Factors Influencing the Urban Real Estate Market in India

by

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Submitted to the Center for Real Estate and the
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in Partial Fulfillment of the Requirement for the Degrees of

Master of Science in Real Estate Development

and

Master of City Planning

at the

Massachusetts Institute of Technology
January, 1996

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Submitted to the Department of Architecture and Urban Planning
on February 13th, 1996 in partial fulfillment of the requirements of the
Degree of Master of Science in Real Estate Development and
Master of City Planning

ABSTRACT

The Indian economic reform program of 1991 has spurred the growth in demand for commercial and residential real estate in urban areas. This increased demand has not been fulfilled because the government has not yet reformed the real estate institutional infrastructure. These institutional constraints have caused substantial delays in supply of new property.

The combination of excess demand and institutional constraints have caused dramatic price increases in the urban real estate markets. Valuation analysis of commercial property in three major cities suggests that current prices include substantial premiums. The extent of the premium varies between the three cities. Rents would have to grow substantially in order to justify the current market prices.

The various legal and regulatory constraints that have helped create shortages are currently being reviewed by the government. Legal and institutional reforms will result in a decline in prices over time.

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INTRODUCTION

Many investors have been attracted to the prospect of earning superior returns in emerging markets such as India. Their decisions are often constrained by the lack of reliable information and a rigorous framework for assessing the risks and returns available in this unique environment. On one hand, investors are lured by seemingly extraordinary returns that have been sustained over the last five years. On the other hand, they are anxious about unusual risks caused by an unfamiliar political, economic, legal, regulatory, and investment environment.

The purpose of this thesis is threefold:

1. To provide potential investors with information about the unique characteristics of the Indian real estate environment including changes underway that will lift property rights restrictions for foreign investment;
2. To analyze whether the price increases in the top grade commercial real estate market are rational and sustainable assuming an efficient market and, if not, what future demand and supply factors within the Indian context can justify the higher anticipated prices; and,
3. To determine whether there is a window of opportunity for investment once property rights restrictions are lifted.

This thesis is divided into six chapters. The first chapter analyzes the political and economic systems in India. These systems define the context in which the real estate market will grow. The second chapter examines the economic reform program that was initiated in 1991. In the last five years, economic reforms have created a significant increase in demand for real estate in Indian cities. The third chapter discusses the unique structure of the Indian real estate market and analyzes how India's social norms and regulations result in a market with excess demand. The shortages are the result of real estate institutional structures that have not kept pace with the demands of the new economy. The fourth chapter discusses price increases in the urban real estate market. This analysis is focused on the commercial market in three major cities - Bombay, Delhi, and Bangalore. These cities represent a cross section of the urban environment in India. Bombay is the commercial center; Delhi is the political center; and Bangalore is an emerging commercial center. Each city is in a different part of the real estate cycle. This chapter looks at prices for office space in the three cities, compares them to other Asian cities, analyzes price trends within and across these cities. Chapter 5 examines returns to determine the economic basis for price increases. Chapter 6 summarizes conclusions from previous chapters and makes recommendations to potential investors.

Chapter 1: Political And Economic Context

BACKGROUND

As an emerging economy, India is a country with enormous potential. Its population represents about 20 percent of the world, and its India's middle class of 150-200 million represents a market comparable to Western Europe or the United States. English is the primary language of business and government. The educational system in India provides a rich pool of technical experts who represent a potent source of future growth for the economy. Its legal and financial systems are based on the British system and have been in place for more than 50 years. Although 48 percent of the population is illiterate, India has a vast pool of highly educated people, including an estimated 2 million engineers and scientists, 10 million graduates from various disciplines and a total of almost 50 million people educated to higher secondary level.

These positive factors are tempered by a high poverty rate, archaic laws that impede the functioning of the economy, and a bureaucratic and often corrupt administrative and government system with enormous power to intervene.

CURRENT POLITICAL SYSTEM

India is a stable democracy with a parliamentary system based on the British model. There are six major national parties - Congress (I), BJP, Janata Dal (JD),Communist Party of India (CPI-M), Communist Part of India(CPI) and Janata Dal (S), and numerous regional parties. The Congress Party which has been the primary driving force behind the economic reform policies has been in power for 44 of the 47 years since India became independent.

Despite this apparent stability, the policies of the government are subject to populist pressures. Individual state governments have a considerable amount of power to influence economic development, define economic conditions, and drive the course of development. Seven of India's 25 states have populations that exceed that of the United Kingdom. If India's largest state Uttar Pradesh was an independent country, it would ranks fifth in the world by population. The populist pressures facing individual states, makes it important to understand regional politics while assessing the attractiveness of real estate investments in different urban areas.

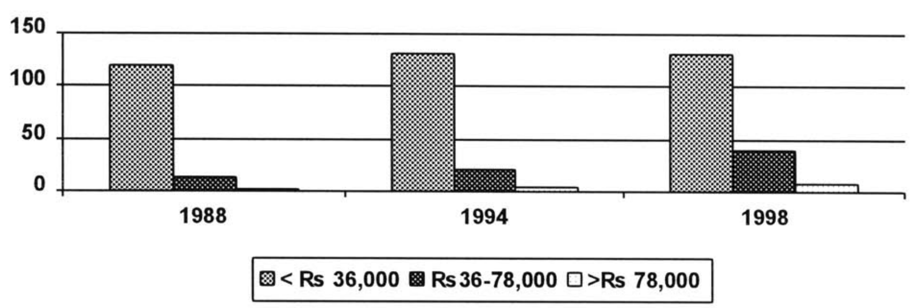
The next general elections in India will be held in May, 1996. The future political climate will play an influential role in determining the future course of the reform process that was initiated by the current Congress government. The current Congress government came to power as a minority government during the May-June, 1991 election campaign. The Congress party depended on the support of other parties until they gained a majority government in December of 1993.

POPULATION

With a population of 900 million, India is the second most populous country in the world, growing at about 2.4 percent annually. The middle class, growing at a slower rate of about 1.5 percent annually, represents approximately 150-200 million of this total. This class alone represents a market that is comparable to that of many developed economies.

Although the middle class urban population is large, it is important to recognize the extent of poverty in India. In many cases, the poor and rural population - the majority of India - drive government policies and priorities. Recent government data shows that 26 percent of the population (close to 215 million people) live below the poverty line. Table 1.1 shows the distribution of household income and illustrates the rapid growth in the number of households in the higher income categories.

TABLE 1.1 : DISTRIBUTION OF HOUSEHOLDS BY INCOME (MILLIONS)

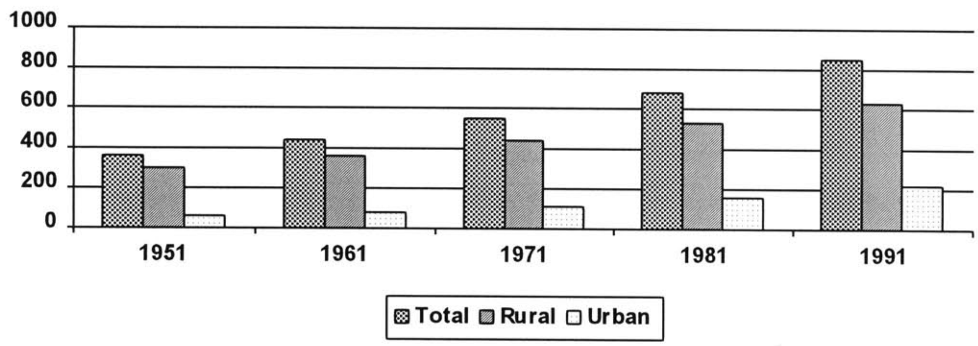


1998 forecast
Source: Jardine Research

Almost 75 percent of the population in India live in the rural areas. Recent trends, however, have shown a gradual shift from rural to urban areas. According to the UN, the urban population expanded by

3.6 percent annually during 1960-92. If present trends continue, by the year 2000 one-third of India's population will be living in urban areas. Greater details on future trends in urbanization and migration are discussed in chapter 2.

TABLE 1.2: POPULATION TRENDS (MILLIONS)



Source: Euromoney

The urban population of over 200 million live in 3301 cities and towns. Most of these have a population base of less than 1m. The largest urban centers are shown in Table 2.3.

TABLE 1.3: POPULATION IN MAJOR URBAN CENTERS (1991)

Bombay	12.6 (million)
Calcutta	11.0
Delhi	8.4
Madras	5.4
Hyderabad	4.3
Bangalore	4.1

Source: Economic Intelligence Unit (EIU), 1991

Major cities, such as Bombay, have experienced a high rate of migration from rural areas. This phenomenon has important consequences for the urban residential real estate market in India. Although there is a demand for housing from this migrant population, a large proportion will not be able to afford a home and will live either with relatives or in slums. Estimates indicate that 51 million people in India live in slums, more than two million are homeless, and nearly half the urban households live in crowded one-room apartments.

THE INDIAN ECONOMY

Structure and Performance

India has the world's fifth largest economy based on GNP in purchasing power parity. However, its large population results in a $1210 GNP per head. This pulls the ranking down to 100th, based on per capita GNP. India ranks as the tenth largest industrial nation in the world, with 14 percent of the work force employed in industry and mining. However, India is predominately an agrarian economy with 68 percent of the work force employed in agricultural activities. Agriculture, along with forestry and fishing, contributes about a third of the national GDP. The composition of India's output has changed since independence (table 1.4). The agricultural sector has declined from 56 percent of the GDP in 1950 to 32 percent in 1992. This decline has been largely made up by growth in the manufacturing, trade and communications, and banking, insurance and real estate sectors.

TABLE 1.4 : CHANGE IN COMPOSITION OF INDIA'S OUTPUT

	1950-51 *% of GDP*	1970-71 *% of GDP*	1980-81 *% of GDP*	1992-93 *% of GDP*
Agriculture, Forestry, Fishing, Mining & Quarrying	242.04 *56.50*	413.85 *45.80*	485.36 *39.64*	717.46 *32.31*
Manufacturing, Construction, Gas and Electricity and Water	64.51 *15.00*	202.09 *22.30*	298.28 *24.36*	59.08 *26.88*
Transport, Trade and Communication	47.18 *11.00*	128.84 *14.20*	204.37 *16.69*	406.83 *18.32*
Banking, Insurance and Real Estate	38.70 *9.00*	72.56 *8.00*	107.91 *8.81*	243.11 *10.95*
Public Administration and Defense	36.28 *8.50*	86.92 *9.70*	128.35 *10.48*	256.41 *11.55*
GDP	428.71 *100.00*	904.26 *100.00*	1224.2 *100.00*	2220.89 *100.00*

Source: Reserve Bank of India, India Report by Indo-American Chamber of Commerce

India's economic performance during the last four decades presents a mixed picture. It has not had the spectacular growth rates of the Asian tigers on the positive side, but it did avoid the debt crisis that made the 1980s a lost decade for many Latin American and African countries. Growth in GDP averaged 3.8 percent in the 50s, 2.5 percent in the 60s, yet grew to over 5.6 percent in the 1980s. However, these growth rates are very low, when adjusted for the 2.2 percent average growth in population. During the period 1965-1990 GDP grew at an average rate of 3.6 percent whereas per capita income only grew at an average rate of 1.8 percent.

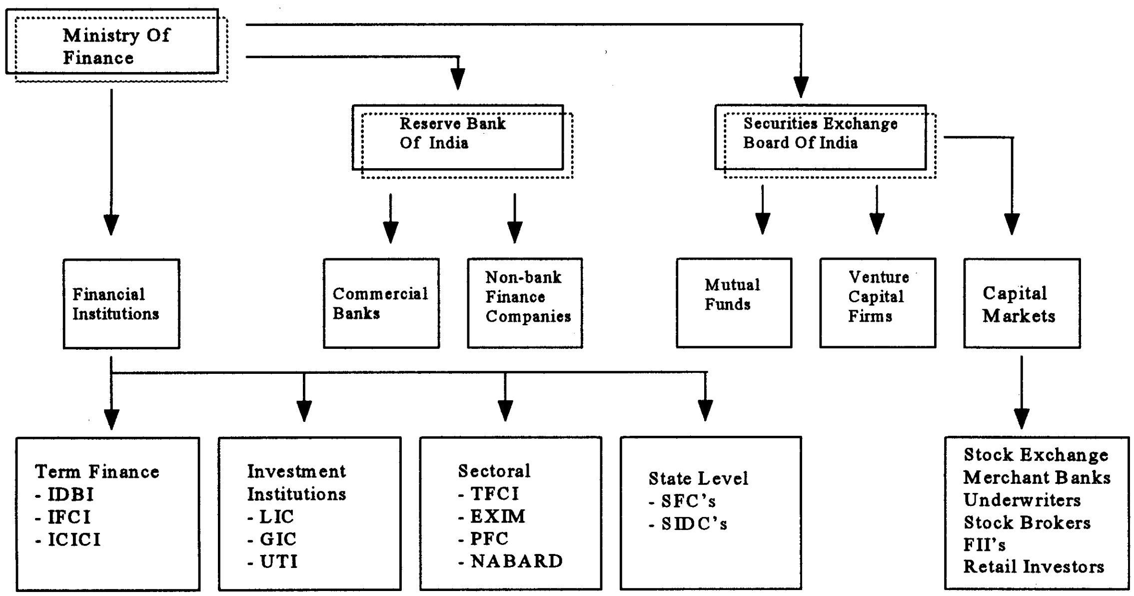
Compared to other developing countries, India's recent development trends have been positive. In 1991-92, total employment grew by 3 million. In each of the two years thereafter, employment increased twofold, with 6 million new jobs added each year. Foreign trade is not a major proportion of the Indian GDP. Imports were 9.3 percent and exports 7.7 percent of GDP in 1992-93. The Indian Economy has experienced steady GNP growth, moderate inflation, and adequate foreign exchange reserves. These trends are discussed in more detail in chapter 2.

FINANCIAL AND CAPITAL MARKETS

Financial Institutions

Prior to 1991, the financial markets were characterized by a predominately government-owned financial system. The government, through a pervasive regulatory structure, segmented the flow of capital between commercial banks and specialized financial institutions based on maturity and type of instrument. Interest rates were mandated and did not reflect shortage of capital or credit risk. There was substantial control on the issuance of securities (debt and equity) by the private sector, including constraints in managing and choosing assets and liabilities mix for private companies. Debt financing by the corporate sector was composed mostly of cash credit facilities for working capital, long term loans for project financing, and privately placed non-convertible debentures with investment institutions. Since then, reforms have resulted in a substantial relaxation of regulations. This has led to strong growth in private debt and equity markets. An overview of the Indian financial system is summarized in the diagram below:

OVERVIEW OF THE INDIAN FINANCIAL SYSTEM



Source: World Bank Report - The Emerging Asian Bond Market, India, 1995

Indian financial markets have been dominated by government and quasi-government institutions. The financial system is driven by regulatory bodies and financial institutions that focus on different sectors of the financial market.

Regulatory Bodies:

The Ministry of Finance defines narrow parameters within which financial institutions can operate. In addition to the direct authority of the Ministry Of Finance, India's financial markets are regulated by the Reserve Bank and the Securities Exchange Board of India (SEBI). These organizations effectively control the debt and equity markets through their ability to regulate interest rates, public debt, equity issues, and foreign investment.

Financial Institutions:

The financial institutions are directly regulated by the Ministry of Finance. They channel investment funds from savings and other capital sources to the equity and debt markets. These institutions are tightly regulated on the types of investment they can make, resulting in an inefficient capital market. Like other aspects of the economy, capital markets are undergoing a transformation towards more free market policies.

There are four major categories of financial institutions which control the majority of capital available in India.

1. Commercial Banks. These banks accept deposits through the branches which are spread out throughout the country. After the reform, regulation on interest rates on deposits and loans and asset allocation decisions have been relaxed. Today, banks are given increasing discretion in term finance. This discretionary lending is mainly to industry in the form of short -term cash credit. There are, however, regulations on the proportion of deposits required to be invested in government issued and guaranteed securities, as well as to the 'priority' sectors that are determined by the government.

2. Term-lending Institutions. These finance the private corporate sector on a long-term basis. They have a limited range of instruments for primary mobilization of savings. They are primarily funded through government guaranteed securities, which are based on market-driven prices. Today the interest rates on term finance are completely deregulated.

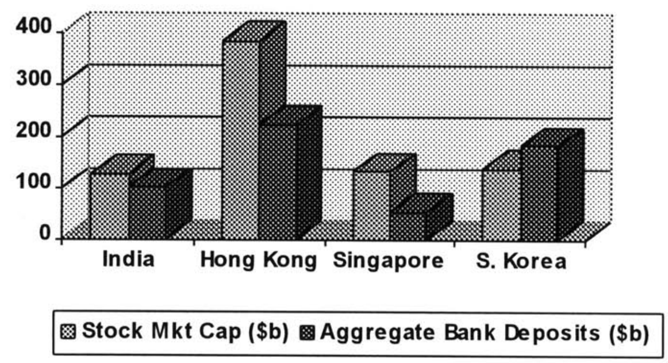
3. Provident, Pension and Trust Funds. These are strictly regulated by the government in order to provide a safe return to investors. Recently, they have been given limited permission to invest in government and semi-government agency bonds.

4 Investment Institutions. These include life and general insurance companies and the Unit Trust of India (UTI). Insurance companies have restrictions on the amount of investment allowed in corporate securities. They invest in government-issued and government-guaranteed securities. The Unit Trust of India is a government-owned mutual fund and has played an important role in the institutional finance of the private corporate sector. It currently manages assets of Rs. 525 billion. As compared to other government agencies, the UTI has the maximum flexibility in terms of asset allocation.

Capital Markets

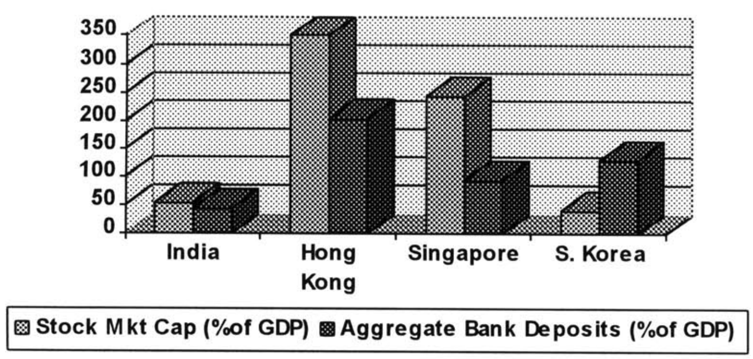
Indian securities market is still small compared to other Asian markets. Indian stock market capitalization is only 56 percent of the GDP as compared to 350 percent for Hongkong and 242 percent for Singapore (table 1.5A and 1.5B).

