stock

¹⁴ Due to missing information from some countries, not all of the 5 categories that make up the Capital Market Index were included. From each country we are missing: Indonesia (derivatives and asset management market), from Thailand (asset management market), Philippines (derivatives market) and Malaysia (asset management market).

¹⁵ Beijing and Shanghai are in one country, thus within country comparisons, we only have 12 countries for comparison.

market capacity has yet to attain full use and that it has more room to expand. For example, as of June 2006, stocks contributed only 20% of the Collective Investment Scheme (CIS) in Korea, while stocks in other countries contributed about 50% to the CIS. Also, the Price Earning Ratio (PER) is very low compared to other countries. This too reveals that Korea's stock market has yet to fulfill its potential as a greater financing source.

Chart -3. Market Capitalization & Market Cap. as % of GDP¹⁶



Even now efforts to fully utilize Korea's untapped resources are continuing. For example, more foreign firms have been showing an interest in listing in Korea's stock exchange. Also the enormous transactions for stock associated new products like the ETF reflects that as new financial products are developed, greater financing will be available.

¹⁶ At the end of 2005

Table -1. Rankings in Stock Market and Bond Market

Ranking	Stock Market	Bond Market
1	Japan	Japan
2	India	China
3	Australia	Australia
4	Hong Kong	Korea
5	China	India
6	Singapore	Taiwan
7	Korea	Malaysia
8	Taiwan	Singapore
9	Malaysia	Hong Kong
10	Thailand	Thailand
11	Indonesia	Philippines
12	Philippines	Indonesia

Korea's ranks 4th in the *bond market* category among the Asian countries. Japan, whose bond market is the biggest in Asia, is 8 times the size of Korea. In most of Asian countries, the bond market consists of mostly domestic bonds; only Australia has a significant portion of the international bond market (43%). A weakness of Korea's bond market is that foreign investors make up only about 1%. It is very low percentage especially when it is compared to their contribution in stock market (~35%). It is often noted that difficulty in opening a cash management account, absence of the international securities depository and the withholding of taxes from interest income are the major reasons for the low internationalization of Korea's bond market¹⁷.

17 Korea Fixed Income Research Institute (2004)

Table -2. Foreign Investors as % of Total Investors¹⁸

	2002	2003	2004	2005	2006	2007.06
KOSPI	35.98	40.09	41.97	39.7	37.22	35.55
KOSDAQ	10.51	14.34	15.42	13.5	14.63	15.94
Bond Market	0.11	0.29	0.48	0.46	0.59	1.01

Korea ranks 1st in the *derivatives market* and 5th in both *asset management* and the *foreign exchange market*. Korea's stock index (KRX's KOSPI 200) futures and options is the biggest market in the world, while the interest rate derivative and commodity derivative in comparison have a low volume traded. Using the success in stock index derivatives, these other derivative products must be vitalized and Seoul should build an international financial center around the successful derivatives market. Through the "*Financial Investment Services and Capital Market Act*" (*aka Capital Market Consolidation Act*), new derivative products using new underlying assets like nature and dynamic economic variables should be developed first so that Seoul may continue to lead in this area.

Korea's *asset management* has yet to attain full capacity. Asset under management (AUM) as a percentage of GDP is 25%, 2005, which is a very low percentage in comparison to Australia 103%, Hong Kong 258%, and Singapore 290%. We must develop the asset management industry because it can be a driving force for many related financial services, building up the international financial center. Currently, there is a large demand for asset management *e.g.*, with the copious pension fund and foreign reserves. Under the National Pension Act (enacted December 2005), the demand for managing pension funds will increase. Also in November 2006, Korea Investment

¹⁸ Financial Supervisory Services, Monthly Financial Statistics Bulletin (2007.07)

Corporation (KIC), a company that will manage Korea's foreign reserves, made its first investment of 1 billion USD through the Bond Passive Index. This will spark the asset management industry.

Table -3.

Rankings in Derivatives, Asset Management and Foreign Exchange Market

Ranking	Derivatives	Asset Management¹⁹	Foreign Exchange
1	Korea	Hong Kong	Japan
2	Australia	Singapore	Singapore
3	Japan	Australia	Hong Kong
4	Taiwan	Japan	Australia
5	Malaysia	Korea	Korea
6	China	Taiwan	Taiwan
7	India	India	India
8	Hong Kong	China	Thailand
9	Singapore	Philippines	Malaysia
10	Thailand		Indonesia
11	Indonesia		Philippine
12	Philippines		China ²⁰

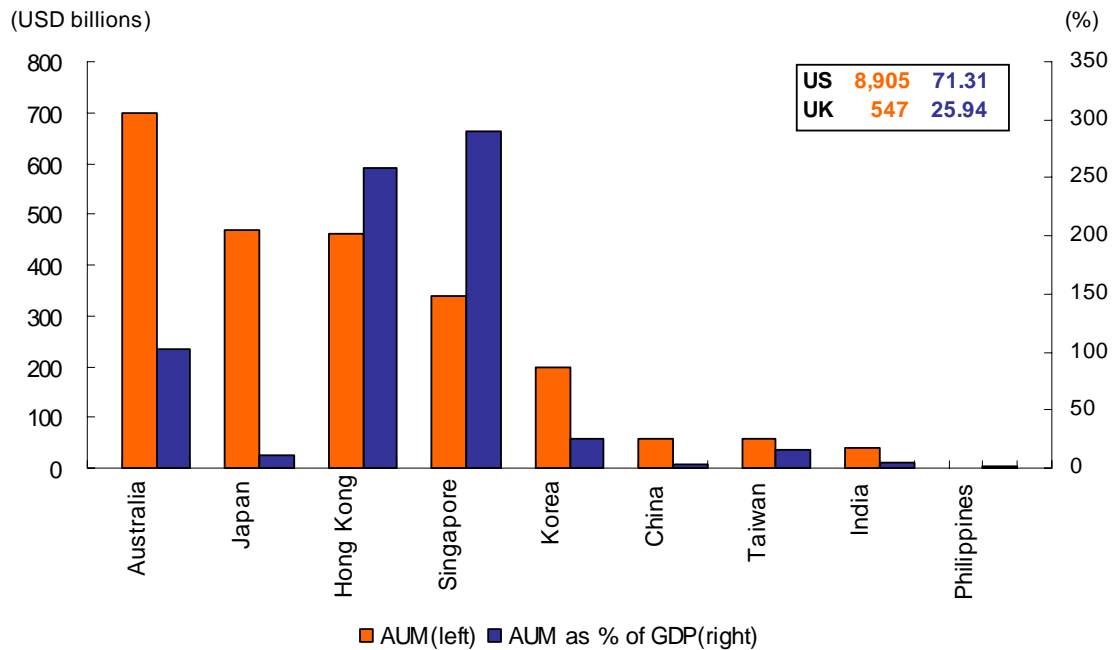
Current regulations and laws need to be revamped so that the establishment of asset management firms is facilitated. Currently existing Korean asset management firms must have more global customers. More importantly global asset management companies must enter the Korean market. In addition, Korea should develop new

¹⁹ Asset Under Management data for Indonesia, Malaysia, and Thailand are not available. Data for China was an estimate (60.8 billions USD for 2005) from Asset Management Association of Korea(AMAK)'s report.

²⁰ FX_OTC Derivatives Market Activity data for China was omitted from the BIS Statistics.

financial instruments and products like the PEF and the hedge fund.

Chart -4. AUM & AUM as % of GDP



The *foreign exchange* category is an international transaction infrastructure that should be fostered in line with the capital market. Korea is relatively doing well in foreign exchange OTC derivatives, there is a limit to fostering this sector because the Korean won is not a key currency. However, since the Korean won is not a key currency, there is a limit to fostering this sector.

