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Gurgaon and Faridabad— An Exercise in Contrasts

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Gurgaon and Faridabad – An Exercise in Contrasts

Bibek Debroy and Laveesh Bhandari¹

Section 1: Background and Motivation

There is a general sense that the legal system in India is inefficient. First, there is over-legislation and unnecessary State intervention, both in the form of statutes and administrative law (rules, regulations, procedures). This increases non-transparency and contributes to rent-seeking, which is not distributionally neutral, because the relatively poor tend to suffer more. Second, over-legislation exists simultaneously with under-governance, because laws aren't enforced and the dispute resolution system, including enforcement of contracts, isn't credible. Reforming legal institutions is not only a desirable end in itself, it also has the byproduct of adding to GDP growth. While these points are unassailable, most empirical work on documenting inefficiencies of the Indian legal system is fraught with problems. For a start, cross-country comparisons tend to be overly simplistic, ignoring the specifics of the legal regime and the context within which the country is situated. In addition, legal indicators used, even when they are not cross-country, tend to be too macro and aggregate and are indiscriminately used. For instance, data collected for Hyderabad are applied to all of Andhra Pradesh. This paper adopts a different approach. It draws contrasts between Gurgaon and Faridabad, districts (and towns) not only located within the same State, but also districts with similar historical and geographical backgrounds. This enables one to control for many variables that cause different trajectories of legal and economic development within and across countries. The paper then seeks to explain the differential growth in these two geographical regions through differences in the legal land regimes.

Section 2: The Land Issue

Significant economic reforms have been introduced since 1991 that have resulted in higher rates of GDP growth, with some inter-regional variations. Since economic development is invariably correlated with increased urbanization, there has been greater demand for “urban” land. But constraints have adversely affected the supply of land required for urban growth.

What is relevant is that land is classified as agricultural and non-agricultural, with agricultural equated with rural and non-agricultural equated with urban, though the correspondence is of course not that simple. Most rural land is privately held, while significant urban land is held by the State. In catering to demands for commercialization and urbanization of land, three kinds of issues arise.

First, what is the process of acquiring privately held rural land? In some instances, free private-to-private land transfers are prohibited by the State and land can only be

¹ Centre for Policy Research and Indicus Analytics respectively. The authors would like to thank Sivaramakrishnan, Hemant Batra, Silvi Kurian, Amaresh Dubey, and Deepa Nayak for their help and insights. All errors are ours. Contact: bdebroy@gmail.com and laveesh@indicus.net.

acquired by the State. As fall-outs, there are questions about the compensation paid, the sanctity of contracts, the dispute resolution system, and so on.

Second, once land has been acquired, what is the process of conversion of agricultural land to non-agricultural use? This is discretionary and non-transparent, providing opportunities for rent-seeking.

Third, once land has been converted to non-agricultural use, there is still discretion on the kind of use that can be made of this land. Therefore, land markets are distorted and prevent free land transfers. Both urbanization and urban planning are constrained.

Urbanization

Consequently India is a country that is under-urbanized in that urbanization levels in India are low, both in comparison with developed countries, and also in comparison with other developing countries. India's rate of growth in urbanization has also slackened over the decades. Apart from the availability of land, several factors determine urbanization: India's positive, high levels of economic growth, decline in the percentage of the work-force employed in agriculture, higher levels of literacy and reduced transaction costs associated with migration, are bound to increase the forces pushing towards greater urbanization.

1.1 Urban Planning

Urbanization raises issues of urban planning and distribution of population within urban centres, since there is a concentration of populations within larger metropolitan areas. Depending on population sizes, cities are divided into six categories and two-thirds of the urban population is in Class I cities, that is, cities that have population more than 1 million as per the Census 2001. For the first time, the Census of 2001 collected data on slums and 607 cities and towns reported slum populations. About 22% of the population in these cities lived in slums, though figures are much higher for Greater Mumbai, Delhi and Kolkata.

While urban planning has many dimensions, building regulations (floor space indices), rent control regulations and land-use restrictions (master plans, zoning regulations) constrain availability of housing, real estate and urban land. Not all available urban land becomes available on the market, creating artificial shortages and inefficiencies in usage. Investments in real estate are deterred. Not all real estate becomes available on the market, creating artificial shortages and inefficiencies in usage.

1.2 Acquiring Land

The core of land law remains the Land Acquisition Act of 1894.² This covers acquisition of land for "public purpose" by the government or by a government agency, after paying compensation to individual land-owners. The process of acquisition is important and begins with a preliminary notification. Section 4(1) of

² However, the quotes are not from the original 1894 text, since there have been several amendments. Incidentally, the original British legislation was partly motivated by the intention of developing railways and acquiring land for these.

the Act states, “Whenever it appears to the appropriate Government the land in any locality is needed or is likely to be needed for any public purpose or for a company, a notification to that effect shall be published in the Official Gazette and in two daily newspapers circulating in that locality of which at least one shall be in the regional language, and the Collector shall cause public notice of the substance of such notification to be given at convenient places in the said locality.” Appropriate government usually means the Central or State government. But local authorities and societies, cooperative or otherwise, can also acquire land through the government. After notification, there is a process of inviting objections and a final award that involves payment of compensation.

Many objections centre on the amount paid as compensation and their perceived deviations from market rates. Therefore, quotes from Sections 23 and Section 24 of the Land Acquisition Act are also relevant. Section 23 states,

- (1) “In determining the amount of compensation to be awarded for land acquired under this Act, the Court shall take into consideration- first, the market-value of the land at the date of the publication of the notification...; secondly, the damage sustained by the person interested, by reason of the taking of any standing crops trees which may be on the land at the time of the Collector's taking possession thereof; thirdly, the damage (if any) sustained by the person interested, at the time of the Collector's taking possession of the land, by reason of serving such land from his other land; fourthly, the damage (if any) sustained by the person interested, at the time of the Collector's taking possession of the land, by reason of the acquisition injuriously affecting his other property, movable or immovable, in any other manner, or his earnings; fifthly, in consequence of the acquisition of the land by the Collector, the person interested is compelled to change his residence or place of business, the reasonable expenses (if any) incidental to such change, and sixthly, the damage (if any) bona fide resulting from diminution of the profits of the land between the time of the publication of the declaration ... and the time of the Collector's taking possession of the land. ...
- (2) In addition to the market value of the land as above provided, the Court shall in every case award a sum of thirty per centum on such market value, in consideration of the compulsory nature of the acquisition.” Section 24 has the caveat “But the Court shall not take into consideration - first, the degree of urgency which has led to the acquisition; secondly, any disinclination of the person interested to part with the land acquired; thirdly, any damage sustained by him which, if caused by a private person, would not render such person liable to a suit; fourthly, any damage which is likely to be caused to the land acquired, after the date of the publication of the declaration..., by or in consequence of the use to which it will be put; fifthly, any increase to the value of the land acquired likely to accrue from the use to which it will be put when acquired; sixthly, any increase to the value of the other land of the person interested likely to accrue from the use to which the land acquired will be put; seventhly, any outlay or improvements on, or disposal of the land acquired, commenced, made or effected without the sanction of the Collector after the date of the publication of the notification...; eighthly, any increase to the value of the land on account of its being put to any use, which is forbidden by law or opposed to public policy.”

Hypothetically, land acquisition can only apply to barren land, forests, swamps or land under water bodies. Unfortunately, there isn't that much of land of that category. Hence, agricultural land is also acquired and converted to non-agricultural use. Originally, most of this was done for the public sector for housing, setting up industries and setting up of industrial estates. While compensation issues were contentious even then, they became more contentious when an amendment to the Land Acquisition Act in 1984 allowed land to be also acquired for companies. Though originally this clause was only meant for housing, it now covers any "public purpose" and allows private developers to acquire land in the same manner. A city development authority can reclassify agricultural land as non-protected land, meant for non-agricultural use. Simultaneously, an industrial development board can acquire village land. In these processes, the local government or the *gram panchayat* is meant to be consulted. But this principle is honoured in the breach. This acquired land can be handed over to private developers, often in non-transparent fashion. Alternatively, in independent contracts, private developers can buy up agricultural land. Subsequently, local authorities can be persuaded to allow conversion of this agricultural land for non-agricultural use. Zoning laws can be altered.

The criticisms are about non-participation and non-transparency in decision-making processes in the Land Acquisition Act and have now led to an amendment Bill that is pending before Parliament. "The Land Acquisition (Amendment) Bill, 2007 amends The Land Acquisition Act, 1894. The Bill redefines 'public purpose' as land acquired for defence purposes, infrastructure projects, or for any project useful to the general public where 70 per cent of the land has already been purchased. The Bill bars acquisition for companies except under the 70 per cent condition. For acquisition resulting in large-scale displacement, a social impact assessment study must be conducted. Tribals, forest dwellers, and those with tenancy rights are also eligible for compensation. Acquisition costs will include payment for loss or damages to land, and costs related to resettlement of displaced residents. While determining compensation, the intended use of land and value of such land in the current market is to be considered. The Bill establishes the Land Acquisition Compensation Disputes Settlement Authority at the state and central levels to adjudicate disputes resulting from land acquisition proceedings."³

In the SEZ (special economic zone) debate in India, some controversies concern distortions in land markets. The idea of free trade zones or special economic zones is not new to India. SEZs have been around since 1965. However, what is new about SEZs since 2000 is that private sector development of SEZs, as opposed to private sector entities existing in publicly developed SEZs, is allowed and fiscal incentives have also been granted to such private developers. That apart, distortions are created in land markets, with State governments offering subsidized land and allowing conversion of agricultural land or usage for purposes (real estate, education, hospitals) that wouldn't have been allowed had a SEZ not been there. That is, in these SEZ enclaves, land usages are permitted that are not permitted elsewhere, outside the enclaves. In that sense, there are distortions. This is complicated by questions of compensating people who earn a living from the land (as opposed to possessing titles), court intervention and the certainty of land prices increasing after the contract

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<http://www.indiatogether.org/2008/may/law-land.htm>

to sell has been executed. For instance, unless one seeks Court intervention, the District Collector's⁴ decision is final. This is not purely a SEZ issue, since it has also figured in other non-SEZ type projects. West Bengal is a case in point, in the news recently, because of a proposed Tata automobile producing factory in Singur. Before that, there was controversy over a SEZ in Nandigram. Nandigram is a SEZ, while Singur is not. But in both instances, the nature of the controversy concerns the adequacy of government-provided compensation for land acquisition. Determination of 'adequate compensation' could either be based upon the current value of agricultural land or the expected future value of the land once it is used for commercial purposes.

Notwithstanding euphoria about *panchayats* and the local government itself owning equity in a development project, no one has yet been able to figure out how all such stake-holders can benefit from resultant multiplier benefits, apart from the obvious proposal of reserving some jobs for locals, with its resultant inefficiencies. Panchayats involve decentralization of decision-making powers, with participation by stake-holders. In contrast, existing laws are often centralized and colonial, with untrammelled powers in the hands of the executive, without decentralized consultations being mandatory.

However, the provisions of the Land Acquisition Act do not apply if the acquisition is completely carried out by a private entity, as opposed to acquisition by the government that is then handed over to a private entity. In other words, if the private entity (say, a construction company) acquires agricultural land at the prevailing agriculture land prices, converts it to non-agriculture purposes with the state government's acquiescence, and obtains the resulting rents for itself, the Land Acquisition Act is irrelevant. This is the story of Gurgaon.

One should also mention the Urban (Land Ceiling and Regulation) of 1976, or ULCRA, now rendered dysfunctional. This was an Act "to provide for the imposition of a ceiling on vacant land in urban agglomerations, for the acquisition of such land in excess of the ceiling limit, to regulate the construction of buildings on such land and for matters connected therewith, with a view to preventing the concentration of urban land in the hands of a few persons and speculation and profiteering therein and with a view to bringing about an equitable distribution of land in urban agglomerations to subserve the common good". There was a specific definition of "urban" in terms of government notifications issued, but the point was that Section 21 of ULCRA also permitted non-transparent exemptions from the ceiling legislation. Instead of eliminating the urban land shortage, as was intended in 1976, ULCRA accentuated the shortages through these exemptions. However, ULCRA was repealed in 1999, after having failed to remove the urban land shortage. Haryana, Punjab and the UTs (Union Territories) were the first to repeal ULCRA.