TABLE 1.5A: COMPARISON OF INDIA'S CAPITAL MARKETS WITH OTHER ASIAN COUNTRIES ($B)



Source: The Emerging Asian Bond Market, World Bank, India, 1995

TABLE 1.5B: COMPARISON OF INDIA'S CAPITAL MARKETS WITH OTHER ASIAN COUNTRIES (PERCENT OF GDP)



Source: The Emerging Asian Bond Market, World Bank, India, 1995

Indian Stock Market

India has 23 stock exchanges, including the Over-the Counter Exchange which has more than 7000 listed companies and an aggregate market capitalization of US $130 billion. Prior to reform, the stock market was illiquid and trading volumes and market capitalization were small. There has been a significant increase in the activities and size of this market in the post reform era. However, when compared to international standards, India has not only a small market capitalization but also a low trading volume. Only fifty companies account for approximately half of the total market capitalization of Rs.5277 billion, as of August, 1994, and these fifty companies account for 67 percent of the total trading volume on the Bombay Stock Exchange.

The Bombay Stock Exchange (BSE) accounts for over 70 percent of the number of listed companies as well as market capitalization. Over two-thirds of the secondary market trading occurs on this exchange. The volume of trade from January 1994 to November 1994 was US $24.74 billion, and the market capitalization of US $127.5 billion is 51 percent of India's GDP. Mutual funds own approximately 11 percent of the total market capitalization. The oldest mutual fund, UTI, which is government controlled, still owns 9.5 percent out of the 11 percent and has virtually been a monopoly until recently. The size and volume of the Bombay stock exchange make Bombay an important financial center for India, and consequently an attractive city to locate corporate headquarters.

Indian Debt Market

The beginnings of an active debt market started in 1991, with the partial deregulation of interest rates and the emphasis on monetary policy in stabilization. Table 1.6 shows a summary of the major components of the Indian debt market.

TABLE 1.6: INDIAN DEBT MARKET: A SNAPSHOT (RS. BILLION)

Segment as on March 31,	**1986**	**1994**
Central Government Bonds	613	1399
of which		
a) Dated Securities	353	1132
b) T-bills	260	267
State Government Bonds	61	261
Government Guaranteed Bonds	125	364
PSU Bonds	4	270
Corp. Debentures*	100	330
Commercial Paper	-	33
Certificate of Deposit	-	59
Total	903	2716
Annual Growth rate	14.77%	

Source: The Emerging Asian Bond Market, The World Bank, India, 1995 * Estimates - indicates nil*

Bond Market

Government issued bonds account for most of the public debt in India. The government issue of bonds at market-driven coupon rates helped the process of financial reform, since new debt instruments could be priced using the yield on government securities as a benchmark. Based on the estimated value of bonds outstanding, the Indian Bond market is the third largest in Asia, after Japan and Korea. As of January 31, 1995 it is estimated to be Rs. 3000 billion (about 42 percent of the GDP), an increase of 350 percent since 1986. Though the yields have been attractive, there is virtually no secondary market for bonds.

Historically, the bond market has been dominated by government bonds, which were issued to meet the financing needs of the central and state governments. The largest proportion of private sector bonds are mortgage-secured debentures issued by private manufacturing companies. As of March 1994, there were 1500 bonds and debenture (of private and public sector companies) with a face value greater than Rs. 200 billion listed on the stock exchange. However, there is almost no secondary market for these instruments. This is because India has a narrow investor base for bond investments. Today, insurance companies and provident funds are the typical investors in bonds. The lack of an active secondary market leads to illiquidity. The extent of illiquidity is startling when compared to the Rs.3 trillion or US $86 billion size of the overall Indian bond market. (Table 1.6).

Global Markets

In the past, direct foreign investments in the Indian capital market were restricted to Non Resident Indians (NRI) and Overseas Corporate Bodies (OCB), who were required to have 60 percent ownership by NRIs and approved offshore Indian Country Funds. Subsequently, the government permitted certain Indian companies to access global capital through equity and convertible debt. Several Indian companies have raised capital from international capital markets through Global Depository Receipts (GDR) and Foreign Currency Convertible Bonds (FCCB). (See table foreign investment section.)

In September 1992, Foreign Financial Institutions (FII) such as pension funds, mutual funds, asset management and nominee companies were allowed to invest in listed equities in India. This policy has led to the registering of 275 FIIs and 26 foreign brokers in India. The presence of these foreign institutions has increased India's exposure to the global financial market.

CHAPTER 2: ECONOMIC REFORMS AND GROWTH OF THE INDIAN ECONOMY

The economic reform program initiated in 1991, has been the primary factor driving the dramatic increase in demand for urban real estate in India. The robust growth and investment created by the economic reforms has led to an increase in commercial activity in urban areas. This in turn has created a demand for new commercial real estate.

The increase in demand has resulted in a dramatic price increases for urban real estate since the government has maintained the restrictive legal, regulatory and institutional characteristics of the Indian real estate market. This chapter addresses the factors driving the increases in demand. The next chapter covers the restrictive institutional and legal structure that has resulted in extraordinary price increases.

ECONOMIC REFORM PROGRAM

The Indian economy is undergoing a transformation. Since 1991 the government initiated a series of fundamental structural reforms in trade policy, industrial and financial regulations, and fiscal and monetary policy to achieve growth without sacrificing macroeconomic stability. These policies have resulted in a revitalization of the economy and have been the primary driving force behind the real estate boom in major urban centers.

Rationale

In 1991, the Indian government was faced with a major economic crisis. Debt levels had increased from US $25 billion in 1980-81 to US $55 billion in 1989. Debt service increased from 9.1 percent of exports in 1980 to 26.4 percent in 1989. The current account deficit averaged approximately 2.2 percent of GDP during 1985-90, primarily due to a fall in net invisibles. Higher import costs of oil due to the Gulf war aggravated the situation. The government faced a severe balance of payment problem.

The composition of external borrowings had changed from low interest rates debt from multilateral institutions to higher cost commercial borrowings. This put further strain on the economy and on the availability of foreign exchange reserves. The immediate crisis occurred in the context of the collapse of the Soviet Union, one of India's primary trade partners. These economic pressures forced the government to implement several measures in order to restore economic stability and open the economy.

Objectives

The key economic objectives of the liberalization process were to:

- achieve an average GDP growth of 6 percent per annum by 1995-96;
- reduce the inflation rate to 5 percent by 1995-96
- stabilize the Balance of Payments

As part of the liberalization process many public sector industries were opened up to the private sector, a large part of the industrial licensing system was dismantled, foreign investment was encouraged, tariff rates were reduced, import was liberalized, approval processes were streamlined, income tax rates were reduced, the currency was made partially convertible, and exchange controls were lifted.

Soon after the liberalization policy of 1991 was adopted, a large number of local companies and foreign investors looked for new opportunities in India. This put pressure on the existing supply of real estate in major urban centers for both commercial and residential space.

Financial Sector Reform

One of the pillars of the overall liberalization policy was the reform of the financial sector of the Indian economy. Prior to 1991, the government regulated and controlled every aspect of the financial markets. Major sources of capital such as commercial banks and insurance companies were directly owned by the government. Their operations were tightly constrained and monitored. Interest rates were administered, markets were segmented between commercial banks and specialized financial institutions by maturity and instruments, choice of asset-liabilities mix was controlled to some extent, private sector debt and equity issues were extensively controlled. The primary objective of the financial sector reform was to promote a diversified, efficient, and competitive financial system by a policy shift from excessive regulation and controls to one based on market forces. A few detailed objectives involved:

- developing a transparent and efficient capital and money market by replacing tight controls and regulation with prudent regulations and operational freedom.

• rationalizing interest rates, adopting prudent norms such as capital adequacy and income recognition in conformity with global standards, reducing resource pre-emption and in directed credit programs for banks;

• achieving a better integration with global markets; and,

• introducing new competition into a financial system that was primarily government controlled.

Examples of the actions taken to meet these objectives are shown below:

1. New competition was introduced into the formerly government-owned financial system. In the banking sector, existing nationalized banks are now encouraged to raise public equity, banking licenses are being issued to companies in the private sector and Indian banks are permitted to have joint ventures with foreign banks.

2. The non banking sector has seen a rapid growth in the number of new entrants and a large influx of foreign institutional investors (FII). Many private sector mutual funds have been established, and over 300 FII's have set up operations in India since April 1993.

2. Interest rate ceilings on inter-bank call money was removed.

3. New money market instruments such as commercial paper, inter-bank participation certificate and certificates of deposits were introduced.

4. Interest rates that were once administered are now largely determined by market forces.

3. The Statutory Liquidity Ratio(SLR) mechanism for pre-emption of bank deposits was reduced from 38.5% prior to reform to 31.5% and is 25% on incremental deposits beyond the base level.

4. Government securities that were previously used only for funding fiscal deficits, are now also being used as instruments of internal debt management, monetary management and short-term liquidity management.

5. Private corporations were permitted to raise funds from global markets through the issuance of GDRs and FCCBs.

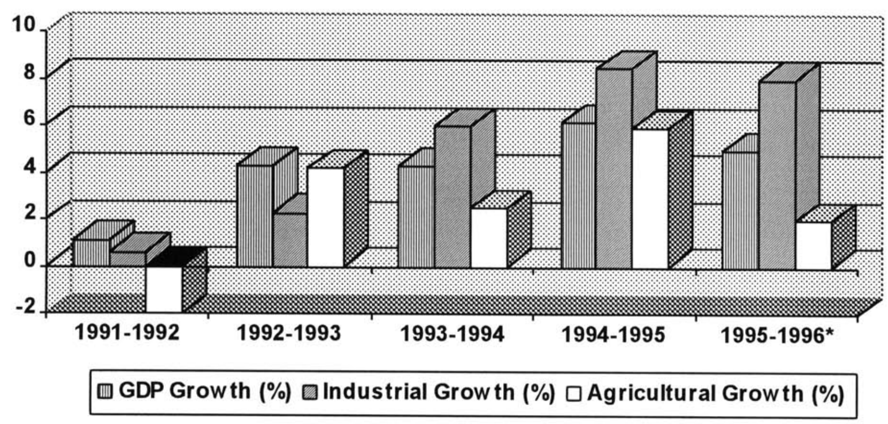
Economic Performance

The results of the economic reform program has been a transformation of the Indian economy from a managed and controlled economy to a free market economy. This transformation is creating economic opportunities for domestic and international companies and creating a modern infrastructure to support growth of previously stagnant parts of the economy. The urban real estate market is one of the areas directly affected by this transformation. Here, the increase in economic activity is creating new demand, and changes in the financial and institutional structure are creating the opportunity for the industry to reshape itself.

Growth

Economic growth has been strong (Table 2.1). From a low of 1.1 percent GDP growth in 1991-1992 the real growth rate has picked up to 6 percent in 1994. This growth has been fueled by the rapid growth of the industrial sector from a growth rate of under 1 percent in 1991-1992, the industrial sector has grown at a rate of over 8 percent in 1994-1995. Strong industrial growth is projected to continue at this rate by the CMIE.

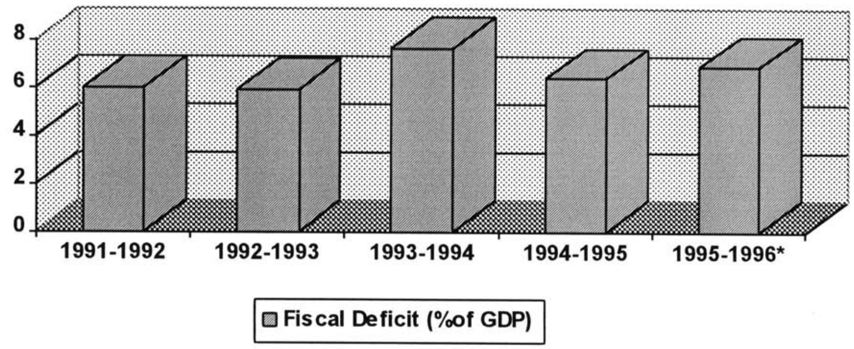
TABLE 2.1: GROWTH IN GDP (%)



Source: CMIE
** projected*

The current growth rate is not significantly higher than the period between 1985 and 1990 when growth averaged 5.7 percent. However the growth in the 1980's was possible because of large fiscal deficits and balance of payments imbalances. The government's fiscal deficit had averaged close to 8 percent in the period between 1985 and 1990 and reached a peak of 9 percent in March 1990. By the end of the 1980's interest payments on debt accounted for over 4 percent of the GDP and accounted for half the increase in government expenditure. Subsidies on food and fertilizer, trade deficits, and persistent public sector subsidies contributed to increasing levels of debt. This pattern of deficit induced growth has been brought into control through the reforms. The public sector deficit was brought down from over 12 percent in 1990-1991 to a more reasonable 7 percent by 1994 (Table 2.2). This was achieved through significant cuts in government expenditure - often in the form of reduced capital spending in the public sector. These cuts were often made in conjunction with policy initiatives to open up new sectors of the economy to the private sector.

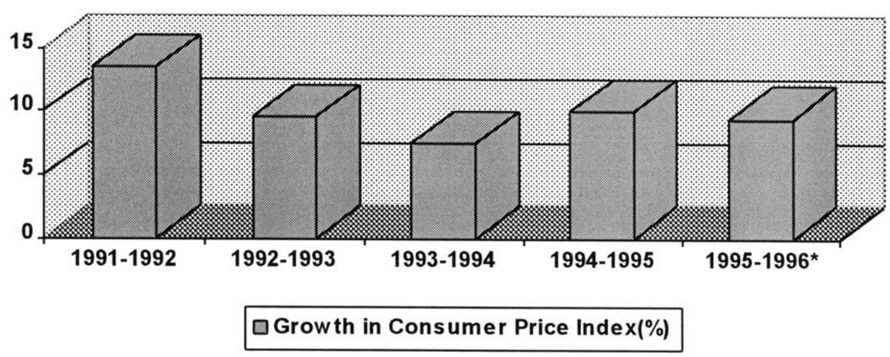
TABLE 2.2: FISCAL DEFICITS(% OF GDP)



Source: CMIE
** projected*

Since the reform program started in 1991 the government has tried to keep inflation below the psychologically comfortable level of 10 percent. Inflation declined from a peak of 17 percent in mid 1991 to 7 percent in the second half of 1993. During the last five years the government has taken steps to tighten the money supply every time inflation shows signs of increasing.

TABLE 2.3: GROWTH IN THE CONSUMER PRICE INDEX



Source: CMIE
** projected*

Balance of Payments

During the four years since reform, there has been a significant turnaround in the external payment position of India. A lower current account deficit from 3.3 percent of GDP in 1990-91 to below 0.5 percent in 1993-94 was achieved by an improvement in the export/import ratios and an increase in inflows in the 'invisibles' account. There was also less dependence on financing current account deficits through external commercial borrowings as seen from the high ECB/TC ratio of 25 percent in 1985-86 as compared to 9.1 percent in 1993-94.

TABLE 2..4 : KEY FACETS OF INDIA'S BALANCE OF PAYMENTS

	1980-81	85-86	89-90	90-91	91-92	92-93	93-94
A. Trade Deficit	7546	9436	7456	9437	2798	4368	1285
B. Invisibles	5451	2967	616	-242	1620	842	970
C. Current A/c							
Deficit (A-B)	2095	7835	6840	9680	1178	3526	315
D. Capital A/c Flows							
of which	1442	7258	5738	8402	4754	4254	9183
a) NRI Deps	n.a.	n.a.	2403	1536	290	2001	940
b) Ext Asst.	n.a.	n.a.	1856	2210	3037	1859	1700
c) Comm. Borr.	n.a.	n.a.	1777	2249	1456	-358	839
d) Foreign Invt.	n.a.	n.a.	n.a.	68	154	585	4110
e) IMF	-10	-207	-877	1214	786	1288	191
f) Others	n.a.	n.a.	579	1125	-969	-1121	1403
g) Export/Import(%)	52.4	54.7	69.5	66.2	86.7	81.2	94.6
E. Change in Reserves (D-C)	-653	-577	-740	-1278	3576	728	8868
n.a. indicates not available							

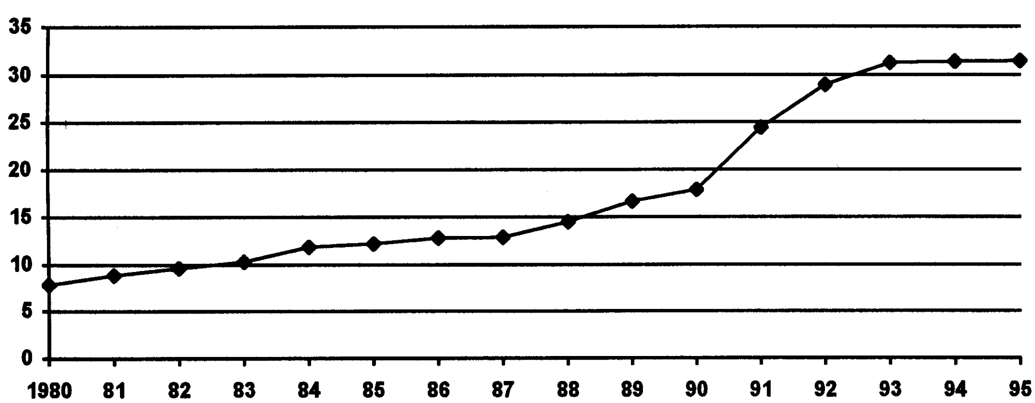
Source:
Economic Survey: Various Issues and World Bank Report - The Emerging Asian Bond Market, India, 1995

Currency

In August of 1994, the rupee became convertible on the current account, subject to the Reserve Bank of India's (RBI) limits on outward remittances. Currently, partial convertibility of the rupee is allowed on the capital account. However, at present, there are restrictions on the repatriation of profits from operating real estate. Full conversion should be possible within a few years. The reason for partial conversion is that the government fears capital flight and excessive exchange rate volatility if all the restrictions are removed at once.

