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1 Introduction

1.1 Why Cities?

Economists typically pay little attention to geography. In most textbooks, it is implicitly understood that the relevant geographic unit of analysis is a country or nation. While countries are undoubtedly important, a strong argument can be made that the most important geographic unit of economic analysis is not the country, but the city or the metropolitan area. This view is motivated by the fact that urbanization and economic development are closely related.

Urbanization refers to the population shift from rural to urban areas. As an economy develops, we observe that the proportion of people living in urban areas increases. This trend toward urbanization creates new challenges that societies must meet.

In 2011 more than half of the world population lived in cities and urban areas. The United Nations predicts that by 2050 about 64 percent of the developing world and 86 percent of the developed world will be urbanized. Figure 1.1 shows urbanization rates around the world in 2015. In most developed countries, these rates exceed 70 percent, while rates are less than 30 percent in most developing countries. Urbanization and economic development are, therefore, strongly positively correlated.

The importance of studying large cities or metropolitan areas becomes even more compelling when we take a look at the location of economic activity in most developed countries. Metropolitan statistical areas, or metro areas, are delineated in the US by the Office of Management and Budget, which estimated that more than 83 percent of all Americans lived in metro areas in 2010. Table 1.1 shows ten major metropolitan areas in the US. It ranks them according to their total gross domestic product (GDP)—a commonly used measure of aggregate output—produced in 2016.

There are not any real surprises at the top of the list. New York, Los Angeles, and Chicago are the most populous cities in the country. They also have the largest economic output. Even smaller metropolitan areas in the US are large by international comparison. For example, the greater Atlanta metropolitan area has a GDP of $320 billion, bigger than Denmark’s. The ten largest metro areas alone combine for 34 percent of the country’s total GDP despite the fact that they account
FIGURE 1.1. Urbanization rates around the world. (Akantamn/Wikimedia Commons)
for only 26 percent of total population. GNP per capita—a commonly used measure of output per capita—in the ten largest metropolitan areas is approximately $68,000. Outside these metropolitan areas it falls to approximately $47,000.

The main takeaway from this table is that large cities are the engines of prosperity in the US. That is not to say that rural areas and small towns are unimportant for the economy. Urban areas are, however, the most essential places in terms of total output. Ask yourself, how many of your friends, who will graduate with you from college, will decide to live in one of those ten areas? Where are you likely to work and live for the next five or ten years?

Of course, some important economic activities occur outside of cities. Examples are agriculture, mining, forestry, most heavy manufacturing, and recreation. As the economies of most developed and some developing countries have shifted toward technology and services, most of the important higher-value-added industries tend to be located in and around large metropolitan areas.

Another way to measure the importance of metropolitan areas is to analyze labor productivity—measured as output per unit of labor. Parilla and Muro (2017) conducted a systematic analysis of the differences in labor productivity among US metropolitan areas. They found that average labor productivity is more than 20 percent larger in large metro areas with employment exceeding 2,000,000 than in small- and medium-sized metropolitan areas with employment less than 1,000,000. Hence larger cities tend to either be more productive or attract more productive individuals than smaller cities.

To appreciate how much output can be produced in a very small area, it is useful to consider Midtown Manhattan. According to Glaeser (2011), the five zip codes that occupy a single mile between 41st and 59th Streets in Manhattan employ 600,000 workers, which is more than the number of workers in New Hampshire or Maine. The average earnings were more than $100,000 in 2010, giving that piece of real estate a larger annual payroll than the entire state of Oregon or Nevada.