Both the Land Acquisition Act and ULCRA inhibit the functioning of free land markets in India in different ways. The former applies to rural areas, where markets are also constrained by laws on land ceilings, which vary from State to State. In

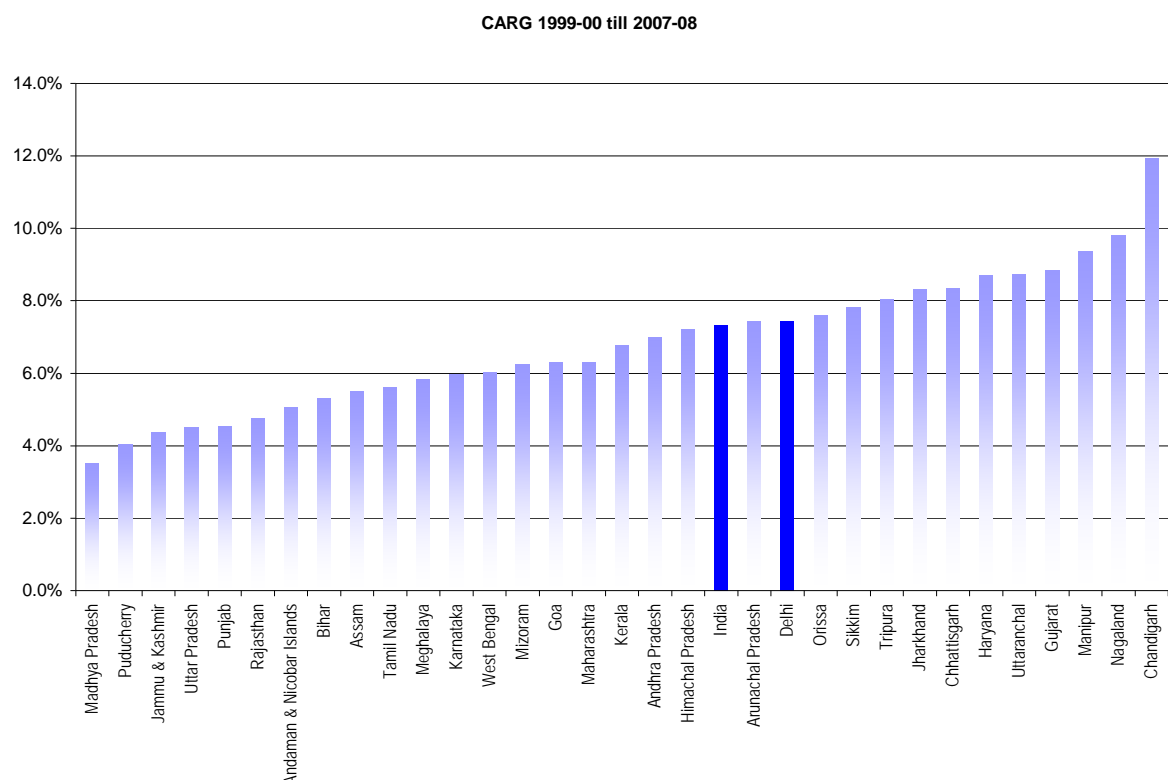
⁴ District Collector is a state government official who oversees most matters of the state government's activities at the district level.

addition, in many States, tenancy is also prohibited, driving tenancy underground. This creates disincentives in investing in land and prevents land from being offered as collateral and thus affects finance and insurance too. Cadastral surveys are also old and land titles unclear. In urban areas, ULCRA and its equivalent creates land shortages. Combined with high stamp duties, building regulations and tenancy laws, this creates artificial shortages in real estate and housing. Excess demand drives prices up. Though difficult to quantify, both rural and urban land laws thus inhibit GDP growth and efficiency.

The sections that follow investigate how land availability of land has affected urban growth. To do this, as mentioned, we compare the growth of Gurgaon and Faridabad – two cities that border Delhi. Admittedly, neither Gurgaon nor Haryana are representative of an average Indian city; though both are comparable in many different ways.

Gurgaon and Faridabad border Delhi, one of the higher growth centres of the country. Though, obviously, all cities are different and Gurgaon and Faridabad are quite different in size and character from most cities in India. However, most urban centres have one factor in common. They all have the potential to gain from the opportunities that high growth brings. And high growth, despite its regional variation, is quite well spread in India. The figure below shows GDP growth of all the states and Union Territories (UTs) in India for the period 1999-00 to 2007-08. India's GDP grew at a little above 7.3% and Delhi at 7.4% on an annualized basis; and 23 of the 35 states and UTs had a GDP growth between 5 to 9 percent annually.

Figure 1: GDP Growth in India and its States



Source: Central Statistical Organization, Government of India

The story that follows is symptomatic. There is high growth, and there is pressure on urban areas to grow. Various factors constrain land availability thereby constraining urban growth. But urban growth is occurring despite these constraints. How does that happen?

But as will become clear later, the issues identified are prevalent across the country and continue to affect urban growth in India.

Section 3: Gurgaon and Faridabad

Gurgaon and Faridabad offer a very useful contrast in studying differential patterns of development for various reasons. First, both are located in the same State, this allows one to control for determinants of development that may vary from one State to another. Second, both are located in the south-eastern parts of the State, in the plains, and this enables one to control somewhat for variations due to topography and climate. Third, to the extent that this is important, both districts share common ethnic cum religious backgrounds. Haryana's Muslims are mostly concentrated in Mahendragarh district, while Sikhs are concentrated in districts neighbouring Punjab State, though there are some Sikhs in Faridabad, as there are descendants of migrants from Pakistan after 1947. Subsequently, there have been migrants from Rajasthan, Bihar, UP and West Bengal. Both Gurgaon and Faridabad have a predominantly Hindu and Jat background. Fourth, both districts have a common historical legacy and we will come back to this point later. Fifth, since both are proximate to Delhi and NCR, they have good transport connectivity. It is estimated that 50% of Haryana's income tax collections come from Gurgaon and Faridabad districts.

As per the 2001 Census, Haryana had a population of 21.14 million. Administratively, the State is divided into 19 districts, 47 sub-divisions, 67 *tehsils*, 45 sub-*tehsils* and 116 blocks. There are 81 cities and towns and 6,759 villages. Both the districts of Gurgaon and Faridabad were a part of a larger single district (also called Gurgaon) since the state of Haryana was formed on 1st November 1966. On 2nd August 1979 the erstwhile Gurgaon district was bifurcated into Faridabad and Gurgaon districts. Each district contains a town of the same name respectively.

3.1 Faridabad

The core of Faridabad district is Faridabad city, said to have been founded in 1607 ACE. It is not very clear who Faridabad is named after. It might have been named after Sheikh Farid, Jehangir's treasurer, or it might have been named after Baba Farid, a *sufi* saint. If the Sheikh Farid story is believed, accounts suggest that Sheikh Farid built the city to preserve and protect a major road (the Sher Shah Suri Marg or the Grand Trunk Road) that passed through this area. This is now Delhi-Mathura National Highway No. 2 that goes on all the way up to the eastern parts of the country, with road connections also to cities like Agra and Gwalior. The broad gauge New Delhi-Mumbai railway line runs through Faridabad. In the 2001 Census, Faridabad city had a population of 1.05 million, the only million-plus city in Haryana.

Depending on how the two end-points are defined, Faridabad city is 25 to 28 km from Delhi.

Faridabad district is divided into five sub-divisions, Faridabad, Ballabgarh, Palwal, Hodal and Hathin, of which, four are proper sub-divisions. Of these, Faridabad, that is Faridabad city, is governed by a municipal corporation, the first and only functioning municipal corporation in Haryana. This municipal corporation was established in 1993 and divides Faridabad city into 35 wards. Certain trends about Faridabad's development are evident. First, agriculture has moved out of Faridabad city limits to the outskirts and to other parts of Haryana. This is significant because land to the east of National Highway No. 2 was prime agricultural land, partly thanks to the spread of canals. Second, agricultural land was converted to non-agricultural use, both residential and commercial. In an attempt to de-clog Delhi, many central government offices were consciously moved to Faridabad city. Third, while Faridabad traditionally has had an industrial cum manufacturing base, it is increasingly losing out to Gurgaon and Noida⁵, with industries relocating.

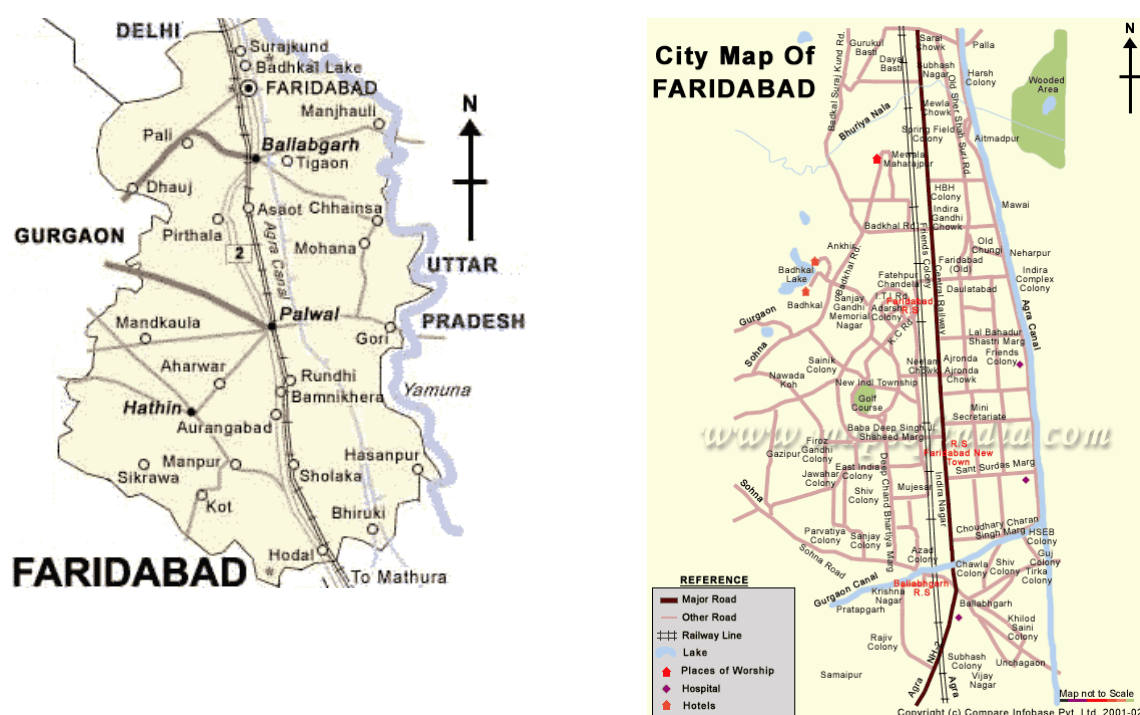


Figure 2

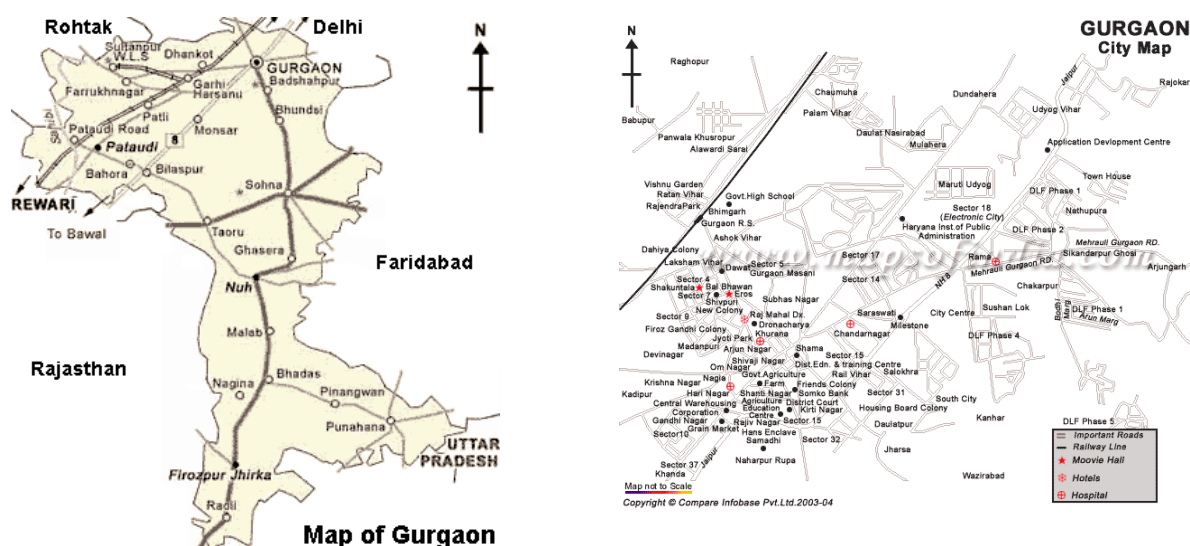
3.2 Gurgaon

The antecedents of Gurgaon district go back several thousands of years, since it is believed, reflected in the etymology of the name, that this was a village that was gifted by Yudhishtira to Dronacharya at the time of the *Mahabharata*. Through the Mughal and early British period, Gurgaon remained under minor chiefs and formally came under complete British administration in 1858, with reorganization into five tehsils (Gurgaon, F.P. Jhirka, Nuh, Palwal and Rewari) in 1861. It was also transferred from the North-Western Provinces to Punjab and in 1912, Ballabgarh