Future exchange rate volatility poses a major source of risk to foreign investment. However, as table 2.5 illustrates, the rupee has been fairly stable after convertibility was permitted in August, 1994. In the period since the reform program was initiated exports have been strong with growth of 20 percent in 1993-1994 and 17 percent between 1994-1995. These developments occurred even though the rupee appreciated versus the dollar in 1993-1994.

TABLE 2.5: EXCHANGE RATE RS/US $

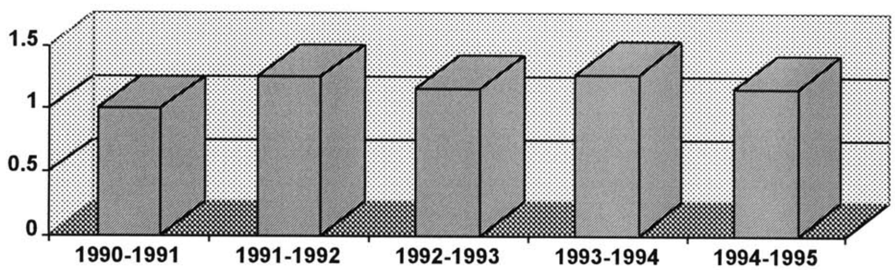


Source: IMF, International Finance Statistics
Note: Dual exchange rate in 3/92 was reunified in 3/93. Market rate during this period was Rs.30.65/$.

The World Bank explains the strong export performance through an analysis of the real effective exchange rates as shown in table 2.6. The weighted average of bilateral exchange rates in relation to India's trading partners weighted by their share of India's total trade actually experienced some depreciation. This is partly because of the decline of the US dollar in relation to other currencies.

Productivity gains through the reform program and trade liberalization policies also contributed to the strong export performance.

TABLE 2.6: REAL EXCHANGE RATE INDEX (US$) (NOMINAL EXCHANGE RATE DIVIDED BY THE WHOLESALE PRICE INDEX)



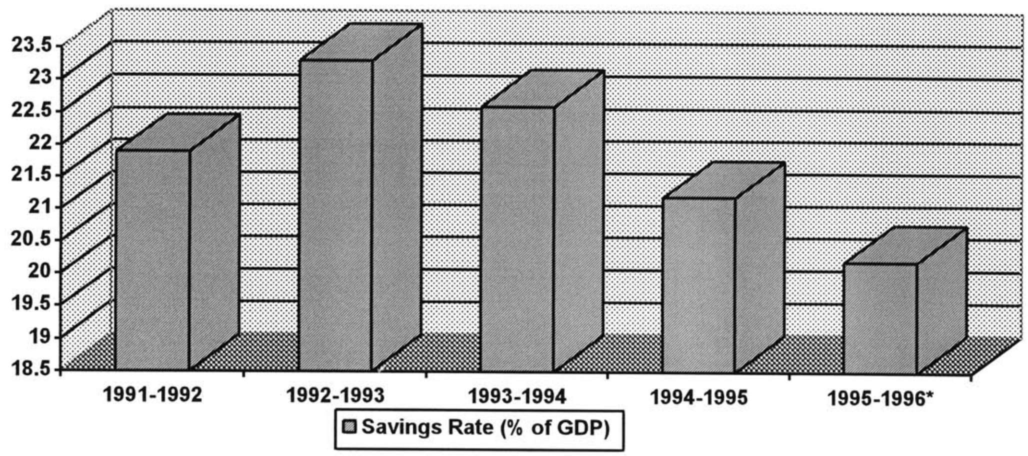
Source: IMF, World Bank (Economic Development In India, Achievements and Challenges)
Index increase = depreciation

Saving and Investments

Domestic Investment

The most significant concern in the current economic picture is the decline in overall savings rate. Table 2.7 shows the consistent declines in savings rates since 1992.

TABLE 2.7: SAVINGS RATE (% OF GDP)



Source: CS First Boston, Jardine Flemming (Far East Economic Review 4/6/1995)

The gross savings of households as a percent of the GDP has been consistently between 16 and 20 percent in India since 1980 (table 2.8A). Table 2.8B shows that there has been a shift in investments from intermediary institutions, such as banks and insurance companies, to the securities market and Unit Trust of India (UTI) units. There has also been a significant increase in the stock market capitalization, and bank deposits as a percent of the GDP (table 2.8B).

TABLE 2.8A: HOUSEHOLD SECTOR SAVINGS (RS BILLION)

Item	70-71	80-81	90-91	91-92	92-93	93-94
Gross Savings of the Household Sector *of which*	49	218	1078	1201	1206	1573
a) Physical Assets	20	132	615	581	656	763
b) Net Financial Assets	29	86	463	620	549	810
I) Bank Deposits (Gross)	8	55	166	208	255	349
ii) Share & Debentures	1	4	50	66	72	83
iii) UTI Units	-	-	34	91	56	65
iv) Provident, Life & Pension Funds	7	30	168	195	215	240
Gross Savings of Households as % of GDP	*11.3*	*16.1*	*20.2*	*19.5*	*17.1*	*19.6*

Source: RBI Report on Currency and Finance: 1993-1994 (Vol. II)
World Bank Report - The Emerging Asian Bond Market, India, 1995

TABLE 2.8B: INDICATORS OF FINANCIAL SECTOR DEVELOPMENT

(Rs. Billion)

Item	1985-86	1989-90	1990-91	1991-92	1992-93	1993-94
1. Stock Market Capitalization	222	554	1103	3541	1771	3984
2. Bank Deposits	845	1670	1925	2308	2686	3151
3. GDP at current prices	2338	4058	4727	5516	6279	7090
1 as a % of 3	8.9	13.7	23.3	64.1	28.2	56.1
2 as a % of 3	36.5	41.1	40.7	41.8	41.8	44.5

Source: CMIE, Basic Statistics Relating to the Indian Economy
World Bank Report on the Emerging Asian Bond Market, India, 1995

India's private savings rate is comparable to other high growth Asian economies. For example India's private savings rare of 18-21 percent since 1991(table 2.9), compares favorably to Japan (15.8% from 1981-1988), Malaysia (19.1% from 1981-1990), Singapore (24% from 1981-1990), and Thailand (14.6% from 1986-87). India's public savings rate of less than 2 percent is a fraction of the rates in Japan (5 percent, 1981-88), Malaysia (10.3 percent, 1981-1990), Singapore (18.5 percent, 1981-90), and Thailand (8.6 percent, 1986-87).

TABLE 2.9: PUBLIC AND PRIVATE SAVINGS IN INDIA

Year	Public Savings	Private Savings
1989-1991	1.3	21.7
1991-1992	2.1	21.0
1992-1993	1.5	18.5
1993-1994	0.2	19.9

Source: The World Bank

The current lack of public sector savings will constrain India's ability to compete in world markets by limiting the investment capital available for infrastructure development. It will also force the government to use a restrictive monetary policy to control inflation, resulting in higher interest rates and lower investment.

Foreign Investment

Prior to the 1980s, the primary inflow of foreign private capital consisted of a few small direct investments in joint ventures. After the reform process, there was a broadening of private sector capital flow. In 1993, FIIs were permitted to make portfolio investments in capital market instruments. Table 2.8 shows that FIIs invested close to US $1.7 billion in India during 1993-94. With the increase in demand for Indian securities, certain private sector businesses were granted approval to raise funds from the global capital markets in the form of Global Depository Receipts (GDR). During 1993-94, foreign investment inflows of US $4.1 billion formed 40 percent of the total capital inflow for the year. A higher proportion of total capital inflow is projected in 1994-95. Portfolio investments were the major contributor to foreign investment inflows. These investments increased from US $92 million during 1992-93 to US $3.49 billion during 1993-1994 and are expected to be in the same range during 1994-95. Foreign direct investments have also been rising. As table 2.10 indicates, most of India's foreign investment has come from developed Western economies.

TABLE 2.10: FOREIGN DIRECT INVESTMENT BY COUNTRY **(Rs. Millions)**

Country	1991	1992	1993	1994
				Jan-Mar
USA	325	1171	4786	255
UK	497	759	2324	1007
Netherlands	153	148	1131	361
Switzerland	2	547	1072	143
Japan	75	720	685	412
Sweden	4	59	415	64
Germany	554	580	401	814

Source: CMIE

A large increase in the percentage of foreign investments has come from the development of the financial sector (table 2.11). In addition to growth of pure equity issues, corporations have raised about $1 billion in foreign currency convertible bonds (FCCBs) during 1993-94 and 1994-95. An important change indicated in table 2.11 is that, for the first time, Indian companies accessed a large capital base from global capital markets through bonds and Euro-issues.

TABLE 2.11: FOREIGN INVESTMENT FLOW BY CATEGORY

(US $ MILLION)

		1991-92	1992-93	1993-94	1994-95*
A. Foreign Direct Investment		150	341	620	756
B. Portfolio Investment		8	92	3493	3141
of which					
Foreign Institutional Investment		0	1	1665	1195
Euro-issues/GDR		0	86	1463	1726
Offshore funds and Others		8	5	365	220
Total (A+B)		158	433	4113	3897
* April-December 1994					

Source: Economic Survey 1994-95, The Emerging Asian Bond Market, The World Bank, India, 1995

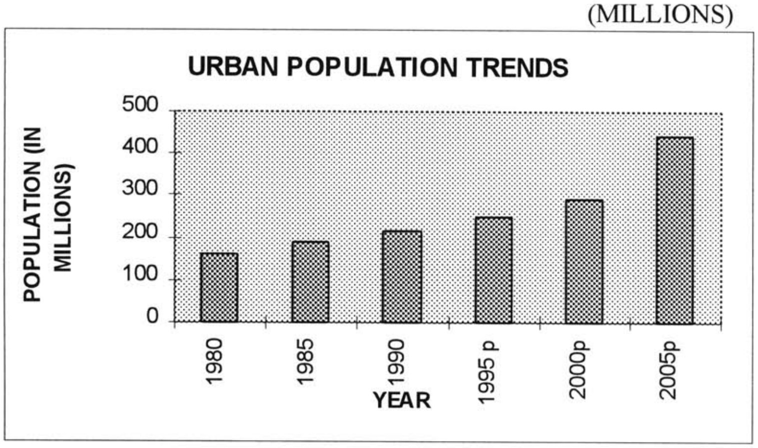
The majority of foreign investment and foreign institutions that have entered India as a result of the economic reforms has been concentrated on the largest urban areas. As a result it has played a substantial role in the prices of prime commercial and residential real estate in major urban centers. Future demand for prime property in the major urban areas will be strongly influenced by the level of foreign investment.

POPULATION GROWTH

Growth in the organized sectors of the economy is likely to have a disproportionate impact on the demand for real estate in urban areas. Increased economic opportunities will result in growth in the urban middle class and increased migration from rural to urban areas. These trends and projected growth rates are summarized in Tables 2.12 and 2.13.

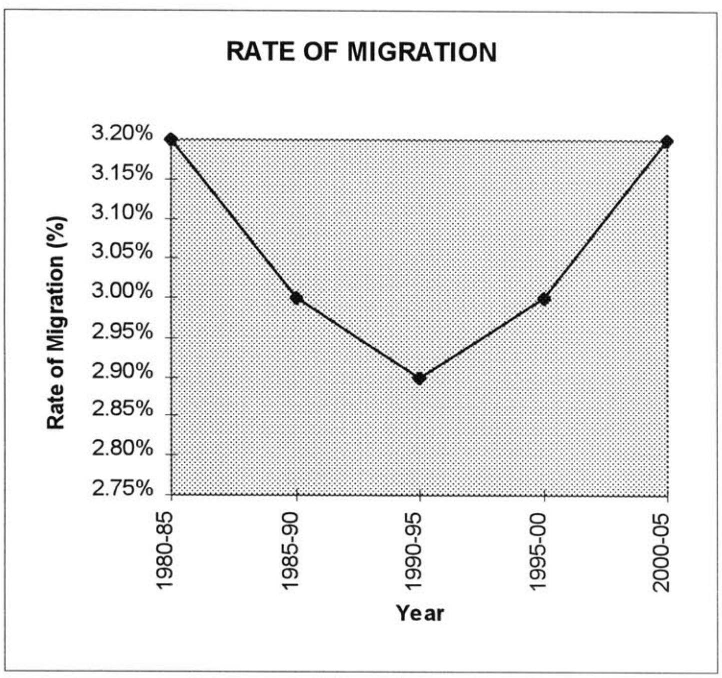
TABLE 2.12: URBAN POPULATION TRENDS

(MILLIONS)



Source: World Urbanization Prospects, 1994 Revision

TABLE 2.13: PROJECTED RATE OF URBAN MIGRATION



Source: World Urbanization Prospects, 1994 Revision

CONCLUSION

Underlying factors for sustained increase in demand are strong. The economic recovery program is resulting in an open, market-based economy that is poised to grow rapidly. This growth is supported by a rapidly growing urban population with increasing income levels. Opportunities within the Indian economy are also attracting foreign investment. This investment includes direct investment in commercial projects as well as capital flows into the Indian capital markets.

While the reform program has developed its own momentum, it is still vulnerable to policy changes based on the government's need to address the pressing issues of the rural population and of the lower income sections of the Indian population. The largest economic risk stems from the decline in the overall savings rate that is caused by the low and declining rate of savings in the public sector.

Chapter 3: Unique features of the Urban Real Estate Market in India

The urban real estate market in India represents an economic paradox. Although demand is increasing there is relatively little development, virtually no capital market for real estate, and a very limited rental market. Supply is responding very slowly to increases in demand resulting in rapidly escalating prices. The institutional structure of the real estate market has not been restructured to address the needs of a growing economy.

The legal and regulatory environment in India has stifled the free evolution of the real estate market. Laws have not been adapted to meet the changing needs of today's market. In some cases, the legal and regulatory constraints act as barriers to the supply of new property and in other cases they cause delays and allow for corruption. In order to overcome regulatory obstacles the urban market has developed many unique characteristics. Understanding these characteristics and how they have developed is critical to assessing the economic potential of this market.

OVERVIEW OF THE URBAN REAL ESTATE MARKET

Market characteristics

The urban real estate market is lagging behind other parts of the Indian economy in reforming its institutional structures to address the needs of the new economic policies. Historically the real estate market has been characterized by the features described below. These market characteristics however, are likely to change rapidly once the burdensome regulations that govern rental properties and new developments are lifted.

•Sales driven market. Unlike the United States, most developers in India develop property for immediate sale rather than for income from rentals. This is true for existing and new properties. This is partly because of the high returns available from an immediate sale as compared to rental income and partly because the rent laws in most urban cities make rentals an unattractive option.

• Development geared to users. Most of the development in the urban market is done directly for users of the property. This is because of the legal structure that makes it difficult to rent property.

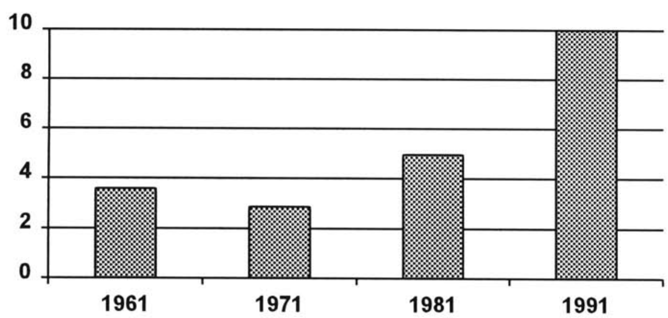
• Capital provided directly by users. Property users typically provide most of the construction financing for commercial property. In existing properties, the buyer usually pays a large percentage of purchase price up front and makes further payments as the construction progresses. The public debt and equity markets have not traditionally financed real estate ventures.

• Emergence of new participants. In the last few years, the first real estate intermediaries have begun to establish themselves. These include property management companies, real estate investment syndicates, and companies that are financing large development projects. Most of this innovation is taking place in the prime residential market. All of it represents a small fraction of the urban real estate market in India.

Property Types

Residential

TABLE 3.1: ESTIMATED 'HOUSELESS' URBAN POPULATION (MILLIONS)



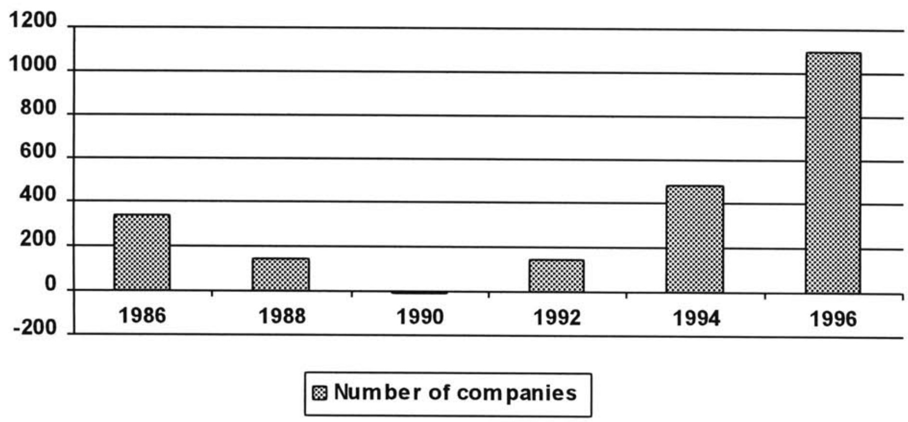
Source: CMIE, Basic Statistics, India, August 1994

As table 3.1 shows there is a large excess demand for residential units in the major urban areas in India. The current market structure has created a chronic supply shortage in almost all urban areas. There are no rental apartment buildings in most major urban cities. In the past, two or three generations of Indian families have tended to live in the same house. This trend is now changing as younger generation Indians move out and buy their own homes. This situation is mitigated by the fact that many of the major employers in India including the government, major industrial groups and multinationals, provide housing for their employees as a part of the benefit package. Employers who do not provide housing usually provide financial assistance through housing allowances and low interest loans for house purchases.

Office Space

Like the residential market, the office market is characterized by a shortage of supply in the prime urban areas. There are very few new developments and most transactions are between owner occupiers. Table 3.2 shows one indicator of new demand that has occurred since the economic reform program began.

