

The Macroeconomic Perspective of Urban and Regional Development Policies⁽¹⁾

—Enhancing the Productivity of Secondary Cities—

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1. Spatial Policies Are Costly

Confronted with increasing concentration of population and economic activity in a few large cities, policymakers in many developing countries have sought to implement spatial policies to decentralize the population and employment from the large urban centers. Most decentralization policy instruments used in developing countries have aimed at influencing the location and relocation of manufacturing firms. In Korea as in other developing countries, spatial policies have taken various forms: strict zoning regulations, outright prohibitions of manufacturing activities by laws, and various financial incentive schemes to relocate industries to outlying areas. The Korean government has used both carrot and stick to disperse industry. The 1977 Industrial Location Act, for example,

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prevented new factories from locating in Seoul and empowered the government to issue relocation orders to existing establishments. Tax breaks, loan guarantees, relocation grants, and other incentives were offered to industries that moved. Large public investments were made in infrastructure in new industrial towns.

A study conducted jointly by the World Bank and Seoul National University showed that firms do not relocate long distances and decentralization policies have been ineffective and costly (Lee and Choe, 1990; Lee 1985). The analysis of the 1982 survey of Korean manufacturing industries showed that 79 percent of moving establishments relocated within the same subregions. A quarter of them shifted from one part of Seoul to another. Of those moving out of Seoul, four-fifths relocated in the outer areas around the city. Only 7 percent of them ventured beyond the surrounding province of Gyeonggi. This strongly suggests that firms find it very costly to move long distances. The survey results also showed that relocation incentives did not have much impact. Of those firms relocated, almost three-quarters moved for internal reasons, such as the need for plant space. Only 6.5 percent were motivated by government incentives like tax breaks. Another 9.6 percent were ordered to move under new zoning laws, or because they had violated pollution regulations.

Several policy conclusions were drawn from the research findings (Lee and Choe, 1990): Government's explicit spatial policies have had a relatively minor impact on the location choices of manufacturing firms in the Seoul region. Although substantial decentralization of manufacturing employment occurred in the region in the 1970's, much of it resulted from the responses of firms to land and other market forces rather than to location subsidy schemes. These findings imply that spatial policies have not been notably effective in achieving their purpose, and they have had important adverse effects on efficiency and economic development. The adoption of public policies to influence industrial location may do more harm than good.

Are There Better Policies? Policies to decentralize population and jobs are not good substitutes for better management of urban growth. To reduce pressure on the primate city such as Seoul, the government should focus on strengthening and improving i) the financial and administrative autonomy of municipal governments of secondary cities, ii) the efficiency of land, labor and other markets in the region, and iii) the availability and reliability of infrastructure services. Also, the availability of government, business and financial services is crucial in attracting businesses and industries to these cities. In

Thailand, for example, decentralizing certain central government functions to the municipal level, such as customs clearance and the issuing passports and factory permits to new firms, shows clear effects on attracting business activities and foreign direct investment in a city like Chiang Mai (Lee, 1988).

2. The Urban Economy is an Important Component of the Macroeconomy

Most productive activities in the economy except for those of agriculture take place in urban areas, including manufacturing, commerce, trade, and services. Indeed, in almost all countries, urban areas have a large proportion of the country's population, large GNP and employment shares, and a heavy concentration of economic infrastructure. More than a half of GDP of the developing world originates from urban areas, and most of changes in GDP is expected to take place in the cities. Also, in most developing countries, infrastructure investment (including housing) alone accounts for about one quarter of annual capital formation and more than one third of the existing capital stock. Figure 1 shows a strong positive relationship between the level of urbanization and GNP per