### Table 1.1. Top Ten US Metropolitan Areas Ranked According to GDP

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<th>GDP</th>
<th>Population</th>
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<tr>
<td>#1</td>
<td>New York-Newark-Jersey City, NY-NJ-PA</td>
<td>$1,430</td>
<td>20.1</td>
</tr>
<tr>
<td>#2</td>
<td>Los Angeles-Long Beach-Anaheim, CA</td>
<td>$885</td>
<td>13.3</td>
</tr>
<tr>
<td>#3</td>
<td>Chicago-Naperville-Elgin, IL-IN-WI</td>
<td>$569</td>
<td>9.5</td>
</tr>
<tr>
<td>#4</td>
<td>Dallas-Fort Worth-Arlington, TX</td>
<td>$471</td>
<td>7.2</td>
</tr>
<tr>
<td>#5</td>
<td>Washington-Arlington-Alexandria, DC-VA-MD-WV</td>
<td>$449</td>
<td>6.1</td>
</tr>
<tr>
<td>#6</td>
<td>Houston-The Woodlands-Sugar Land, TX</td>
<td>$442</td>
<td>6.7</td>
</tr>
<tr>
<td>#7</td>
<td>San Francisco-Oakland-Hayward, CA</td>
<td>$406</td>
<td>4.7</td>
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<tr>
<td>#8</td>
<td>Philadelphia-Camden-Wilmington, PA-NJ-DE-MD</td>
<td>$381</td>
<td>6.1</td>
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<tr>
<td>#9</td>
<td>Boston-Cambridge-Newton, MA-NH</td>
<td>$371</td>
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<tr>
<td>#10</td>
<td>Atlanta-Sandy Springs-Roswell, GA</td>
<td>$320</td>
<td>5.8</td>
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**USA**

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<th>GDP</th>
<th>Population</th>
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<tbody>
<tr>
<td></td>
<td>$5,700</td>
<td>84.3</td>
</tr>
<tr>
<td>USA</td>
<td>$16,800</td>
<td>323.4</td>
</tr>
</tbody>
</table>

*Source: US Department of Commerce.*

*Note: 2016 GDP is measured in billions and 2009 prices. Population is measured in millions.*
Table 1.2: The Population of NYC and the US

<table>
<thead>
<tr>
<th>Year</th>
<th>NYC Population</th>
<th>Change</th>
<th>US Population</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920</td>
<td>5,620,048</td>
<td>17.9%</td>
<td>106,021,568</td>
<td>15.0%</td>
</tr>
<tr>
<td>1930</td>
<td>6,930,446</td>
<td>23.3%</td>
<td>123,202,660</td>
<td>16.2%</td>
</tr>
<tr>
<td>1940</td>
<td>7,454,995</td>
<td>7.6%</td>
<td>132,165,129</td>
<td>7.3%</td>
</tr>
<tr>
<td>1950</td>
<td>7,891,957</td>
<td>5.9%</td>
<td>151,325,798</td>
<td>14.5%</td>
</tr>
<tr>
<td>1960</td>
<td>7,781,984</td>
<td>−1.4%</td>
<td>179,323,175</td>
<td>18.5%</td>
</tr>
<tr>
<td>1970</td>
<td>7,894,862</td>
<td>1.5%</td>
<td>203,211,926</td>
<td>13.3%</td>
</tr>
<tr>
<td>1980</td>
<td>7,071,639</td>
<td>−10.4%</td>
<td>226,545,805</td>
<td>11.5%</td>
</tr>
<tr>
<td>1990</td>
<td>7,322,564</td>
<td>3.5%</td>
<td>248,709,873</td>
<td>9.8%</td>
</tr>
<tr>
<td>2000</td>
<td>8,008,288</td>
<td>9.4%</td>
<td>281,421,906</td>
<td>13.2%</td>
</tr>
<tr>
<td>2010</td>
<td>8,175,133</td>
<td>2.1%</td>
<td>308,745,538</td>
<td>9.7%</td>
</tr>
<tr>
<td>2017</td>
<td>8,550,405</td>
<td>4.6%</td>
<td>325,365,189</td>
<td>5.4%</td>
</tr>
</tbody>
</table>

Source: US Census Bureau.

Since economic development is closely related to urbanization, economists should pay close attention to the role that cities play in the economy. From a practical perspective, it seems obvious that we need to make cities work. The objective of this book is to study the role of cities in the economy and the problem of effectively organizing economic activities within cities and metropolitan areas.

1.2 New York City versus the United States of America

To illustrate the importance of cities, let’s compare the US with its largest city, New York City (NYC). One measure of economic activity is the size of an economy, measured by its population. Table 1.2 reports the population for NYC and the US by decade over the past century. It may surprise you to learn that a hundred years ago, the relative economic importance of NYC was even larger than it is today. Approximately one out of twenty Americans lived in NYC in 1920. The growth of NYC outpaced the growth of the US until the 1930s, as NYC was the hub for European immigration into the United States.