TABLE 3.2: ANNUAL INCREASE IN COMPANIES LISTED IN BOMBAY



Source: Jardine Research

There are very few single owners of entire office buildings in the major cities like Bombay. Most office buildings are subdivided into smaller spaces which are individually owned. These spaces may be occupied by the owner or tenant. In today's rising market, the small number of owners of large commercial buildings that do exist are cashing out. Colliers Jardin reports most of the transactions for office space that occurred in the first half of 1995 in Bombay were directly conducted between corporate owners. Most of these transactions involve property spaces between 900 and 3000 square feet.

Other Property Types

1. Industrial: There are almost no large industrial complexes available for rent. Most prime industrial properties are owner occupied. Because of the recent price appreciation, urban property represents a major asset for many companies that have urban offices or factories. However, in many cases, the

government restricts the sale or development of these properties to protect jobs. Several large textile mills that are effectively bankrupt occupy large tracts of land in prime locations in Bombay. The local government has been reluctant to close down the mills and free the land for new development.

2. Retail: The urban shopping areas in most of India consists of small shops. Major cities have small 'department stores' that typically occupy about 5-10,000 square feet of space. However, there are no major store chains that follow the international format for buildings with large floor areas. Several market analysts believe that this is will change during the next 5 years. The Indian middle class represents an attractive market for several international and domestic companies. For example Netherlands based SVH Makro is currently planning a chain of store throughout India with four stores of 90,000 square feet each in Bombay. Other chains such as Marks and Spencer are also investigating the market.

3. Hotels: An analysis done by Colliers Jardine shows that approximately 30,000 new hotel rooms are scheduled for completion throughout India by mid-1997. Over 50 percent of these are targeted at the middle market (3 star) because of lower investment and quicker payback. This supply is intended to address demand created through an eight percent annual increase in foreign tourism and 15 percent increase in domestic tourism. Many hotel rooms in cities like Bombay and Delhi are also used as offices for foreign companies that are starting their operations in India because of the upfront capital required to buy or lease office space in these cities.

Development Infrastructure

Developers

Traditionally a small group of large private developers have been responsible for the majority of prime urban real estate development in India. They have had tremendous leverage over buyers because of the imbalance between supply and demand.

A primary function of developers in these urban areas is the acquisition of land. They often acquire agricultural land or existing properties for redevelopment. This is a complex, time consuming and capital intensive process because of legal restrictions that limit the amount of land that an individual can own, the number of agencies involved in regulating land ownership, and the potential for protracted legal challenges.

The acquisition of large parcels of existing properties is also difficult because it requires dealing with many different owners since most urban property is owned in small lots by the occupier. Developers who need funds to buy land at today's high prices or hold onto properties in a rising market are turning to the stock market or "project financing" for funding.

Major development costs consist of land and construction costs. There is no cost associated with financing since developers obtain interest free advances from buyers. Land costs in urban areas account for more than 50 percent of total development cost. In metropolitan areas such as central Bombay, land cost accounts for more than 90 percent of the cost of development.

The primary source of construction financing has been interest-free advances obtained by preselling property to end users or speculators. In a rising market, developers would rather finance some portion of the development through loans than presell their entire development. They can then benefit any future price increases to units that were not presold.

ANALYSIS OF THE UNIQUE FEATURES OF THE URBAN REAL ESTATE MARKET

The urban real estate market is lagging behind other parts of the Indian economy in reforming its institutional structures to address the needs of the new economic policies.

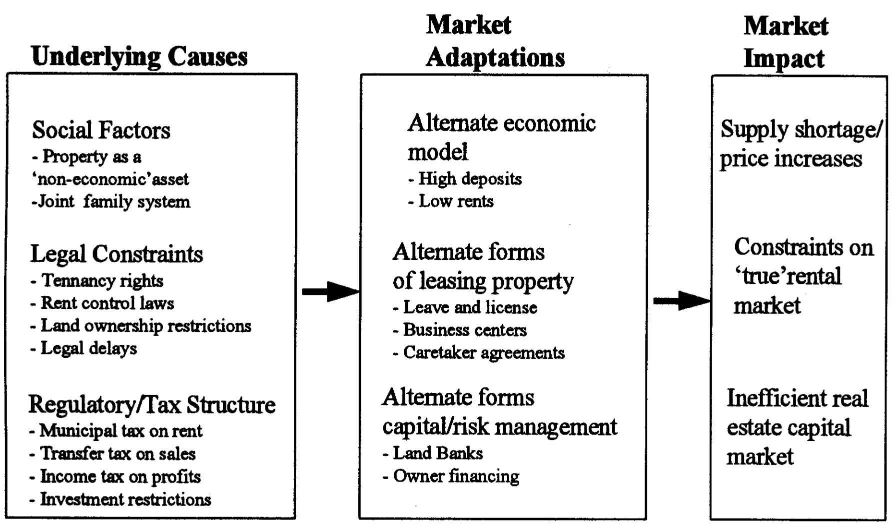
This analysis describes the unique institutional features of the urban real estate market and the institutional constraints that result from these characteristics. These constraints create a system that is inable to respond to a surge in demand as evidenced by shortages that exist in the market. The analysis is divided into four areas.

1. The first covers the social, legal, and regulatory factors that form the underpinnings of the real estate market in urban centers like Bombay. These factors are similar for all major urban centers in India. Specific legal constraint on leasing real estate vary by locality.
2. The second discusses the impact of these factors on the structure of the market. It discusses the seemingly chronic shortage of supply, 'uneconomic' prices, and constraints on an effective rental market.
3. The third outlines the adaptations that this market has undergone to cope with its unusual structures. Some of these adaptations are formal and legal, while others represent mechanisms for operating in an excessively regulated market with a cumbersome and often ineffective court system. The extent of local adaptation depends on the strength of the local regulations in areas such as rent control.

4. The final addresses the changes that are occurring to this system. While these changes are affecting all the underlying factors - the willingness of owners to sell, the laws governing the ownership and rental of property, and the availability of capital - the primary driver for change will likely be modifications to the laws governing property ownership and rental. The focus here is the central and state laws that are currently under review by the authorities and the implications that changes to these laws will have on the real estate market.

Bombay, the largest commercial center in India, is used in this chapter to illustrate the restrictions and constraints in the Indian market. Most other cities have similar restrictions. Specific legal terms vary from one city to the next.

FRAMEWORK FOR ANALYSIS OF THE URBAN REAL ESTATE MARKET IN INDIA



Underlying Causes

Social factors

Residential real estate in most parts of India is considered to be part of a family inheritance rather than an economic asset. Property is treated as a long-term asset to be maintained and handed down to future generations. The value of the family house in India often represents 70-80 percent of the family assets, whereas, in developed countries, housing represents 40-45 percent of family assets. The emotional value attached to real estate leads to a low mobility and a relatively low property resale volume.

This is compounded by the joint family system in which several generations of an extended family often live in the same house. Sale of the family house involves addressing the interests of several family units, making the decision to sell a complex and infrequent occurrence. High property prices in cities like Bombay increase the incentive for families to live together. Often the formation of new households due to the break up of the joint family system results in an increases in the demand for new space without a corresponding increase in supply from the sale of the old homes.

Legal Constraints

Social factors that discourage the sale of existing houses and restrict supply are exacerbated by a legal system that has traditionally made it risky and onerous to rent property. The two primary laws governing the rental and development of property are the Rent Act and the Urban Land Ceiling Act. The first makes it uneconomical to property. The second makes it difficult to find land for new development. Together, they create a market that is supply constrained. Furthermore, any legal action, with the exception of the Bombay Leave and License Courts is likely to take between ten and twenty years.

Rent Act

There are various State Rent Control Acts that govern the rents in each state. These acts are biased in the favor of tenants and assure the tenant occupancy of a property even after the termination of a lease. They also deprive the landlord of a free market rental income by controlling the rent charged to tenants.

The structure of the real estate market in Bombay, for example, is strongly influenced by the Maharashtra Rent Act. This act governs rents in the city of Bombay which is in the state of Maharashtra. Passed in 1948, the act was renewed periodically by the legislature and will be in effective until 31st March, 1996. The objectives of the act are to regulate the rental of residential, commercial, and educational establishments in order to:

1. Control rents so that they do not exceed the 'standard rent' or the fair rate. The courts are permitted to establish the level of standard rent and the permitted increases. If the contractual rent is excessive,

the court can substitute a standard rent which is typically unrelated to any reasonable return on the property value.

2. Regulate the repairs of the property. Repairs that are added to the capital base need to be approved.

3. Protect against the evictions of tenants, for reasons other than those spelled out in the rent act. The act makes it difficult to evict a tenant for all but the most egregious violations of the rental agreement. Even in these cases the tenant is given opportunities to redress the violation. Each phase of the dispute resolution process can take several years before it is heard by a court. For example, a tenant can be evicted for non- payment of rent however, he can get relief against termination in first two suits filed for eviction for non-payment. A landlord cannot recover possession of demised premises unless he proves certain specified grounds. A tenant's right of possession comes to an end only by surrender in writing or the passing of a decree of eviction. Pending eviction proceedings, a tenant enjoys all rights and privileges as a statutory tenant. With an overflow of cases in the Bombay courts, it can take as long as 10 to 15 years to evict a tenant.

4. Restrict recovery of possession. A landlord is not entitled to recover possession of any premises as long as the tenant pays, or is ready and willing to pay, the amount of the standard rent and permitted increases.

5. Regulate increases in rent. A landlord is entitled to increase the rent by a maximum of 15 percent per annum of the costs attributable to any special additions, improvements, or structural alterations he may carry out to the premises. The landlord must, however, prior to making such increase, obtain a certificate from the local authorities that he was required to make such additions, alterations, or improvements and that he has completed them in conformity with the requirements.

The ultimate effect of these laws the opposite of their intent. Supply is restricted. Prices for new supply is extremely high. Legal agreements are written in ways that effectively deprive landlords of all their rights. The effects can be seen in Bombay where over 50,000 residential units are vacant because of the rental control law.

Urban Land Ceiling Act

The Urban Land Ceiling Act is the primary law governing the ability of developers to acquire land for development. All land sales that involve development (above certain minimal levels) within urban areas must be approved by the regulatory authorities. For example, any land that is more than 500 square meters must be approved by the local government in cities such as Bombay, Delhi, Calcutta, and

Madras. Restrictions for smaller cities range from 9-18000 square feet. These approvals are difficult to obtain and usually result in additional conditions being placed on the developer.

Regulatory and Tax Factors

Municipal taxes

Municipal taxes are similar to property taxes. In Bombay these taxes are complex and extremely high. In certain circumstances they can be as high as 45-50 percent of the nominal rental income. The market has adapted to these high tax rates in several different ways. One method involves keeping the rental income low and accepting higher security deposits as described in the section on effective rents.

Stamp Duties (Transfer Taxes)

Stamp duty is a tax levied on the transfer of property and varies by state and city. It increases the transaction cost of selling property by as much as ten percent. The stamp duty rates for the three major cities are shown in table 3..3.

TABLE 3.3: STAMP DUTY RATES IN BOMBAY, DELHI, AND BANGALORE

	Purchase	Lease
Bombay	10% of purchase price	10% of average annual rent
New Delhi	8% of the purchase price: 3% stamp duty 5% corporation tax	0.5% of average annual rent
Bangalore	10% of purchase price	0.5% of average annual rent

Other taxes

India had one of the highest tax rates in the world until the mid 1980s. Today, corporate income tax rates vary but generally are 40 percent for domestic companies and 55 percent for foreign companies. There is also a surcharge of 15 percent of the corporate taxes for domestic companies if the taxable income exceeds US $2400. Withholding taxes on interest, dividends, salaries, royalties, rent, and technical service fees for foreign investors and NRIs, are the lower of two rates, the domestic rate or the tax treaty rate.

Repurchase Authority

In 1987, the government passed a law that allowed it to require all sales of more than Rs. 1m ($33,000) to be registered. This registration gives the income tax department the right to buy any property from the seller for 10 percent more than the stated selling price. This provision is designed to prevent sellers from underreporting sale prices to avoid taxes. It has been a very effective in reducing number of underreported sales transactions.

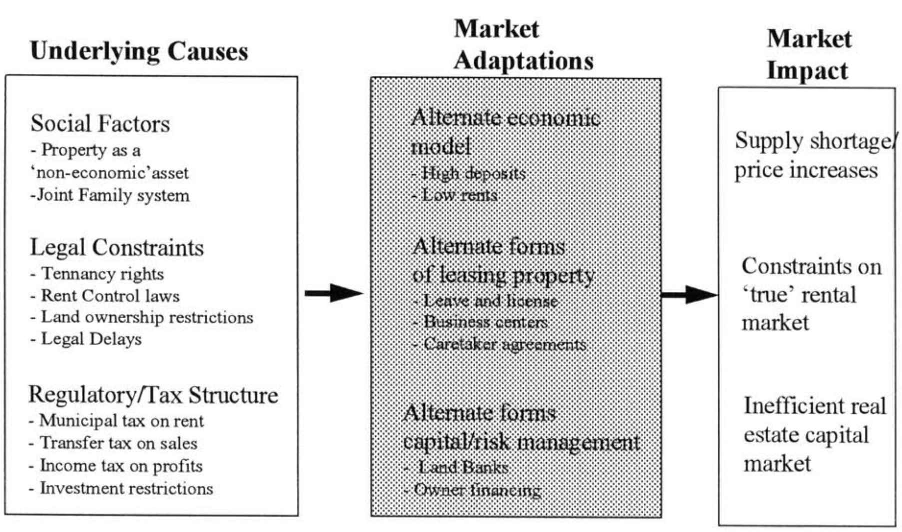
Other regulatory restrictions

Foreign individuals and companies, non-resident Indians and Overseas Corporate Bodies (OCB) are restricted from investing in Indian real estate except under certain conditions. In general, Indian laws do not permit direct foreign investment in real estate unless it is for the investor's own use. There are significant restrictions of repatriation of profits from the sale of real estate (no repatriation of profits for five years from the time of investment). It is possible to work around these regulations through joint ownership structures that meet the minimum requirements stated by the regulations.

Market Adaptations

The Indian market has adapted to its circumstance by developing its own financing and rental structures that alleviate risks for the property owner. These mechanisms are the result of the institutional constraints described above. They make the real estate market unresponsive to changes in demand.

FRAMEWORK FOR ANALYSIS OF THE URBAN REAL ESTATE MARKET IN INDIA



Alternate Economic Model

Restrictive rental laws and high municipal taxes cause landlords to seek as much money as possible in advance, while keeping the rents low so as to minimize taxes.

An effective rental income is thus derived from:

1. Interest earned on a security deposit. A deposit can range from 40 percent to 75 percent of the value of a prime property. Sometimes the greatest part of the investment process for a new company looking to locate in Bombay involves finding funds for the security deposit. The intent of a high security deposit is to encourage tenants to vacate the premises at the end of the lease term.

In effect the security deposit acts as an interest-free loan from the tenant to the landlord. The loan is secured by the tenancy rights. There are no legal constraints as to where the security deposit can be invested. Historically, landlords have put the funds in high risk investments that earn 18-24 percent per annum.

Tenants face the risk that landlords will make bad investments and lose the security deposit. As long as property values increase, landlords can a) return the security deposit by renting the premises to another tenant and collecting a security deposit, or b) sell the property and repay the security deposit with the sales proceeds.

The percentage of security deposits required by the landlord depends on the quality of the tenant. Multinationals or domestic corporate customers are considered to be the highest quality tenants. Deposits required from them are often lower than from small businesses or individuals. Average deposits for commercial property are in table 3.6 below.

TABLE 3.6: COMPARISON OF REQUIRED SECURITY DEPOSITS FOR RENTAL OF PRIME COMMERCIAL PROPERTY.

CITY	SECURITY DEPOSITS
Bombay	50 to 70 percent of the capital value of the property for premium areas One year rent for other areas
Delhi	12-24 months rent
Bangalore	15-20 months rent

2. Advance rental. The amount of advance depends on the bargaining power of each party. In some cases, the entire rental for the lease term is taken as a deposit. Foreign companies are now offering letters of credits to protect the landlords' rights if the premises are not vacated after the lease term.

TABLE 3.7: COMPARISON OF REQUIRED ADVANCE RENTAL PAYMENTS FOR RENTAL OF PRIME COMMERCIAL PROPERTY.

CITY	ADVANCE RENTAL PAYMENT
Bombay	Full rental amount for the entire initial term
Delhi	12-36 month rent in advance
Bangalore	1 month rent in advance

Alternate forms of leasing property

Various approaches are designed to minimize the risk of establishing tenancy and generally involve the use of legal arrangements that do not imply full control of a property and therefore do not create a legal tenancy. They include:

1. Rental or lease agreement. The tenant is covered by the rent control acts. Since these rents are substantially below the price required to get an adequate return, virtually no new property is rented this way. There are many residential and commercial properties that have been rented out in the past at 'standard rent'. Tenants of these properties do not vacate the premises thus constraining the supply even further.

2. Leave and License. This method allows the licensee (tenant) to "use" rather than "take possession" of the property. It is the most widely used method today. Disputes involving these arrangements are settled by a special court where the waiting periods are considerably less than the ten years required in the regular court system.

3. Caretaker Agreement. The lessor provides the cost of utilities and maintenance and allows the occupier to "use" rather than "possess" the property. This arrangement is used for service apartments.

4. Business Center Arrangement. This is similar to #3 in that the owner of a commercial space provides the services of a receptionist or secretary and the occupier can "use" the property. Many smaller offices in Bombay are subdivided into business centers and rented this way.