3.3 Policies and regulations

Policies and regulations are very important in evaluating attractiveness of a financial center. The legal and regulatory framework of financial centers must be sophisticated since international financial agreements are contractual procedures between multiple parties from different countries. It must be globally consistent and the enforcement must be fair yet strict. Well established policies and regulations enable lenders, borrowers and financial intermediaries to have mutually efficient transactions.

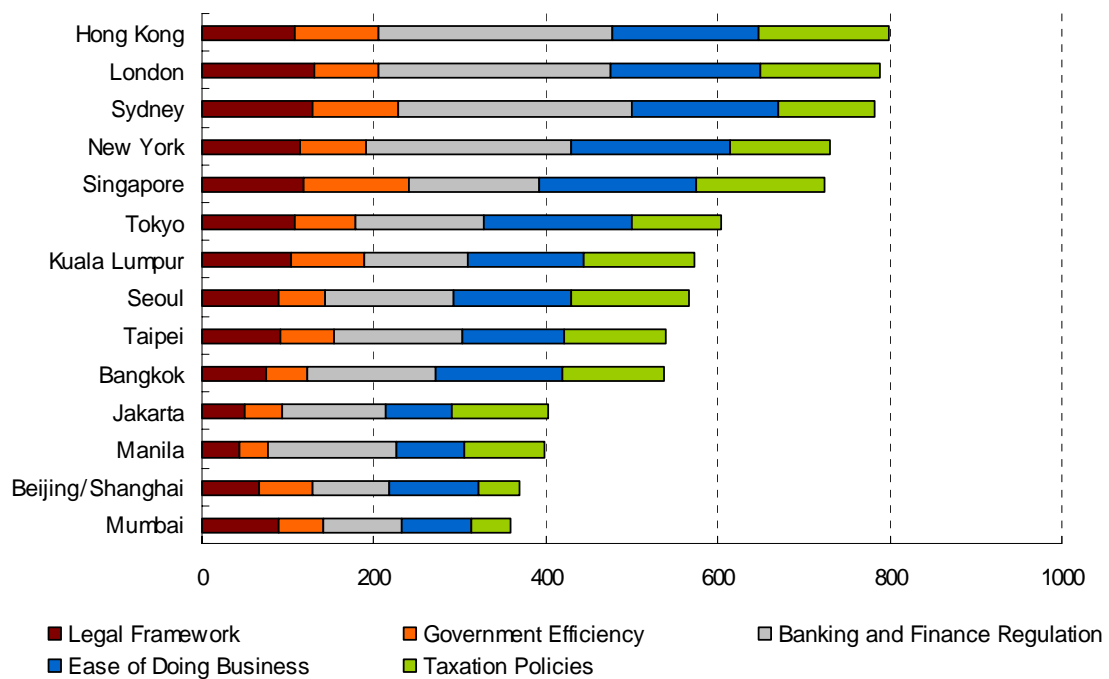
However, Seoul has many inefficient policies and regulations that need attention to enable more mutually efficient transactions. Seoul's regulation of financial systems has received very low ratings in other surveys. For example, Seoul ranked 23rd among the OECD countries in the *overall regulatory barriers to competition* and 29th in the *regulations aimed at stability* categories (OECD, 2007).

Korea is making efforts to improve its regulation of financial systems. Through the recent passing of the Capital Market Consolidation Act, Seoul will continue to loosen restrictions towards a more favorable financial environment. This act will raise the effectiveness of the capital market's legal and regulatory environment by transferring institutional regulation to functional regulation, combining laws related to the capital market into one. Currently foreign firms find Korean law overly complex. Simplifying license procedures should increase the entry of foreign firms. Also, currently financial institutions are barred from providing too many different services. This change in regulation will facilitate the provision of diverse financial services and products by one financial institution.

Of the 13 cities selected, Seoul ranks 6th. Grouping the cities, by *Policies and Regulations* index score, into high-level, mid-level and low-level, the high-level group

includes Hong Kong, Singapore, and Sydney. The mid-level group comprises of Tokyo, Kuala Lumpur, Bangkok, Taipei and Seoul. The low-level group consists of Manila, Mumbai, Beijing/Shanghai and Jakarta. Seoul received a very high rating for *taxation policies* and lowest for the *government efficiency*. For the rest of the categories, Seoul ranked in the mid-level.

Chart -5. Policies and Regulations Index²¹



In the *efficiency of the legal framework* category, Seoul ranks 7th out of the 13 Asian cities examined. If London has an index score of 100, Seoul receives a 72. Countries that have adopted common law, like New York, London, Sydney, Singapore and Hong Kong, have higher rating legal frameworks. Those with civil laws tend to have lower ratings, except Tokyo. Countries based on civil law have weaker investor protection laws, lowering capital market development. Looking at the indicators that

²¹ All categories in *Policies and Regulations*, were done with country data therefore there is no distinction between Shanghai and Beijing.

make up this category separately, Seoul does poorly in three areas: Judicial Independence, Impartial Courts, and Protection of Intellectual Property Rights.

Table -4. Rankings in Efficiency of the Legal Framework

Ranking	City	Index (London=100)
1	Sydney	99
2	Singapore	91
3	Tokyo	85
4	Hong Kong	84
5	Kuala Lumpur	81
6	Taipei	73
7	Seoul	72
8	Mumbai	71
9	Bangkok	61
10	Beijing/Shanghai	56
11	Jakarta	44
12	Manila	41

In the *government efficiency* category, Seoul ranks 9th out of 13. If New York is given 100 points, Seoul receives a 70.4. This is a category that requires attention. Every indicator rated fairly low, most especially Seoul needs improvement in policy direction of the government, adaptability of government policies, wastefulness of government spending, and the public's trust of politicians.

Table -5. Rankings in Government Efficiency

Ranking	City	Index (New York=100)
1	Singapore	163
2	Sydney	131
3	Hong Kong	130
4	Kuala Lumpur	113
5	Tokyo	91
6	Beijing/Shanghai	83
7	Taipei	82
8	Seoul	70.4
9	Mumbai	69.7
10	Bangkok	64
11	Jakarta	43
12	Manila	26.4

The following figure depicts 14 countries and their market capitalization over GDP given their respective banking and financial regulation scores attained from the Heritage Foundation. The higher the financial and capital market regulation score, the bigger the capital market size over GDP. The United States (scores:80), The United Kingdom (scores:90), Australia, and Hong Kong scored about 80~90 points but also have the highest capital market size over GDP. This figure shows that the capital market regulations affect the capital market of a country.

Of the 13 selected cities, Seoul ties with Tokyo, Manila, Singapore and Taipei with 50 points in the Banking and Financial Regulations. Sydney and Hong Kong tie at 1st with 90 points comprising the top-level group.

Chart -6.