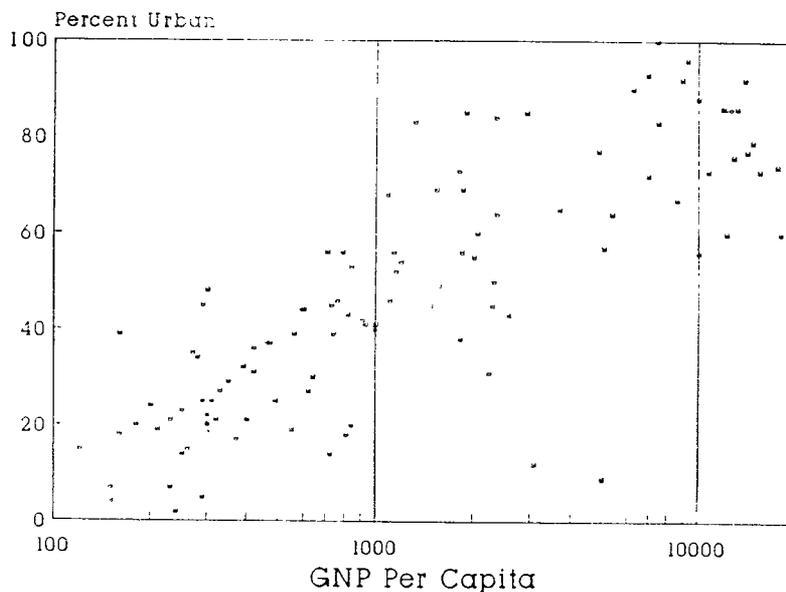


Fig. 1. Urbanization and Development

capita across developing countries.

The extent of this contribution of the urban economy to economic growth and development varies across countries by the level and rate of urbanization, for example, highly urbanized but heavily indebted countries in Latin America and Eastern Europe, low income but rapidly urbanizing countries in Africa, and high growth countries in East Asia with a slower rate of urbanization. Some low income African countries have a high level of urbanization. Their high rate of urbanization is expected to continue. Therefore, the nature of policy problems and our focus on policy considerations at this particular juncture, the beginning of the 90's, will differ among these countries at various stages of development as discussed.

In all cases, however, the performance of the urban economy and its contribution to the macroeconomic consequences will depend on the productivity of cities, which in turn depend on the functioning of various markets in urban areas including those of labor, land, housing, and financial and infrastructure services. The efficient functioning of these markets is determined by the extent of existing constraints that prevent fully exploiting the productive potential of individual actors such as urban households and firms who participate in various productive activities in cities. These constraints, manifested in a variety of market distortions, could be policy-induced either at the *macro* or *sectoral* (city) level—such as pricing, fiscal and financial—or imbedded in the existing economy-wide or city specific regulatory regimes, or might originate from institutional shortcomings at either the national or local level that result in the public sector inefficiencies.

To formulate urban and regional policies which are consistent with the overall economic development policies, this paper lays down a basic policy framework to understand clearly (i) the nature and sources of these constraints and distortions in the various urban markets mentioned above, and (ii) their effects on the productivity growth or decline of cities and on macroeconomic aggregates such as aggregate investment and savings, inflation, and trade balance. More specifically, in this paper, we identify the relationships between the key variables in the urban economy and macroeconomic aggregates and specify various types of constraints on urban productivity mentioned above that can be mitigated by appropriate policy reforms at the national or local level, either by specific regulatory changes in the real sector or through a set of policy prescriptions in the fiscal and financial sectors of the economy.

3. What Prevent Productivity Growth of Cities?

As mentioned above, the urban economy consists of various product and input markets (of labor, capital, land, housing, and infrastructure services) and the productivity of urban areas will depend on how efficiently these markets operate. Urban households participate in these markets supplying labor services. Although their earnings will depend on the level of education and particular skills of individuals, their productive potential would not be fully exploited unless the policy environment of the urban economy is conducive to their productive activities with basic urban services such as transport, water supply, sanitation and health. Similarly, firms, large or small and formal or informal, engaged in manufacturing, trade, or services could be seriously constrained by the lack of needed infrastructure services such as electric power, telecommunications, and waste disposal. In addition to the public infrastructure provision, attributes of the urban policy environment are determined by regulatory regimes and the quality of the local government administration. More specifically, the productivity of households and firms is predicated on the quality of the policy environment of the urban economy which includes availability and reliability of electric power, water supply, telecommunications, transport, and waste disposal services; access to banking and credit institutions, product markets, and other business services; and the efficiency of national or local government agencies which deal with land and housing development, licensing various businesses, and introducing and implementing regulations. Market distortions can be introduced by any of these factors.