Alternate forms of capital financing and risk management

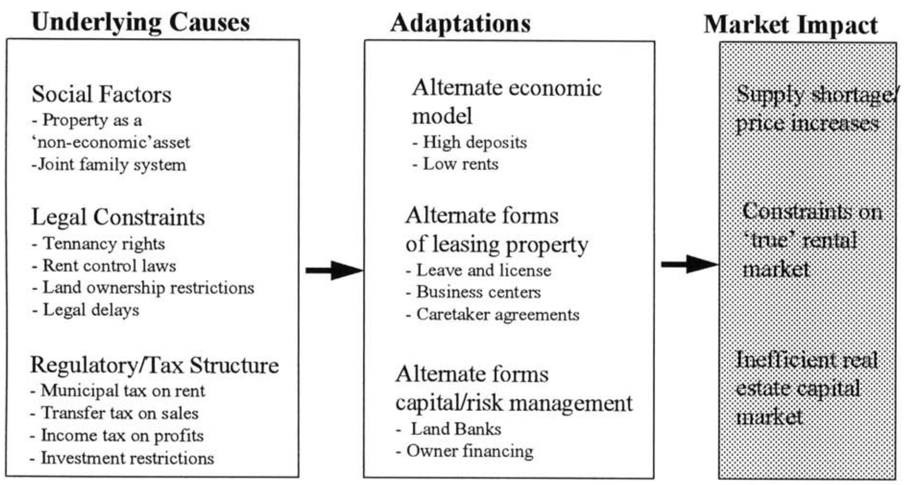
1. Construction Financing. Since developers have access to interest free borrowing from buyers construction financing is not used extensively in urban centers in India. In many urban centers, especially Bombay, individual buyers or speculators fund construction by paying a very high interest free advance which is often as high as 60 percent of the price even before the project breaks ground. Further payments are made at different phases of development. This method of financing works well in a market in which there is a slow steady growth in values or periods of stagnant growth. The pre-sale in effect, is a call option sold on the property to buyers at the current price. This system of financing can be expensive for developers in a market that is supply constrained and has had many years of unabated price increases. Developers are therefore turning to more traditional sources of capital such as the sale of stocks in development companies and institutional project financing.

2. Land Banks. Many large developers acquire land which they hold in land banks. The shortage of land close to Bombay, for example, has led developers to buy land with defective titles at very low prices. They hold this land in land banks while obtaining title and Urban Land Ceiling Act (ULCA) clearances. The process of obtaining clearances can take anywhere from a few months to four to five years depending on the extent of bureaucratic delays. After acquiring initial permissions and licenses, developers must then obtain another 40 to 50 certificates and licenses before the properties can be sold. Developers that are experienced with the process and have a nexus with the regulatory agencies have an advantage in reducing the time lag.

In summary, the real estate market in India has adapted to its controlled environment by creating mechanisms that protect the economic interests of property developers and owners, but makes the real estate market very inefficient.

Market Impact

Framework for Analysis of the Urban Real Estate Market in India



Supply Shortage /Price Increases

In 1991, the housing shortage throughout India was 31 million units (see table 3.8) and is expected to grow to 41 million units by the year 2001. These factors show the high level of excess demand for affordable housing in urban centers.

TABLE 3.8: POPULATION AND HOUSING (IN MILLIONS)

Year	1951	1961	1971	1981	1991
Urban Population	61.6	77.6	107	156.4	212.8
Total Houseless Population:		1.265	1.986	2.327	
- Rural		*0.970*	*1.520*	*1.711*	
- Urban		*0.295*	*0.466*	*0.616*	
Total Housing Shortage		15.2	14.5	21.1	31

Source: CMIE, Basic Statistics, India, August 1994

The inability of the institutional structure to address the market demand results in rapidly escalating prices. The price levels in three major cities are discussed in detail in chapter 4. The absolute price levels in cities like Bombay are particularly noteworthy in relation to the income levels in India. The affordability ratio in Bombay exceeds 15, whereas the ratio is less than 3 in most developed countries. In the last few years, prices have reached levels where many property owners are motivated to sell their property and move to less expensive areas. The continual increase in prices above the rate of inflation has also given property owners an incentive to hold on to their property in the hope of future price increases.

Restrictions on urban land development contribute significantly to the high prices in the metropolitan areas. High land costs are exacerbated by very low required floor space index (FSI) in urban areas. The FSI in Bombay for example ranges between 1 and 1.7 - a number that is clearly below the optimal for an area with extraordinarily high land costs.

The Rental Market

There is a very limited 'true' rental market in major urban centers due to the combination of low rental rates, high property prices, and a cumbersome legal system. While approximately 40 percent of the commercial market in Bombay consists of rental units, most of these rentals require substantial upfront deposits, making property rental a capital-intensive endeavor. Despite the high unmet need for living space, more than 50,000 residential units are currently unoccupied in Bombay. Owners of these units are unwilling to take the risk of coming under the Rent Control Act. Rental rates for prime residential and commercial property in Bombay are among the highest in the world. There are no large apartment or office complexes, or major industrial buildings for rent in many parts of urban India.

Inefficient Capital Market for Real Estate

It has historically been difficult for developers to obtain financing for real estate from traditional capital markets. Most property developed in urban centers is effectively financed by the user. This makes investment in real estate a significant use of capital for many individuals and corporations. Those without up front capital are consequently locked out of the market. As stated earlier, most developers obtain construction financing through interest-free financing from buyers. Recently a few small developers have created public companies to raise capital from the stock market. Home mortgages are also inadequate. These are generally restricted to loans under $100,000 making them irrelevant for prime urban commercial property.

In summary, the Indian social , legal, and tax factors result in an urban real estate market that is continually supply constrained. Property owners are unwilling to rent their property under traditional rental terms. Developers are constrained when they acquire land for new development. Tenants who occupy existing property have no economic incentive to move out.

Chapter 4: Analysis of Prices For Commercial Real Estate in Bombay, Delhi and Bangalore

In the last chapter we saw that the combination of economic growth and the lack of institutional reforms in the Indian real estate market had resulted in substantial excess demand in urban locations. In this chapter we will examine the impact of this demand on prices of prime commercial real estate in three Indian cities - Bombay, Delhi and Bangalore. The analysis will examine price trends in these cities, price trends within different locations in each of these cities and, assess the impact of these price increases on an international basis.

METHODOLOGY FOR DATA COLLECTION

Unlike the United States, India has no reliable sources of information on price, supply and construction data. The price information used here was collected through field interviews with private institutions that have gathered information for their own purposes. In many cases, these institutions are careful about sharing their information since they view it as a source of competitive differentiation.

The task of gathering reliable information is further complicated by the fact that there has been a strong historical bias towards underreporting transacted prices with the intent to reduce the tax assessed on the transaction. This situation has improved with the introduction of a law that permits the government to purchase properties at 10 percent below the reported transaction price . This law has resulted in reported prices more accurately reflecting the true market prices during the last five years.

Because of these factors, the data used in this chapter has been collected using the following approaches:

1. All the primary sources of information were interviewed to ensure that their approach was complete and unbiased. These personal interviews were conducted with the principals of each organization that provided data. Data from organizations whose approach was questionable was not used.

2. Price data on different property types was collected from multiple sources such as Colliers Jardin, Richard Ellis and the Housing Development Finance Corporation. Cases that had discrepancies between sources, were reviewed to determine the causes.

3. Price data before 1990 has not been used since these prices may be biased due to underreporting of income when the property sale was transacted.

4. More than forty personal interviews were conducted with industry experts and industry participants. Included were brokers, bankers, developers, government officials, lawyers, landlords, and commercial property owners. In many cases, these sources were contacted to cross-check information used here. A significant amount of price data was obtained from Colliers Jardine (a property management and brokerage firm) and Housing Development Finance Corporation (one of the largest housing finance companies in India). This data was compared to data from other sources such as Richard Ellis Corporation, a real estate consulting and management firm. There were differences in price data based on the data collection method used. The largest differences were in the prices and rents in Delhi. The overall price trends are consistent across different data sources.

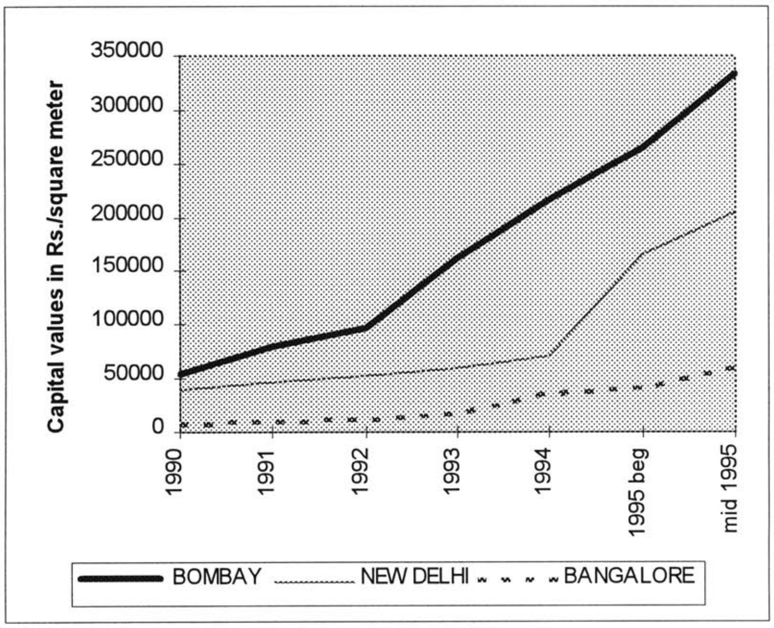
5. In many cases, actual documents such as leases and financing documents were reviewed to determine the specific approach used to overcome the constraints discussed in chapter 3.

Secondary analysis was performed using the price and rental data collected in the method described above. Brokers in Bombay indicated that the inventory and absorption of prime residential space was low. Given that the data is based on a small number of annual transactions, there may be a large 'noise factor' inherent in the data collected.

COMPARISON OF PRICES FOR PRIME OFFICE PROPERTIES IN BOMBAY, DELHI AND BANGALORE

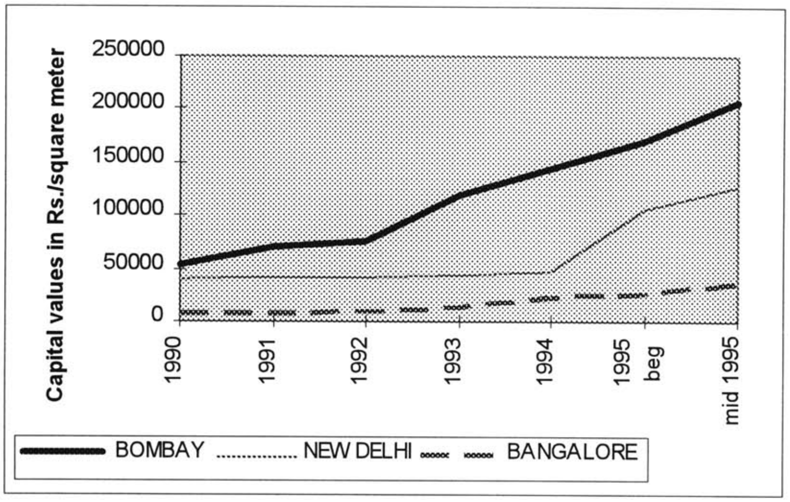
Prior to the reform program of 1991, the Indian real estate market had experienced a slow and steady growth interspersed with periods of stagnation. There were regional disparities in some cities such as Bombay which had price increases that were substantially above the national average. As table 4.1A and 4.1B shows price increases since 1991 for commercial property in these cities has been extraordinary. Property values in Bombay have increased by a factor of 6 in nominal terms in Bombay and by a factor of 4 in real terms in a five year period. Increases in the other cities have appear to have started two to three years after Bombay.

TABLE 4.1A : CAPITAL VALUES OF COMMERCIAL PROPERTY IN CBD OF BOMBAY, DELHI AND BANGALORE



Source: Asian Pacific Property Trends, Colliers Jardins Research

TABLE 4.1B : CAPITAL VALUES IN CBD OF BOMBAY, DELHI AND BANGALORE - 1990 PRICES

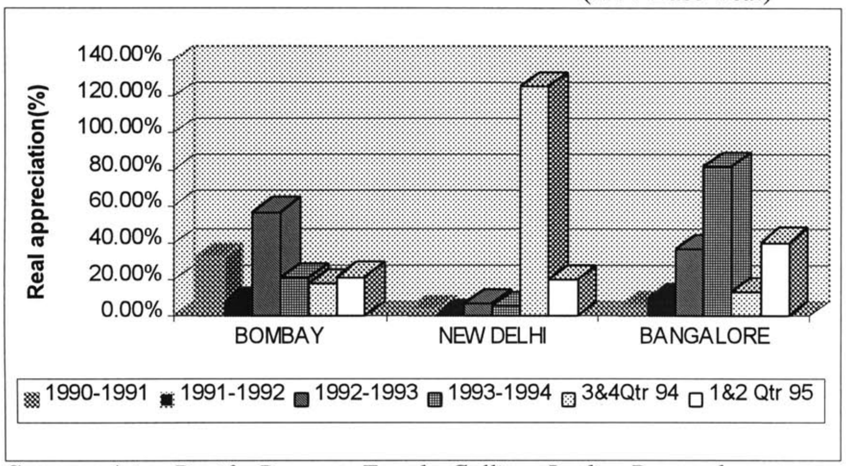


Source: Asian Pacific Property Trends, Colliers Jardins Research
Prices adjusted for inflation using Consumer Prices from International Financial Statistics - IMF

Tables 4.1A and B illustrates the incentive for companies to move their commercial activities from Bombay to other cities. In 1995, a company could obtain six times as much prime office space in Bangalore as in Bombay. This discrepancy has already resulted in new high-growth industries, such as software development, moving from Bombay to Bangalore. The migration of companies gradually results in an equalization of prices across cities. Table 4.2 shows that the average growth rate in prices in real terms in Delhi and Bangalore exceeded that of Bombay over the last three years.

TABLE 4.2: REAL APPRECIATION OF PRIME COMMERCIAL PROPERTY IN BOMBAY, DELHI, AND BANGALORE (1991-2ND QUARTER 1995, ANNUAL PERCENTAGE INCREASES)

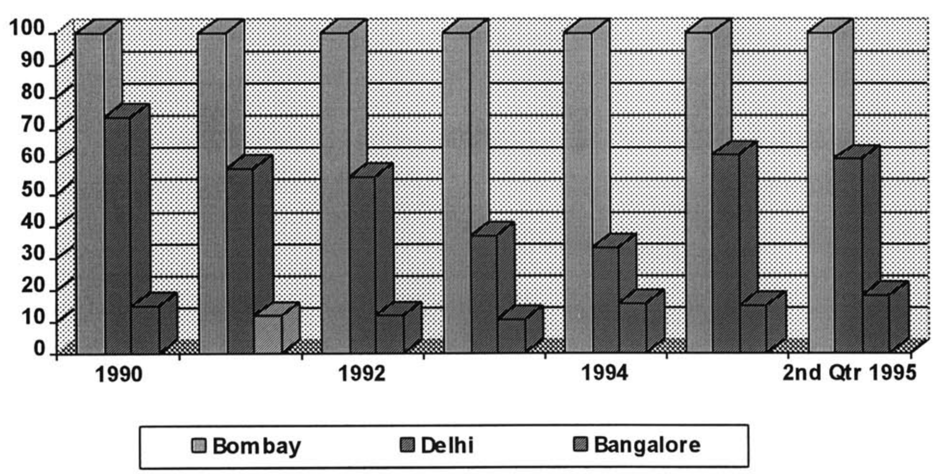
(1990 Base Year)



Source: Asian Pacific Property Trends, Colliers Jardins Research

The impact of the equalization of prices through the migration of economic activity is illustrated in Table 4.3. Prices in Delhi went from 74 percent of prices in Bombay in 1991 to about 33 percent in 1993, and then grew to over 60 percent by 1995. The large difference in the price of commercial property that still exists suggests that second-tier cities will grow at faster rates than Bombay.

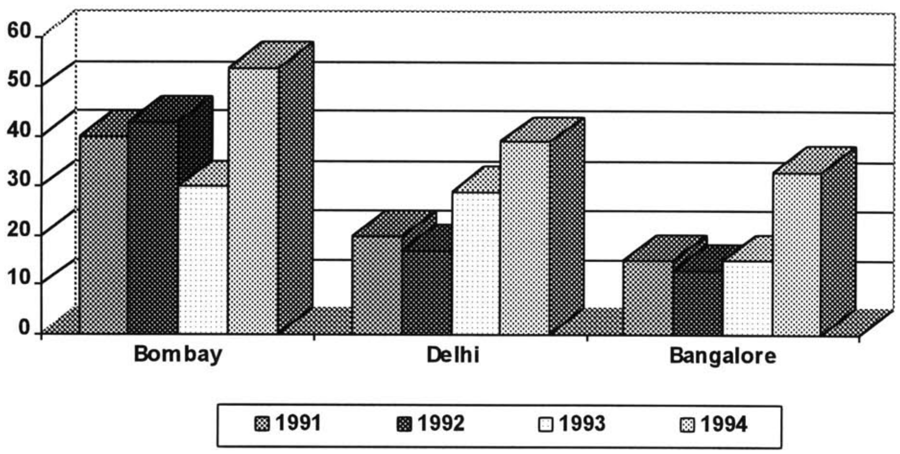
TABLE 4.3: COMPARISON OF NOMINAL PRICES FOR CBD COMMERCIAL PROPERTY IN BOMBAY, DELHI, AND BANGALORE (BOMBAY=100)



Source: Colliers Jardin, HFDC

The same pattern of price increases led by Bombay that can be seen in the commercial market in India exists in the residential market as well in these cities. Annual price increases in nominal terms have averaged over 40 percent in Bombay, with Delhi and Bangalore increasing the rate of growth in their prices so that the widening gap between residential prices in these cities is likely to narrow.

TABLE 4.4: ANNUAL NOMINAL INCREASE IN PRIME RESIDENTIAL PROPERTY PRICES IN BOMBAY, DELHI, AND BANGALORE BETWEEN 1991 AND 1994



Source :HFDC

While this analysis is focused on three cities, it should be noted that other cities, particularly those around major commercial centers, are benefiting from the price increases. For example, prices for prime commercial property in Pune - a satellite commercial center of Bombay - increased by 47, 59, 43, and 50 percent annually between 1991 and 1994.

A pattern of price increases can be observed within Indian urban centers where the primary commercial center, Bombay, has led the increase in prices. Price increases in Bombay have been followed by increases in other urban centers after a lag of 2-4 years. Companies that are not committed to being in Bombay may eventually move to another city. This has led to a widening of price differentials and then a narrowing of these differentials as companies move to less expensive cities. A possible explanation for this is that that the lack of infrastructural reform results in excess demand being addressed through rapid increases in prices and then adjustment of demand across urban centers. The process through which differentials between cities widen and then narrow is an area for further research.