Banking and Finance Score and Market Capitalization as % of GDP

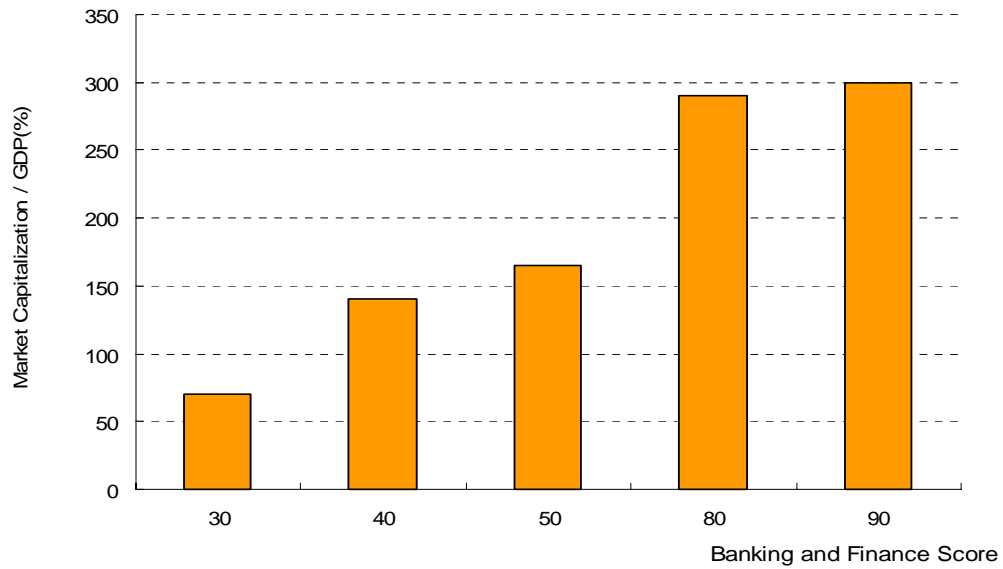


Table -6. Rankings in Banking and Financial regulation²²

City	Score
Sydney	90
Hong Kong	90
Tokyo	50
Seoul	50
Manila	50
Singapore	50
Taipei	50
Bangkok	50
Jakarta	40
Kuala Lumpur	40
Beijing/Shanghai	30
Mumbai	30

²² The Heritage Foundation (original source) scored all cities by multiples of 10 from 10-100.

In the *ease of doing business* category, Seoul ranked 6th. If New York is rated at 100, Seoul receives an index score of 75. Seoul did well in dealing with licenses, enforcing contracts and closing business indicators. However, in the remaining six indicators, Seoul was very low. In particular, in starting business, registering property and protecting investors, Seoul ranked at the bottom.

Table -7. Ease of Doing Business: Rankings

Ranking	City	Index (New York=100)
1	Singapore	100.04
2	Sydney	93.3
3	Tokyo	93.2
4	Hong Kong	93.1
5	Bangkok	80
6	Seoul	75
7	Kuala Lumpur	74
8	Taipei	64
9	Beijing/Shanghai	57
10	Mumbai	44
11	Manila	43
12	Jakarta	41

Seoul ranked 3rd out of the 13 Asian cities in *taxation policies*. Of the five *Policies and Regulations* categories, Seoul ranks highest in this category. In particular, Seoul's total tax rate (30.9%) is low when compared to other cities, ranking 3rd in this indicator behind Hong Kong (28.76%) and Singapore (28.81%). Seoul's statutory corporate income tax rate is (27.5%) which is quite low when compared to New York (42.5%), Tokyo (40.0%) and London (30.0%). However, in Asia, the tax rates are: Hong Kong (17.5%), Singapore (20.0%) and Taipei (25.0%), making Seoul's corporate tax

rate quite high in the Asian region.

Table -8. Rankings in Taxation Policies

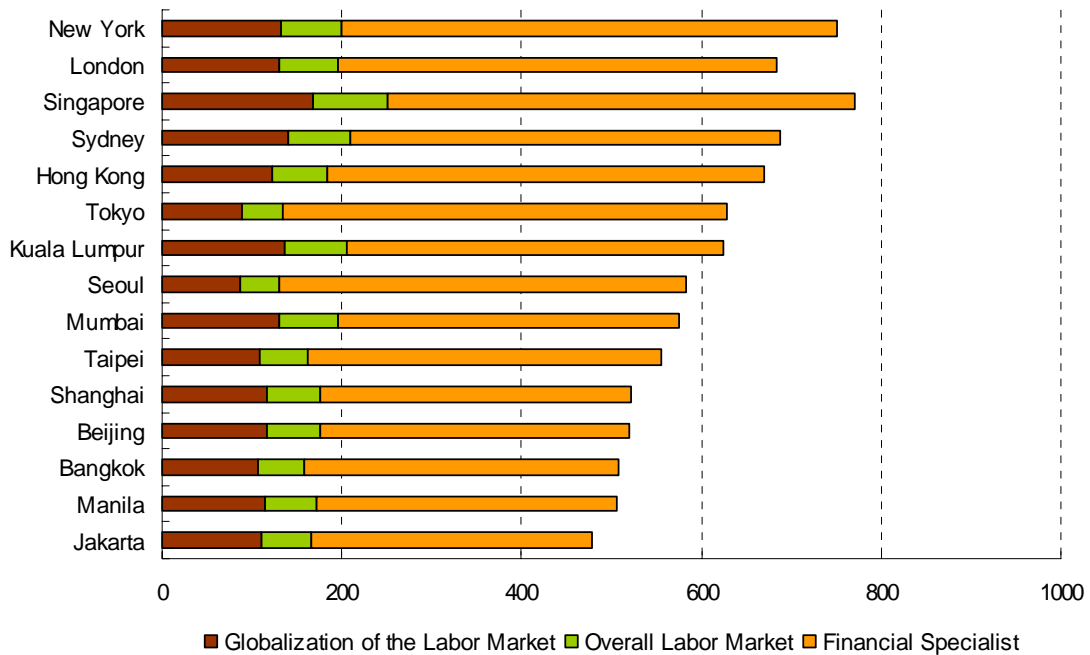
Rankings	City	Index (London=100)
1	Hong Kong	108.7
2	Singapore	106.3
3	Seoul	97.9
4	Kuala Lumpur	92.3
5	Bangkok	85
6	Taipei	84.5
7	Jakarta	80.8
8	Sydney	79.6
9	Tokyo	74.9
10	Manila	67.2
11	Beijing/Shanghai	33.1
12	Mumbai	32.7

3.4 Labor Market

The *Labor Market* portion is significant in the evaluation of a competitive international financial center. In previous surveys like London (2005), Binderman (1999), Abraham (1993) and Kaufman (2001), the quality of the labor market is a highly important factor in each evaluation of international financial centers. These studies emphasize the quality and quantity of financial specialists, the international experience of the domestic labor force, and the ease with which foreign talent is acquired. In our analysis, we broadened the scope by including general labor market characteristics, each city's education system, and retention variables of skilled workers.²³

²³ See Scope and Methodology.

Chart -7. Labor Market Evaluation



Among the 13 Asian cities surveyed in this research, Seoul is ranked 6th for its *Labor Market* portion, while Singapore placed 1st consistently rating high in all three categories. Even London and New York were rated highest only for the *financial specialist* category. Hong Kong and Sydney, which ranked 2nd and 3rd respectively, rated high for *globalization of the labor market* as well as the *financial specialist* category.

Seoul's worse ratings came from the *globalization of the labor market* category ranking last of all the cities surveyed. Giving New York an overall labor market index rating of 100, Singapore scores at 126, Hong Kong at 92, and Seoul received a low index rating of 65. In comparison, Seoul has too many restrictions in regards to foreign hiring and a marked lack of international experience by senior managers.

Table -9. Rankings in Globalization of the Labor Market

Ranking	City	Index (London=100)
1	Singapore	126
2	Sydney	105
3	Kuala Lumpur	103
4	Mumbai	98
5	Hong Kong	92
6	Shanghai	88
6	Beijing	88
8	Manila	85
9	Jakarta	83
10	Taipei	81
11	Bangkok	79
12	Tokyo	67
13	Seoul	65

Seoul does best in the *financial specialist* category ranking 5th. Singapore excels in this category, especially in financial education as the only Asian city with top-notch MBA schools which produce highly skilled specialists. Seoul, like Singapore, has a very high general educational level, but scores terribly in variables associated with advanced financial education. For example, the IMD surveys show that Seoul's labor force has low financial skill and lacks good advanced financial education institutions. Indicators such as these, associated with advanced financial skills, drag down Seoul's overall score.