After the end of World War II, the economic dominance of NYC started to decline. In the 1950s NYC was still the most important hub of the manufacturing industry in the US. However, since the 1950s most large cities in the US have undergone a transformation from a manufacturing-oriented economy to a service sector and technology-based economy. As discussed in detail in Glaeser (2011), the number of manufacturing jobs in NYC declined from 1,082,188 in 1950 to 146,291 in 2000. Employment in manufacturing accounted for 36 percent of all jobs in 1950, but only 5.3 percent in 2000. The negative impact on the manufacturing industry was a large economic shock for NYC and almost all other large cities in the US. As a consequence of this economic shock, population growth in NYC started to slow down and lagged behind the rest of the country. Moreover, most immigrants to the United States have not come from Europe since the 1960s. Instead, a large number of immigrants to the US nowadays have come from Latin America and Asia. Hence NYC has not been a natural entry point for these new immigrants.
The economic stagnation in the United States during the 1970s hit New York City particularly hard. The city was close to bankruptcy in 1975. As a result, the city created the Municipal Assistance Corporation, which attempted to refinance the debts of NYC. However, these attempts ultimately failed. The State of New York then appointed an Emergency Financial Control Board, which took full control of the city’s budget and made drastic cuts in municipal services and spending. It also cut city employment and froze salaries. Yet these measures were still not sufficient to resolve the financial crisis.

The city then appealed for financial aid from the federal government. Initially, President Gerald R. Ford refused to bail out NYC in October 1975, believing other alternatives existed. As the financial crisis continued, the US Congress reversed course in December 1975 and passed the New York City Seasonal Financing Act. The financial crisis reinforced the beliefs of many citizens that New York City was in serious trouble. From 1950 to the end of the 1970s, nearly a million people left NYC. It is fair to say that NYC in the 1970s seemed as dire as Detroit in the 2010s. Although the fiscal situation improved during the late 1970s, NYC continued to suffer from a drug and crime epidemic, which lasted through much of the 1980s.

The growth and rejuvenation of NYC was largely due to the fact that NYC’s economy was successfully transformed from manufacturing toward technology and services. According to Glaeser (2011), employment in the service sector in NYC increased from 25.4 percent to 41.1 percent of total employment. Modern cities such as NYC serve as regional, national, or even global hubs of the service sector industry. Manufacturing typically plays a negligible role in most US cities and metropolitan areas. NYC is a leading example.
NYC has experienced an amazing renewal since the mid-1970s. It has attracted and retained a disproportionate fraction of high-skill households. A measure of the number of high-skill households can be obtained by studying the distribution of adjusted gross income provided by the Internal Revenue Service (IRS). That is the measure of income used by the IRS to determine federal income tax obligations. The IRS data reveal, for example, that the fraction of households with incomes exceeding $500,000 is almost twice as large in NYC as in the US as a whole.

We can also use the share of total income of different income groups to measure inequality. Consider table 1.3, which reports the income shares of different income brackets. The table shows that the richest households in NYC—those with adjusted gross incomes of $500,000 or more—account for more than 32 percent of total adjusted gross income in the NYC metropolitan area. These households account for a much smaller share of total income in the United States overall.

While the stereotypical wealthy Upper Eastsider is prevalent in Hollywood movies, NYC is also home to a large number of low-skill households. Table 1.3 shows that almost 50 percent of all households in NYC in 2009 had incomes of less than $30,000. By almost any measure of income equality, NYC tends to be an island of extremes. The large income inequality in cities is not an accident. It is intrinsically linked to how the city economy is organized. Large cities attract a disproportionate fraction of high-skill individuals. High-skill individuals work long hours and often do not engage much in home production. Many high-skill households do not cook, clean, or spend much time on other household chores. Instead, they rely on the service sector to provide these services. Many of these services are provided by low-skill workers. High- and low-skill individuals complement each other in the city economy (Eeckhout, Pinheiro, and Schmidheiny, 2014).

An important function of New York City is to match high-skill individuals with high-productivity firms. A large fraction of an individual’s wage and salary depends on ability and skills. Becker (1964) referred to these skills as human