The productivity of urban households and firms could also be affected by externalities resulting from the high density activities in urban areas with given resources. Negative externalities such as poor air quality, contaminated water supplies, inadequate sanitation facilities, and heavy traffic congestion all affect the health and productivity of urban dwellers. Low-income urban areas are particularly vulnerable to the environmental conditions and the productivity potential of the poor gets most adversely affected there.

As cities in developing countries continue to grow rapidly, the need to meet the increasing demand for various urban services has become an important policy problem. Failures to respond adequately to such demands not only result in the waste of scarce resources but also significantly affect productive activities of urban households and firms. Therefore, it is important to emphasize that urban services are not merely final goods

for consumption but *intermediate inputs* used in producing tradable goods and services. Consequently, the inadequate supply of these urban services has an immediate effect on the productivity of business enterprises and urban households, hence, on the productivity of cities and economic development in general.

A recent Bank research on urban infrastructure deficiencies in Nigeria (Lee and Anas, 1989) demonstrates that poor and unreliable infrastructure services impose heavy costs on manufacturing enterprises. Virtually every manufacturing firm has its own electric power generator to cope with the unreliable public power supply. These firms invested 10 to 35 percent of their capital in power generation alone and incur additional capital and operating expenses to substitute other unreliable public service provisions. However, small firms cannot afford expensive capital investments as large firms do for electric power generation, for boreholes for water, for vehicles for shipment of products, for motor cycles for couriers, and for radio equipment in lieu of working telephones. The burden of inadequate public infrastructure services is much higher for small firms than large ones, which implies limited opportunities for the productivity growth and income generation for the poor. In Nigeria and many other countries, manufacturers' high costs of operations resulting from infrastructure deficiencies hinder their growth, prevent their innovation and adoption of new technology, and make it difficult for them to compete in the international markets for exports.

The effects of bad regulations on the productivity in urban areas are also well documented. A study of the informal sector in Peru (de Soto, 1989) showed that regulations that control industrial permits impose heavy costs on new enterprises. For example, 11 different permits are required for the establishment of a small textile plant. The cost of obtaining all these permits which take about 10 months is estimated to be equivalent to minimum wage payments for 32 months.

A World Bank study of the housing markets in Malaysia (Hannah and others, 1989) showed that housing costs are pushed up by 50 percent in real terms because of inappropriate regulations. This amount accounted for as much as 3 percent of GDP. More than 50 permits are required for the development of a housing area, a costly process that takes four to seven years, precluding most of the urban poor from access to land and adequate shelter. Nevertheless, it has been shown that the security of tenure in poor urban areas has been essential in generating household savings for investment in self-help housing and increasing the productivity of the poor in Colombia (Carroll, 1981) and many other