Seoul must enlarge finance education institutions available. Such improvements are already occurring. To improve in this area, the Korean government established a graduate school of finance in one of Korea's national universities, KAIST.²⁴ Also in

²⁴ KAIST Graduate School of Finance, <http://kgsf.kaist.edu/default.asp>

2006, seven top Korean universities launched an MBA program, and four more have followed this year. Since education is extremely emphasized in Korea, advancing one specialized field should be quite straightforward.

Table -10. Rankings in Financial Specialist

Ranking	City	Index (New York=100)
1	Singapore	94
2	Tokyo	89
3	Hong Kong	88
4	Sydney	86
5	Seoul	81
6	Kuala Lumpur	76
7	Taipei	71
8	Mumbai	68
9	Bangkok	63
10	Shanghai	62
10	Beijing	62
12	Manila	60
13	Jakarta	56

Seoul's *overall labor force category* rating shows that it is doing especially well in the Productivity subcategory, performing at par with Tokyo, Hong Kong, Singapore and Taipei. However, in the Flexibility subcategory, Seoul is rated fairly low in terms of labor market flexibility, strict labor regulations and the number of days lost due to strikes, lockouts etc. Korea's cultural attitude towards strikes and its prevalence especially impacts Seoul's flexibility rating and therefore its stature as an international financial center. However, as Korea increasingly adopts a global outlook, labor issues that were especially harsh in the 90's are increasingly improving.

Table -11. Rankings in Overall Labor Market

Ranking	City	Index (London=100)
1	Hong Kong	99
2	Singapore	98
3	Taipei	93
4	Tokyo	90
5	Sydney	87
6	Seoul	83
7	Beijing	79
8	Shanghai	78
9	Kuala Lumpur	75
10	Bangkok	66
11	Manila	64
12	Mumbai	60
13	Jakarta	60

Table -12. Labor Issues in Korea²⁵

	2001	2002	2003	2004	2005
Strikes & Lockouts (no.)	235	322	350	462	387
Illegal Strikes(no.)	55	66	29	58	16
Workdays Lost due to Strikes & Lockouts	1,083,079	1,580,404	1,298,663	1,198,779	847,697
Union Membership(no.)	1,569	1,538	1,550	1,537	

Although Seoul does especially poorly in specific areas, in most other aspects Seoul is at par with the highly rated cities. Since the labor market has such a high weight and an importance in the international financial center ratings, steps toward improving in the areas of weakness will make it a viable competitor with the most highly rated financial centers.

²⁵ Ministry of Labor(www.molab.go.kr), Korea

3.5 Miscellaneous

The *Miscellaneous* portion is 25% of the overall index score and includes all other variables not included in the previous portions. These variables were tied into one portion to ease calculation and presentation, but a discussion of their weighted averages and the *Miscellaneous* index has no meaning. Thus, the next section discusses the results of the categories and explains the logic behind why this mixture of variables was chosen. The *Miscellaneous* portion is organized into three major categories: *economy & perceptions*, *business environment* and *quality of life*.

Seoul ranked 8th in the *economy & perceptions* category. This category was broken down into two subcategories: Real Economy and Country Image. Korea has the 12th largest economy in the world, and the 3rd largest in Asia only behind Japan and China. The country image subcategory drags Seoul's rank down. This subcategory examines foreign perception of the city or city reputation. According to national and city reputation survey by the Global Market Institute, the national reputation of Korea ranks 31st. The city of Seoul's reputation is worse, ranking at 44th, while Sydney ranks 1st and Tokyo ranks 22nd.

However, perceptions are improving as Korea tangibly changes. Currently, Korea only has 5 Free Trade Agreements. Recently Korea has signed an FTA with the US and is waiting for ratification by congress this year. Also Korea is beginning FTA negotiations with the European Union (EU). Seoul's reputation should improve as it expands free trade agreements because it reflects Korea's eagerness to open our economy and acceptance of globalization efforts.

Table -13. Rankings in Economy & Perceptions

Ranking	City	Index (New York = 100)
1	Tokyo	50
2	Beijing	45
3	Shanghai	40
4	Hong Kong	30
5	Sydney	29
6	Taipei	24
7	Singapore	22
8	Seoul	20
9	Mumbai	18
10	Kuala Lumpur	17
11	Bangkok	15
12	Jakarta	14
13	Manila	13

Through a government initiative to improve conditions, Invest Korea²⁶ began to regularly survey firms. Each year an increased number are responding positively. For example, one survey question asks, “Would you open a branch in Korea?” 30.8% of the firms surveyed agreed, a much larger number than in previous years. Direct efforts to improve Korea as an international center will positively affect the global outlook of Korea.

Seoul’s *business environment* ranks 5th out of the 13 Asian cities analyzed. Standardizing New York to 100 for the business environment index, Singapore gets a score of 88, while Tokyo scores 85 and Seoul 69.

²⁶ Invest Korea (IK), Korea's national investment promotion agency, was established within the Korea Trade-Investment Promotion Agency (KOTRA) with the sole purpose of supporting the entry and successful establishment of foreign business into Korea. With assistance extending to comprehensive post-establishment services, IK enables foreign corporations to maximize the benefits of the Korean investment environment to ensure their rapid settlement in Korea. The agency is committed to providing unmatched, comprehensive one-stop service that allows foreign investors to join many of the world's most successful corporations who have selected Korea as an investment destination and been rewarded by high returns on the investment. <http://www.investkorea.org/>

Table -14. Rankings in Business Environment

Ranking	City	Index (New York = 100)
1	Singapore	88
2	Tokyo	85
3	Sydney	77
4	Hong Kong	74
5	Seoul	69
6	Kuala Lumpur	60
7	Taipei	59
8	Beijing	58
9	Shanghai	54
10	Bangkok	49
11	Mumbai	48
12	Manila	37
13	Jakarta	35

Seoul, with the most networks and quickest connections, received high ratings for IT and Telecommunications. Also in Infrastructure, Seoul ranked very high especially in airport infrastructure. In fact, Incheon Airport was designated as the best service airport²⁷. Seoul loses points in the Supporting Financial Services because although Seoul is at par with most of the high ranking cities, it lacks the presence of regional headquarters and the legal services market is not yet opened. Through the FTA with the US, which is waiting for Congressional ratification, the legal services market will open in a few years.

Seoul ranks 7th of the 13 Asian cities in the quality of life category. The subcategory, Foreigner-Friendly Facilities, had a large impact on Seoul's ranking. For example, Seoul and Kuala Lumpur are even in most aspects. However, because Kuala

²⁷ The World's Best Airport Award 2007, OAG(Official Airline Guide)

Lumpur is an English speaking region, foreigners find hospitals, government and public facilities more accessible and easy to use. Thus, despite Seoul being comparable in other aspects, this feature of Kuala Lumpur places it 4th in the quality of life rankings.

According to a survey that examined foreigner friendly facilities, there is a need to establish more in Seoul. Such facilities include street signs available in English, international schools and public transportation information. For the most part, Korea has a fine number of street signs and bus/subway signs available in English. However, the numbers of international schools in Seoul are minimal when compared to Hong Kong's 50 schools and Bangkok's 52 schools.

Table -15. Rankings in Quality of Life

Ranking	City	Index (New York = 100)
1	Singapore	111
2	Sydney	99
3	Tokyo	92
4	Kuala Lumpur	91
5	Hong Kong	89
6	Taipei	86
7	Seoul	81
8	Manila	81
9	Bangkok	76
10	Shanghai	73
11	Beijing	72
12	Mumbai	69
13	Jakarta	58

It is also important to have medical facilities and institutions accessible to English speakers. Currently most hospitals treat foreigners through English support

services and are providing medical services to foreigners on their own. Although there are no statistics available regarding this, most large hospitals have clinics available to provide foreigners with medical service.

