

ANNEX A

The Implications of Urban Change for National Development

Macroeconomic and microeconomic impacts of urban development

National per capita income is correlated with the urban share of the population, both across countries and within countries over time (box A.1). Causation works in both directions, however, and economic growth is not inevitably tied to urbanization. In Sub-Saharan Africa, for example, high urban population growth has coincided with declining per capita GNP since about 1980, even in many countries that have not suffered long periods of conflict or an influx of refugees into towns and cities. A growing economy pulls workers into cities to fuel the secondary and tertiary sectors, but stagnation, particularly in agriculture, also pushes the rural population to seek alternative livelihoods in urban areas. In addition, where rural income and consumption remain depressed, cities may continue to grow because only there is demand high enough to absorb the output of nonagricultural goods and services. Policies to strengthen the rural economy are priorities in their own right but not on the grounds that they will necessarily curb urban growth.

Urban areas account for a disproportionate share of national economic production and are the main sources of economic growth (figure A.1). According to the UNCHS Urban Indicators database, for 150 cities of all sizes the per capita output (“city product”) is more than 10 percent higher on average than their country’s per capita gross national product (Auclair 1998). The metropolitan area of Bangkok is estimated to account for 37 percent of Thailand’s national income but only 19 percent of its population, while metropolitan Manila, with 13 percent of the Philippine population, produces 24 percent total national income. The GDP of Mexico City alone equals that of Thailand, and Seoul’s GDP compares with that of Argentina (Prud’homme 1994). The combined GDP of the metropolises of São Paulo and Rio de Janeiro exceeds that of four Andean countries.

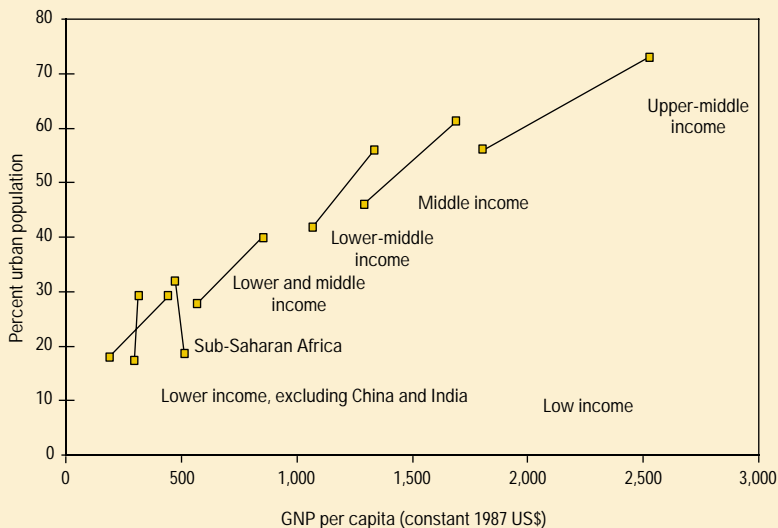
Real sector links

Urban development relates to the national economy first through the growth and structural transformation of real production, which depends especially on labor, land, and infrastructure markets.¹

¹ *The arguments and evidence for these links are outlined in USAID 1991.*

Box A.1 Urbanization: A necessary—but not sufficient—condition for sustained economic growth

Urbanization is happening everywhere. Between 1970 and 1996 the share of the population living in urban areas increased in all developing and transition economies. This increase was accompanied by growth in per capita income in every region except Sub-Saharan Africa. The greatest sustained per capita income growth (indicated below by the flatter and wider bands) appears at higher levels of urbanization as the industrial and service sectors economy become more developed.