### Table 1.3. Income Inequality in NYC and the US

<table>
<thead>
<tr>
<th>Amount of income</th>
<th>United States</th>
<th></th>
<th>New York City</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage of Filers</td>
<td>Fraction of total income (in %)</td>
<td>Percentage of Filers</td>
<td>Fraction of total income (in %)</td>
</tr>
<tr>
<td>Under $20,000</td>
<td>34.9</td>
<td>3.6</td>
<td>36.6</td>
<td>5.0</td>
</tr>
<tr>
<td>$20,000–$30,000</td>
<td>13.3</td>
<td>6.1</td>
<td>13.0</td>
<td>4.7</td>
</tr>
<tr>
<td>$30,000–$40,000</td>
<td>10.2</td>
<td>6.6</td>
<td>10.2</td>
<td>5.2</td>
</tr>
<tr>
<td>$40,000–$50,000</td>
<td>7.7</td>
<td>6.3</td>
<td>7.7</td>
<td>5.5</td>
</tr>
<tr>
<td>$50,000–$75,000</td>
<td>13.3</td>
<td>15.1</td>
<td>12.9</td>
<td>11.5</td>
</tr>
<tr>
<td>$75,000–$100,000</td>
<td>8.2</td>
<td>13.0</td>
<td>7.1</td>
<td>8.8</td>
</tr>
<tr>
<td>$100,000–$200,000</td>
<td>9.6</td>
<td>23.6</td>
<td>8.2</td>
<td>16.1</td>
</tr>
<tr>
<td>$200,000–$500,000</td>
<td>2.3</td>
<td>11.9</td>
<td>2.5</td>
<td>10.9</td>
</tr>
<tr>
<td>$500,000–$1,000,000</td>
<td>0.4</td>
<td>4.4</td>
<td>0.6</td>
<td>5.5</td>
</tr>
<tr>
<td>$1,000,000–$5,000,000</td>
<td>0.2</td>
<td>5.1</td>
<td>0.4</td>
<td>10.5</td>
</tr>
<tr>
<td>$5,000,000 or more</td>
<td>0.0</td>
<td>4.4</td>
<td>0.1</td>
<td>16.2</td>
</tr>
</tbody>
</table>

Source: Author’s calculations based on IRS data.
capital. Another important component of income—especially for high-productivity individuals—is determined by the match between the firm and the individual. Suppose you are the best patent lawyer in the world and work in a place in which there is little innovation. That would mean the law firm you work for gets few patent cases. Then the services of your firm are not sought by inventors, and your talents are completely wasted. You need to move! One of the important functions of large cities is to match worker talents to firm needs.

Looking at the industry structure of NYC, we find that the local economy is heavily dominated by firms in the financial and insurance sectors, as well as technology and entertainment. In addition, NYC is home to some of the largest law, consulting, and accounting firms. These firms provide important professional services for other large companies. As a consequence, it is not surprising that the New York economy attracts a disproportionate share of high-skill individuals whose skills match well with the needs of these high-productivity firms. The large concentration of firms in key industries such as finance, entertainment, and technology is not an accident. We will learn that cities tend to make firms and individuals more productive. These productivity gains arise because of a variety of externalities, such as knowledge spillovers. Economists typically refer to these externalities as agglomeration externalities since they are confined to a small geographic location.

While there are many advantages of city life, there is also a host of problems that arise because of high population densities that are inevitable in cities. One drawback of living in New York City is that the cost of living is much higher than in average towns and cities in the US. Wallace (2016) provides some examples to determine the true cost of living in New York City. For example, transportation costs were significantly higher in NYC than in the rest of the country. The average parking rate in downtown Manhattan was $533 per month in 2015. Purchasing a
parking space for your car in Manhattan was roughly as expensive as the median house value in the US, which is $236,600. The average insurance rate for drivers in Manhattan exceeded $4,000 per year. A monthly transit pass in New York cost $116.50 per month, about 75 percent higher than the national average. Groceries in New York cost approximately 30 percent more than the national average. The price for a meal for two at a moderate restaurant was 67 percent higher than the national average. Your best bet may be to eat at one of the city’s many trucks, although even those can be expensive. Sneakers, jeans, movies, and bowling were, respectively, 24, 44, 40, and 100 percent more expensive than the national average.

The Elliman Report provides a detailed characterization of the cost of owning real estate in Manhattan. The average price per square foot of co-ops and condos in the first quarter of 2015 was $1,263. Luxury apartments cost more than twice that amount, at $2,587 per square foot. The average rent for a two-bedroom apartment in Manhattan was $3,895, which is roughly equal to an entire monthly income of the typical US worker.