Table -16. International Healthcare Center²⁸

Hospital	Available in English	Payment
Severance Hospital, International Health Care Center	Website, telephone services, registration, checkup, receipts, prescriptions	Cash, Credit, deferred Payment Agreements
Samsung Medical Center, International Health Services	Website, telephone services, registration, checkup, receipts, prescriptions	Cash, Credit, deferred Payment Agreements, Insurance not accepted
Seoul National University Hospital, International Healthcare Service	Website, telephone services, registration, checkup, receipts, prescriptions	Cash, Credit, Insurance not accepted
Soon Chun Hyang University Hospital, International Clinic	Website, telephone services, registration, checkup, receipts, prescriptions	Cash, Credit, deferred Payment Agreements, Insurance not accepted, International Insurance(HMO, PPO) accepted
Asan Medical Center, International Clinic	Website, telephone services, registration, checkup, receipts, prescriptions	Cash, Credit, deferred Payment Agreements, Insurance not accepted, International Insurance (SOS, Allianz, HTH, IMA) accepted , payment guarantee

²⁸ Invest Korea, 2006

IV. Implications

Our overall analysis places Seoul as 5th best rated among the 13 Asian cities. The top-level group, with comparable scores, comprises of Hong Kong, Singapore, Tokyo and Sydney. Seoul can be classified to the mid-level group along with Taipei and Kuala Lumpur. In comparison to recognized global financial hubs, Seoul's competitive potential is 64% relative to New York and 70% relative to London.

In the *Capital Markets*, Seoul ranks 5th behind Japan, Australia, Singapore and Hong Kong and ranked highest in the derivatives market category. In *Labor Markets*, Seoul has a high quality workforce with expertise and experience. The *globalization of the labor market* category kept its overall *Labor Market* rating low. In *Policy and Regulation*, Seoul ranked mid-level with Kuala Lumpur and Taipei. In the *Miscellaneous* portion, Seoul did fairly poorly in the *quality of life* category, ranking 9th.

From our International Financial Center (IFC) development phase framework, Seoul is in phase 2, *collecting center*. Korea's strategy to become a *regional financial center* is to first become a *niche financial center*. In this research, the capital market is the most central determinant of a competitive financial hub and offers evidence on which sectors can become niche markets. Like the overall IFC ranking, Seoul ranked 5th among the 13 selected Asian cities in the *Capital Market* index. The government initiative promotes developing a niche in the asset management industry. However, AUM is only 25% of GDP compared to Singapore's 290%. Korea must improve in asset management. When reflecting on the huge amount of pension funds and foreign reserves, we must fully utilize the asset management industry to advance Seoul as an international financial center.

This research also reveals that Seoul's derivatives market is exceptionally strong in Asia. Seoul excelled in the *derivatives market* category especially with stock index options and futures. However, stock, fixed income, interest, and other miscellaneous derivative products have very small trading volumes. It is also possible to build a niche market using the success in stock index derivatives as a driving force for newly developed and existing derivative products.

The bond market has a high potential for improvement. Seoul ranked fairly well among the selected cities in the *bond market* category especially because of its huge volume. To improve, we need more foreign investors and foreign bonds traded on the market. Foreign investment in our bonds is only about 1% in comparison to our stock market which is more than ~30 – 40%.

In the stock market, Korea must raise its market capitalization relative to GDP to fully utilize its potential. Korea's market cap is about ~98% of the GDP. Although the stock market seems developed, in comparison to other advanced cities who have market caps that are two and three times larger than the GDP, Korea's stock market has much more room to grow.

To develop into a *regional financial center*, the *niche financial center* must excel in various products. As the Capital Market Consolidation Act is enacted in 2009, one expects to see many newly developed financial products, the establishment of more financial firms with various functions and the entry of more foreign companies.

This consolidation law follows the global trend which deregulates licensing policies and business operations while strengthening prudential regulation. Thus far, financial institutions have adjusted to over-bearing regulation on licensing and business operations, limiting the scope of services provided. Also, due to a lack of full understanding of these over-bearing regulations, foreign investment banks and other

financial institutions have had costly experiences. Once the Capital Market Consolidation Act is enacted, many of the problems previously faced will improve.

Seoul ranked 6th out of the 13 Asian cities in *Policies and Regulations*. Seoul received a very high rating for *taxation policies* and lowest for *government efficiency*. For the rest of the categories, Seoul ranked around in the mid-level. There is wide expectation that the Capital Market Consolidation Act will revolutionize the regulatory system and business operations. Financial regulation will convert from institutional regulation to functional regulation, unifying legislation over securities firms, futures firms, asset management firms etc.

Outside of developing the capital markets and associated policies and regulations, a successful international financial center has well functioning supportive foundations. In the *Labor Markets*, Seoul ranked 6th overall. Seoul has a high quality workforce; however, this workforce lacks a global outlook. The domestic workers lack international experience and there are too many restrictions on hiring foreign workers. Seoul also ranks low in overall flexibility with too many labor regulations and too many strikes (including white collar strikes) that add to the cost of establishing firms in Korea. There is a need to expose domestic workers to more international experience and to lessen restrictions against hiring foreign talent.

In education, Seoul has a very high general educational level, but scores terribly in variables associated with advanced financial education. Although financial education has not been fostered previously, excellent math scores and the cultural emphasis on education foretell how quickly Seoul will improve in this area. Seoul must enlarge finance education institutions available. Such improvements are already occurring. Currently, 11 new finance-focused graduate programs opened since 2006, and many more universities show interest in following.

In the Miscellaneous portion, Seoul shows high ratings in the *business environment* category, Seoul has a high quality IT and telecommunications and other Infrastructure. However, the *quality of life* is 9th out of the 13 selected Asian cities for analysis. This is due to a variety of problems like the high price level, feeble foreigner friendly facilities, a low number of international schools, and communication difficulties. Seoul ranked 8th in the *economy & perception* category. In this category, the Country Image, which examines globalization perceptions, drags its score down. Korea also has a large international trading volume and the 12th largest economy, ranking 5th in the Real Economy. Although in real terms, Korea has a global economy with more and more FTA agreements underway, perceptions from outside and within have yet to catch up.

The Korean government and the Seoul Metropolitan government are taking an active role to improve Korea's international finance environment. Korea is revamping its capital market laws. Korea is revamping its regulatory environment. Korea is opening more and more to free trade. Korea is establishing advanced finance schools. Korea has created a task force under the Ministry of Finance and Economy to materialize a financial hub in Korea. Korea has created a presidential commission to evaluate yearly progress. At the country level, these are just some preliminary efforts.

At the city level, Seoul is establishing more international schools. Seoul is establishing residential complexes designated for foreigners. Seoul is expanding office space by constructing the Yeoido International Finance Center building. Seoul is designating a international financial district in the Yongsan area.

Korea is making real structural changes to accommodate financial firms and institutions, in an effort to build a northeast Asian financial hub. KSRI's "Seoul's International Finance Environment" report, commissioned by the Seoul Metropolitan

government will annually monitor progress. Given this strong beginning, as true weaknesses are identified, we can expect Seoul's competitiveness to rise quickly.

V. Appendix Tables

Indicator Description

Capital Market²⁹

Factors	Categories	Indicators ³⁰	Descriptions	Sources
Capital Market	Stock Market	Total Number of Listed Companies	Number of companies which have shares listed on a specific exchange, split into domestic and foreign, excluding investment funds and unit trusts. A company with several classes of shares is counted just once.	WFE
		Total Number of Listed Companies- Foreign Companies	Foreign company: A company is considered foreign when it is incorporated in a country other than that where the exchange is located.	
		Domestic Market Capitalization	The market capitalization of a stock exchange is the total number of issued shares of domestic companies, including their several classes, multiplied by their respective prices at a given time.	
		Total Value of Share Trading	The value of share trading is the total number of shares traded multiplied by their respective matching prices.	
		Average Daily Turnover	The average daily turnover is calculated by dividing the total value of share trading by the number of trading days during the year.	
		New Capital Raised by Shares	The table indicates the amount of Initial Public Offerings (IPO) representing the amount of money raised by shares issued by domestic companies entering the market, and Secondary Public Offerings representing the amount raised by domestic companies already listed.	
	Bond Market	International Bonds and Notes	Amounts outstanding : by residence of issuer	BIS
		Domestic Debt Securities-Governments	Amounts outstanding : by sector and residence of issuer	

²⁹ In Capital market, when choosing indicators, we focused on variables that were most likely to be available for all the selected cities with minimal missing values, and where yearly data was available. All of the indicators except for Asset Management Market (2005) and Foreign Exchange market (2004) are statistics in 2006.