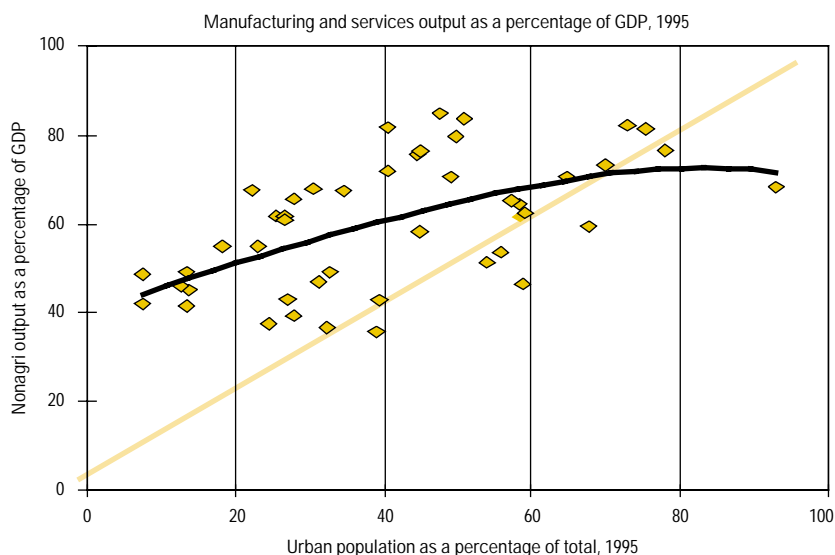


Note: The lower point on each line refers to 1970, and the higher point to 1996.

Source: World Bank 1998b.

The availability—or lack—of electricity, freight, public transport, water, sanitation, telecommunications, and developed urban land dramatically affects the cost of doing business. Firms locate in urban areas because of the economies of agglomeration—the benefits of sharing resources with other firms in the same or different industries and of access to input and output markets, knowledge, labor pools, and services. Robust evidence has established that larger cities have higher total factor productivity because their agglomeration economies are greater, at least until congestion and rising land and labor prices take over (Mills 1998). Traditional industries such as standardized manufacturing are very sensitive to costs of labor, land, and infrastructure, and tend to move to the outskirts of large metropolitan areas or to small to medium-size cities as urban growth proceeds. More innovative, R&D-intensive industries and services tend to continue to locate in the larger cities, where they can take advantage of better information and technology resources and more educated workers (Henderson 1999).

Figure A.1 The urban share of output is typically greater than the urban share of population



Note: Data are for 46 developing countries. Manufacturing and services output as a percentage of GDP, 1995.
Source: World Bank 1998b.

Urban workers are made more productive by agglomeration economies and the additional capital investment of urban production—a major reason that the incomes of the poor improve when they migrate to cities (Mills and Becker 1986; Mazumdar 1987; Mills 1998). In Indonesia, for example, average labor productivity is about 75 percent higher in urban than in rural manufacturing (Bennathan 1998). Urban areas can also attract and retain more educated workers, and offer better matching of skills and job requirements. But the efficiency of the labor market can be greatly constrained by inefficient housing and urban transport policies, and by other factors constraining labor mobility (poor information flows, high search costs, residential segregation) (Keare 1999). The informal sector, which represents about half of all urban jobs in Africa and South Asia and a third in LAC and MNA, can be seen both as a source of vitality in the urban economy and, in some cases, as evidence of dysfunctional regulations that discourage open and maturing business activities.²

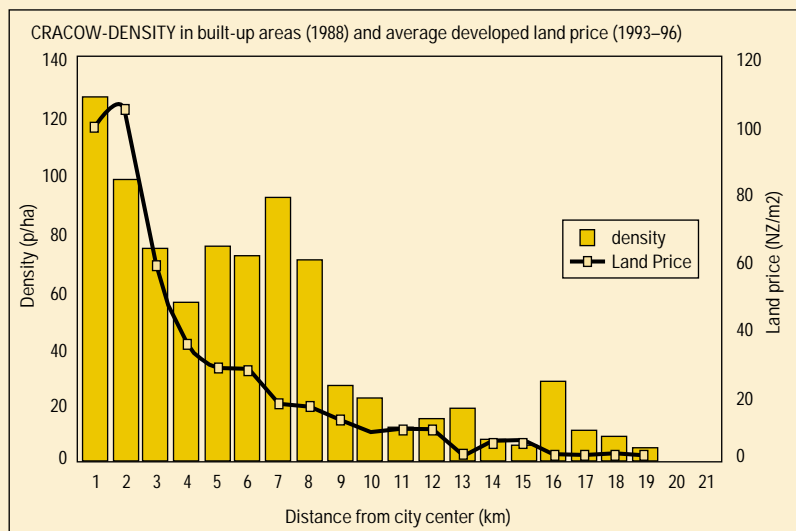
Implications of urban land market imperfections. The quality of urban management is critical to realizing the benefits of urbanization. Bad policy on land use and real estate development can hurt businesses as well as households.