⁵ A district in the neighbouring state of Uttar Pradesh and which also borders Delhi.

tehsil was taken from the then Delhi district and included in Gurgaon district. Some more changes took place in 1950, with some areas transferred to Rajasthan and some areas gained from the then Pataudi State and PEPSU (Patiala and East Punjab States Union). In 1972, Rewari tehsil was moved to Mahendragarh district. But the most significant change took place in 1979, when Faridabad district was formed and the former Gurgaon district lost some of its area. There are now 9 blocks of Tauru, Nuh, Pataudi, Nagina, Punhana, F.P.Jhirka, Sohna, Gurgaon and Farrukhnagar and again depending on how one defines the end-points, Gurgaon city is around 32 km from Delhi. Barring Nuh and Ferozpur Jhirka tehsils, the bulk of the population consists of Hindus, of Jat or Rajasthani origin. In the 2001 Census, the total population of Gurgaon district was 870,539. Gurgaon city only had a population of 173,542. The district headquarters are in Gurgaon city and other smaller towns are Nuh, Ferozpur Jhirka, Sohna and Pataudi. The point to note is that, especially after the formation of Faridabad, Gurgaon remained predominantly rural, until the last few years. Gurgaon city still does not possess a municipal corporation.

Figure 3



The origins of Gurgaon's recent development owe much to the development of real estate, initially residential and then commercial, by DLF and later developers. DLF (originally Delhi Lease and Finance) was established in 1946 and in the late 1940s and early 1950s was involved in developing neighborhoods such as like Krishna Nagar, South Extension, Greater Kailash, Kailash Colony and Hauz Khas in Delhi. However, statutorily, the Delhi Development Authority (DDA) came into existence in 1957 and this effectively eliminated the private sector from real estate development in Delhi. The private sector had to look elsewhere, such as in Haryana, and the early expansion began in the second half of the 1970s.

Other than real estate, automobiles, retail and banking, Gurgaon became an out-sourcing and off-shoring hub. The perception of Gurgaon being an IT hub is not quite true on two counts. First, many out-sourcing and off-services are actually non-IT and are more likely to be IT enabled services than IT *per se*. Second, quite a bit of manufacturing has moved in and around Gurgaon, Hero Honda and Maruti Udyog being the two most visible. While proximity to Delhi and Indira Gandhi International

Airport may explain part of Gurgaon's development, one must remember that rail connectivity is far superior in Faridabad. Intra-city public transport is non-existent in Gurgaon, though the Delhi metro will now extend to Gurgaon and an eight-lane toll expressway now connects Delhi and Gurgaon.

The rest of this study is devoted to understanding the differential development patterns of Gurgaon and Faridabad. While other parameters are similar across the two geographical regions, Gurgaon has outstripped Faridabad's growth by a considerable magnitude. And our argument is that this is largely explained by differences in land use patterns, in policy, as well as in favourable interpretation of those policies.

Section 4: Relative Growth

This section brings forth the underlying story behind the relatively fast paced growth in Gurgaon accompanied by the relative stagnation in Faridabad. It uses both hard and circumstantial evidence to put together this story of growth differential between two neighboring cities of Delhi. It finds that a confluence of macro-economic, geo-spatial, political economic and institutional factors conspired to provide tremendous advantages to Gurgaon but not to Faridabad till the mid 2000s.

4.1 Faster relative growth in Gurgaon

Why is Gurgaon's relative growth surprising? Both Faridabad and Gurgaon as has been discussed before, are similar sized for the districts (though not for the towns), are in the same state of Haryana and therefore have similar local laws and regulatory structure, they both border the southern part of Delhi, have a major National Highway running through them, and broadly had similar infrastructure parameters. If anything Faridabad was significantly more developed, had a significantly higher manufacturing sector base, was relatively better endowed in terms of agricultural land and overall can be presumed to have a higher average household income than Gurgaon. The growth momentum was also far stronger in Faridabad city than in Gurgaon and spiked in Faridabad in the period 1971-81 when population grew by greater than 150% in the 10 year period.

Table 1: Population in the Two Cities

City	Area of City 2001	Density 2001	2001	1991	1981	1971	1951	1901
Faridabad MC	198.75	5,313	1,055,938	617,717	330,864	122,817	37,393	9,816
Gurgaon	28.91	7,915	228,820	135,884	100,877	57,151	18,613	4,765

Note: Faridabad MC stands for Area overseen by Faridabad Municipal Corporation; **Source:** Census of India, various years. However a large part of Gurgaon which is clearly urban has not been classified as such by the Census of India. The figures for Gurgaon's urban population are therefore clearly under-estimates.

However, between 1981 and 2008 significant changes have occurred in both districts; they both are among the most rapidly growing districts of Haryana with decadal population growth above 40%, to a large extent due to in-migration of workers. As the tables below and in the Appendix show, industrial activity increased in both the districts, but much more in Gurgaon than Haryana. It is also evident that the tertiary

sector grew much faster in Gurgaon than in Faridabad. As late as the early nineteen eighties Faridabad was among North India's largest manufacturing bases whereas Gurgaon was a minor town in Haryana. Today conditions are different.

Table 2: Percentage Distribution of Workforce

	1991	2001	1991	2001
District	Agriculture Workers	Agriculture Workers	Non-agri	Non-agri
Faridabad	35.91	34.18	64.09	65.82
Gurgaon	46.64	40.29	53.36	59.71

Source: Census of India, 1991 and 2001

Table 3: Main characteristics of registered manufacturing sector

Units			(Rs. Lakhs)	(Rs. Lakhs)	(Rs. Lakhs)	(Rs. Lakhs)	
District	Year	No. of units	Output	Input	Depreciation	Net Value Added	Number of Workers
Faridabad	1993-94	1100	461936	358007	10899	93030	58188
Faridabad	2003-04(P)	1457	1354746	1094060	37113	223573	72297
Trend annual rate of Growth		5.2%	16.7%	16.5%	22.0%	14.6%	3.4%
Gurgaon	1993-94	241	299770	242805	10773	46192	16267
Gurgaon	2003-04(P)	944	2961934	2393236	116240	452458	89599
Trend Annualized Growth		22.8%	36.8%	37.2%	41.3%	33.4%	27.7%

Note: All rupee amounts in nominal terms; Rs 1 lakh = Rs. 100,000

Source: Economic and Statistical Organization, as reported in Statistical Abstract of Haryana, Govt. of Haryana, 2004-05.

Though Faridabad has lower share of its work-force devoted to agriculture, the share is more or less stagnant. Gurgaon's on the other hand is changing rapidly, moving away rapidly towards non-agriculture activity. This shift in occupations is also reflected in the relatively greater growth in Gurgaon's manufacturing sector – in terms of output, value added and employment of the registered (organized) manufacturing sector.

Note that the above data are from early nineties onwards, older data are not available at sufficient level of disaggregation. However, anecdotal evidence and journalistic accounts suggest that these trends began in the 1980s.⁶

⁶ Scores of result come up under the search term "growth of gurgaon since 1980s" on Google. "... Gurgaon was basically a village that began to see prominence in the mid 1980s. ..." www.streetdirectory.com/travel_guide/76543/india_properties/property_in_gurgaon.html; "Gurgaon began to see prominence in the mid 1980s" www.articlesbase.com/real-estate-articles/the-spreading-out-of-gurgaon-86707.html; "It all started in the early 1980s and two decades later it hasn't stopped. ..." www.gurgaonsearch.com/index8.html. "The impressive growth that this cyber city has shown is hardly comparable" www.indianrealtynews.com/real-estate-india/gurgaon/real-estate-investments-in-gurgaon.html; "In early 1980s, these colonisers had hundreds of private borewells and were drawing water free of cost." www.indiaenvironmentportal.org.in/node/14939; "The main growth of the sector started with joint-ventures in the 1980s" www.nosweat.org.uk/story/2007/06/08/gurgaon-workers-news-indian-sweatshop-conditions-resistance-documented; "Gurgaon's phenomenal growth in the

4.2 Cheaper Land in Gurgaon

As mentioned before, prior to 5th August 1979 Gurgaon and Faridabad were both part of the same administrative unit – the Gurgaon District. By a state order the erstwhile Gurgaon district was divided into two parts on that day - the new smaller Gurgaon district and Faridabad district. Each of these districts contained the city of the same name. The divergent growth story of the two cities starts from this point.

Geographically the Aravali hill range separated the two new districts. Faridabad lies between the Aravalis and the Yamuna, one of North India's largest perennial rivers. The land is relatively richer alluvial with a high water table and consistent land sloping from the Aravalis in the West to East towards the Yamuna. In other words, agriculture is far more productive in Faridabad – with relatively richer soil, easy access to water through tube wells and irrigation channels, and good drainage. Consequently the new Faridabad district had more productive and valuable land.

The new Gurgaon on the other hand was not as well endowed. The Aravalis to its east cut off both drainage as well as possibility of water for irrigation from the Yamuna. Sub-surface water remains the primary source of water for agriculture but is brackish, the soil is also not considered as rich.

Not surprisingly the differences between the two districts agriculture are quite stark. Faridabad being far 'richer' than Gurgaon. This, we argue, was instrumental in Gurgaon's early growth as it ensured easier access to land (low population density) that was also presumably cheaper (though comparable data on land values are unavailable, the productivity differences were quite pronounced). Moreover, the productivity differences have only widened in the last two and a half decades. Being less productive and less in demand for agricultural purposes, Gurgaon's land was more readily convertible to non-agricultural purposes and government policies allowed this conversion. This didn't happen in Faridabad, where land was relatively more fertile.

Table 4: Gross Value From Agriculture Per Hectare at Current Prices (Rs)

District	80-81	85-86	90-91	95-96	00-01	04-05
Faridabad	4,323	6,382	12,289	22,562	40,613	49,252
Gurgaon	4,141	5,510	11,297	19,254	31,787	36,083
Faridabad as a % of Gurgaon	104%	116%	109%	117%	128%	136%

Source: Statistical Abstract of Haryana 2005-06, Govt. of Haryana.

There are many reasons why productivity differences may have widened. For one, irrigation has improved far more in Faridabad than in Gurgaon; this is only partly a result of its natural advantages. (See Table A7 in Appendix)

recent years gave rise to generation of ... plant that started in early 1980's Gurgaon developed as an automotive hub. ..." www.mygridjobs.com/india/jobs-in-gurgaon.html; the point is, that this is universally acknowledged phenomenon.

But irrigation is only one component of the story. The government is a large buyer of agricultural commodities, especially cereals. These purchases go to feed the subsidized public distribution system across the country. Typically government purchases are at higher than market prices. Government and quasi government organizations open market purchases of cereals occurred on a large scale in Faridabad, but less so Gurgaon. The obvious answer is that, given the quality of land, such marketable surpluses were more in Faridabad than in Gurgaon. After all, procurement primarily meant rice and wheat. This would also have impacted relative agricultural land prices in the two districts in favour of Faridabad. (see Table A8 in Appendix)

The land size distribution was also skewed towards larger plots-sizes in Gurgaon than in Faridabad. In other words, land for non-agricultural purposes was cheaper and larger plots were more available in Gurgaon. To this end, limited growth in irrigation and insignificant government purchases in Gurgaon further added to the value differential in land. Converting agriculture to non-agricultural land was therefore far easier and cheaper for the private construction firms in Gurgaon, and the monetary returns to the entities involved in this were also consequently far higher in Gurgaon.