³⁰ We used the most recent information for all our data.

	Domestic Debt Securities-Financial Institutions & Corporate Issuers	Amounts outstanding : by sector and residence of issuer	
Derivatives Market	Stock Derivatives Volume Traded	Stock Derivatives = Stock Option + Stock Futures- Volume Traded = Number of contracts	WFE
	Stock Index Derivatives Volume Traded	Stock Index Derivatives = Stock Index Option + Stock Index Futures- Volume Traded = Number of contracts	
	Interest Rate Derivatives Volume Traded	Interest Rate Derivatives= Short Term Interest Rate Option + Short Term Interest Rate Futures+ Long Term Interest Rate Option + Long Term Interest Rate Futures- Volume Traded = Number of contracts	
	Currency Derivatives Volume Traded	Currency Derivatives = Currency Option + Currency Futures- Volume Traded = Number of contracts	
	Commodity Derivatives Volume Traded	Commodity Derivatives = Commodity Option + Commodity Futures- Volume Traded = Number of contracts	
Asset Management Market	Asset Under Management	Fund Industry Total Net Asset	ICI, MAS
	Asset Under Management as % of GDP	Asset management market' significance in the national economy: These indicators compare the country's asset under management to the national GDP	ICI, MAS, WFE
Foreign Exchange Market	Foreign Exchange Market Turnover	Daily average in April	BIS
	FX_OTC Derivatives Market Activity	Average daily turnover in April. Including outright forwards and foreign exchange swaps	

Policies and Regulations

Factors	Categories	Indicators	Descriptions	Sources
Politics and Regulation	Efficiency of Legal Framework ³¹	Judicial Independence	The judiciary is independent and not subject to interference by the government or parties in disputes, survey	Economic Freedom of the World Index
		Impartial Courts	A trusted legal framework exists for private business to challenge the legality of government actions or regulation, survey	
		Military Interference in Rule of Law and Political Process	A measure of the military's involvement in politics, survey	
		Integrity of the Legal System	The strength and impartiality of the legal system, popular observance of the law, survey	
		Protection of Intellectual Property	Property rights, including over financial assets are poorly defined and not protected by law or are clearly defined and well protected by law, survey	
	Government Efficiency ³²	Policy Direction of the Government	Policy direction of the government is consistent, survey	IMD
		Adaptability of Government Policy	Adaptability of government policy to change in the economy is high, survey	
		Government Decisions	Government decisions are effectively implemented, survey	
		Transparency	Transparency of government policy is satisfactory, survey	
		Public Service	The public service is independent from political interference, survey	
		Bureaucracy	Bureaucracy does not hinder business activity, survey	
		Wastefulness of Government Spending	The composition of public spending in your country(lower=is wasteful, higher=provides necessary goods and services not provided by the market)	WEF
	Diversion of Publics Funds	In your country, diversion of public funds to companies, individuals, or groups due to corruption(lower=common, higher=never occurs)		

³¹ Each nation was given a rating from 1 to 10, with the best being 10, for the best legal framework. Indicators in this section are weighted according to its standard deviation relative to the total standard deviation.

³² IMD World Competitiveness Yearbook scoring range occurred from 0 to 10, WEF Global Competitiveness Report scoring range was from 1 to 7. The higher the score, the more efficient the government is rated. Indicators in this section are weighted according to its standard deviation relative to the total standard deviation.

		Public Trust of Politicians	Public trust in the financial honesty of politicians is(lower=very low, higher=very high)	
	Banking and Financial regulation	Financial Freedom ³³	The financial freedom factor ³⁴ measures the relative openness of each country's banking and financial system	Index of Economic Freedom
	Ease of Doing Business ³⁵	Starting a Business	Procedures(number), time(days), cost and paid-in minimum capital to open a new business(% of income per capita)	Doing Business
		Dealing with Licenses	Procedures(number), time(days) and cost of business inspections and licensing(% of income per capita)	
		Employing Workers	Difficulty of hiring index, rigidity of hours index, difficulty of firing index and firing cost(weeks of wages)	
		Registering Property	Procedures(number), time(days) and cost to register commercial real estate(% of property value)	
		Getting Credit	Strength of legal rights index, depth of credit information index	
		Protecting Investors	Indices of the extent of disclosure, extent of director liability and ease of shareholder suits	
		Trading Across Borders	Documents(number), time(days) and cost(US\$ per container) to export and import	
		Enforcing Contracts	Procedures(number), time(days) and cost(% of debt) to resolve a commercial dispute	
		Closing Business	Recovery rate in bankruptcy(cents on the dollar)	
	Taxation Policies	Payments	Number of tax payments(number)	Doing Business
		Time	Time to prepare tax returns(hours)	
		Total Tax Rate ³⁶	Total taxes as a share of commercial profits(% profit)	

³³ This score ranges from 0 to 100 indicating the least restricted country with the most laissez faire environment.

³⁴ Property right laws for financial institutions, Restrictions on foreign financial institutions, Restrictions of foreign financial institutions and the Degree of government restrictions on financial institutions.

³⁵ This score ranges from 1 to 175, which was calculated as the ranking on the simple average of country percentile rankings on each indicator.

³⁶ Total tax rate includes corporate tax, individual income tax and other miscellaneous taxes

Labor Market

Factors	Categories	Sub-Categories	Indicators	Descriptions	Sources
Labor Market	Overall Labor Market	Productivity	The Level of Educational Attainment Level	% of population that has attained at least tertiary education for person 25-34	IMD
			Labor Force Participation Rate	Employed and registered unemployed	ILO ³⁷
			Labor Productivity	GDP per person employed per hour	ILO
			Net Hourly Pay	Net income in USD per hour	UBS ³⁸
			Working Hours	Annual working hours including vacation(paid) and legal holidays; weighted average of 13 professions	UBS
			Pay and Productivity	Pay in your country is strongly related to worker productivity(=7), survey	WEF
		Flexibility	Firing Cost	Weeks of salary	Doing Business
			Hiring and Firing Practices	The hiring and firing of worker is flexibly determined by employers(=7),survey	WEF
			Labor Regulations	Labor regulation(hiring/firing practices, minimum wages, etc.) do not hinder business activities, survey	IMD
			Taxes and Social Security Contributions	Total taxes and social security contributions in % of gross wages	UBS
			Workdays Lost due to Strikes and Lockouts	Working days lost per 1000 habitants per year(average 2003-2005)	ILO
	Quality & Quantity of Skilled	Skilled Labor	Skilled labor is readily available, survey	IMD	
		Competent Senior Managers	Competent senior managers are readily available, survey	IMD	
		Finance Skills	Finance skills are readily available, survey	IMD	
CPAs		Number of CPAs	CPA association of each country		