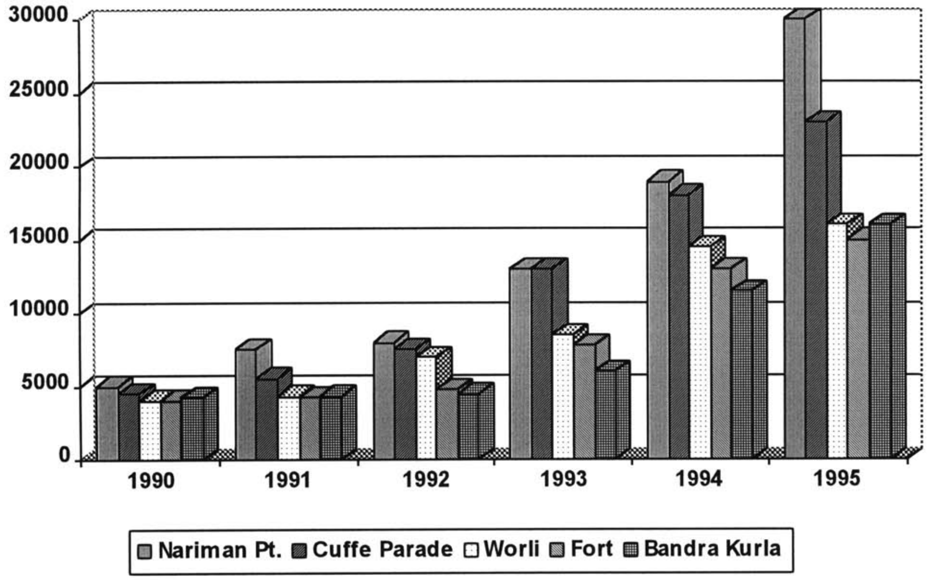
COMPARISON OF PRICES WITHIN BOMBAY, DELHI, AND BANGALORE

In the last section, we examined the pattern of price increases across these cities and observed a pattern in which Delhi and Bangalore follow Bombay. The same pattern appears to occur within these cities on a 'micro' level. The most desirable locations lead the price increases with annual increases exceeding 40 percent. Secondary locations appear to follow after a lag of 3-4 years. As a result differentials between locations increase over time. In future these differentials are likely to narrow as prices in secondary locations grow at faster rates.

Bombay

Prices for commercial real estate in different areas of Bombay have grown unevenly as seen in table 4.5. In 1990 and 1991, prices in the five major commercial areas of the city were within 20 percent of each other. Nariman point, the most prestigious office area, was 10 percent more expensive than areas like Fort and 20-25 percent more expensive than areas like Bandra-Kurla that are more remote. By 1995, the price differential had widened to the point that Nariman point is more than twice as expensive as the other areas such as Fort. Company preference for Nariman Point stems from its proximity to the major institutions such as the Bombay Stock Exchange and the Reserve Bank of India, and the convenience to prime residential areas in Bombay which are desirable to top management. The location premium for Nariman Point and the surrounding areas includes a scarcity premium due to the ban on new commercial buildings and the geography of the land in South Bombay. Discussions with commercial developers and brokers indicate that this is not a sustainable price differential. New development activity will be focused in the other areas and prices in Nariman point are likely to grow at a slow rate or decline.

TABLE 4.5: NOMINAL PRICE APPRECIATION FOR COMMERCIAL PROPERTY WITHIN BOMBAY
(RS/ SQ. FT)



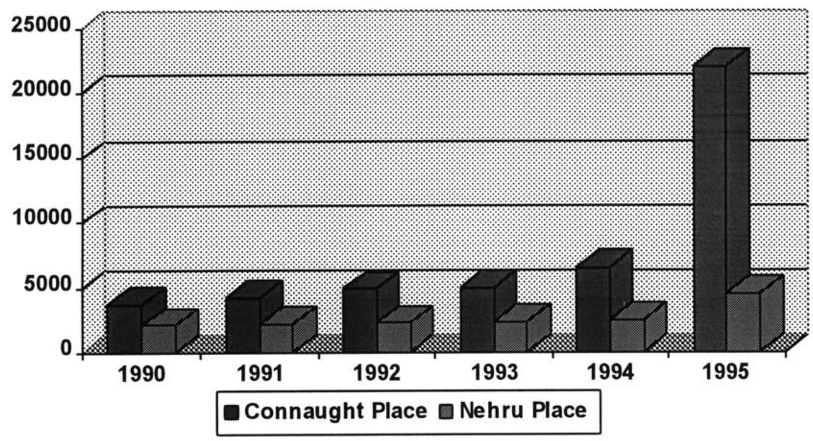
Source: Colliers Jardin, HFDC.

Note: Nominal rates are used since the analysis is for comparative purposes.

Delhi

Just as in Bombay, the gap between the top end of the market and other commercial areas widened from 1991 to 1995. Prior to 1990, real estate prices in Delhi increased 15 percent per annum (nominal) on an average. As seen in table 4.5, prices in Delhi increased at an average rate of 30 percent per annum (nominal) from 1991 to 1993. In 1994, the property prices increased over 100 percent from the previous year, with the best locations increasing by a factor of 3.

TABLE 4.6: PRICE TRENDS FOR COMMERCIAL PROPERTY WITHIN DELHI



Source: Colliers Jardin, HFDC

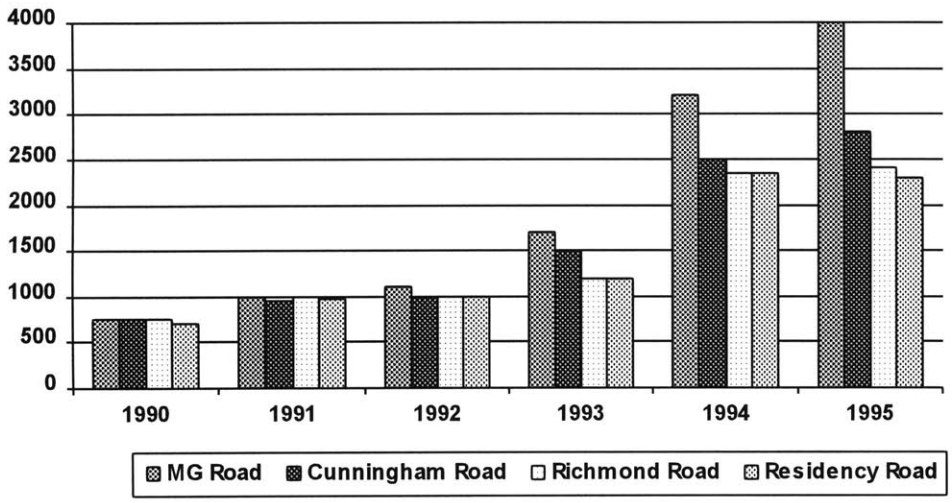
Connaught Place is considered Delhi's Central Business District whereas Nehru Place and Bhikaji Cama Place are business districts that have inferior building quality. Delhi has more new commercial construction than Bombay. New projects, when completed, will increase the supply of new space substantially. Some of these projects include the Ansal Plaza with 7200 square meters, Commercial Center which will add 10,000 square meters of space in Phase 1, scheduled for completion in 1996. A second phase will be completed a year later.

Bangalore

Prices in Bangalore increased an average of 22 percent per annum (nominal) from 1991 to 1993. The city has experienced a dramatic price increase of 67 percent (nominal) from 1993 to 1994. Bangalore experienced the high rates of appreciation much later than Bombay or Delhi, although prices in Bangalore are still substantially below these two cities. Bangalore is one of the largest software producing areas in the world. The growth of the city and its real estate performance will to a great extent depend on the continuing growth of this industry.

The pattern of a widening of price differentials between the primary and secondary areas in the city can be seen in table 4.7.

TABLE 4.7: PRICES FOR COMMERCIAL PROPERTY IN DIFFERENT COMMERCIAL CENTERS IN BANGALORE



Source: Colliers Jardin, HFDC

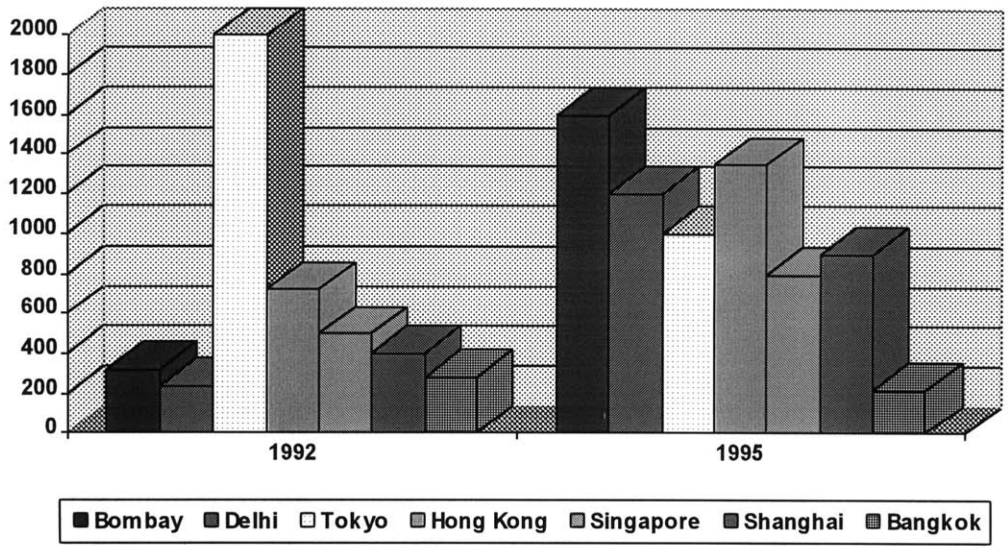
COMPARISON OF PRICES WITH OTHER ASIAN CITIES

According to data collected by the property management firm of Colliers Jardin net rents and prices for prime commercial property in major Indian urban centers are among the highest in the world. Over the last three years there has been a significant change from the historic pattern of real estate costs within the major Asian industrial centers. Bombay has grown from being one of the least expensive industrial centers to becoming the most expensive. Other Indian cities have followed a similar path, but at a slower pace. Comparable data was only available for Delhi and Bombay, not Bangalore.

Rents

TABLE 4.8: COMPARISON OF NET RENTAL INCOME FROM COMMERCIAL PROPERTY IN SEVEN MAJOR ASIAN CITIES BETWEEN JUNE QUARTER 1992 AND 1995.

(ANNUAL $/SQ. METER)



Source: Asia Pacific Property Trends, Colliers Jardin Research

Rents for prime commercial property increased by 500-600 percent in cities like Bombay during 1992 to 1995. In 1992, rents in Bombay and Delhi were comparable to those in Bangkok and significantly below those in Hong Kong and Tokyo. By 1995, prime commercial property rates in Bombay exceeded those in Tokyo and Hong Kong. Delhi was higher than Tokyo, but below Hong Kong. It should be noted, however, that the these new rental rates apply to only a fraction of the overall commercial properties because of the rent control laws (as discussed in chapter 3).

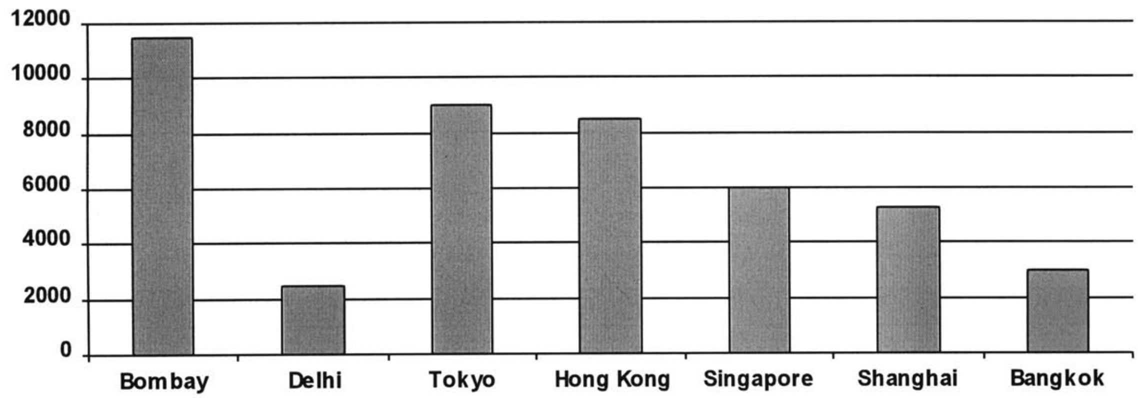
At this stage, we need to examine monthly cost of residential properties, because residential costs represent an additional direct cost for companies. In India, it is common for most companies to fund the housing expenses of their executives as part of an overall compensation package.

The high commercial rental rates are mirrored in the residential rents for prime inner city property. As table 4.9A illustrates, the total cost or renting a three-bedroom apartment in a prime area of Bombay exceeds similar costs in all other major Asian cities.

These rental rates, for both commercial and residential properties, create a significant cost issue for new companies moving into prime urban areas.

TABLE 4.9A: COMPARISON OF RESIDENTIAL MONTHLY OCCUPANCY COSTS FOR A PRIME INNER CITY APARTMENT (RENT PLUS OPERATING EXPENSES PLUS TAXES)

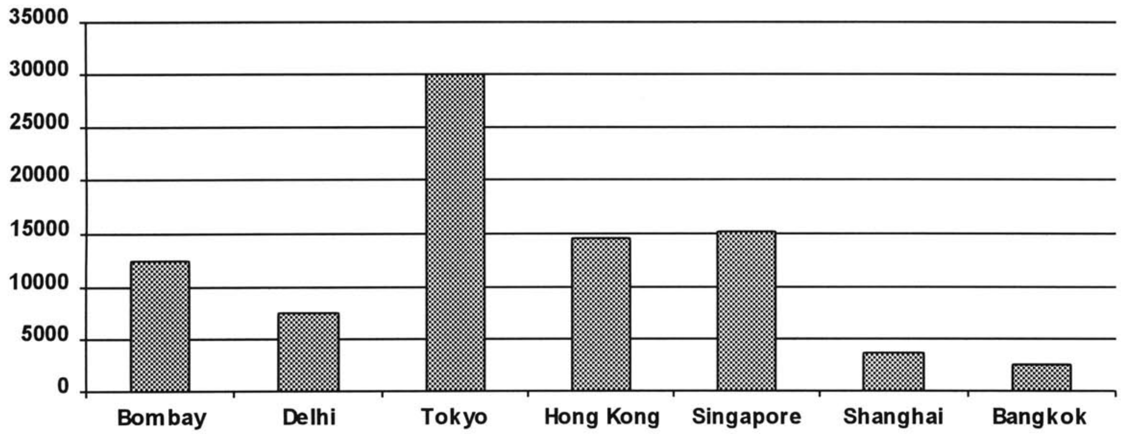
(US $ PER SQUARE METER)



Prices

Capital values of commercial property have followed a similar upwards trend. As table 4.9B illustrates, capital values for commercial property in Bombay and Delhi are comparable to those in Hong Kong and Singapore, but considerably below those in Tokyo.

TABLE 4.9C: COMPARISON OF INTERNATIONAL CAPITAL VALUES - COMMERCIAL PROPERTY IN CENTRAL BUSINESS DISTRICT (CBD) ($/SQ. METER)

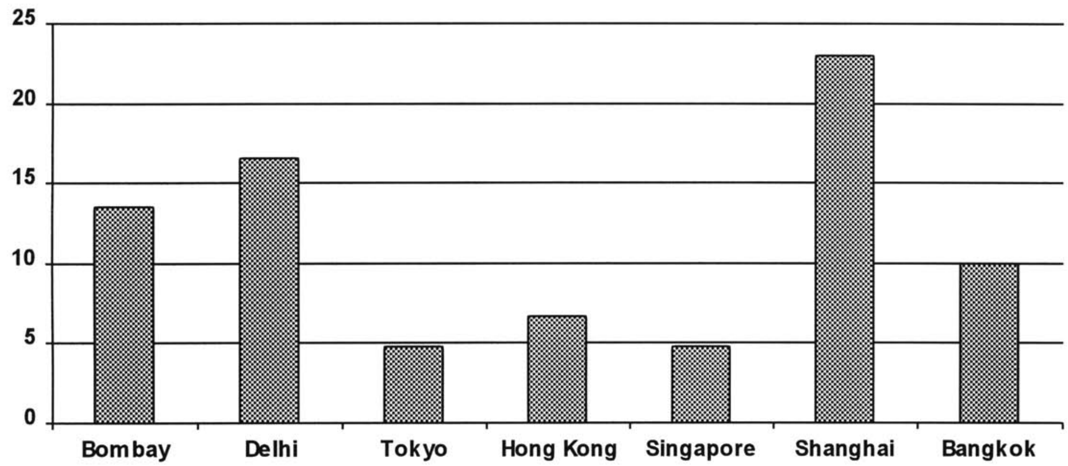


June quarter 1995, Average of high and low prices in CBD
Source: Colliers Jardin

Yields

The higher rent in Bombay reflects the risk premium that property owners expect as a result of the archaic laws and inefficient legal system discussed in chapter 3. It is possible that this risk premium is the underlying cause of the significant differences in investment yields for commercial property as illustrated in Table 4.10.

TABLE 4.10: COMPARISON OF INVESTMENT YIELDS FOR PRIME COMMERCIAL PROPERTY (PERCENT)



Source: Asia Pacific Property Trends, Colliers Jardins Research

Note: Yields are for comparative purposes. Yields in Bombay and Delhi vary from 10% to 16% based on market factors.

In summary, increases in commercial real estate prices has significantly changed the competitive position of India's major urban centers relative to other Asian cities. In addition to high prices, the lack of a modern institutional structure results in tenants having to use considerable amounts of capital to obtain a lease. This capital could have been used for the core business of the tenant. The lack of infrastructure and high rates are likely to be a negative factor in the decision to invest in India. An interesting question for further research is whether the increase in prices have been matched by increases in rents over the last five years. Reliable historic data on rents was not available.

Chapter 5: ANALYSIS OF PRICES FOR PRIME COMMERCIAL PROPERTY IN BOMBAY DELHI AND BANGALORE USING A TRADITIONAL VALUATION MODEL

This section examines whether current prices in these cities are justifiable based on traditional valuation approaches and assess the speculative component of the price escalation. With appreciation rates being so high over a short period of time, it is necessary to ask the question "What are people paying for?." The analysis is used to illustrate the economic model used by property owners and examine the different components of the expected returns.