² *Figures are from the UNCHS Urban Indicators Database.*

- Formerly socialist countries have inherited a high concentration of industry near city centers and housing settlements requiring long worker commutes. Land prices are readjusting to reflect location values more consistent with an urban market economy, but commensurate changes in land use are still constrained by current land planning and regulation. (box A.2).
- Laws restricting land redevelopment, sale, or rental lead to high costs, delays, land rationing, and rampant opportunities for corruption. An often-cited example is the Urban Land Ceiling Act in India, which, until its repeal, limited the ownership and possession of vacant land inside urban boundaries. The law contributed to urban sprawl and perpetuation of slum settlements, which have grown 9 to 10 percent a year (Asian Development Bank 1998). Other laws fur-

Box A.2 Rigid land use planning continues to constrain market adjustment of the urban form in Cracow

In Cracow, Poland, zoning continues to be highly prescriptive with no regard for actual demand. Although the city managers have espoused the aim of making the city form more compact, with density radiating from the center as is common in market-based cities, the zoning reinforces the land use patterns developed under socialism. Thus the land regulations impede efficient use of the city's most valuable resource, and add to the motorization and pollution that the city authorities want to curtail. Spatial analysis reveals that the zoning plan perpetuates an administrative distribution of land that runs counter to both market trends and the master plan's objectives.



Note: While the density profile shows the “camel back” shape typical of socialist economies, the land price gradient is consistent with the monocentric city model in a market economy.

Source: Bertaud 1997.

ther impede land acquisition, resulting in long lead times for approval of investment proposals from private or even public developers.

- Land registration delays and unclear property rights deter private investment in land and housing and prevent collateralization of mortgage finance.
- Inappropriate codes for building construction and settlement density, often borrowed from more developed countries, prohibit the kinds of housing and infrastructure that the poor could afford.
- Alongside misguided planning and regulation, governments have commonly neglected to protect minimal rights of way in the face of rapid urban growth, thus raising the later costs to install infrastructure networks and requiring more resettlement.

The recent collapse of real estate markets in East Asia, although provoked by poor financial sector regulation that encouraged lax management of credit risk, also reflects basic shortcomings in urban land and housing policy. In addition to financial reforms, creating a less volatile and more mature real estate industry will require better market information; tax and legal reforms to foster resale of properties, leasing, and condominium submarkets; and improved urban and infrastructure planning (including of public-private investment partnerships), involving an open dialogue with the general public (Renaud, Zhang, and Koeberle 1998).

Synergy between rural and urban economies. A particularly important channel through which growing urban areas contribute to national development is the synergy between rural and urban economies. “Urban” and “rural” do not signify closed economies within a country, but a seamless continuum of economic activities and settlements distinguished by degrees of density, dependence on agriculture or manufacturing, and social organization. Interdependence is particularly evident in Sub-Saharan Africa, where town and village households maintain multiple ties through seasonal migration and remittances, creating an informal safety net. Resources and income shift between rural and urban markets as the national economy grows and transforms structurally, and productivity changes unevenly across areas. Local governments often have a constituency spanning the range of rural and urban communities and are well aware of their interrelationships.

Growth of secondary and market towns, where value is added to agriculture, generates demand for agricultural goods and labor, raising rural incomes when markets are allowed to work (USAID 1991). Migration from rural to urban areas benefits residents in both locations (Tacoli 1998). As agricultural productivity increases, surplus labor needs to shift to manufacturing and services for which low-wage developing countries have a comparative advantage. Migrants send back remittances and stimulate innovation in the rural economy. Policies that ensure market-based terms of trade between urban and rural areas, and that remove artificial distortions restricting internal migration, will promote overall economic growth and help reduce rural-urban wage differentials.

Distinctions among cities, towns, and rural areas are becoming almost obsolete as economic activity spreads outward into vast semiurbanized and rural industrialized regions, such as the Central Valley of Mexico, the Mumbha-Pune-Nasik corridor in India, and the Eastern Seaboard of Thailand. Rural industrialization, sparked in some cases by external markets, can pull the rural economy along when the internal labor and land markets are sufficiently responsive. As a result of rural and small-town industrialization in the Pearl River Delta of China in the 1980s, “town and village enterprises” surpassed the state enterprise sector in output, employing more than 100 million workers, most of the industrial work force, by 1990 (Harris 1997a). With improved infrastructure, rural Chinese workers also are commuting to cities (from Guangdong Province, for example, to Hong Kong) or working part-time in both rural and urban occupations.