37 From LABORSTA, an International Labour Office database on labor statistics operated by the ILO Bureau of Statistics

38 UBS Prices and Earnings

Financial Specialist	Financial Labor	CFAs	Number of CFAs	CFA Institute	
		Information Technology Skills	Information technology skills are readily available, survey	IMD	
	Retention	Brain Drain	Brain drain does not hinder competitiveness in your economy, survey	IMD	
		Incomes of Bank Credit Officer	Gross annual income including supplements(bonuses)	UBS	
		Incomes of Department Head	Gross annual income including supplements(bonuses)	UBS	
		Incomes of CEO	Gross annual income including supplements(bonuses)	IMD(CC&T)	
		Wage Levels	Effective hourly wages for 14 professions, weighted according to distribution	UBS	
	Education	Education Index	Based on the adult literacy rate and combined gross enrollment ratio for primary, secondary, and tertiary schools.	HDI	
		Employee Training	Employee training is a high priority in companies, survey	IMD	
		Extend of Staff Training	The general approach of companies in your country to human resources is to invest heavily to attract, train, and retain employees, survey	WEF	
		University Education	University education meets the needs of a competitive economy, survey	IMD	
		Quality of Public Schools	The public(free) schools in your country are equal to the best in the world(=7), survey	WEF	
		Education in Finance	Education in finance does meet the needs of enterprises, survey	IMD	
		Educational Assessment-Math	PISA survey of 15-year olds, measuring student knowledge and skills	PISA	
	Globalization Of the Labor Market	Foreign Labor	Foreign Labor Force	% of total labor force	IMD
			Immigration Laws	Immigration laws do not prevent your company from employing foreign labor, survey	IMD
			Easy of Hiring Foreign Labor	Labor regulation in your country(1=prevents your company from employing foreign labor, 7=does not prevent your company from employing foreign labor	WEF
Foreign High-Skilled People			Foreign high-skilled people are attracted to your country's business environment, survey	IMD	
International experience		International Experience	International experience of senior managers is generally significant, survey	IMD	
		Language Skills	Language skills are meeting the needs of enterprises, survey	IMD	

Miscellaneous

Factors	Categories	Sub-Categories	Indicators	Descriptions	Sources
Miscellaneous	Economy & Perceptions	Real Economy	GDP per Capita		IFS
			Current Account Balance		IFS
			The Globalization Index	An annual study that assesses the extent to which the world's most populated nations are becoming more or less globally connected	AtKearney
			FDI Confidence Index	A survey which tracks the impact of likely political, economic, and regulatory changes on the foreign direct investment intentions and preferences of the leaders of the world's leading companies.	AtKearney
		Country Image	Anholt City Brands Index	How the world views your city.	GMI
			Anholt Nation Brands Index	How the world views your country.	GMI
			Attitudes toward Globalization	Attitudes toward globalization are generally positive in your society, survey	IMD
			Natural Culture	The nation culture is open to foreign ideas, survey	IMD
	Business Environment	IT & Telecom.	E-government Readiness Index 2005	How ready Governments around the world are in employing the opportunities offered by ICT to improve the access to, and the use of, ICTs in providing basic social services.	UN
			Cyber Security	Cyber security is being adequately addressed by corporations, survey	IMD
			IT Report	The degree of preparation of a nation or community to participate in and benefit from ICT developments	WEF
			E-Readiness Rankings	A country's information and communications technology(ICT) infrastructure and the ability of its consumers, businesses and governments to use ICT to their benefit	EIU&IBM
			Mobile Telephone Subscribers	Number of subscribers per 1000 inhabitants	IMD(ITC)
			Internet Users	Number of internet users per 1000 people	IMD(CIA)
		Railroad Infrastructure Development	Railroads in your country are as extensive and efficient as the world's best(=7), survey	WEF	

	Infra-structure	Quality of Port Infrastructure	Port facilities and inland waterways in your country are as developed as the world's best(=7), survey	WEF	
		Quality of Air Transport Infrastructure	Passenger air transport in your country is as frequent, extensive, and efficient as the world's best(=7), survey	WEF	
		Air Transportation	Number of passengers carried by main companies	IMD	
		Quality of Air Transportation	Quality of air transportation encourages business development, survey	IMD	
		International Meetings and Conferences	Meetings sponsored by domestic and international organizations	UIA	
	Supporting Financial Services	Top Accounting Firms	Top 5 accounting firms in your country	Vault	
		Top Law Firms	Top 10 law firms into your country	Legal Business	
		Top Consulting Firms	Top 5 Strategy consulting, Top 5 IT consulting firms in your country	Vault	
		Top 1000 World Bank	Domestic bank among Top 100 world bank	The Banker	
		Global 500	Financial companies list among Global 500	Fortune	
		Global IB's RHQ	Top global investment banking's regional headquarters	Fortune, Euromoney	
	Quality of Life	Life in the city	Quality of Life	Quality of life is high, survey	IMD
			Quality-of-life Index	Worldwide quality-of-life index	EIU
			Worldwide Quality of Living Survey	General city variables: Economy, Environment, Safety, Health, Education, Transpiration, etc. NYC=100	Mercer
World's Most Livable Cities			Of executives assigned to live abroad, survey asked which city is most desirable to live in. Standardized New York=100	Mercer, The Economist	
Human Development Index			Combines economic, social, educational indicators	UNDP	
Pollution Problems			Pollution problems do not seriously affect your economy, survey	IMD	
Health, Safety & Environmental Concerns			Health, safety & environmental concerns are adequately addressed by management, survey	IMD	
Apartment Rent			Rents are based on apartment built after 1980(3 rooms, kitchen, bathroom)with an average comfort customary in the locality and near the city center, medium	UBS	

			Office Rent	Global 50 index, comparison of office occupancy costs	CB Richard Ellis
			Cost of Public Transport	Bus, tram or metro, Price of single ticket for the public transport network for a journey of approx. 10km/6miles or at least 10 stops	UBS
			Cost of Restaurant	Price of evening meal(3-course menu with starter, main course, and dessert, without drinks) including service, in a good restaurant	UBS
			International Fixed Telephone Costs	USD per 3 minutes in peak hours to USA(for USA to Europe)	IMD(mobile pricing.com)
			Mobile Telephone Costs	Mobile cellular tariffs-USD per 1minute	ITU
			Internet Costs	Cost for 20 hours dial-up per month	UBS
			Prices of Services	Weighted basket of 27 services	IMD
			Health Infrastructure	Health infrastructure meets the needs of society, survey	WHO
			Number of Inhabitants per Physician	Numbers of inhabitants per physician	WHO
			Number of Inhabitants per Nurse	Number of inhabitants per nurse	WHO
			JCI Accredited Organization	Hospital Service Global Standard Results from a survey with 11 parts from check in to check out at a hospital and 1,033 variables	JCI
		Foreigner-Friendly Facilities	Traffic Signs	Does your country use traffic signs written in English?	Survey by KSRI
			Official Documents in English	In general, are official documents related to the residence of foreigners (e.g. written test of driver license, APT lease contracts, opening banking accounts etc.) available in English?	
			Hospitals for Foreigners	Does your city have hospitals specially designated for foreigners?	
			English Maps and Signs	Do you have English maps and signs on your subway, buses and other public transportation? Are there interpretation services available for taxis?	
			Foreign Residential Complex	Are there foreign residential complex in your country?	
			Currency Exchange	How easily can currency be exchanged in most commercial banks?	