Methodology and Assumptions

Methodology

The investment analysis used in the valuation model is based on the present value of projected cash flows - from operations and capitalized value of the property. The results of the model are compared to observed market prices to determine price premiums. This analysis was conducted for four areas within Bombay, and for the Central business districts of Bombay, Bangalore and Delhi.

In this model the expected real estate returns must be divided into two components - income and appreciation. Sources of future cash flow over a holding period will be partitioned into cash flows from rental income based on a forecast of future rents using today's rents as a base and cash flow from appreciation or the sale the investment. The results of this analysis will help determine the price premiums in each city and proportion of cash flow from operation versus capital appreciation.

As Brugerman and Fischer have explained in *Real Estate Finance and Investment,* there is more certainty associated with projecting cash flow during the operating years of investment, especially when they are partially determined by existing leases. The appreciation portion of the returns depends on expected cash flow that will occur beyond the current holding period. Therefore, the greater the proportion of the return which depends on the expected appreciation in the future, the greater the risk facing the investor.

An examination of real estate prices in the United States during the peak in the mid 80s indicates that the market was highly speculative. More than 75 percent of the cash flow from expected returns was based on anticipated appreciation and only 25 percent from the cash flow of properties.

It should be noted that this methodology is susceptible to errors due to the fact that it is being used to evaluate markets that are chronically supply-constrained. The number of transactions used to define market prices is very low. A few unusual transactions can skew the data in any urban center.

Assumptions

Before we begin our analysis we need to define the variables used in our discounted cash flow model. These are:

1. This analysis examines only a single office space rather than an entire building because urban office buildings in India are usually subdivided and owned separately. This is similar to condominium or cooperative ownership structure in the United States.

2. A holding period of five years for the investment analysis, with the property being sold based on the income in year six.

3. Gross rental income is derived from interest on security deposits, interest on advance rental and a monthly rental. The amount of security deposit varies from city to city (see chapter 3). Gross rental income is constant over the lease term. The rents are marked to market when the leases roll over.

3. The average lease period is three years.

4. Colliers Jardin Research is the primary source of price and rental data used in this analysis. Price and rental data vary by source. Discrepancies between sources are due to differences in data collection method. Any analysis performed using data from other sources will yield price premiums that are different than those in this chapter. The overall trends however will be the same.

5. Risk adjusted rate of return "r." This is a 'discount rate' that represents the opportunity cost of capital for investing in projects with a similar risk profile as real estate. To arrive at a discount rate, it is necessary to begin with the risk-free rate of return in India and add a premium for real estate risk. The returns on long term government bonds are 12 percent and the real estate risk premium used is 800 basis points. The sum gives a discount rate of 20 percent. The same discount rate is used in all the major urban centers in this analysis.

4. Growth rate for real estate gross rental income (within and beyond the holding period). This assumes what the growth rates of rental income will be in each of the cities analyzed. Growth rates of security deposits in Bombay were assumed to be equal to growth rates in rental income. Estimates were made based on interviews with industry experts. Conservative rental growth rates (see table A in the appendix) were used during the holding period. This assumption reflects the view of the more conservative experts who expect the slow growth in rental rates over the next six years. The rationale for this is that there would be a lowering of rents because of the rapid increase in the last four years and because of a potential increase in supply of rental space if rent controls are lifted as discussed in chapter 6. Beyond the holding period the growth rate of effective rents was assumed to be constant at 10 percent.

5. Break-even growth rate. The analysis calculated the rate at which rents would have to grow during the holding period, to attain a zero premium level. This is one measure of the growth expectations that are built into the prices.

5. Capitalization rate "c." Cash flows that occur after the holding period are capitalized using the capitalization rate of 10 percent. It assumes that these cash flows are received in perpetuity. This rate is the difference between the discount rate (r) and the growth rate beyond the holding period (g).

6. Tax rates used in the analysis are based on interviews rather than quoted tax rates. This is done because property owners generally pay taxes that are lower than the quoted tax rate. This is possible by lowering the nominal rent and attributing rent to other items such as furnishings and security deposits.

Comparison of Premiums Between Cities

TABLE 5.1: VALUATION RESULTS FOR THE CENTRAL BUSINESS DISTRICTS OF BOMBAY, DELHI, AND BANGALORE.

	VALUATION TABLE				
		(Value in Rs./sq.m.)			
		Bombay	Delhi	Bangalore	
PV of Cash flows (years 1-7):		279,657	170,320	54,082	
-value from rental income (year 1-6)		137,621	78,994	22,990	
Market Values June Q 95		370,801	204300	59180	
Premium		91,144	33,980	5,098	
Break-even rent/security deposit growth r		13.35%	11.41%	12.45%	

Table 5.1 summarizes the analysis of values in Bombay, Delhi, and Bangalore. This analysis shows that premiums across the three major cities vary considerably and reflect the conservative projection of rental growth rates. Bombay, has the highest apparent premium at 32.59 percent. This is not surprising given the extraordinary price increases that began over the last four years and the high absolute level of prices. This price premium indicates that the growth in capital values in Bombay are likely to slow down considerably from the pattern of the past five years. It is also possible that there might be a price correction of 30-40 percent. The current prices would be justified if rental rates grew at over 13 percent during the holding period. Interviews suggest that increases in excess of 5-6 percent are unlikely. This conclusion needs to be considered in light of the fact that the Bombay market has several significant factors that constraint supply and that demand is continuing to outpace supply. These factors include a shortage of land since Bombay is a peninsula, artificial constraints on land development, and a high demand because of the city's position as a financial center.

Delhi has the next highest premium at 19.95 percent. This premium indicates that the recent price increases may include a considerable speculative component. To sustain these prices rental rates would have to grow at an annual rate of over 11 percent over the holding period. Interviews with brokers suggest that increases in excess of 6-7 percent are unlikely over the next 5 years. Bangalore has a the smallest premium, 9.43 percent. This premium would be eliminated if rental rates grew at an annual rate of 12.45 percent. Interviews with brokers suggest that rates are likely to grow at 10 percent because of the low rates relative to Bombay and Delhi.

If we assume that rental growth rates are based on what market experts believe is reasonable, then the break up of returns from the three urban centers is 51, 53, and 57 percent from sale and 49, 47, and 43 percent rental income. This indicates that the rental incomes have kept pace with capital increases of the past and therefore the speculative component in expected returns is less than might be expected. For example, during the 1980s the speculative component was more than 75 percent in the United States. This is also consistent with the observations of developers and brokers that the increase in prices is due to real increases in demand and shortages in supply.

Comparison Within the City of Bombay

TABLE 5.2: VALUATION RESULTS FOR BOMBAY

	VALUATION TABLE			
			('Value in Rs./sq.m.)	
PV of Cash flows (year 1-7):	279,660	216,796	152,185	168,352
-value from rental income (year 1-6)	137,622	106,717	63,629	65,508
Market Values June Q 95	370,801	254,030	191780	220230
Premium	91,141	37,234	39,595	51,878
Break-even rent/deposit growth rat	13.27%	9.38%	16.10%	18.97%
rate				

The same analysis was performed for different areas within Bombay. Expected growth rates for the areas were selected based on interviews with industry professionals. The rates used in this model reflect the view that future growth is likely to be considerably slower than the last four years. The CBD and Cuffe Parade were lower than Worli and Bandra-Kurla because the former have already captured most of the growth from the current economic environment. These two areas have already been built out at the optimum allowed Floor Space Index (FSI), leaving very little developable land. These two areas need to have annual rental growth rates during the holding period of 13.27 and 9.38 percent to eliminate the premiums. These rates are unlikely to be achieved since prices are already high in these areas. Bandra-Kurla and Worli on the other hand are newer commercial centers that are still in the growth phase of their development. While we can expect higher rental growth rates in these areas, the rate is unlikely to reach the 16.1 and 18.97 rate required to eliminate the apparent premiums that are built into prices.

The analysis shows that all four areas of Bombay have significant premiums relative to their expected values. These premiums indicate that the there is likely to be downward price pressure in all the major areas within Bombay, with the potential for price corrections. The analysis of the components of the premiums indicates that approximately 50 percent of the premiums in the developed areas and 60 percent in the newly developing areas can be attributed to capital appreciation. This indicates that prices are not being entirely driven by speculation, but are partially based on the capacity of these properties to produce an ongoing income stream.

Implications of the Valuation Analysis

The valuation analysis shown above suggests that there are significant price premiums in Bombay and Delhi and a small price premium in Bangalore. In a more efficient real estate market, this analysis would suggest an imminent market correction. As we have seen in the previous chapters, the Indian real estate market has artificial constraints that enable it to tolerate such premiums. In particular, the normal market mechanisms of increasing supply to reduce premiums are constrained by regulations that restrict the availability of land for construction. It is interesting to note that the premiums in this analysis reflect the extent of these constraints in each city. Bombay has the most severe physical constraints since it is a peninsula, and the most severe regulatory constraints because of the Maharashtra Rent Control and the Urban Land Ceiling Act. Delhi has more of an ability to grow radially, but the

CBD is almost completely built up. Bangalore has the greatest ability to expand and, being a relatively new economic center, it has the capacity for expansion close to the CBD.

Chapter 6: Conclusions and Recommendations

This chapter summarizes the major conclusions from this thesis and summarizes the risks and opportunities available in the urban Indian commercial real estate market. These conclusions pull together the different and often contradictory forces driving the market.

The economic reform program initiated in 1991 resulted in significant growth in the organized sectors of the Indian economy. Domestic and foreign and domestic companies expanded operations in India, new economic opportunities has attracted people to urban centers, and the new government policies have opened up sectors of the economy to domestic and foreign investors that were restricted to the public sector.

Growth in economic activity resulted in a substantial increase in the demand for prime commercial real estate in major urban areas. Prices for prime commercial real estate have increased dramatically since the government has left the old institutional, legal and regulatory framework in place. Tenancy laws make it uneconomical to build rental property and land ceiling laws make it economically unattractive to acquire land for development. The cumulative impact of this infrastructure is that there is very little new construction to address increased demand. Lack of supply in the face of increased demand has resulted in extraordinary price increases. Prices in the major urban centers such as Bombay and Delhi are among the highest in the world. Prices in the newly developing centers such as Bangalore are increasing rapidly.

Price increases have attracted the attention of investors from India and abroad. However, the analysis presented in this thesis suggests that the expansion and broader implementation of the reform program could result in stabilization and potentially a decline in prices in these cities as new supply is created to absorb excess demand.

Short Term Prospects

In the next 12 to 36 months investors should examine opportunities in the context of the current institutional framework. The institutional and infrastructure changes discussed below are likely to take at least two to three years to be implemented since they involve political and legal changes. In the current context investors need to consider the overall premiums, prospects for continued economic growth, and differential growth rates across cities and within cities before making investment decisions.

The valuation model for the three cities suggests that there are premiums built into prices for commercial property in Bombay, Delhi, and Bangalore. Given the enormous run up in prices over the last four years, the model assumes a low rental growth rate for six years. The premiums indicate that investors are betting on continual price increases that are not justified by the assumed rental growth rates alone. Rental rates would have to increase at between 11 and 14 percent annually to justify this premium. This speculative premium increases the risk that prices will decline if there is any slow down of economic growth.

While the overall economic outlook is strong, there is some risk that the economic reforms that are fueling growth may falter. The reform program is still dependent on the political will of the government to manage the economy towards increased privatization. In the absence of a higher public savings rate, the government will be forced to rely on the politically difficult course of tight monetary policies to maintain fiscal stability.

The analysis of price differentials across cities suggests that increases in prices are likely to occur in secondary cities as excess demand moves away from the largest cities. The same analysis suggests that the large differentials between the premium locations and secondary locations within a city may narrow over the next few years. Investors should therefore focus on secondary cities and secondary locations within major cities as price increases here are likely to outpace the areas where price increases have already occurred. Secondary locations will become even more attractive if the government invests in the physical infrastructure such as roads, railways and telecommunications systems in these areas.

Medium term prospects

In the medium and long term there are prospects for institutional and infrastructure changes that could alter the economics of the commercial real estate market in India. Positive changes in both of these will increase supply and reduce the rate of price escalation. The immediate impact of reforms to the institutional infrastructure for urban real estate could be price reductions in the areas that have experienced the highest rates of price growth.

The World Bank report, *Economic Development In India - Achievements and Challenges,* has highlighted three institutional areas that require the attention of the government. First, the government needs to establish an effective system of land titling to facilitate the development a market for land and help in the development of a mortgage market. Second, there needs to be more effective way to ensure the speedy settlement of disputes, particularly tenancy disputes. Third , the government needs to improve the process for obtaining local government approvals for land use and building construction. In practical terms this means restructuring rent control provisions, establishing special procedures and courts for addressing property disputes, and changing the provisions of the urban land ceiling act so that it is possible to acquire land for development in a reasonable time frame. It also means addressing the problems of high municipal taxes and restrictions on foreign ownership.

Each of these changes will result in more supply being available to meet the demand created through economic growth. Price levels are likely to fall as the risks of developing and owning property decline. At a macro level these changes will create a more efficient capital market for real estate as commercial users are not forced to tie up capital in real estate rather than in their primary economic activity.

In addition to the institutional changes outlined above, investment in transportation and communications infrastructure will result in more supply becoming economically available around the major urban centers. This will make secondary locations more attractive and put pressure on prices in the prime locations. The level of infrastructure investments is likely to be constrained by the low level of capital formation in the public sector. This constraint is mitigated by the government's willingness to allow private investment in infrastructure projects.

Changes in the institutional structure

Many of the changes discussed above are currently being considered by the government. The pace of change will vary greatly across cities since the institutional reforms required by the real estate market are usually under the jurisdiction of state and local governments. Some of the major changes that are being considered or occurring are discussed below.

Legal changes

Rent control

Rent control laws are being reviewed in many urban centers. In Bombay, where rent controls laws have created the most market distortions, proposed changes are designed to address the critical problems of giving landlords a fair return on their investments and creating a mechanism for resolving disputes expeditiously.

The measures to increase returns for landlords include:

1. Providing exemption from the rent acts for new property (exemption for 15 years) that is rented to foreign missions, large public companies, multinationals and international agencies.
2. Basing the permitted rent on the market value of land and the cost of construction.
3. Revising of existing rents to approach those based on market costs on a graduated basis.
4. Allowing landlords to increase rents by 5 percent annually, with periodic revisions based on the current price index.
5. Clearly defining the obligations of landlords and tenants and providing the legal mechanism for eviction of tenants who fail to comply with these provisions. The proposal includes the establishment of a two-tier system of adjudication with Rent Controllers and Tribunals (replacing the jurisdiction of the courts) for settling disputes within one year.

Foreign investment in real estate

Although the laws and regulations governing investment in Indian real estate are unfavorable towards foreign investment and rental investments today, many of these laws are being considered for revision. Proposed changes include modifications on restrictions on ownership, more liberal rules on joint ventures and less restrictions on the repatriation of profits. The implementation of these changes will have a major impact on the economic attractiveness of major urban centers to real estate developers.

New entrants

Development

Since liberalization, the extraordinary growth in demand for real estate has attracted many industrial houses to the field of development. This new competition has lead to a substantial increase in the quality and the amount of new construction. For the first time in India large scale "townships" with substantial amenities and high quality commercial complexes are being offered for sale. These companies use their own capital to fund development. In the last three years there have been over 8 new development companies that are listed in the stock market. These companies are still in the early stages of their development. All the new entrants in the development field face formidable competition from established developers who have an inventory of land acquired at favorable rates.

Professional property management

Several international property management firms have recently opened offices in Bombay and Delhi. They provide brokerage, consulting, and other advisory services to local and international companies. These firms include companies such as Colliers Jardine and Richard Ellis.

New sources of capital

There are several proposals for creating new instruments to increase the flow of capital into the real estate sector. These include real estate mutual funds and mortgage backed securities. These proposals are being reviewed by the government. If they are approved they will enable small investors to participate in the real estate market, and enable all investors to diversify their portfolio risk.

Summary

Commercial development within the major urban centers in India represents one of the most challenging emerging markets for real estate development in the world. It represents a large opportunity but presents a variety of risks. With 900 million people India represents approximately 20 percent of the world's population. While there are high levels of poverty, there is a large middle class of 150-200 million people, representing a real estate market that is comparable to that of the more developed countries. The economic development program has created increasing demand for urban real estate. The institutional structure has not been modified to address the requirements of the new economy. As a result prices in these areas have increased dramatically. The government is considering several proposals for reforming the institutional structure. Implementation of these proposals will reduce prices in the prime areas and make Indian urban real estate more competitive internationally.

Appendix

TABLE A: ASSUMPTIONS USED FOR COMPARISON OF PRICES BETWEEN CITIES

	Valuation Model				*Rate per square meter (Rs)*		
Forecasts **Forecasts and Assumptions**	CBD Bombay	CBD Delhi	CBD Bangalore				
Lease term in years	3	3	3	*Assumptions:*			
Gross effective rents* - June Qtr. 1995	***51066***	***32095***	***8956***	**Security Deposits**			
Security deposits	185401	24315	6785	Bombay	50% of capital value		
Interest rate on deposits (per annum)	16.00%	16.00%	16.00%	Delhi	1 year rent		
Income from security deposits	***29664***	***3890***	***1086***	Bangalore	1 year rent		
	51066	32095	8956				
Advance Rent				**Advance Rental**			
Year 1:				Bombay	Entire rent for lease term		
Residual Rent net of interest on deposits	21402			Delhi	1 year advance rent		
Annual Rent	***14461***	***24315***	***6785***	Bangalore	1 year advance rent		
Interest rate on advances	16%	16%	16%				
Interest earned on advance rent	***6941***	***3890***	***1086***				
Rent growth rate during lease term*	**0.0%**	**0.0%**	**0.0%**				
Rent growth factor during lease term	100.0%	100.0%	100.0%				
Gross Rent growth rate on rollover (annual)*	**5.5%**	**6.5%**	**10.0%**	This rate is compounded over three years.			
Gross rent growth factor on rollover (annual)	105.5%	106.5%	110.0%				
Security deposit growth factor (annual) *	**105.5%**	**106.5%**	**110.0%**				
Cap Rate "c"(r-g)	**10%**	**10%**	**10%**		r=20%	g=10%	
Discount Rate "r"	**20%**	**20%**	**20%**				
*Growth estimates are based on interviews.							