Table 5: Agri-Land Distribution

	1980-81		1980-81	
	Faridabad	Faridabad	Gurgaon	Gurgaon
Size Group (in hectares)	No.	Area	No.	Area
Below 0.5	16091	7024	23110	6648
0.5 to 1	13752	8231	15171	12562
1 to 2	12578	23864	19385	33813
2 to 3	7205	1657	11774	24833
3 to 4	5883	15652	8286	28044
4 to 5	3834	16716	5433	26363
5 to 7.5	3653	19327	5598	39854
7.5 to 10	1516	12821	2447	20261
above 10	1325	20744	1868	35663
Total	65837	141036	93072	228041
Average size of holdings		1.91		2.45

Source: Statistical Abstract of Haryana 2005-06, Govt. of Haryana.

4.3. Preference for Gurgaon's Infrastructure

Two aspects of infrastructure are extremely critical in the commercial development, especially in the Indian context where infrastructure bottlenecks are well known. These two are roads and electricity. By the early eighties it was quite apparent that Faridabad required intensive infrastructure improvements. Its large manufacturing sector required a well spread and maintained road infrastructure, and also required a well spread power network. However, where non rural infrastructure investments are concerned we find that the majority of growth occurred in Gurgaon rather than in Faridabad.

Why might this be the case? Since a large economically active base already existed in Faridabad, the state government could have generated greater economic returns with greater investments in Faridabad. Both electricity and roads are controlled by the

state government and therefore the direction is not provided through the market or through any other institution. Instead, priorities related to investment in infrastructure are decided by the state government through its various arms. However, the trigger for road development was a Central government initiative through the National Highway Development Programme (NHDP), which upgraded national highways, under the purview of the Centre. State highways, under the purview of State governments, were upgraded later and were not part of the NHDP. NH (National Highway) 8 passes through Gurgaon and goes on to Jaipur. NH-2 passes through Faridabad and goes on to Mathura. However, upgradation of national highways also requires land acquisition and conversion. Consequently, Gurgaon gained at Faridabad's expense. Conversely, Faridabad is on a railway network, while Gurgaon isn't. But unlike reforms in the road sector, there were no reforms that improved the railway network. As for electricity, reforms stagnated in both Gurgaon and Faridabad, since the issue wasn't just generation or transmission, but distribution too.

There is no government document that explicitly lays out this preference for Gurgaon. Later sections also discuss why Faridabad with its own local government was unable to circumvent such hurdles. As a side-note, also mentioned in the previous sections, earlier data are unavailable for electricity but the trends that played out since the mid nineties reflect a longer trend.

Table 6: Electricity Infrastructure

District	Year	Low Tension lines (Circuit km.)	11 KV. Lines (Circuit km.)	No. of transformers
Faridabad	1996-97	7123	3022	6065
Gurgaon	1996-97	8340	3106	4948
Faridabad	2005-06	9244	3736	8417
Gurgaon	2005-06	10400	4737	7874
Faridabad	% Growth	30%	24%	39%
Gurgaon	% Growth	25%	53%	59%

Source : State Electricity Board, Haryana; earlier data are not available

Table 7: Metalled roads in km

District	1979-80	2005-06	% Growth
Faridabad	943	1172	24%
Gurgaon	1241	1635	32%

Source: Statistical Abstract of Haryana 2005-06, Govt. of Haryana.

4.4. Macro-economic forces: Why the Faridabad Lobby Weakened

The above sections argue that cost and availability of land favoured the development of a new city rather than the expansion of an old one. The state government also did its bit to ensure both adequate and cheap availability of agriculture land and greater infrastructure investments in Gurgaon relative to Faridabad. One question that therefore emerges is, were there not any political forces emanating from those

dependent on Faridabad's economy? Why could Faridabad's elite, members of a much larger city with a strong manufacturing base, not lobby for greater investments in their city? The answer lies in the differential incentive structure emanating from differential land owning patterns. In Faridabad, those who would have gained the most did not have the wherewithal to push for rapid changes. But in Gurgaon those who owned the land found a willing partner in the political class.

Before proceeding further on these lines, it would be pertinent to mention some macroeconomic changes that were occurring in India at the time.

Indian economic reforms started in the mid-eighties and gathered momentum in the early nineties. The bulk of Faridabad's manufacturing base developed before this period. In line with overall economic structure of India during that period, the large industrial base of Faridabad produced for a domestically-oriented market. High import tariffs and various benefits for small scale and import substituting units supported this manufacturing base. Further entry and production in most manufacturing sector were controlled through an elaborate licensing regime. The 1990s reforms led to de-licensing of most manufacturing, open entry both for domestic and international firms, rapid lowering of import tariffs, depreciation of the rupee, reduced subsidies and benefits to the manufacturing sector in general. This led to a range of negative shocks to the manufacturing sector in India in general and Faridabad's in particular. Thus through much of the 1990s Faridabad's manufacturing sector was not among the city's most dynamic sectors (also see Appendix tables A11 and A12).

Sectoral dynamics constitute another aspect of the Faridabad – Gurgaon story, for the simple reason that the slowdown in the manufacturing sector growth affected Faridabad's industrial lobby's ability to push for greater investment and focus towards Faridabad both within Haryana and at the national level in Delhi. Meanwhile the rapid growth of the services sector, the entry of MNCs, and the rapid rise of the export oriented Information Technology (IT) and IT enabled services (such as business process outsourcing) required large floor spaces which the large private entities were willing to supply in Gurgaon. Moreover, the proximity of Gurgaon to the international airport also supported the growth of export oriented units such as in the garments sector.

Appendix Tables A11 and A12 indicate the range of large-scale economic activities in the two districts. It is apparent, Gurgaon with its newer infrastructure, and active state government support, along with greater and more pro-active actions of the private sector construction companies was able to attract a far richer set of corporate entities. Let us make this argument a bit more explicit. Agricultural land was easier to acquire in Gurgaon than in Faridabad. The land was acquired not only by private sector construction companies, but also (it is claimed by many though not confirmed) by the political class, which had some inherited in Gurgaon as well. This land now needed to be converted into non-agricultural use. And since the political class was also (as claimed) a beneficiary from this conversion, with higher sale values resulting, the conversion was readily done in Gurgaon. The interests tended to or were made to coincide. Perhaps it is worth mentioning that private sector companies such as DLF did purchase land in Faridabad as well. However, since conversion didn't occur, that

land was eventually sold out, the key difference being that the political class owned little land in Faridabad.

One further strand needs to be added to complete the story. Haryana was the first state in India that allowed entry of private developers in real estate. In that sense, the Haryana Urban Development Authority (HUDA) policies were uniform across both Gurgaon and Faridabad. However, the so-called third-tier of government: urban local bodies (ULBs) were missing in Gurgaon. Gurgaon only had a municipal committee, not a municipal corporation, since it was below the relevant population threshold. Had there been a municipal corporation, as was the case in Faridabad, there would have been yet another tier of government, with possible countervailing checks on arbitrary conversion of village land to urban areas. The participation of the urban local body would have been mandatory. Since there was no such tier of government in Gurgaon, the decisions of the Chief Minister's office alone were sufficient. The democratic process didn't exist.

4.5 Lack of Local Government in Gurgaon and Centralized Administration

We now turn to an elucidation of how this land conversion process was managed for private gain.

Land conversion requires many permissions and complex procedures. It requires the ascent of the state government (Government of Haryana), the land development agencies (Haryana Urban Development Authority – HUDA), and also the local government. Within the state government the Chief Ministers (CM) office has the key veto power in allowing land conversion. The urban development authority is also typically controlled by the CM's office. However the local government has its own political-development dynamics.

Significantly the bifurcation of the Gurgaon district in 1979 led to a situation where there was a strong local government in Faridabad – Municipal Corporation of Faridabad, but there was no such entity in Gurgaon (in fact till today there is no Municipal Corporation in Gurgaon city). Hence all of land conversion and development related issues were highly centralized for Gurgaon, controlled directly by the CM's office, but Faridabad had a more complex environment. Given this centralization, it was possible for the state government to take measures highly specific for Gurgaon. This centralization ensured that decisions could be taken and implemented rapidly. In such a situation if gains from land conversion are concentrated in the hands of a few (large businesses and/or land owners) it would be easier for them to synergize the incentives of the political class with their own. Of course in the process sub-optimal decisions can be taken, urban planning can be given short shift, etc., but that is a matter we pursue later.

But democratic institutions, even at the local level, have their own dynamic. Procedures take time, many voices need to be heard, and idiosyncratic decisions cannot be taken easily. Had the state government focused on improving this aspect of local governments or Urban Local Bodies (ULBs), the Faridabad story may very well have been different.

As per the 12th Schedule of the 74th Constitutional Amendment Act of India the Urban Local Bodies have 18 tasks under their functional domain.⁷ These are:

1. Urban planning, including town planning
2. Regulation of land use and construction of buildings
3. Planning for economic and social development
4. Roads and bridges
5. Water supply for domestic, industrial and commercial purposes
6. Public health, sanitation conservancy and solid waste management
7. Fire services
8. Urban forestry, protection of environment and promotion of ecological aspects
9. Safeguarding the interests of weaker sections of society, including the disabled and mentally retarded
10. Slum improvement and upgrading
11. Urban poverty alleviation
12. Provision of urban amenities and facilities such as parks, gardens, playgrounds
13. Promotion of cultural, educational, and aesthetic aspects
14. Burials and burial grounds, cremations, cremation grounds, and electric crematoriums
15. Cattle pounds; prevention of cruelty to animals
16. Vital statistics including registration of births and deaths
17. Public amenities including street lighting, parking lots, bus stops, and public conveniences
18. Regulation of slaughter houses and tanneries

Decentralization to ULBs circumscribes the powers of the state government; the ULBs can affect state governments plans in many different ways. The first is through putting in rules and procedures related to various permissions to be granted. Apart from town planning, these can be in the realm of environmental clearances, identification of priority areas for infrastructure development, etc. in line with the powers delineated by the Constitution. The second route is more political, strong local politicians can directly or indirectly affect state government plans. And the third is simply the inefficiency route. Local governments typically are quite slow and inefficient in granting the required permissions. Again, by design, Gurgaon was spared all of this, but not Faridabad.

In Gurgaon therefore the local government did not impact road building, water supply and sanitation, street lighting, parks etc. Rather private builders who had purchased and controlled large tracts of land in Gurgaon were to be responsible for their own areas, and this was supplemented by the efforts of the state government. The next section describes the apparent consequences of this.

⁷ Until the amendment, local governments in India were organised on the basis of the ‘ultra vires’ principle [beyond the powers or authority granted by law] and the state governments were free to extend or control the functional sphere through executive decisions without an amendment to the legislative provisions. The important provisions specified in the Act include constitution of municipalities, devolution of greater functional responsibilities and financial powers to municipalities, regular and fair conduct of municipal elections, and constitution of Wards Committees, District Planning Committees, Metropolitan Planning Committees and State Finance Commissions.

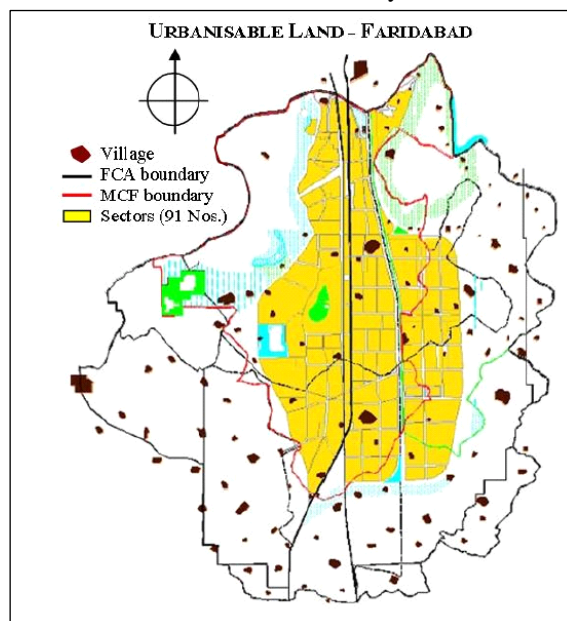
While missing local governance in Gurgaon may have aided its infrastructural growth, Faridabad was not as fortunate where urban infrastructure growth was concerned. For one, at the outset the limits of the Faridabad Municipal corporation was a large area of slightly less than 200 square kilometers. The land further out of these limits would not be able to provide the same returns as that closer to the city center. Second, Faridabad is located on a National Highway connecting Delhi to the large population concentrations in Uttar Pradesh, Bihar and eastern India. The bulk of road transport goes through this route. And right in the middle of Faridabad is a large bottleneck around the Badarpur Power station. For many decades it was apparent that a flyover needed to be built over this bottleneck, but no such infrastructure development occurred (and is only now being built). This further constrained the flow of passenger traffic between Delhi and Faridabad further preventing the growth of residential suburbs in Faridabad that could service Delhi. Third, unlike in the case of Gurgaon, the bulk of the land development occurred through HUDA in Faridabad. HUDA went in largely for plotted residential units for individual households rather than apartment complexes. Large private operators were therefore largely missing in Faridabad. A good number of developed sectors within Faridabad as presented in the adjacent figure are under the administration and management of HUDA.