Bibliography

- Asset Management Association of Korea, 2006, *Asset Management Industry in China*(in Korean)
- A.T.Kearney, 2006, *FDI confidence Index*
- A.T.Kearney, 2006, *The Globalization Index 2006*
- American Chamber of Commerce in Korea, 2002, *Dynamic Korea Hub of Asia*
- Axiss Australia, 2006, *Australia, a Global Financial Services Centre*, Benchmark Report
- Bank for International Settlement, 2007, *BIS Quarterly Review*(June 2007)
- Bank for International Settlement, 2005, *Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity in 2004*
- Beck, T., Demirguc-Kunt, A., Levine, R., 2003, *Law, endowments, and finance*, *Journal of Financial Economics* 70, 137-181
- Bindemann, K., 1999, *The Future of European Financial Centres*, London, Routledge
- C. Rhee, 2003, *The Determinants of European Financial Centers and Their Implications for Korea*(in Korean), CNAEC Research Series 03-03, Korea Institute for International Economic Policy
- City of London, 2007, *The Global Financial Centres Index*
- Corporation of London. 2005, *The Competitive Position of London as a Global Financial Centre*
- D.Chang, S.Chun, 2004, *Hong Kong & Singapore's Development into IFCs and Implications*(in Korean), Working Paper 165, Bank of Korea Institute
- De Serres, A., Kobayakawa, S., Slok, T., Vartia, L., 2007, *Regulation of Financial Systems and Economic Growth*, OECD Working Paper, OECD
- Demirguc-Kunt, A., Levine, R., 1996, *Stock market development and financial intermediaries: Stylized facts*, *World Bank Economic Review* 10, 291-322, World Bank
- Demirguc-Kunt, A., Maksimovic, V., 1996, *Stock market development and financing choices of firms*, *World Bank Economic Review*, 341-370, World Bank
- Economist Intelligence Unit, 2005, *The Economist Intelligence Unit's Quality-of-life Index*
- Educational Testing Service, 2007, *Test and Score Data Summary for TOEFL Internet-Based Test*
- EIU&IBM, 2005, *The 2006 e-readiness rankings*
- Euromoney, 2006, *Euromoney Awards for Excellence 2006*

Financial Supervisory Service, 2007, *Monthly Financial Statistics Bulletin*

Financial Times, 2007, *The top 100 full-time global MBA Programmers*

fn HUB Korea, 2007, *Financial Hub Initiative in Korea*

Fortune, 2007, *Fortune Global 500 2007*

George G.Kaufman, 2001, *Emerging Economies and International Financial Centers, Review of Pacific Basin Financial Markets and Politics* Vol.4, No.4(2001) 365-377

GMI, 2006, *The Anholt City Brands Index: How the World Views Its Cities*

GMI, 2007, *The Anholt National Brands Index: How the World Views Its country*

H.Ahn, 2003, *The Determinants of International Financial Centers and Their Implications for Korea(in Korean)*, CNAFC Research Series 03-04, Korea Institute for International Economic Policy

H.Kim et al, 2006, *Corporate Restructuring Market in East Asia(in Korean)*, Korea Securities Research Institute

Heritage Foundation and Dow Jones & Company, 2007, *2007 Index of Economic Freedom*

International Institute for Management Development, 2007, *IMD World Competitiveness Yearbook 2007*

International Monetary Fund, 2000, *Offshore Financial Centers, The Role of the IMF*

Invest Korea, 2006, *Comparative Study of Investment Environment in Korea, Singapore and Taiwan: Comparison of Investment Promotion Agency, Incentive Programs and Investment Environment in Each Country*

Invest Korea & KOTRA, 2007, *Guide to Living in Korea 2007*

Invest Korea & KOTRA, 2006, *Invest KOREA*

Investment Company Institute, 2006, *Fact Book 2006*

J.Kim et al, 2007, *Development of the Asset Management Market for a Financial Hub in Korea(in Korean)*, Korea Securities Research Institute

J.V. Beaverstock, R.G.Smith and P.J. Taylor, 1999, *A Roster of World Cities, Cities* Volume 16, issue 6, 445-448

James Laurenceson and Kam Ki Tang, 2005, *Shanghai's Development as an International Financial Center, Review of Pacific Basin Financial Markets and Politics*, Vol.8, No.1(2005)147-166

Jessie P.H. Poon, 2003, *Hierarchical Tendencies of Capital Markets Among International Financial Centers, Growth and Change*, Vol.34, No.2(Spring 2003), pp.135-156

Korea Institute for International Economic Policy, 2003, *Development of a Northeast Asian*

- Financial Hub in Korea: Cases Studies and Their Implications*(in Korean)
 KPMG, 2006, *KPMG's Corporate Tax Rate Survey 2006*
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R.W., 1997, *Legal determinants of external finance*, *Journal of Finance* 52, 1131-1150
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R.W., 1998, *Law and Finance*, *Journal of Political Economy* 106, 1113-1155
- MasterCard Worldwide, 2007, *Mastercard Worldwide Centers of Commerce Index*
- Mercer Human Resource Consulting, 2007, *2007 World-wide quality of living survey*
- Mercer Human Resource Consulting, 2007, *World's Top 100 Most Livable Cities*
- Michael Mainelli, 2006, *Global Financial Centers: one, two, three ... infinity?*, *The Journal of Risk Finance*, Vol.7 No.2, 2006, 219-227
- Monetary Authority of Singapore, 2006, *Singapore Asset Management Industry Survey*
- Organisation for Economic Co-operation and Development, 2006, *Employment Protection Legislation*
- Organisation for Economic Co-operation and Development, 2007, *Regulation of Financial Systems and Economic Growth*, working paper 506
- P.J.Taylor, D.R.F. Walker and J.V. Beaverstock, 2002, *Firms and their Global Service Networks*, S Sassen(ed)(2002) *Global Networks, Linked Cities New York*, London:Routledge, 93-115
- Price Waterhouse Coopers, *The World Bank*, 2006, *Paying Taxes: The Global Pictures*
- S. Joo, 2005, *International Finance Center: its conditions and effects*, *Economic Papers* Vol.8, No1, 145-160, Bank of Korea Institute
- S. Cho et al, 2005, *KRX Market Confidence Index*(in Korean), Korea Securities Research Institute
- Securities and Futures Commission of Hong Kong, 2006, *Hong Kong As a Leading Financial Centre in Asia*
- Seoul Development Institute, 2006, *The Policy Direction of Foreign Direct Investment in Seoul*
- The Banker, 2006, *Top 1000 World Banks*
- The City of New York, United States Senate, 2007, *Sustaining New York's and the US' Global Financial Services Leadership*
- The Fraser Institute, 2006, *Economic Freedom of the World 2006 Annual Report*
- The World Bank, 2007, *Doing Business 2007: How to reform*

The World Federation of Exchanges, 2006, *Annual Report 2006*
 UBS, 2006, *Prices and Earnings*
 Union of International Association, 2006, *International Meetings Statistics for the Year 2005*
 United Nations, 2005, *Global E-Government Readiness Report 2005, From E-government to E-inclusion*
 United Nations, 2006, *World Investment Report 2006*
 United Nations Development Programme, 2006, *Human Development Index*
 Vault, 2006, *Top 100 Law Firms 2007 Rankings*
 Vault, 2006, *Top 40 Accounting Firms 2007 Rankings*
 Vault, 2006, *Top 50 Consulting Firms 2007 Rankings*
 World Economic Forum, 2006, *The Global Competitiveness Report 2006-2007*
 World Economic Forum, 2006, *The Global Information Technology Report 2006-2007*
 World Economic Forum, 2007, *The Travel & Tourism Competitiveness Report 2007*
 Yi-cheng Liu and Roger Strange, 1997, *An Empirical Ranking of International Financial Centers in the Asia-Pacific Region, The International Executive*, Vol.39(5)651-674

Airports Council International	www.airports.org
bilaterals.org	www.bilaterals.org/
CFA Institution	www.cfainstitute.org
International Labour Organization	www.ilo.org
Joint Commission International	www.jointcommissioninternational.com
Legal Business	www.legalbusiness.co.uk
Ministry of Finance and Economy, Korea	www.mofe.or.kr
Monetary Authority of Singapore	www.mas.gov.sg
The fn HUB Korea	www.fnhub.go.kr
The IMD World Competitiveness Yearbook, Online version	www.imd.ch/wcc
Thomson Datastream	www.datastream.com
Union of International Association	www.uia.org
World Federation of Exchanges	www.world-exchanges.org