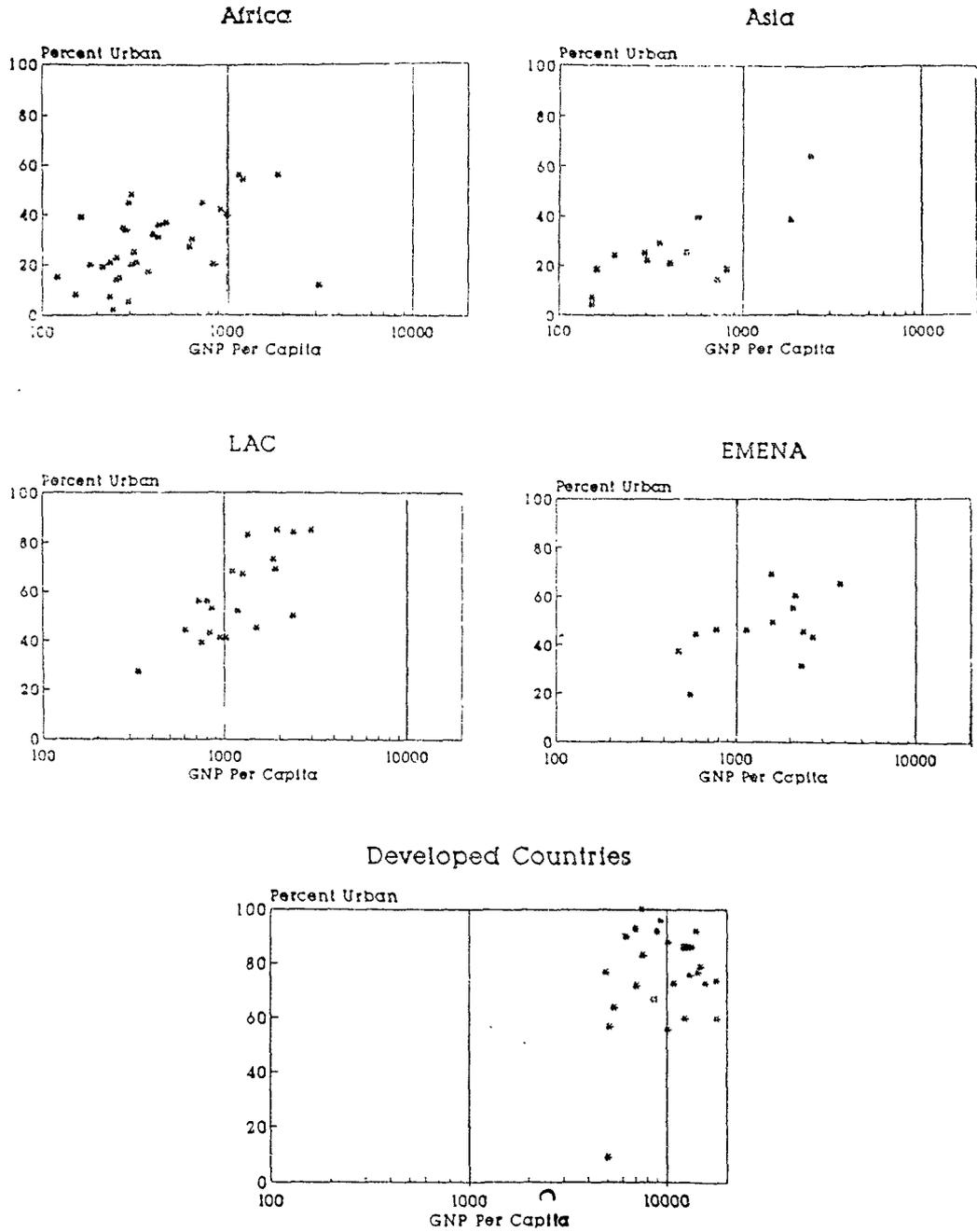


Fig. 2. Urbanization and Economic Development by Region

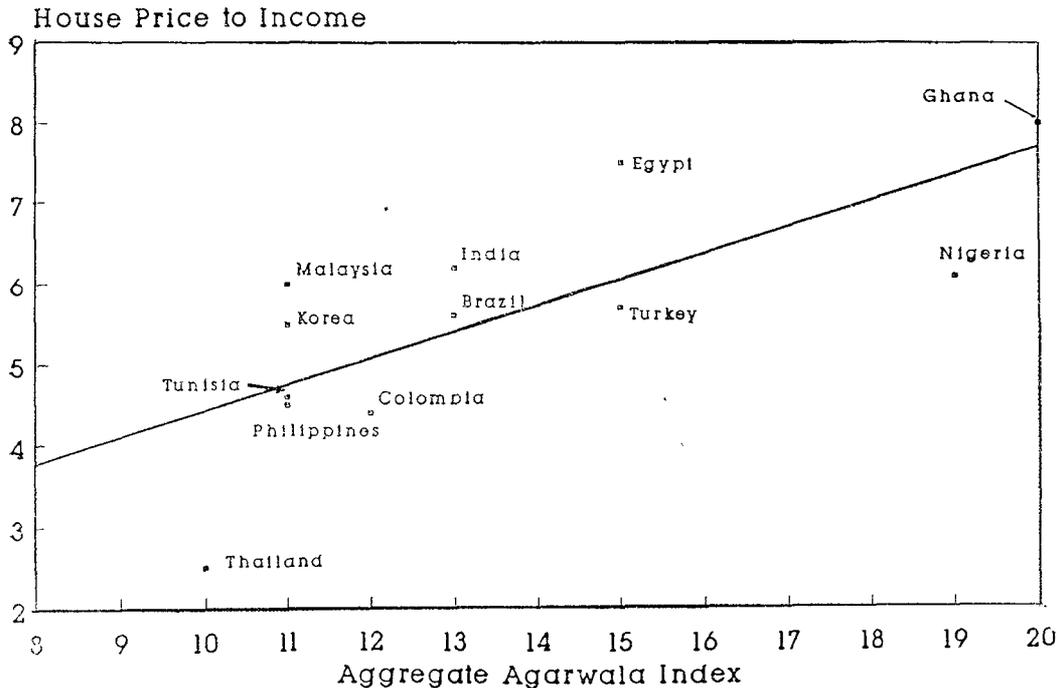


Fig. 3. House Price to Income and Level of Distortions

developing countries. The case of the Urban Land ceiling and Regulation Act of 1976 in India illustrates how government itself exacerbate the problem. As a result of this regulation, land prices rose between 10 to 100 percent annually in major Indian cities such as Bombay and Madras. The Act had effectively taken 1,000 square kilometers of vacant land off the market in 73 Indian cities.

To see the relationship between the extent of distortions in the economy and that of the urban economy, an "aggregate distortion index" developed by Agarwala⁽²⁾ was plotted against the house price to income ratio which is a measure of the extent of supply constraints in the housing market as shown in Fig. 3. As expected, the house price to income ratio is high for the economies with high aggregate distortions such as Nigeria (before structural adjustments), Egypt, and Turkey, and low for the economy such as Thailand where the markets operate efficiently with less distortions.

(2) R. Agarwala(1983) constructed an index of distortions as a measure of policy environment including distortions in exchange rates, interest rates, agricultural prices, wages, protection rates for manufacturing, general price level, and infrastructure pricing, for 31 developing countries.

This set of evidence supports the recent policy concerns that the rate of productivity growth in cities in many developing countries has been seriously constrained by the unfavorable policy environment of these cities with an increasing number of the urban poor and deteriorating environmental conditions. Even in a city like Bangkok, where the markets function more efficiently than in most other developing cities (see Fig. 3), the infrastructure constraints on economic activities have been seriously felt as the economy grows rapidly in recent years, as documented in a World Bank study (Lee 1988).

This implies the need to drastically improve the current state of the urban policy environment in almost all developing countries. Many of the attributes of the policy environment listed above, however, are determined by factors outside the urban economy including: (i) *intergovernmental fiscal relations* which leave local governments with a weak financial and administrative autonomy; (ii) the rigidity