Similarly, in the Red River Delta of Vietnam, land reforms promise to attract private labor-intensive manufacturing to towns and villages outside Haiphong (in the past three years the periurban area has gained 20,000 jobs in light manufacturing, the fastest-growing segment of the regional economy).³ Port-related manufacturing is dispersing to the rural delta region and along highways as container terminals locate outside the main Haiphong urban area. The Haiphong-Hanoi delta and corridor are expected to benefit from this process, which could be promoted as part of a deliberate integrated development strategy for the northern region—addressing the problems of rural poverty by fostering urban growth.⁴

Financial links

Financial lines between the urban and national economies are also important. Nonagricultural activities in urban areas generate most domestic investment, with housing and urban civil works alone accounting for about a quarter of gross national investment. The highest rate of investment in housing occurs in countries in the transitory phase of urbanization (with 30–70 percent of the population living in urban areas), which account for more than 60 percent of the world’s urban population (figure A.2). Establishing conditions for efficient investment in housing and urban infrastructure is critical during this stage of development if countries are to realize the macroeconomic benefits of the urban transiton.

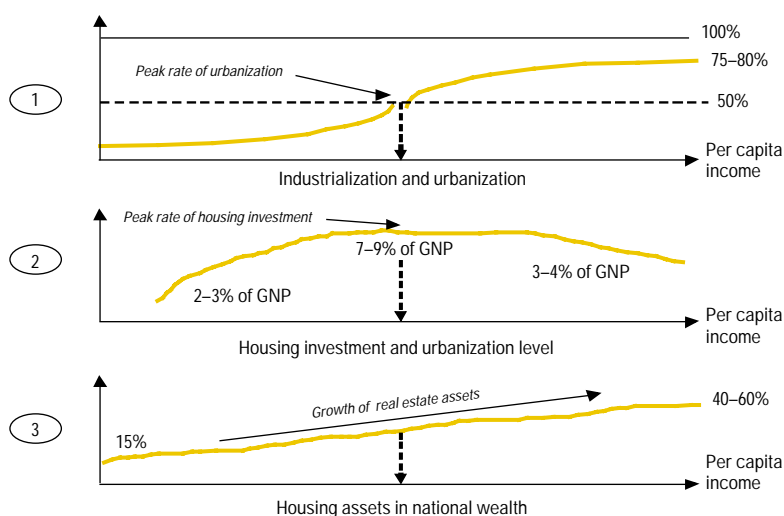
Since housing and developed land are a major stock of national wealth and generate large income flows, improving the management of this asset base can result in large dynamic benefits to the economy. Even a modest improvement in the flow of services from these assets can increase GDP by more than new annual investment.⁵ Inadequate investment in urban public infrastructure relative to private

³ Official data from the Haiphong People’s Committee annual socioeconomic survey, 1998.

⁴ Based on analysis of the ongoing Haiphong city development strategy (see also box B.7).

⁵ A 10 percent rate of return on annual investment in housing and urban civil works assets, for example, would represent roughly 0.4–0.8 percent of GDP in low- and middle-income countries. By comparison, total gross private international financial flows to infrastructure (excluding foreign direct investment) in these countries amounted to 0.5 percent of GNP in 1996 (World Bank 1998b).

Figure A.2 As urbanization accelerates, housing becomes more important to the economy



Source: Renaud 1999.

real estate development in East Asia, and failure of basic urban planning (such as street layouts and rights of way) in Sub-Saharan Africa, result in large welfare losses from forgone private investment, or reduced utility of private investment, in housing or plot improvements.

A healthy urban economy is also good for national savings rates. Most financial intermediation and financial deepening occurs in and for urban activities. Bangkok, for example, was estimated to account for 86 percent of Thai GDP in the financial sector in 1985 (USAID 1991).

Fiscal links

The urban economy also contributes to the national economy through fiscal flows. Cities generate at least as much tax revenue as they absorb. Studies of many cities—including Abidjan, Bangkok, Casablanca, and Paris—have found them to be large net revenue contributors to the rest of the country through the national budget, even under regressive tax and expenditure systems (Prud'homme 1995). Still many urban areas, particularly seats of political power, have benefited disproportionately from public employment, subsidized investment credit, and underpriced infrastructure services. In recent years, however, national adjustment programs in many countries have reduced these policy distortions reflecting urban bias.