TABLE B: FORECASTS - COMPARISON OF PRICES AND RENTS BETWEEN CITIES - BOMBAY, DELHI AND BANGALORE

Bombay-CBD (Class B)		Forecast						
		1995	1996	1997	1998	1999	2000	2001
	Year	1	2	3	4	5	6	7
Security deposit								
Security Deposit		185,401	215,065	249,475	0	252,538	292,944	0
Interest on security deposits		29,664	34,410	39,916	34,833	40,406	46,871	40,902
New/(repayment) - security deposits				(185,401)	217,705		(217,705)	255,638
Total		215,065	249,475	103,990	252,538	292,944	122,110	296,540
Advance rent								
Advance Rentals		43,382	28,921	14,461	(0)	33,961	16,980	0
Annual rentals		14,461	14,461	14,461	16,980	16,980	16,980	19,939
Interest on Advance Rent		6,941	4,627	2,314	8,151	5,434	2,717	9,571
New advance rent					50,941			59,817
Gross effective rents		***51,066***	***53,498***	***56,690***	***59,964***	***62,820***	***66,568***	***70,412***
Interest on security deposits		29,664	34,410	39,916	34,833	40,406	46,871	40,902
Annual rents(credited to advances)		14,461	14,461	14,461	16,980	16,980	16,980	19,939
Interest on advances		6,941	4,627	2,314	8,151	5,434	2,717	9,571
Operating Costs:								
Municipal taxes (25% of annual rent)		3615	3615	3615	4245	4245	4245	4985
Repairs and Maintenance		1021	1123	1236	1359	1495	1645	1809
Net cash flows		46429	48760	51839	54359	57080	60678	63618
Capitalized value								636176
Effective Taxes (20%)	20%	9286	9752	10368	10872	11416	12136	127235
Net Cash Flow from operation		***37143***	***39008***	***41471***	***43487***	***45664***	***48543***	***508941***

Delhi-CBD (Class A)		June Q '9 Forecast						
		1995	1996	1997	1998	1999	2000	2001
	Year	1	2	3	4	5	6	7
Security deposit								
Security Deposit investment		24,315	28,205	32,718	0	34,070	39,521	0
Interest on security deposits		3,890	4,513	5,235	4,699	5,451	6,323	5,677
New/(repayment) - security deposits				(24,315)	29,371		(29,371)	35,479
Total		28,205	32,718	13,638	34,070	39,521	16,474	41,155
Advance rent								
Advance Rentals		24,315	24,315	0	29,371	29,371	0	35,479
Annual rentals		24,315	24,315	24,315	29,371	29,371	29,371	35,479
Advance rent credited to annual rent				(24,315)			(29,371)	
Interest on Advance Rent		3,890	3,890	0	4,699	4,699	0	5,677
Gross effective rents		***32,095***	***32,718***	***29,549***	***38,770***	***39,521***	***35,694***	***46,832***
Interest on security deposits		3,890	4,513	5,235	4,699	5,451	6,323	5,677
Annual rents		24,315	24,315	24,315	29,371	29,371	29,371	35,479
Interest on rent advance		3,890	3,890	0	4,699	4,699	0	5,677
Advance rent credited to annual rent		0	0	(24,315)	0	0	(29,371)	0
Operating Costs:								
Municipal taxes (15% of rateable value)		3282	3282	3282	3965	3965	3965	4790
Repairs and Maintenance		642	706	777	854	940	1034	1137
Net cash flows		28,171	28,729	25,490	33,950	34,617	30,695	40,905
Capitalized value								409049
Effective Taxes	20%	5634	5746	5098	6790	6923	6139	81810
Cash Flow from operation		***22,537***	***22,983***	***20,392***	***27,160***	***27,693***	***24,556***	***327239***

Bangalore-CBD		June Q '9 Forecast						
		1995	1996	1997	1998	1999	2000	2001
	Year	1	2	3	4	5	6	7
Security deposit								
Security Deposit investment		6,785	7,870	9,129	0	10,475	12,151	0
Interest on security deposits		1,086	1,259	1,461	1,445	1,676	1,944	1,923
New/(repayment) - security deposits				(6,785)	9,030		(9,030)	12,019
		7,870	9,129	3,805	10,475	12,151	5,065	13,943
Advance rent .								
Advance Rentals		6,785	6,785	0	9,030	9,030	0	12,019
Annual rentals		6,785	6,785	6,785	9,030	9,030	9,030	12,019
Advance rent credited to annual rent				(6,785)			(9,030)	
Interest on Advance Rent		1,086	1,086	0	1,445	1,445	0	1,923
Gross effective rents		***8,956***	***9,129***	***8,245***	***11,920***	***12,151***	***10,975***	***15,866***
Interest on security deposits		1,086	1,259	1,461	1,445	1,676	1,944	1,923
Annual rents		6,785	6,785	6,785	9,030	9,030	9,030	12,019
Interest on rent advance		1,086	1,086	0	1,445	1,445	0	1,923
Advance rent credited to annual rent		0	0	(6,785)	0	0	(9,030)	0
Operating Costs:								
Municipal taxes(15% of annual rent)		916	916	916	1219	1219	1219	1623
Repairs and Maintenance		179	197	217	238	262	288	317
Net cash flows		7,861	8,016	7,113	10,463	10,670	9,467	13,926
Capitalized value								139257
Effective Taxes	20%	1572.144	1603.299	1422.544	2092.523	2133.991	1893.406	27851
Cash Flow from operation		***6,289***	***6,413***	***5,690***	***8,370***	***8,536***	***7,574***	***111406***

TABLE C: ASSUMPTIONS USED FOR COMPARISON WITHIN THE CITY OF BOMBAY

Valuation Model					Rate per square meter (Rs)	
Assumptions and Forecasts	CBD Bombay	C.Parade	Worli	Bandra-Kurla		
Lease term in years	3	3	3	3		
Gross effective rents* - June Qtr. 1995	***51066***	***41458***	***26326***	**27968**		
Security deposits	185401	127015	38356	22023		
Interest rate on deposits (per annum)	16.00%	16.00%	16.00%	16.00%		
Income from security deposits	***29664***	***20322***	***6137***	***3524***		
	51066	41458	26326	22683		
Advance Rent						
Year 1:						
Residual Rent net of interest on deposits	21402	21136	20189	24445		
Annual Rent	***14461***	***14281***	***13641***	***16517***		
Interest rate on advances	16%	16%	16%	16%		
Interest earned on advance rent	***6941***	***6855***	***6548***	***2643***		
Rent growth rate during lease term*	**0.0%**	**0.0%**	**0.0%**	**0.0%**		
Rent growth factor during lease term	100.0%	100.0%	100.0%	100.0%		
Gross Rent growth rate on rollover (annual)*~	**5.5%**	**5.0%**	**10.0%**	**12.0%**		
Gross rent growth factor on rollover (annual)	105.5%	105.0%	110.0%	112.0%		
Security deposit growth factor	**105.5%**	**105.0%**	**110.0%**	**112.0%**		
Cap Rate "c"(r-g)	10%	10%	10%	10%	r=20%	g=10%
Discount Rate "r"	20%	20%	20%	20%		

* Growth estimates are based on interviews

~ This rate is compounded over three years

TABLE D: FORECASTS WITHIN THE CITY OF BOMBAY - CENTRAL BUSINESS DISTRICT, CUFFE PARADE, WORLI AND BANDRA-KURLA

CBD(Class B)		June Q '95	Forecast					
		1995	1996	1997	1998	1999	2000	2001
Year		1	2	3	4	5	6	7
Security deposit								
Security Deposit		185,401	215,065	249,475	0	252,538	292,944	0
Interest on security deposits		29,664	34,410	39,916	34,833	40,406	46,871	40,902
New/(repayment) - security deposits				(185,401)	217,705		(217,705)	255,638
		215,065	249,475	103,990	252,538	292,944	122,110	296,540
Advance rent								
Advance Rentals		43,383	28,922	14,461	0	33,961	16,981	0
Annual rentals		14,461	14,461	14,461	16,981	16,981	16,981	19,939
Interest on Advance Rent		6,941	4,628	2,314	8,151	5,434	2,717	9,571
New advance rent					50,942			59,818
Gross effective rents		***51,066***	***53,499***	***56,691***	***59,964***	***62,821***	***66,569***	***70,412***
Interest on security deposits		29,664	34,410	39,916	34,833	40,406	46,871	40,902
Annual rents(credited to advances)		14,461	14,461	14,461	16,981	16,981	16,981	19,939
Interest on advances		6,941	4,628	2,314	8,151	5,434	2,717	9,571
Operating Costs:								
Municipal taxes		3615	3615	3615	4245	4245	4245	4985
Repairs and Maintenance		1021	1123	1236	1359	1495	1645	1809
Net cash flows		46430	48760	51840	54360	57080	60679	63618
Capitalized value								636182
Effective Taxes	20%	9286	9752	10368	10872	11416	12136	127236
Net Cash Flow from operation		***37144***	***39008***	***41472***	***43488***	***45664***	***48543***	***508946***

Cuffe Parade(Class A)		June Q '95	Forecast					
		1995	1996	1997	1998	1999	2000	2001
Year		1	2	3	4	5	6	7
Security deposit								
Security Deposit		127,015	147,337	170,911	0	170,561	197,851	0
Interest on security deposits		20,322	23,574	27,346	23,526	27,290	31,656	27,234
New/(repayment) - security deposits				(127,015)	147,036		(147,036)	170,212
		147,337	170,911	71,242	170,561	197,851	82,472	197,446
Advance rent								
Advance Rentals		42,842	28,561	14,281	0	33,063	16,532	(0)
Annual rentals		14,281	14,281	14,281	16,532	16,532	16,532	19,138
Interest on Advance Rent		6,855	4,570	2,285	7,935	5,290	2,645	9,186
New advance rent					49,595			38,275
Gross effective rents		***41,458***	***42,425***	***43,911***	***47,993***	***49,112***	***50,833***	***55,558***
Interest on security deposits		20,322	23,574	27,346	23,526	27,290	31,656	27,234
Annual rents(credited to advances)		14,281	14,281	14,281	16,532	16,532	16,532	19,138
Interest on advances		6,855	4,570	2,285	7,935	5,290	2,645	9,186
Operating Costs:								
Municipal taxes		3570	3570	3570	4133	4133	4133	4784
Repairs and Maintenance		829	912	1003	1104	1214	1335	1469
Net cash flows		37059	37942	39338	42756	43765	45365	49304
Capitalized value								493043
Effective Taxes	20%	7412	7588	7868	8551	8753	9073	98609
Net Cash Flow from operation		***29647***	***30354***	***31470***	***34205***	***35012***	***36292***	***394434***

Worli (Class B)		June Q '95	Forecast					
		1995	1996	1997	1998	1999	2000	2001
Year		1	2	3	4	5	6	7
Security deposit								
Security Deposit		38,356	44,493	51,612	0	59,220	68,695	0
Interest on security deposits		6,137	7,119	8,258	8,168	9,475	10,991	10,872
New/(repayment) - security deposits				(38,356)	51,052		(51,052)	67,950
		44,493	51,612	21,514	59,220	68,695	28,635	78,822
Advance rent								
Advance Rentals		40,924	27,283	13,641	0	36,313	18,157	0
Annual rentals		13,641	13,641	13,641	18,157	18,157	18,157	24,167
Interest on Advance Rent		6,548	4,365	2,183	8,715	5,810	2,905	11,600
New advance rent					54,470			48,333
Gross effective rents		***26,326***	***25,125***	***24,082***	***35,040***	***33,442***	***32,053***	***46,638***
Interest on security deposits		6,137	7,119	8,258	8,168	9,475	10,991	10,872
Annual rents(credited to advances)		13,641	13,641	13,641	18,157	18,157	18,157	24,167
Interest on advances		6,548	4,365	2,183	8,715	5,810	2,905	11,600
Operating Costs:								
Municipal taxes		3410	3410	3410	4539	4539	4539	6042
Repairs and Maintenance		527	579	637	701	771	848	933
Net cash flows		22389	21136	20034	29800	28132	26666	39664
Capitalized value								396641
Effective Taxes	20%	4478	4227	4007	5960	5626	5333	79328
Net Cash Flow from operation		***17911***	***16909***	***16028***	***23840***	***22506***	***21333***	***317313***

Bandra-Kurla		June Q '95	Forecast					
		1995	1996	1997	1998	1999	2000	2001
Year		1	2	3	4	5	6	7
Security deposit								
Security Deposit		22,023	25,547	29,634	0	35,891	41,634	0
Interest on security deposits		3,524	4,087	4,741	4,951	5,743	6,661	6,955
New/(repayment) - security deposits				(22,023)	30,941		(30,941)	43,469
		25,547	29,634	12,353	35,891	41,634	17,355	50,425
Advance rent								
Advance Rentals		49,550	33,033	16,517	(0)	46,410	23,205	0
Annual rentals		16,517	16,517	16,517	23,205	23,205	23,205	32,601
Interest on Advance Rent		7,928	5,285	2,643	11,138	7,426	3,713	15,649
New advance rent					69,614			65,202
Gross effective rents		***27,968***	***25,890***	***23,901***	***39,294***	***36,373***	***33,579***	***55,205***
Interest on security deposits		3,524	4,087	4,741	4,951	5,743	6,661	6,955
Annual rents(credited to advances)		16,517	16,517	16,517	23,205	23,205	23,205	32,601
Interest on advances		7,928	5,285	2,643	11,138	7,426	3,713	15,649
Operating Costs:								
Municipal taxes		4129	4129	4129	5801	5801	5801	8150
Repairs and Maintenance		559	615	677	745	819	901	991
Net cash flows		23280	21145	19095	32748	29753	26877	46063
Capitalized value								460634
Effective Taxes	20%	4656	4229	3819	6550	5951	5375	92127
Net Cash Flow from operation		***18624***	***16916***	***15276***	***26198***	***23802***	***21502***	***368508***

Bibliography

Reports and Studies:

Center for Monitoring Indian Economy, *India Statistics*, 1995

Colliers Jardine Research, *Asia Pacific Property Trends, Conditions and Forecasts,* Edition 8, July 1995

Colliers Jardine Research, *India, A Real Estate Guide*, June 1995

Divekar, G..M., *Law and Practice of Property Transactions in India*, 2nd edition, 1994

Euromoney Publication, *India, Opening Up for Growth,* pp.25-48

Gujarat Ambuja Cements Ltd., Corporate Economic Division, *Tracking Indian Economy*, January 1995

Indo-American Chamber of Commerce and DSP Financial Consultants Ltd., *India, A Report,* February, 1995

International Monetary Fund, *International Financial Statistics*, 1995

Lakhotia Subhash, *Property Investment and Tax Planning Handbook, Assessment Year 1996-1997,* June 1995

Richard Ellis Research, *Delhi Market Bulletin*, 1st Quarter 1996

The Economist Intelligence Unit, *India and Nepal, EIU Country Report,* 4th quarter 1994, 1st, 2nd, 3rd and 4th quarter 1995

The Economist Intelligence Unit, *India, EIU Country Profile,* 1994/1995

The World Bank, *The Emerging Asian Bond Market, India*, 1995

The World Bank, *World Bank Country Study, Economic Developments in India, Achievements and Challenges*, 1995

Magazine and Newspaper Articles:

"Another Country", *Far Eastern Economic Review*, April 6, 1995

"Bombay real estate prices stagnate but rental rates go through the roof", *Bombay Standard*, June 6, 1995

"Crippling Cash" *Business India Magazine*, January 31, 1996

"Emerging market Indicators" *The Economist*, August 5th, 1995

"Emerging real estate markets", *Bombay Standard*, March 31, 1995

"Flattening Out, Special survey: Real estate", *India Today*, July 31, 1995

"Foreign firms allowed to invest in real estate", *Economic Times*, January 23, 1994

"Freeing Bombay of rent control", *The Times*, November 27, 1993

"Homing In", *Business India*, May 8-21, 1995

"Hong Kong NRI investment sought in real estate", *Bombay Standard*, May 5, 1995

"India's Bond market to surpass Japan soon", *The Economic Times*, August, 1995

"India's financial sector, An investment perspective" *The Economic Times Bombay*, August 6, 1995

"Investing in hope", *Financial Express*, 1995

"Investment in real estate in India", *Financial Express*, December 20, 1993

"Is corporate investment fueling real estate prices?", *Times of India*, April 14, 1995

"It can be brought down", *Economic Times*, August 3, 1995

"Just who is in charge here?", *Economic Times*, November 1, 1993

"Limited Tenancy holds the key", *The Economic Times*, April 24, 1994

"OCBs to be allowed to acquire real estates in India", *The Economic Times of Bombay*, December 1, 1994

"Policy on foreign investment in real estate may be reviewed" *Economic Times of India*, December 1st, 1994

"Properties so hot even multinationals can touch", *Bombay Standard*, December 31, 1994

"Real estate boom in Bangalore", *Hindustan Times*, July 27, 1994

"Real estate prices a crash on the cards", *Times of India*, May 5, 1995

"Real estate prices in Bombay take a beating", *Economic Times*, May 05, 1995

"Real estate prices may zoom", *The Times*, January 29, 1995

"Real estate prices stagnate as cash crunch grips market", *Financial Express*, June 18, 1995

"Room to spare", *Economic Times*, January 28, 1994

"The brilliant concept of limited tenancy" and "The rights of a sub-tenant under the new rent control law", *Accommodation Times*, April 16-May 15, 1995

"The Garden city in full bloom", *Economic Times*, March 3, 1995

"The tiger steps out", A Survey of India, *The Economist*, January, 1995

"Trillion-dollar nod", *Business India*, February 13-26, 1995

"Trapped in a trough", *India Today*, July 31 1995

"Unreal rates for real estate", "Wooing industrial investment", and "All I want is a room somewhere", *The Sunday Times of India*, July 30, 1995

"Where to invest in 1995?", *Dalal Street Investment Journal*, January 8, 1995

Business India Magazine, *September*, 13-26, 1993