of the broader financial markets that precludes local governments' access to credit to finance their investment programs; (iii) major public infrastructure investment programs planned and implemented by national agencies without close coordination with the local authorities; and (iv) various policy decisions made at the national level that affect the local economy significantly, for example, on pricing and subsidies for housing and other services. Addressing these policy concerns requires a broader framework which can relate the performance of the urban economy to that of macroeconomy.

4. The Urban Economy Significantly Affects the Macroeconomic Performance

From the above discussion, it is clear that the productivity of cities depends on the productive efficiency of individual urban households and entrepreneurs who participate in various urban markets that are constrained by a particular set of attributes of the urban policy environment. More significantly, however, the factors that determine these attributes come from outside the urban economy—in a form of macroeconomic policies, economy-wide regulatory changes, or pricing policies of the public sector monopolies with “x-inefficiencies” of various kinds characterized by poor administration and inappropriate investment planning and financial management.

In the 1980's, while the sweeping structural adjustments at the macro level, targeting the trade balance and government deficits, are being implemented in a large number of

developing countries in Africa, Asia, and Latin America, the process of channeling these adjustments, through the sector (city) level, to the micro level of urban households and enterprises has been seldom addressed and their short-term and long-term effects on the urban economy not well understood. In formulating urban and regional development policies, it is crucial to evaluate the short run costs of macroeconomic adjustments on the urban economy, especially on the urban poor, productivity, and environment, and to identify the elements of structural changes required at the city level (in conjunction with the national economy) that will provide some assurances for the success of structural adjustments intended for attaining sustainable growth in the long run. For this purpose, three broad policy areas have been specified to relate the urban economy with the macroeconomy and to trace through the macro consequences of the performance of the urban economy.