Restoring the urban marketplace—key to developing markets

For urbanization to do all that it can for the national economy, market mechanisms need to be more fully developed—to intermediate flows of goods and labor and between rural and urban areas, to allocate land and credit efficiently for productive urban investment, and to ensure improved infrastructure services in response to effective demand of business and households. The costs to the national economy from misguided national regulations and financial policies that impede urban markets are substantial.⁶ But urban areas can realize their potential as market centers for the national economy only if local governments do their part in lowering the costs of doing business there. While structural reforms at the national level open the way for urban development to fire up the country's economy, these reforms must be extended to the municipal level by local governments.

Social impacts of urban development

Despite the contributions urbanization can make to national growth and poverty reduction, poverty is a growing problem in urban areas and is increasingly extending into the periphery of cities. Most of the half-billion poor people in the towns and cities of developing countries live in unhealthy and deteriorating conditions.

The urban share of the poor lags behind the urban share of total population in every region. But in the two most urbanized regions of the developing world—Eastern Europe and Latin America—more than half the poor live in towns and cities (figure A.3). And the projected growth in urbanization suggests that regions will likely experience increases in the share of their poor who reside in urban areas (figure A.4).

The incidence of poverty is less in the urban than the rural population in every developing region, but inequality tends to be higher in urban than in rural areas—in part simply because the rich typically live in cities.⁷ Urban income disparity is greatest in Latin America and lowest in South Asia and the transition economies.⁸ There is also anecdotal evidence, not yet well documented, that urban inequality is growing. The high relative poverty in urban areas reflects the ability of citizens to participate in society and in activities leading to improved health, educational attainment, personal security, and other benefits. Recent studies have found that, controlling for the effects of income and other variables, inequality has a strong influence on the level of violence and on health outcomes.⁹

Apart from the profile of poverty based on income and consumption, the urban poor's own perceptions of their well-being and the security of their livelihood indi-

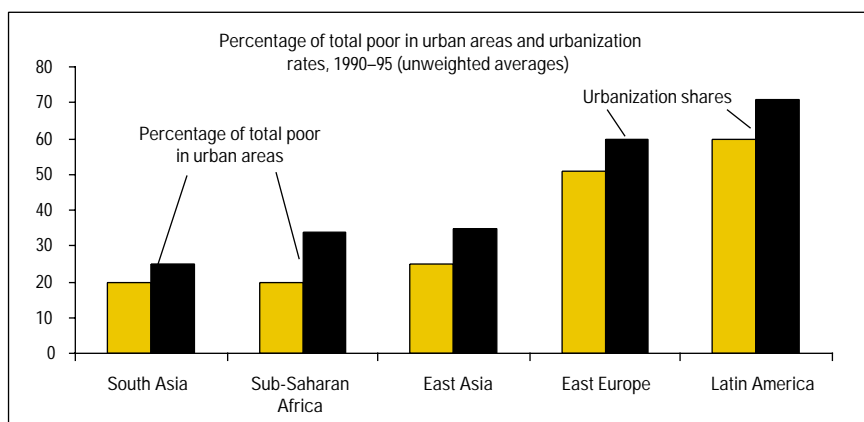
⁶ Case studies of extremely distorted national housing markets, for example, have estimated the welfare costs of these distortions at 3–6 percent of GNP. See Buckley 1988; World Bank 1993b, p. 36, on costs of Polish housing subsidies; and USAID 1991.

⁷ Limited data from the Bank's poverty assessments suggest exceptions to this pattern in Kenya, Nigeria, Romania, Senegal, and Thailand. There is also no clear relationship between the ratio of urban to rural inequality as urbanization increases.

⁸ Confirmed by both the UNCHS Urban Indicators Database and Bump and Hentschel 1998, p. 9.

⁹ Citations in Bump and Hentschel 1998.

Figure A.3 The urban shares of the poor population and of the total population are closely aligned



Source: Bump and Hentschel 1998.