Figure 4: List of functions of MCF

Service/ Sector	Planning & Design	Execution	O&M
Town Planning	Town & Country Planning Department	MCF, HUDA	-
Urban poor & Slums	MCF	MCF	MCF
Water Supply	MCF	MCF	MCF/ PPP
Sewerage	MCF	MCF	MCF
Storm Water Drainage	MCF	MCF	MCF
Solid Waste Management	MCF	MCF	MCF/ PPP
Roads, Bridges, Drains	MCF, HUDA	MCF, HUDA	MCF
Street lights	MCF, HUDA	MCF, HUDA	MCF

Figure 5

Note: Shaded areas are those controlled by HUDA.



Section 5: The Institutional/Legal Background

5.1 Absent Urban Government in Gurgaon

Before we venture into the problems and advantages associated with unregulated and unstructured private sector development of Gurgaon, we will first venture into the question of why no municipal/urban local body (ULB) was created in that city. There is a structured system that explains this outcome, which involves three entities. The state government, the Census of India and the Central government's Ministry of Urban Development (C-MoUD).

The CMoUD on the basis of Census population figures in an area asks the state government to set up a ULB. The state government is then supposed to take appropriate measures. The type of the ULB to be set up depends upon the demographic characteristics of the area. This in turn is based on the information available with the CMoUD on that area from the last available Census. The Census takes an area to be urban on either of two criteria.

The first set of criteria is as follows:

- A minimum population of 5000;
- At least 75% of the male working population should be engaged in non-agricultural pursuits and
- A density of population of at least 400 per sq.km.(1000 per sq. mile)

If as per the Census 1991 each of these criteria were not met, then in the 2001 Census counting this area would not be classified as urban. Therefore there is some gap between the time an area's population expands and the time it formally gets recognized as urban by the Census. Though information is unavailable, the last criteria (that of density) was probably not met as per the 1991 in the area of Gurgaon where the bulk of growth resides.

The second criteria used by the Census is as follows: if the state government declares an area to be urban, then the census has to categorize that area as urban. And if the population of that area is beyond 50,000 then CMoUD would need to recommend the formation of a ULB to the state government. This regulation effectively ensures that the state government does not have to wait for these demographic parameters to be met and can take pro-active measures.

In this particular case, no such action was taken by the state; the area where rapid development is taking place was classified as rural Gurgaon, and consequently the setting up of the relevant ULB was delayed. As has been mentioned before, Gurgaon does not have a municipal corporation, because developments ostensibly took place on land that was rural, but reconverted for commercial use. There is a municipal council in Gurgaon, but its jurisdiction only covers the old Gurgaon town. That is, all the developments in new Gurgaon are outside the purview of this municipal council too. Consequently, the mandated public scrutiny of urban planning proposals and the requirement of a master plan doesn't yet apply to the new Gurgaon.

5.2 Structure of land/property transfers

To understand how land transfers are effected, a brief digression on India's land laws is in order. The major heads under which land is classified in India are agricultural land, commercial land, industrial land, residential land, institutional land and land reserved for forests/green belts. The relevant laws are the Indian Registration Act of 1908 (some instruments have to be compulsorily registered), the Indian Stamp Act of 1899 and the Transfer of Property Act of 1882. The Transfer of Property Act provides for transfers through State intervention (intestate succession, insolvency, execution) and transfers that are done by the parties, the latter divided into transfers by will after death and transfer *inter vivos*, meaning transfers by one living person to another. In the present context, what is relevant is transfers by one living person to another, through sale, lease, mortgage, exchange, gift and sales of share of a company. The legal definitions of these, and the implications, are different.

Specifically within Haryana, the relevant laws for both residential and commercial property are the Haryana Apartment Ownership Act (1983), the Haryana Apartment Ownership Rules (1987), the Haryana Ceiling of Land Holdings Act (1972), the Haryana Development and Regulation of Urban Areas Act (1975), the Faridabad Complex (Regulation and Development) Act (1971), the Haryana Industrial Estates (Development and Regulation) Act (1974), the Haryana Municipal Act (1973), the Haryana Municipal Building Bye-Laws (1982), the Haryana Special Economic Zones Act (2005) and the Haryana Urban Development Authority Act (1977). Note that the Faridabad Complex (Regulation and Development) Act (1971) set up a separate licensing regime for Faridabad and so did the Haryana Municipal Act (1973), which did not apply to Gurgaon. The Haryana Urban Development Authority (HUDA) has the task of developing urban land (residential, commercial, industrial) through acquisition and the development of a land-use plan, but its flexibility is restricted in Faridabad. Some industrial estates are planned through the Haryana State Industrial and Infrastructure Development Corporation (HSIIDC) and this includes both Gurgaon and Faridabad.

In the absence of any jurisdiction under the Haryana Municipal Act, all that applies to Gurgaon are HUDA and HSIDC decisions. As has been mentioned before, these are malleable to what a Chief Minister's office requires.

5.3 Discretion in Land Use

The government's discretion in land use enters through the Department of Town and Country Planning (DTCP), Haryana. DTCP is supposed to ensure planned development by implementing the Punjab Scheduled Roads and Controlled Areas Restriction of Unregulated Development Act, 1963, which applies to Haryana, the Haryana Development and Regulation of Urban Areas Act, 1975 and the Punjab New (Capital) Periphery Control Act, 1952, which also applies to Haryana. In order to involve the private sector in the process of urban development, the DTCP grants licences to private colonizers for the development of residential, commercial, industrial and IT Park/Cyber Park colonies. For granting licences, DTCP has divided Haryana into zones. While the urban area around Gurgaon has been declared a hyper zone, that around Faridabad is a high potential zone. In general, this means that larger

areas for development are permitted in Gurgaon than in Faridabad and change of land use (CLU) is easier, though it also means that higher development fees are charged. Note that under Section 7(A) of the Punjab Scheduled Roads and Controlled Areas Restriction of Unregulated Development Act, the government can relax any restriction or condition related to land use, if it is in “public interest”. Note also that in municipal areas, a no objection certificate (NOC) is required from municipal authorities. But in non-municipal areas as in Gurgaon, a NOC from the state government’s department - DTCP is required. The point being that this NOC requires no citizen participation (unlike a municipal council) and can be managed by the executive.

Section 6: Conclusion - Who benefited and why

In sum, the private incentives to develop Faridabad were not as strong as those in Gurgaon. These private incentives were in part aided by state government actions and in part due to exogenous conditions and forces. Normal instruments of governance, administrative systems and democratic institutions were all either circumvented or used to ensure that Gurgaon progress rapidly. These forces produced rapid results in Gurgaon, whereas status-quo characterized Faridabad.

There clearly are many beneficiaries in the Gurgaon story. The large private construction companies that have developed the land have financially benefited the most. Of these DLF would have benefited the most as it controls the bulk of the land in the new Gurgaon, however, it would be not the only one – the Ansal group, Unitech group, are some of the other larger companies with property interests in the area. The state government has also benefited in the sense that greater economic activity would have yielded greater tax and non-tax revenues for the state-government. (Though it is likely that the state government tax and non tax revenues would have been higher still had Faridabad also grown rapidly.) The new private sector dominated economy also benefited since large floor spaces were rapidly made available, unlike in most other parts of India. These companies (both national as well as MNCs, large and small) as well as their employees were able to quickly start and scale their activities. It is also claimed by many (though no documented evidence exists) that the political elite of Haryana also benefited as elites own significant property interests in the area. If true, this last point ties in very well with the preference shown to Gurgaon by the policy-making elites in state government, as well as by the absence of an urban government in the city.

The key point is that if decision-making is concentrated then it is possible for lobbies to use legal and/or extra legal means to synergize the incentives of the decision-makers with those of their own. This can lead to greater responsiveness of governments, as it appeared to have in the case of Gurgaon. However, if decision-making is spread out, as it tends to be in democratic institutions, lobbies of different types will find it costlier and more difficult to incentivise the political class. But despite the necessity of the government to be highly responsive to changing requirements, it cannot be at the cost of centralization and consequent idiosyncratic decision-making.

Clearly, there are many beneficiaries in the short term. But long term sustainable urban progress requires more than improved infrastructure and short term growth. Development also requires a conducive environment, planning, urban services, and so on. For some of these factors, private initiatives backed by a rapidly growing economy and consequently high incomes could be a substitute. Private schools, building societies with own power generators, private ground water extraction, septic tanks in place of sanitation infrastructure, are some examples. Of course, it could be argued that these are second-order solutions required by the continued lack of public urban infrastructure, but they are solutions nevertheless.

There are many issues that high incomes such as those earned by Gurgaon's residents cannot solve. Poor urban planning has led to lack of public transport, few public amenities, lack of footpaths, traffic bottlenecks (though arguably that exists everywhere), garbage disposal, and lack of adequate wastewater disposal etc. As Gurgaon grows, some of these constraints will become more and more noticeable. Again, some of these warts can be dealt with later, however poor urban planning does have long-term consequences.

The key question is therefore whether the absence of appropriate democratic institutions is beneficial. The answer is straightforward. The absence of democratic institutions can lead to long term benefits only if appropriate and adequate institutional structure exists. Monopolistic markets do not typically lead to optimal outcomes. Private sector monopolies have extracted rents due to their significant market share in Gurgaon, where Gurgaon did not have a competitor city in Haryana or in other neighboring states. On the other hand the existence of a democratic institution such as the Municipal Corporation in Gurgaon, would also not have been necessarily a first best solution *if it was characterized by poor practices, lack of internal systems, corruption, and low responsiveness to changing economic conditions*, as most ULBs are in India.

Appendix Tables

Table A1: Decennial Population Growth Rate

City	1991-2001	1981-1991	1981-1971	1951-1971	1901-1951
Faridabad MC	71%	87%	169%	81%	31%
Gurgaon	68%	35%	77%	75%	31%

Source: Census of India, various years

Table A2: Main characteristics of annual survey of industries (registered manufacturing sectors)

Units			(Rs. Lakhs)	(Rs. Lakhs)	(Rs. Lakhs)	(Rs. Lakhs)	
District	Year	No. of units	Output	Input	Depreciation	Net Value Added	Number of Workers
Faridabad	1993-94	1100	461936	358007	10899	93030	58188
Faridabad	1994-95	961	545219	459301	10855	105063	60973
Faridabad	1995-96	1003	687198	558352	24367	104479	61877
Faridabad	1996-97	969	729155	581026	18406	129723	61558
Faridabad	1999-2000	992	1038710	871724	34936	132050	62905
Faridabad	2000-01	1181	1119592	886962	33801	198829	69731
Faridabad	2002-03	1368	1122853	877199	40068	205586	72965
Faridabad	2003-04(P)	1457	1354746	1094060	37113	223573	72297
Faridabad	Trend Annualized Growth	5.2%	16.7%	16.5%	22.0%	14.6%	3.4%
Gurgaon	1993-94	241	299770	242805	10773	46192	16267
Gurgaon	1994-95	311	492516	392795	17890	81831	20639
Gurgaon	1995-96	356	776843	597514	23808	155521	31460
Gurgaon	1996-97	418	943559	734935	31062	177562	30966
Gurgaon	1999-2000	489	1380981	1057847	49725	273409	41035
Gurgaon	2000-01	684	1893832	1590280	87893	215659	60975
Gurgaon	2002-03	950	2089828	1682042	88391	319395	72738
Gurgaon	2003-04(P)	944	2961934	2393236	116240	452458	89599
Gurgaon	Trend Annualized Growth	22.8%	36.8%	37.2%	41.3%	33.4%	27.7%

Note: All rupee amounts in nominal terms; Rs 1 lakh = Rs. 100,000

Source: Economic and Statistical Organization, as reported in Statistical Abstract of Haryana, Govt. of Haryana, 2004-05.