Financial Sector Effects

As urban infrastructure investments account for a substantial portion of annual capital formation and these investments contribute to productivity growth, efficient mechanisms for resource mobilization and use with appropriate investment decisions will have a major impact on the prospects for adjustment and growth. However, the economy-wide financial market distortions and the shortcomings of banking, housing finance and other financial institutions have precluded the local governments' access to credit and reduced their financial autonomy.

The financial mismanagement and its macroeconomic consequences is most obvious in the housing sector. The direct and indirect housing subsidies in Argentina amount to 2 percent of GNP; in Poland about 5 percent. The housing finance system in Turkey accounts for the major share of the budget deficit amounting to 2 to 3 percent of GNP. Inappropriate housing finance policies, especially in middle income countries, have frequently retarded the process of financial deepening and contributed to budget deficits, high real interest rates, and high inflation (Buckley and Mayo, 1988). In addition, the combination of inflation and a lack of appropriate mortgage indexing have led to the rapid decapitalization and financial failure of housing finance institutions in many developing countries. Thus, housing finance reform should play a major role in the adjustment process and constitute a key part of financial sector reform. For example, the Polish government expenditures on housing subsidies place the amount at more than three times the average level of government spending on housing in developing countries. Although

the obvious policy conclusion is to reduce the housing subsidies markedly, the implicit regulatory taxes in the Polish housing sector, for example, the inability to rent out housing and the lack of access to housing materials, have resulted in one of the worst shortages ever observed for the housing market.

Fiscal Effects

The absorption of sub-national government deficits has been a heavy burden on the national government budget. In most countries, local governments play an important role in providing infrastructure and social services but make little contribution to their financing because their revenue authority is severely limited. On the average they get over half of their resources from central government as transfers. The limited resource mobilization capacity of local governments is the key problem.

The fiscal relationship between national and sub-national governments is central to solve the resource mobilization problem in financing urban infrastructure investments and providing urban services at the local level. A recent review of the composition of government balance sheets during 1978~1986 in 19 countries including Argentina, Brazil, Indonesia, Thailand, Kenya, and Yugoslavia, however, indicates that sub-national governments account for a very large volatile share of the consolidated government deficit, an average of 50 percent (Silverman 1990). In none of these countries did a sub-national government surplus significantly offset the central government deficit. In the five years preceding the debt crisis in some Latin American countries, the average deficit of sub-national governments as a share of GDP was equivalent to the average total government deficit of developed countries over the same period. The Argentine case represents an extreme but not an unusual case. In 1986, the deficit of Argentine sub-national governments accounted for 6 percent of GDP.

Real Sector Effects

Deficient public infrastructure and urban services impose heavy burdens on productive activities of urban households and enterprises and their impacts on the overall productivity and growth of the economy can be significant. The rigidity of regulatory regimes limits the productive potential of urban areas and hinders the overall development process. The inability of the public sector agencies to improve their performance leads to the intermediate-term policy options of more active private sector participation in the provision of urban services.

The impacts of inadequate public infrastructure services on the productivity of firms

and urban households were discussed above based on a recent Bank study on Nigeria (Lee and Anas, 1989). If key infrastructure services are not available or unreliable as in Lagos, Cairo, or Warsaw, the productivity of the economy suffers. Two of the better performing African economies, Kenya and Malawi, invested in infrastructure in real terms at a rate 30 percent lower than the growth of GNP during 1974~1984. In Tanzania, the reduction in infrastructure investment was much sharper. Reflecting on these observations, a World Bank report on *Sub-Saharan Africa: From Crisis to Sustainable Growth* (World Bank, 1990) recommended to give an increased emphasis on infrastructure in African development strategies. As mentioned above, in recent years, infrastructure constraints on industrial growth have been felt seriously in middle income countries such as Thailand and Indonesia as the economy grows at a faster rate. Even for a country like the United States, Aschauer (1989) has demonstrated that the secular decline in the rate of productivity growth in the U.S. since the 1960's is directly related to the relative decline in the rate of productivity growth in the U.S. since the 1960's is directly related to the relative decline in the stock of public infrastructure.