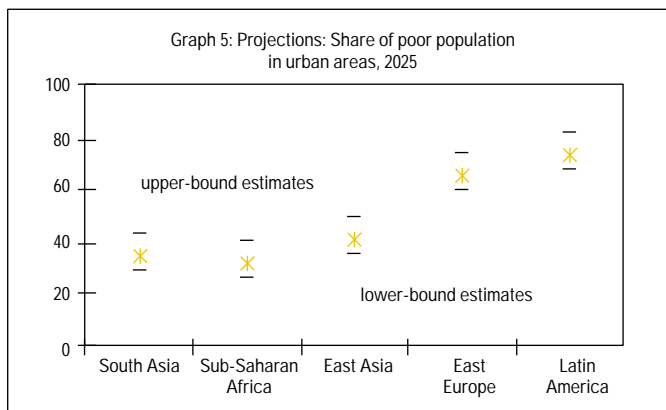
cate their vulnerability—as individuals, as households, and as communities. Vulnerability is greater the less people can rely on assets, including labor and human capital (health, skills, education), productive assets (land, housing), household relations (as mechanism for income sharing), and social capital.¹⁰ Distortions in urban transport, land, and housing markets, and inequalities in access to income and other benefits, hamper the poor's ability to improve or hold onto their limited assets.

Cross-country data from poverty surveys confirm that the urban poor have less access to education, water, and sanitation services than the urban nonpoor. The dispersion in rates of access is wide, however, indicating that many factors other than infrastructure and social services affect poverty conditions (Bump and Hentschel 1998). The poor are subject to growing violence and increasingly alienated from the mainstream urban economy and its institutions. Established urban residents benefit less from traditional social safety nets, such as reliance on the village for supplementary food, than first-generation migrants. The high density and squalid living conditions of slums, which house 30–60 percent of the urban population in many developing countries, subject residents to more concentrated health and safety risks from air pollution, waterborne disease, and traffic accidents.

Rapid growth of towns and cities, especially those with weak economies and inadequate urban management, also strains social capital and traditional safety nets. Large urban areas tend to have one with a lower income or consumption poverty (although not always, with the Philippines being one exception) and greater avail-

¹⁰ As documented in Moser 1996 and Moser and Holland 1995.

Figure A.4 Poverty will be increasingly urban



Source: Bump and Hentschel 1998; estimates based on data from World Bank country poverty assessments.

Note: The upper-bound estimates assume that the ratio of the urban to rural headcount rate increases by 30 percent between 1995 and 2025, the lower-bound estimates that it decreases by 30 percent.

Data were unavailable for a sufficient number of countries in the Middle-East/North Africa Region to permit including a regional average in figures A.3–4.

ability of services. But other measures of welfare appear to be less favorable in large cities, especially those that are growing rapidly (box A.3). In the United States and Europe, health indicators in the poorest urban neighborhoods are the lowest nationally. In developing countries both absolute number and share of people suffering from malnutrition are increasing in cities, and the nutritional status of the urban and rural populations are starting to converge.¹¹

Environmental impacts of urban development

Urban development can enhance and enrich the environment of human settlements—or create blight that dangerously impairs the quality of life. The environmental problems of urban areas (the “brown” agenda) include air pollution from vehicles, household energy use, and industrial and power plants; land and water pollution from solid wastes and untreated sewage; and traffic congestion, accidents, and noise. These problems have more direct and immediate negative impacts on human health and safety, especially for the poor, and on business productivity than does the “green” environmental agenda.¹² Poverty-related environmental problems with a local impact, especially those related to water and sanitation, are paramount

¹¹ A recent study of 14 developing countries found that in the majority of cases over the past 15–20 years, both the number of poor and undernourished people and the rates of poverty and undernourishment have increased in urban areas (Haddad, Ruel, and Garrett 1999).

¹² Several studies show that urban environmental quality is more closely associated with morbidity than is income. See for example Harris 1989.

Box A.3 Large cities see a relative decline in social welfare

A recent analysis of United Nations data examined welfare indicators by settlement size and growth rate across regions from the 1970s through the 1990s. The study found that since the late 1970s aggregate infant mortality rates (a summary measure of deprivation) have barely changed in large cities (those with more than 1 million people) in Latin America and the Caribbean, while declining significantly in small cities (50,000–1 million), towns, and rural areas. In Sub-Saharan Africa infant early mortality rates have remained virtually constant in large cities while declining modestly in towns and villages and rising in small cities. In the Middle East and North Africa infant mortality has declined substantially in the largest cities, but much more slowly than in smaller urban and rural areas. These findings refute conventional claims of sharp urban-rural contrasts in living conditions and better living conditions in large urban areas.