Table A3: Bank Credit in Gurgaon and Faridabad as % of Total in Haryana

Year	1996	2006	1996	2006
Sector	FARIDABAD	FARIDABAD	GURGAON	GURGAON
AGRICULTURE	4.08	4.20	3.44	2.65
INDUSTRY	22.23	19.12	12.29	22.01
TRANSPORT OPERATORS	6.71	1.64	9.73	14.65
PROFESSIONAL	16.83	16.95	10.05	15.66

AND OTHER SERVICES				
PERSONAL LOANS	12.16	11.89	7.62	15.65
TRADE	10.50	16.44	7.95	11.84
FINANCE	20.79	6.71	43.21	90.19
ALL OTHERS	19.99	18.49	19.04	14.35
TOTAL BANK CREDIT	16.00	12.97	9.90	16.96

Source: Reserve Bank of India

Table A4: Gross Value From Agriculture Per Capita (Rural) at Current Prices

District	80-81	85-86	90-91	95-96	00-01	04-05
Faridabad	1,219	1,562	2,540	4,564	6,783	6,896
Gurgaon	987	1,317	2,239	3,449	4,713	4,259
Faridabad as a % of Gurgaon	124%	119%	113%	132%	144%	162%

Source: Statistical Abstract of Haryana 2005-06, Govt. of Haryana.

Table A5: Agriculture Production and Productivity

Unit	Tonnes	Hectare	Tonnes	Hectare	Tonnes per hectare	Tonnes per hectare
District	Gurgaon	Gurgaon	Faridabad	Faridabad	Gurgaon	Faridabad
Year	Total Production	Total Cropped Area	Total Production	Total Cropped Area	Productivity	Productivity
1999-00	598,100	296,400	1,043,400	261,591	2.02	3.99
2000-01	658,100	300,110	1,021,300	264,765	2.19	3.86
2001-02	645,800	298,632	1,027,400	268,541	2.16	3.83
2002-03	586,900	279,157	1,013,500	247,595	2.10	4.09
2003-04	651,300	300,660	979,400	266,726	2.17	3.67
2004-05	601,700	288,155	918,800	269,901	2.09	3.40

Source: Ministry of Agriculture, Government of India

Table A6: % of Net Irrigated Area to Net Sown Area

District	80-81	85-86	90-91	95-96	00-01	04-05	Normal annual rainfall in mm (2000-2004)
Faridabad	47.9	55.2	50.2	74.2	76.3	79.1	534.4
Gurgaon	38.3	39.2	51.8	32.3	42.6	54.5	484.9

Source: Statistical Abstract of Haryana 2005-06, Govt. of Haryana.

Table A7: Net Area Under Irrigation '000 Ha

	District	Net Area Under Irrigation	% Irr to Net Sown Area
2004-05	Faridabad	117	79.1
	Gurgaon	90	54.5
1981-82	Faridabad	90	53.6
	Gurgaon	81	40.1

Source: Statistical Abstract of Haryana 2005-06, Govt. of Haryana.

Table A8: Procurement of wheat

District	Year	State Govt	HAFED*
Faridabad	1996-97	30	50
Gurgaon	1996-97	20	20

Faridabad	2005-06	48	59
Gurgaon	2005-06	1.2	2.6
Faridabad	% Growth	61%	18%
Gurgaon	% Growth	-94%	-87%

Note: HAFED: Haryana Agro Marketing Federation, is a state government controlled entity.

Source: Statistical Abstract of Haryana 2005-06, Govt. of Haryana.

Table A9: Metalled roads per 100 sq km area

District	1979-80	2005-06
Faridabad	43.9	54.5
Gurgaon	45.7	60.1

Table A10: India's Growth Rate in 1990s & 2000s

	(Rs. Crores)	(Rs. Crores)
Year	Manufacturing GDP (1999-2000 prices)	Tertiary Sector GDP (1999-2000 prices)
1990-91	158,590	449,686
1991-92	152,802	471,257
1992-93	159,122	496,477
1993-94	172,637	534,551
1994-95	191,123	572,012
1995-96	219,528	630,988
1996-97	243,511	677,791
1997-98	247,192	744,406
1998-99	253,919	806,597
1999-00	264,113	887,771
2000-01	284,571	938,217
2001-02	291,803	1,005,324
2002-03	311,685	1,079,486
2003-04	332,363	1,171,368
2004-05	361,115	1,283,253
2005-06	393,956	1,409,357
Trend Annualized Growth Rate (1990s) %	7.23	8.48
Trend Annualized Growth Rate (2000s) %	6.88	8.01

Source: Central Statistical Organization, Government of India.

Table A11: Illustrative List of Companies in Gurgaon

Source: http://en.wikipedia.org/wiki/List_of_companies_in_Gurgaon

IT Companies

Company Name	Origin	Domain
Closed Gap	Netherlands	IT Services (SaaS) Utilities
Nokia Siemens Networks	Finland	Telecommunications
Alcatel-Lucent	USA	Telecommunications
Motorola	USA	Telecommunications
Adasoft India Pvt Ltd	Switzerland	IT Services
Agilis Information Technologies International Pvt Ltd	USA	IT Services
AVL Software	India	IT Services
Aequor Technologies	USA	IT Services
Albireo-STS	USA	IT Services
Amrop International	India	IT Services
Appulse Technologies	USA	IT Services
Avanade	USA	IT Services
Bizcom Interactive	India	IT Services
Creative Interactive	India	IT Services
Catabatic Automation Technology Pvt Ltd	India	IT Services
Daffodil Solutions	India	IT Services
Evalueserve	USA	KPO
Satyam Computer Service Ltd.	India	Information Technology Services
HCL Technologies	India	Information Technology Services Desktop and Laptop machines, Services, consulting
IBM	USA	IT Services
Infinity eSearch	India	Information Technology Services, Consulting
Koves Technologies Pvt Ltd	USA	Telecommunications Equipment
Ciena Corporation	USA	IT services
Evalueserve	USA	Internet, Computer software
Google Inc	USA	IT Services
Infiniteoutsourcing	India	IT Services
InfoIndia	India	IT Services
KLK Systel	India	IT Services
Libra Solutions	India	IT Services
Infinite IT Solutions	India	IT Services
Microsoft	USA	IT services
Modulus Systems	India and UK	Internet marketing, IT and consultancy
Optimistic Software Solution (P) Ltd	New Delhi, Hyderabad, Chennai, Bhubaneswar	Web Hosting, Development and SEO
Polaris Software Lab Limited	India	IT Services, Consulting
Genpact	India	BPO
Nagarro	USA	IT services
Dell Inc	USA	Computer hardware
Niksun	USA	Network Solutions, network security
Aricent	USA	IT services
Sapient	USA	IT services
i-flex Solutions	India	Computer Services on Finance/Banking
Infosys BPO Ltd.	India	BPO
Copal Partners	India	KPO
Hughes Systique Corporation	USA	Telecommunications
Interglobe Technologies	INDIA	IT services
SAP	USA	IT services
NCR	USA	IT services
Sagacious Softwares	India	IT Services
RSB Systems	India	IT Services
TCS	India	IT services

Wipro Technologies	India	Information technology services
Tekriti Software Pvt Ltd	India	Information technology services
ORACLE	USA	IT services
Financial Services		
Futures First	INDIA	Electronic Trading
iTrust	INDIA	Financial Advisory
HealthCare/IT Services		
UnitedHealth Group	USA	HealthCare
Management Consulting		
Keane Inc	USA	Management consulting services
Technopak Advisors	India	Management Consulting Services
McKinsey & Company	USA	Management consulting
marketRx	USA	Management consulting
A.T. Kearney	USA	Management consulting
Amrop International	Multinational	Placement and HR Services
Arvato Services India	India	BPO
RMG Connect	USA	Relationship Marketing, Advertising Professional Services, Management Consulting Outsourcing, Billing, Call Centre
Convergys	USA	Professional services
Ernst & Young	UK	HR Outsourcing and Consulting
Hewitt Associates	USA	Management consulting, technology services and outsourcing
Accenture	USA	Client Solutions
Bain & Company	USA	Management Consulting
Opera Solutions	USA	BPO (Insurance, HR & IT etc)
Xchanging	UK	
Pharmaceutical Companies		
Company Name	Origin	Domain
Ranbaxy Laboratories	India	Pharmaceutical
Eli Lilly and Company	USA	Pharmaceuticals
GlaxoSmithKline Consumer		
Healthcare India Ltd.	India	Healthcare and Hospitals
Morepen Laboratories	India	Pharmaceuticals
Automobile		
Atlas Cycles	India	Bicycle manufacturing
Denso	Japan	Automotive components manufacturer
Hero Honda	India	Two wheelers: Bikes, Scooters
HMSI	India	Automotive
BMW	Germany	Automobiles
Honda	Japan	Automobile & Truck manufacturer
Apollo Tyres	India	Tyres
Maruti Udyog	India	Four Wheelers
Other Industries		

Company Name	Origin	Domain
ABN Amro	Netherlands	Financial services
Agilent Technologies	USA	Test & Measurement Equipment
American Express	USA	Finance and Insurance
Alpine Electronics	Japan	Consumer electronics
Air Sahara	India	Airlines
Ballarpur Industries Limited	India	Paper Market
Cosco India Ltd	India	Manufacturing
Coca-Cola	USA	Manufacturing
Pepsi	USA	Manufacturing
Enkey India	India	Manufacturing
EFD (eFunds Corporation)	USA	Financial Services, Electronic funds transfer, Retail
Evergreen International Limited	India	Manufacturing
Tex Corp	India	Manufacturing
Amtek Auto Limited	UK	Manufacturing
Eveready Industries	India	Manufacturing
Adidas	Germany	Sportswear and Sports Goods
Bata India Ltd	India	Manufacturing
Osram	Germany	Manufacturing
Asian Paints	India	Manufacturing
Asahi Glass Co.	Japan	Manufacturing
Nestlé	Switzerland	Food
Ansal Properties & Infrastructure Ltd	India	Real State
Indigo Design & Engineering Associates PLC.	Multinational	Architecture & Urban Planning
Corporate Executive Board	USA	Research and consulting
ABB Lummus Global Inc.	Multinational	Power and Automation Products
Bharti Airtel	India	Telecom
Pearl Global Limited	India	Textile Manufacturing
Orient,Craft Limited	India	Textile Manufacturing
GIVO	India	Textile Manufacturing
Dheer Global	India	Textile Manufacturing
Hindustan Unilever	India	Fast moving consumer goods
Nature Publishing Group	UK	Nature, Nature Biotechnology, Nature Medicine
Mahashian Di Hatti	India	Food
Prefetti India Limited	India	Food
Siemens AG	Germany	Conglomerates
Tellabs	USA	Telecommunications Equipment
Polaroid Corporation	USA	Sunglasses
Geojit Financial services Ltd	India	Share Trading - Financial Services
Crew BOS Products Ltd	India	Export House
Blue Dart	India	Air express carrier and premium logistics-services
IndiGo Airlines	India	Airlines
UOP LLC	USA	Refinery & Petrochemical Technology

Table A12: Illustrative List of Companies in Faridabad

Source: <http://faridabad.nic.in/industri1.htm>

Small Scale Industries

Name of the Industry	Manufacturers of
Advance Forgings P. Ltd.	Raw Steel Forgings.