5. How to Raise the Productivity and the Quality of Life in Secondary Cities? Policy Recommendations

It is true that in the process of economic development in a large number of developing countries, a set of policies that determine the efficiency of the economic activities of urban households and enterprises and the productivity contribution of the urban economy to macroeconomic performance have received relatively little attention for several reasons. First, policies that affect the rate of savings and investment such as the level and composition of infrastructure investments within and across cities have not been adequately addressed in the usual macroeconomic policy framework in Korea as well as other countries. Second, even if these policies were thought to have effects on economic development, it has been difficult to demonstrate empirically the channels through which urban and infrastructure investment policies affect economic growth. Finally, it is only in very recent years that empirical evidence has been obtained to demonstrate the impact of infrastructure on productivity of industries (Lee and Anas, 1989) and the impact of the form and level of government infrastructure expenditures on growth (Aschauer 1989).

The policy framework presented in this paper reflect the following broad policy

recommendations:

First, it should be recognized that an efficient urban economy is essential to the success of countries in sustaining economic adjustment and growth;

Second, urban policy itself should be viewed as an important tool in achieving macroeconomic objectives; and

Third, as in other sectors, the effectiveness of the urban sector policy should be evaluated in terms of the efficiency of managing the urban economy in conjunction with the overall macroeconomic performance.

More specifically, the World Bank's Urban Policy Paper entitled *Urban Policy and Economic Development: An Agenda for the 1990s* offers the following policy recommendations:

It is of paramount importance to assure the productivity of the urban economy and its contribution to macroeconomic performance. This would require actions that reduce the constraints to urban productivity. They involve actions at the national and city levels...

- (a) strengthening the management of urban infrastructure at the city level, including improving the level and composition of investment, reinforcing institutional capacity for operations and maintenance and seeking opportunities for greater private sector involvement;
- (b) improving the city-wide regulatory framework to increase market efficiency and to enhance the role of the private sector in shelter and infrastructure provision;
- (c) improving the financial and technical capacity of municipal institutions through more effective division of resources and responsibilities between central and local governments. To achieve national poverty and environmental objectives, intergovernmental relations will also have to be appropriate, structured through regulations and incentives; and
- (c) strengthening financial services for urban development.

6. Some Observations on Pusan Specific Urban Management Issues.

Spatial Policies Are Costly for Pusan's Development

There is no doubt that the Pusan is the second largest city in terms of population in Korea. But Pusan is by no means comparable with Seoul. In every aspect, Pusan is far

Table 1. Share of Pusan Compared with Seoul in the Nation

	Seoul	Pusan		Seoul	Pusan
Area	0.6	0.4	employment	34.2	8.9
Population	24.6	8.8	University Students	29.2	9.6
Manufacturing:			Medical Doctors	43.4	11.1
establishment	28.6	10.9	Automobiles	48.9	9.2
employment	17.9	12.2	Deposit and Lending	58.4	8.0
Service Industry:			Local Tax	37.3	8.1
establishment	30.1	9.1	Local Revenue	20.6	7.1

behind Seoul as shown in Table 1. Although the shares of manufacturing and service industries and of the number of university students and medical doctors are slightly higher than its population share, other indices are found to be not much different from those of other secondary cities. However, the growth of Pusan has been subject to the whim of the government's decentralization policy. In retrospect, national spatial policies expressed in the government's plans have been ambivalent, swinging from the designation as one of the eight growth poles in the First National Land Development Plan (1972~1981) to a counteractive measures to discourage the growth of Pusan in the Second National Land Development Plan (1982~1991). Again, national policy had another turnabout in 1986 by proclaiming that the City of Pusan will be developed as the center of the South-East economic region in the revised Second National Land Development Plan (1987~1991).

The government's plans and policies have never made it clear why the growth of Pusan is controlled. Issues remain whether the sheer size of the city is too big to grow further under the constraints with which the city is endowed, or its growth is undesirable as compared with other regional cities. In the midst of confusion, the City of Pusan has suffered most and it is apparent that such policies induced welfare loss in the overall macro-economic and sectoral development process in Korea.