Extending the analysis to adequacy of housing, incidence of stunted growth and of diarrhea, and access to health care and education, the study found that conditions in Latin America and the Caribbean and North Africa are improving less rapidly in large cities than in small cities or, in some cases, rural areas. In Sub-Saharan Africa conditions in large cities remain relatively better, while conditions in small cities are no better—and sometimes worse—than those in towns and villages. With 33 of 46 national capitals in Sub-Saharan Africa having fewer than 1 million residents, the inferior social indicators of these small cities relative to towns and villages suggest the absence of a general urban bias. The study describes these small cities that lack even rudimentary amenities as “megavillages.” In Asia no large city advantage is detectable.

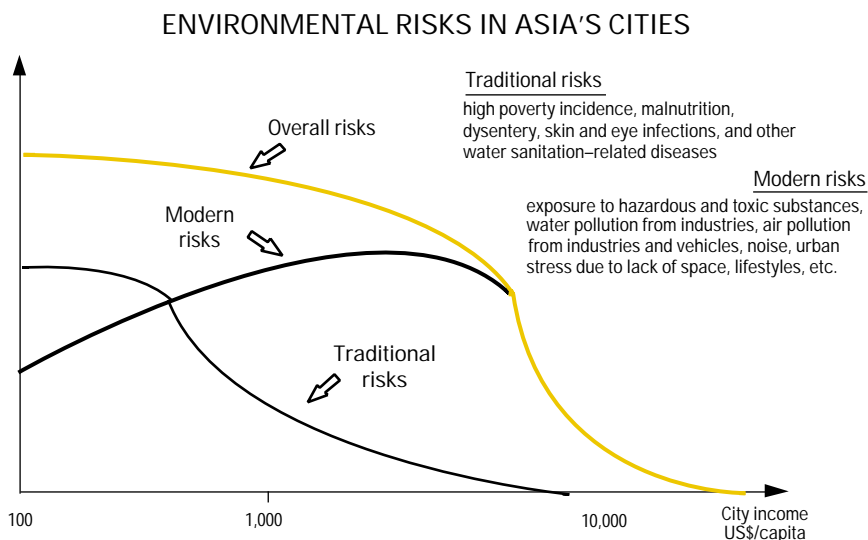
Cities' growth rate had as strong an influence on well-being as their size did. Long-term growth rates of more than 5 percent a year raised the odds of infant mortality by 24 percent in Asia and the Middle East and North Africa, and by 28 percent in Latin America and the Caribbean. Growth of more than 3 percent a year in Sub-Saharan Africa was associated with a 40 percent increase in the infant mortality odds. The relative disadvantages associated with city size thus appear to depend mainly on city growth rates. Residence in a national capital has no statistically significant effect on infant mortality independent of city size and growth rate. These results underscore the critical importance of developing urban management capacity and policies to enable cities to absorb growing populations and meet the welfare needs of residents.

Source: Brockerhoff and Brennan 1998.

in cities with very low per capita incomes. As cities modernize, environmental risks arise from a wider array of sources, complicating their assessment and management (figure A.5).

Motor vehicles, the number and use of which are growing much faster than urban population, contribute about a third of the air pollution from fossil fuel combustion; other energy use and waste incineration account for half of air pollution (Lovei 1997). Policies to curb environmental deterioration resulting from motoriza-

Figure A.5 Urban environmental risks change with development



tion and other energy consumption will have limited effect if focused only on fuel choice or internal production efficiency. Effective solutions will require addressing broader issues, including transport demand, land use planning, industrial development and location, and household income growth and distribution—all central to the urban development agenda.

“Brown” issues stem from urban activity, but they affect areas outside cities by contributing to global climate change and threatening coastal zones. The concept of the ecological footprint reflects the geographic scale of the influence of the urban area—the extent of area that is required to provide food, water, and raw materials for a city’s population and that is affected by its wastes. But there is growing concern when the footprints from urban centers start to overlap, for example, when successive cities on a river begin to merge or when more and more agricultural land is converted to urban uses.

Another consequence of poorly managed urbanization is the settlement of unsuitable and risky locations such as floodplains and hillsides. This phenomenon is partly responsible for the worsening human toll of urban disasters, most recently witnessed in such cities as Tegucigalpa, Honduras.