AGI Switches P. Ltd.	Switch Fuse units, Starters & Switches for electrical appliances.
Agro Engineering Works	Sheet Metal Pressed Fabricated Components for Automobiles.
Ajay Enterprises	Fan Parts.
Alchem International P. Ltd.	Extraction of Herbs.
Alcon India	Automobile Sheet Metal Parts.
Alloy Cast P. Ltd.	Die Casting.
Alpine Appearls	Driving gloves, Goggles.
Ambika Forge P. Ltd.	Brass Forgings & Turnes Components.
Amforge Industries Ltd.	Tractor & Wheel Rims.
Anil Rubber Mills P. Ltd.	Rubber Conveyor Transmission & Train Light Beltings.
Anu Products Ltd.	Pesticides.
Archem Industries	Chemicals.
Aristocraft Int'l P. Ltd.	Light Engg. Goods.
Ashoka Insulations	Fibre Glass Sleeving Varnished, Fibre Glass Cable.
Associated Engg.	Industries Auto Parts.
Associated Strips P. Ltd.	Steel tubular poles, pipes & tubes.
Auratrax P. Ltd.	Wooven labels for garments.
Auto Lamps Ltd.	Automobile & Incadescent Electrical Lamps.
Bee Ell Industries	Ceramic Products.
Belmount Rubber Industries	Rubber Automotive Parts.
Belmaks Pvt. Ltd.	Engineering Industry.
Bhartiya Udyog Ltd.	Bull Gas Generators.
	Steel & Stainless Steel SG Iron Rounds squares flats of alloy steel,
Bhupendra Steels Ltd.	Casting, Hot rolles alloy steel bars in various grads.
Bhartiya Electricals P. Ltd.	Wiring harness & Auto Parts.
Birla VXL Ltd.	Ready made garments.
B. KAY Engineering Works	Tractor Parts.
BL Containers P. Ltd.	Corrugated shipping containers & 'E' Flutes Mono Cartons.
Blue Stampings & Forgings Ltd.	
Bolton Pvt. Ltd.	Forgings.
	Loud Speakers.
Bony Rubber Co. P. Ltd.	Rubber Moulded Parts & O ring bounded metal bushes & Engine
BPR Tex Prints P. Ltd.	Mountings, House Pipes etc.
Bright Oxygen & Actylene Co.	Dying & Printing of Fabrics.
Brawn Laboratories Ltd.	
Well Rope Intl. Ltd.	Industrial Oxygen Gas.
Capital Flour Mills	Pharmaceuticals.
Centrifugal Casting Co.	PP Rope & Yarn.
Century NF	Maida, Suji Atta & All Types of Wheat Products.
Chanda Enterprises Ltd.	Tractor & Oil Engine Components.
Charu Electrical P. Ltd.	Casting Aluminium & Zinc Alloys.
Classic Furniture Mfg. Co. P. Ltd.	Electroplating Rims.
	Electrical Home Appliances.
Colts Auto P. Ltd.	
Concord Controls P. Ltd.	Wooden Furniture & Other Products.
Consolidated Plastics P. Ltd.	Motor Vehicle Parts.
Creative Dying & Printing Mill	Low Tension Control Gear Accessories.
Crystic Resins India P. Ltd	Blowing & Injection Moulding.
Curewell India Ltd.	
Dalmia Electronic Corp.	Dying & Printing.
D & D Organics P. Ltd.	Unsaturated Polyster Resins.
Delhi Forgings Ltd.	Human Gamma Globulin Serum.
Delton Cables Ltd.	Electronic Consumer durable Audio Video Products.
Diana Organics P. Ltd.	MS Castings, CI Graded Castings, SG Iron Castings.
D.S. Diesel P. Ltd	Rough Forging.
Dujodwala Industries	Thermoplastic insulated cables & wire for telecommunication.
Eastern Engg. Corpn.	S.O. Dyes.
	Tractor & Car Parts.
	Resing Allied Resins Synthetic Resins, Tarpen Oil.
	Sheet Metal Pressed Components.

Elkay Strips Ltd.	Cable Armouring Flat & Round Wire.
Elkay International P. Ltd.	LDPE/LLDPE/HDPE Sheathing Compound.
Elkay Telelinks Ltd.	Telecommunication/ Power & Control/ Instrumentation Cable Under Progress.
Elemec Tools & Devices P. Ltd.	Metal Components & Sub-assembly.
Elofic Industries Ltd.	Automotive, Agricultural, Earthmoving Industrial & marin filters.
EM EL Duggal & Sons P. Ltd.	Automobile Sheet Metal.
Encon Chemicals Ltd.	Formaldehyde.
Encon Thermal Engineers P. Ltd.	Industrial Furnace.
EP Electro Pressings P. Ltd.	Sheet Metal Components.
Equipment Conductors & Cables Ltd.	AASR & ACC Components.
Everest Steel Fabrications	Bolts, Nuts & Rail Screws.
Faridabad Fabrications P. Ltd.	Sheet Metal Works & Fabrication of Tractor Components.
Fas Pack Industries P. Ltd.	Corrugated Card Board Boxes Sheets etc.
FER Auto India	Auto Electrical Parts.
Fibretext Industries India	FIBRECRETE Multipurpose Insulation Boards, Control Heat Humidity and Fungus in all Kinds of Buildings.
Finesse Exports P. Ltd.	Readymade garments.
Forgewell P. Ltd.	Steel Rough Forgings.
Gallium Equipment P. Ltd.	Tube Mill Accessories & Equipments.
Gem International	Watch Analysers, Stop Watches, Timers, Hgrometers, Thermometers, Snooker, Billiards Tables.
GD Industrial Engineers	Steel Flats, Rounds etc.
Globe Hi-Fabs	Aircraft Refuelter, Dairy Equipment, Reaction Vessels & Storage Tanks.
Golden Peacock Overseas Ltd.	Assemble of lampholders & brass parts.
Goyal Steels Bright	Steel Bars, Forging Sheet Metal Components
Gopal Sons Auto P. Ltd.	Bright Steel Bars/ Turned & Ground Bar/ CHQ Wires.
Gurdalay Shyamlal P. Ltd.	Inter Lining.
Greiner Engg. Products	Automotive Parts, Wheel Cylinder, Assemblies, Air Brake Couplings, Adaptors, Break Fittings & Sheet.
GS Kochar & Co.	Tractor Parts.
Goyal Industrial Corpn.	Flush Doors, Panel Doors, Placrol Doors, Decorative Doors, Stain
Gulati Industrial Fabrication	Glass Doors, Black Boards & Plywood.
Guru Nanak Industries Regd.	Steel Fabrication.
Hammer Forge	Precision Printing & Converting Machines.
Haryana General Industry	Close Die Forgings.
Haryana Radiators Ltd.	Pressure Die Castins.
Haryana United Tools India P. Ltd.	Radiators for Tractors & Automobiles.
Hemla Embroidery Mills P. Ltd.	Sheet Metal Components Die Tools, Jigs & Fixtures.
HPL Industries P. Ltd.	Embroidery Works.
H.S. Easwer & Co.	Rubber & Plastic Chemicals
Husaka Refractories	Xerographic Plates & Drum Torch Reflectors.
Imperial Auto Industries	Steel Melting Shops & General Engg. Industries
Ilpea Paramount P. Ltd.	Fuel & Oil Hoses, Fuel Injection Pipes.
Inco Wax Limited	PVC Extrusions.
Indapco P. Ltd.	Paper Coating, Adhesives, Prinitng Inks & Wax Blends.
Indication Instruments Ltd.	PVC Rigid Semi Rigid & Soft Profiles.
Indo Industrial Engineers	Dash Board Instruments.
Indus Precision Castings	Sheet Metal Fabrication.
India Fashion	Stainless Steel & Super Alloy Castings.
Jainco Steel Fasteners P. Ltd.	Exporter of Readymade Garments.
Jagson Pal Pharmaceuticals Ltd.	High Tensile Fasteners.
	Pharmaceuticals.

Jain Die Casters	Pressure Die Casting of Aluminium & Zinc Components.
Jain Plastic Industries	Bottoms, Melamine Crockery, Industrial Moulding Components.
Jai Enterprises Pvt. Ltd.	Home Appliances
Jindal Gas Appliances P. Ltd.	LPG Gas Stove, Parts, Components.
Kapoor Lamps Shade Co.	Decorative Light
Karam Engg. Works	Tractor Parts
Karnita Tex Prints P. Ltd.	Dyeing & Printing.
Karma Processors P. Ltd.	Dyeing & Printing.
Kay Gees	Knitting Mills Knitted Fabrics.
Keselec India P. Ltd.	Street, Industrial, Commercial & Decorative Lighting Fixtures.
Khanna Industries	Sheet Pressed Components.
Khaitan Electricals Ltd.	Electric Fans & Motors.
Khemka Ispat Ltd.	Cold Rolled Sheet Strips Tempered Steel & Galvanised Steel Tapes.
Kismet Industries	Trailers, Trolleys & other Steel Structural Fabrication.
K.K. Plastics	Plastic Injection Moulding Parts.
Kobe Suspension Co. P. Ltd.	Leaf Spring.
Khanna Fabrications Ltd.	Sheet Metal Components.
KSF Products	Dyestuff.
Kubera Alcot	Anodising & Mfg. of Aluminium Nameplates.
Kunal Automotive Components Ltd.	Tractor & Crane Parts.
Lakhani Rubber Works	Automobile Rubber Components.
Laldee Pvt. Ltd.	Chaff Cutter Knives & Agricultural Implements.
Lauls Ltd.	Steel Rounds, Squares/ Flats, Angles & Channels.
Lemount Garments P. Ltd.	Readymade Garments.
Luthra Textiles Ltd.	Textiles Dyeing & Printing.
Maharishi Ayurveda Corpn. Ltd.	Ayurvedic Medicines.
Mahavir Enterprises	Moulded Rubber Plastic PVC, FRP, Components.
Maharaj Prints P. Ltd.	Printing of Silk Fabrics.
Mahavir Powders	UF Powder/ MF Powder.
Mandap International P. Ltd.	Wheel Rims for Motor Cycle.
Mangla Udyog P. Ltd.	Sheet Metal Components, Muffler Assy. Fasteners, Oil Pipes, Hydro Pipes, Brake & Fuel Pipes.
Manish Vinyles	Coated Cotton Fabrics.
Mega Forge P. Ltd.	Mfg. of Iron & Steel Forgings.
Meenasha Casting	Graded grey Iron Casting Components.
Melco India P. Ltd.	Ash Handling Plant Equipment & Spares for power houses, Fertiliser Plants etc.
Melco Precisions P. Ltd.	Alloy Steel Castings, Super Alloys & Wires etc.
Menon & Patel LPG Cylinders	Filling Plant Equipment.
M.G. Shahani & Co. P. Ltd.	Swan Office Paste Adhesives & Industrial Adhesives.
Micro Precision Products	Instrumentation Accessories.
Minstel Insulations P. Ltd.	Steel & Foundry Fluxes and Chemicals.
Mitasso Appliances Ltd.	Home Appliances.
Mitasso Appliances P. Ltd.	Automotive Parts.
M.K. Petro Products P. Ltd.	Bitumen Water Proofing Felt & Components.
Mode Prints P. Ltd.	Dyeing & Printing.
Modern Engineering Co.	Paper Corrugated Board & Box Making Machines.
M.R. Steel Forgings P. Ltd.	Auto Parts Forgings.
Munchure Industries P. Ltd.	Agricultural Machinery & Tractor Parts.
Nagina Metals & Engineers.	Railway Coach Works.
Nagpal Flooring.	Venetian Blinds & its parts.
Nap Sales P. Ltd.	Industrial Gases.
Nestor Pharmaceuticals P. Ltd.	Allopathic Medicines.
New India Conduits P. Ltd.	ERW Steel, Conduit Steel, Steel Tubes & Oxygen Lacing Pipe.
Niki Tasha India P. Ltd.	Fabrication of Automobile Parts.
Nipha Exporters P. Ltd.	Cotton Ginning & Textile Machinery.
Northern Tools & Gauges P. Ltd.	HSS Cutting Tools, Precision Components & Assembly for Agro Space.