The City of Pusan is different from Seoul and its metropolitan area where more than 40 percent of the nation's population is concentrated and about 45 percent of gross national product is generated. Decentralization measures imposed on Seoul should not be applied on Pusan and other secondary cities with the same intensity and characters.

Constraints on the Development of the Pusan Region

(a) *Shortage of Land Area.* The city covers an area of 434.5 square kilometers. The central city is located in a narrow strip of land between the sea and mountain ranges

with a built-up area accounting for only 27 percent of the total land area. Population density in the built-up area is about 360 per hectare which is higher than 335 of Seoul. Thus, the shortage of land for housing and industries has been the most serious constraint for the growth of the city. To overcome this, the city authority had once planned to relocate the railroad station from the present site to Kaya. The present station and its depot occupy a large track of land bisecting the central part of the city. Other projects included the development of an off-shore, man-made island and the development of Myongji-Roksan industrial estate by reclaiming tidal land in the mouth of Nakdong River. The soaring housing and land prices tend to be a great handicap for further development of Pusan. Projects such as the development of a man-made island and reclamation of land for industrial estates accentuate the financial hardship of the city government.

Less costly alternatives for solving land problems need to be found. It may include allowing urban gentrification and renewal programs in the central city, the expansion of administrative jurisdiction to cope with metropolitanization, and rezoning of the green-belt area. Regulatory measures which are artificially imposed have to be removed. Administrative boundaries need to be enlarged to include some built-up lands in the fringe. Especially, the indiscriminate imposition of green-belt has been seriously jeopardizing the development of Pusan and other secondary cities in Korea and has resulted in insurmountable costs for urban development. In the case of Pusan as well as other secondary cities, the strategic alternative of the rezoning of green-belt should be seriously considered.

(b) *The Port Capacity.* Another important issue for the future course of Pusan's development is the efficiency of the port and its revenue generating capacity for the city. Since the Port of Pusan was exposed to container ships for the first time in 1970, it has become the premier container port. However, the container handling capacity reached its limit in 1986 resulting in severe congestion and logistics problems. This situation is expected to continue although a new container terminal in Shinsundae will go into operation in 1991. The City of Pusan is considering to build a new container port at a man-made island patterned after the Port Island of Kobe, which started construction in 1966 and completed in 1981.

(c) *Urban Traffic Congestion.* Traffic problems of Pusan are characterized by the lack of north-south highways other than the central truncated street of Chungangro and only one urban freeway which was mainly built for freight movement generated by the port. There are still many missing links in the road network, mostly due to topographical

constraints and railroad tracks which disconnect major urban arterial roads. The hierarchy of roads in the network is not clear. The first subway line was built but the lack of connections with other modes of transportation resulted in a low ridership and little diversion from already congested bus lines which run with 160 percent over the carrying capacity. Moreover, the current stalemate of local finance mainly caused by the subway construction no longer makes it possible for the city to push ahead the development of an extensive rapid transit system. The number of vehicles in Pusan has been quadrupled during the past decade. It is expected to rise sharply during the coming decade. Coastal and hillside urban expressways may be expensive but better options are lacking.

Institutional Reforms for Establishing the Pusan Metropolitan Area

In spite of the dramatic changes in land use patterns in Pusan and its surrounding areas during the past decade, there has been the usual time-lag between the actual development and government investment responses to provide urban services. In a highly centralized country like Korea, jurisdictional conflicts have been resolved by the intervention of the central government. Only very recently, the new Local Autonomy Law was enacted in 1989. If implemented, local autonomy will be restored in Korea after 30 years. Nevertheless, the problems of administrative and financial fragmentation could arise. It should be seriously considered to initiate jurisdictional and administrative reforms to establish the Pusan Metropolitan Area which would facilitate the development of the Pusan region as a coherent economic system by exploiting potential economies of scale and scope. Many types of metropolitan systems have been pioneered in London, Toronto and Stockholm and other places and their experiences have been adopted in some Asian cities.

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