Northern India Leather	PVC Leather Cloth
NSP Engineers & Fabricators P. Ltd.	Railway Components, Fish Plates, Clamps.
NSP Forgings P. Ltd.	Die Forgings & Railway Parts.
Nufarm Chemicals	Thermosetting resins & Moulding Powder.
Omega Bright Steels P. Ltd.	Bright Bar & Shafting.
Orient Packaging P. Ltd.	Corrugated Boxes.
PPL Feedback P. Ltd.	Flexible Packing Material.
Paramount Rubber Industries	Rubber Moulding.
Pahwa Chemical P. Ltd.	Thermoplastic Adhesives Textile Auxillary.
Pee Cee Castings P. Ltd.	Aluminium Sand & Gravity Die Casting.
Pee Empro Exports P. Ltd.	Export of Readymade Garments.
Perfect Pac Ltd.	Corrugated Boxes, Thermocole Products
Pioneer Refractories Co.	
Polycast Delhi P. Ltd.	Steel Castings.
Plastipack Industries	Plastic Moulded Goods.
Pooja Metal Processors P. Ltd.	Slitting of CARNGO/CRCA Co.
P.R. Packaging P. Ltd.	EPS Packaging & Printed Dulex Carton.
Pratibha Ceramics P. Ltd.	Refractories & Kilns.
Precision Casting	Copper Base Alloy Castings.
Print Craft Press	Printed Articles.
Press Cast Industries	Die Casting for Auto Parts.
Preswel Industries	All Type of Hydraulic Pressed & Machine Tools.
Progressive Packaging Industry	Corrugated Cardboard Boxes.
Progressive Thermal Controls P. Ltd.	Water Meter.
Punjab Industries	Steel Rounds, Squares & Flats.
Rachitech Engineering P. Ltd.	Fabricated Equipment for Lavasa Cane Handling Arrangement.
Rachna Sabun Udyog	
Ranivas Collection P. Ltd.	Job Work of Pure Silk Saree Printing.
Rare Edition Prints P. Ltd.	Textile Printng.
Rare Prints P. Ltd.	Printing of Silk Sarees.
Refrigeration Accessories Ltd.	Brass Fittings & Refrigerator Valves.
Reunion Engg. Co. Ltd.	Rewinding/ Repairing of Electrical Motors/ Generators.
RPG Transmission Ltd.	Tools for Vehicle Service Center.
R.R. Automotive Components P. Ltd.	Tractor & Automotive Components used by OEM.
Ruchika Engg. P. Ltd.	Pressure Die Castinf in Aluminium & Zinc
RV Industries	Sheet Metal Components.
Sadhu Auto P. Ltd.	Copper Wire
Sadhu Steel Forging Industries P. Ltd.	All Types of Closed Die Steel Forgings & Open Forgings.
	Printing of Lottery Tickets, MICR Cheques, Share Debentures & other
Sai Security Printers P. Ltd.	Security Printng.
Samanta P. Ltd.	Job Work of Dying & Printing of Export Fabrics.
Sandvik Auto P. Ltd.	Auto Electrical Equipments.
Sebros Enterprises	Brake Pipes, Brake Hoses.
SGS Associates	Automobile Printing Cardboard Boxes.
Sheel Packaging P. Ltd.	Printed, un-printed Card Board Boxes.
Shree Industries	Fan Blades.
Shyam Alloys	Manufacturing of Tractor Parts.
Shyam Metals	Forgings.
Shyam Steels	Rerolling of Carbon & Alloy Steels.
Shivani Locks P. Ltd.	Automotive Door Latch Locking System.
Sidwal Refrigeration Industries P. Ltd.	Air Conditioners & Water Coolers.
Sirocco Pressings P. Ltd.	Clutch Systems.
Sita Singh Engineers & Sons.	Auto Parts & Body Building
SJ Knitting & Finishing Mills	Processing of Cotton & Art Silk Fabrics.

P. Ltd.	India Electrical Wires & Cables.
Skytone Electricals	Plastic Injection Moulded Plastics.
Skylab Industries	Sewing Thread Processing.
S&P Threads Ltd.	Dairy Plant Food Processing & Chemical Plant Industrial Dryer,
	Evaporator, Miling M/c
S.S.P. P. Ltd.	Steel Fabrication & Machining.
Steel & Steel Fabrications	Safety Helmets
Studds Limited	Helmets.
Studds Accessories P. Ltd.	Forgings, Castings.
Sudtrack Linkage P. Ltd.	Computer Forms mfg. Plant & Paper Conversion Machine.
Sud & Waren P. Ltd.	Mfg. of Tractor Parts.
Sumati Engineering P. Ltd.	Petroleum Products
Sunder Service Center	LPG Appliances & OTG.
Sunflam Enterprises P. Ltd.	Pressure Die Casting Components.
Super Alloy Cast	Automobile Pressure Die Casting Parts.
Super Auto Electricals P. Ltd.	Automobile Parts.
Super Auto India P. Ltd.	Aluminium Die Castings
Super Electrical & Engg. Co.	
Super Electro Capacitors P.	Capacitors.
Ltd.	Corrugated Rolls, Sheets, Automobile Parts
Superfine Packaging	Jute Twine
Super Fibre Ltd.	LPG & Electrical Home Appliances.
Super Parts Ltd.	Industrial Fasteners.
Super Screws P. Ltd.	Plastic Industries.
Supreme Plastic industries	Forgings.
Taj Forgings P. Ltd.	Rubberised Cork Sheets, Articles of Cork.
Talbro's P. Ltd.	Petroleum Products
Tarachand Saluja & Sons	Heat Exchangers, Pressure Valves, Air Cannons, LP Piping Structure
	Conveyor Belt Cleaning System.
TechnoFab Engg. P. Ltd.	Industrial Springs
Technospring Industries	Chemicals, Paints & Varnish
The Chemicals of India.	Hand tools & Tool Kits.
Thermosteel Enterprises	Plastic Automobile Parts.
Toshi Auto Industries Ltd.	Rolling Mill Equipments.
P.P. Engineering Works	Hoists, Cranes & Chains.
Tractor Tirfore India Limited	Steel Beams & Automobile.
Texico Tools P. Ltd.	Pharmaceutical Equipments.
Unimax Laboratories	Corrugated Boxes.
Unisystem P. Ltd.	
United Oil Mill Machinery &	Vegetable Oil Mill Machinery & Spares.
Spares P. Ltd.	Sheet Metal Corp.
Venus Industrial Corp. Ltd.	Suitings, Shirtings & Sarees.
Venus Fabrics	Sheet Metal Componentd, SM Auto Electrical Parts.
Victoria Tool Engineers	C.I. Castings.
Vijay Mallable Pvt. Ltd.	Steel Forgings of all types.
Vikas Forgings P. Ltd.	Plastic Components.
Vipul Plastics	Speedometers
V & R Auto Gauges P. Ltd.	Aluminium Doors, Window, Curtain Wall, Structural Glazing.
Windorz India Limited	

Medium Scale Industries

Name of the Industry	Manufacturers of
AAC Factory (C/o Ballarpur Industries Ltd.)	Autoclaved Aerated Concrete Blocks & Slabs
Amforge Industries Ltd.	Tractor & Wheel Rim
Asea Brown Boveri Ltd.	LT Motors
Auto Ignitions P. Ltd.	Ignition Coil, Oil Pressure Switch and Horn Relays
Auto Pins India Ltd.	Leaf Spring & Various Types of Pin

Avery India Ltd.	Weighting Counting & Testing Machine
Batra Associates Ltd.	Auto Head Lights, Tail Lights, Blinkers, Hyd. Jack Clips, LP Valves, Ind. Valves & Home Appliances
Beco Engineering(A Division of Mukand Ltd.)	Machine Tools- Lathes, Planners, Plano, Millers, Special Purpose Machines
Belliss India Ltd.	Steam Turbines & Parts, Pressure Reducing Valve & DE Super Heating STN
Bhai Sunder Dass & Sons Co. P. Ltd.	---
Birla Kent Taylor India Ltd.	Process Control Instruments & Control Panels
Castrol India Ltd.	Filling of Lubricating Oil in Small Packs
Clutch Auto Ltd.	Automotive Clutches, Covers Assemblies & parts thereof
CMI Limited	Underground telephone cables, Optical fibre cable, Cat-5 computer cables
Continental Devices India Ltd.	Semiconductor devices
Delton Cables Ltd.	Thermoplastic insulated cables & wire for telecommunications
Escorts Employees	Ancillaries Carburetors & Fuel cocks
Escorts Communications Ltd	Electronic private automatic exchange & allied equipment
Escorts Ltd.	(Crankshaft & hydraulic division) Crankshaft
Escorts Ltd.	(Railway equipment division) Railway equipments
Frick India Ltd.	Refrigeration & Air conditioning equipments
GE Motors India P. Ltd.	Special purpose electric motors, Lamination pump etc.
General Engineering Works Ltd.	ACSR, PC Wires, UR Wires, Spring fine, Clutch
Gurera Gas Cylinders P. Ltd	LPG Cylinder & Sheet metal components
Haryana Coated Papers Ltd.	Art & Cromo Paper
Havells India Ltd.	Motor Control Gear & Switch Gear
Hindustan Leathers Ltd.	Job work of finished leather
Hindustan Syringes & Medical Devices P. Ltd.	Hypodermic Glass & surgical blades, disposable syringes & needles, scalp venis etc.
Hindustan Vaccum Glass Ltd.	Vaccum glass & Glassware items
Indian Gas Cylinders	LPG gas cylinders
Injecto Limited	Fuel injection pipes, fuel & oil pipes, metallic flexible tubes, aluminium & zinc pressure die cast
Jagatjit Engg. Works P. Ltd	Sheet metal for tractor components
JBM Tools Ltd. M	Tools, Dyes, Jigs Fixture, Sheet metal Componets, Welded assembly & sub assembly, SP
Jhalani Tools India P. Ltd.	Assorted Hand Tools
JMA Industries Ltd.	Automobile Ancillaries
JV Electronics Ltd.	Dipped mica capacitors & silvered mica plates, EMI filers, lamps, light dimmers and connectors
Kaushico Machine Tools P. Ltd	Power press, Shearing machine
KG Khosla Compressors Ltd.	Air & gas compressors, Chilling plants, Aluminium & Grey Iron castings
Khemka Containers Ltd.	Corrugated card box boxes
KK Kohli & Bros (P) Ltd.	Suiting & Shirtings
Knorr Bremse India P. Ltd.	Air brake equipment for Indian Railways
Larsen & Toubro Ltd.	Switch boards
Lumax Industries Ltd.	Automotive parts
Mik Fujiyama India Ltd.	Auto electronic ignition systems
New Allenberry Works	Gears, Shafts & axle for tractor & automobiles
North West Switchgear Ltd.	Low tension switchgears
Orient Fans	Electric fans
Orient Steel & Industries Ltd.	Hot & Cold rolled steel strips
Oswal Electricals	Pressure die castings, motors & pumps
Plasser India Ltd.	Railway track maintenance machine
Polar Industries Ltd.	Electrical stampings & laminations
Polymer Papers Ltd.	Filter mant & testing machinery, Filter paper, Filer
Pooja Forge Ltd.	Industrial Fasteners

Porritts & Spencer Asia Ltd. Precision Stampings	Industrial paper making Electrical stampings & lamination for fans, motors, dies Dynamic balancing machines, dynamometers, garage equipment, vibration measuring monitoring & control equipment 14" SVGA monitor, video monitor, 14" B/W TV, 14" TV kits
Schenk Avery Ltd. Samtel India Ltd. Sanden Vikas India Ltd. Sikands Ltd. SJ Knittings & Finishing SPL Industries Ltd. Sterling Tools (P) Ltd. Super Seals India Ltd. Suzler Flovel Hydro Ltd. Talbro's Automotive Components Ltd. Talbro's Engineering Works The Printer House Ltd. The Star Wire India Ltd. Thomson Press of India Ltd. United Metal & Plastic Pvt. Ltd. Usha India Ltd. UT Limited VXL Engineers Ltd. Woodward Governor India P. Ltd. Xpro India	Automobile air conditioning systems & parts thereof High tensile cold forged precision bolts & nuts Processing of cotton & art silk fabrics Dying & printing fabrics High tensile steel fasteners Oil seals & flexible hoses Hydro turbine Automotive gaskets of all types Automotive gaskets Automotive Printing Machine Special steel, valve steel, tool & die steel Printing books Auto & tractor parts Polyster capacitors Hydraulic pumps & valves Defence stores, relays, control panels Power control equipment Coextured plastic sheet & cast plastic films

Large Scale Industries

Name of the Industry	Manufacturers of
Bata India Ltd	Hawai & canvas shoes
Bhartia Cutler Hammer	Electrical/Electronics control devices & systems
Eicher Tractor Ltd.	Automotive agriculture tractor
Escorts JCB Ltd.	Excavators Loaders
Escorts Ltd.	Tractors & bi wheelers
Escorts Yamaha Motors India Ltd.	Motor cycle
GKN Invel Transmission Ltd.	Front wheel drive shaft (CV Joint)
Goodyear India Ltd.	Automobile tyres
Hindustan Wires Ltd.	Steel Wire, LPG cylinder, valves & regulators
Hyderabad Industries Ltd.	Fibre & cement sheet jointing & pre fabricated printing panel
Jindal Strips Ltd.	HR plates, slabs, blooms strips of all grades oxygen gas & argon gas
Lakhani India Ltd.	Canvas vulcanised shoes UF/MF resins & moulding powders, hexamine, formaldehyde, medium density fibre board
Nuchem Limited	Compressors
Tecumseh India P. Ltd.	Refrigerator
Whirlpool India Ltd.	