State and local income taxes are also among the highest in the country and range from 7 percent to 12 percent. Wallace (2016) concludes that, taking all expenses into account, the cost of living in New York City is at least 70 percent higher than the national average. If you live in Manhattan rather than an outer borough, the cost of living can be even higher, approximately double the national average. That means Manhattanites must make twice as much money to consume the same consumption bundle. The price of success is, therefore, substantial. Of course, some of these costs reflect the fact that you get to live in one of the most attractive, thriving, electrifying cities in the world. For individuals who like urban life, replete with cultural attractions, excellent cuisine, and luxury shopping, this may be fine. For those who value such services less, the suburbs may be more desirable, but they come with a significant and lengthy commute. For those employed in NYC, the trade-offs are clear and there is no free lunch.

1.3 The City as a Public Sector Corporation

This book focuses on the important role that cities and local governments play in the economy. In order to better understand how cities form their operations, it is useful to compare cities to private corporations.

According to Inman (2008), each city has a population and this population can be viewed as the number of “shareholders.” These shareholders do not own stocks as they do in private sector corporations. Instead, they are either owners or renters of residential land and property. While the shareholders in a private sector company own voting rights for each share of the company owned, the “shareholders” in a democratic city are each entitled to only one vote, regardless of the amount of property they own. In a private sector company, the board of directors is elected by the shareholders. The city council serves the same function in a city as the board of directors of a private corporation. The board chair is similar to the mayor of a city who is either elected by the city council or directly elected by popular vote in the US. In other countries, the mayor is not elected but appointed. And much like a

private business usually structures its organization, the mayor and the city council typically appoint a management team for the city’s various “product” activities: street cleaning, street maintenance, public education, recreation, libraries, etc.

Private sector companies need to satisfy their consumers by offering quality products at reasonable prices. This may be a shocking concept for some firms, but competition usually drives these firms out of business. Cities need to accomplish a similar goal. For cities to maintain a satisfied population, they must protect and enhance their economic competitive advantage. They need to efficiently provide public goods and services for residents and businesses. Public goods include the provision of infrastructure such as roads, ports, airports, and communication systems. Important services are determined by significant consumer demand, or dependencies, like safety, environmental protection, and public education. Each of these goods and services requires inputs like labor, capital, and materials for adequate production. Cities need to manage these production processes.

Another important aspect of managing a private sector company is human resource management, which includes the broader administration of employment. The recruitment and selection of workers, as well as performance management, training and development, occupational health and safety, and resolving employee conflicts, all fall under the responsibility of a human resource department. Comparable issues arise in a city and can play an even larger role. A city must hire and manage workers and employees to produce the goods and services that are essential for its success. Additionally, municipal employees are typically unionized, which creates more complicated obstacles for their management. Municipal employees are also city residents and hence they “own” a share of the city and can try to influence city politics in their favor.

To pay for the labor and to acquire the capital needed in the production of public goods and services, the city collects taxes and fees and issues debt in the form of municipal bonds. You can view the exchange of taxes and fees for public goods and services as a contract in which residents are the consumers and the city is the supplier. Citizens, as well as businesses and residents of neighboring suburbs, can all be considered potential customers of the city.

It is important to understand that cities do not operate in isolation. Just as firms face competition from other firms that offer similar products, each city is in direct competition with other cities that offer similar public goods, services, and locational amenities. We call this fiscal competition since it largely affects the feasibility and suitability of fiscal policies. If a city does not provide its services efficiently, consumers will leave the city and go elsewhere. A declining population then leads to a fall in land prices. Therefore, we can compare the price of land or housing in a city to the share value of a publicly traded company. A city may go into bankruptcy if there is not a sufficient tax-paying population to supply the revenues to cover costs.

This notion of competition can be extended to apply across countries. Efficient cities attract residents and businesses, creating prosperity and growth. For example, New York City competes for firms and residents not only with San Francisco and Chicago but also with foreign cities, such as Toronto, London, Berlin, Tokyo, and Shanghai. Countries need to properly design a system of city and corporate governance that encourages efficient city management.

If the overarching federal government does not allow cities to function properly, then cities cannot compete against cities in different countries. An inefficient
system of city governance will lead to a decline in overall prosperity and welfare and can create a systemic poverty problem. Well-run cities require good internal management, favorable rules of city governance, and informed and diligent shareholders (Inman, 2008). Cities should have honest and well-trained leaders, appropriate federal and state policies that support them, and informed voters who participate in local elections.

Investors, or shareholders, of the city are owners of real estate. Lenders are banks and municipal bondholders, who do not necessarily have to live or operate in the city. Customers are residents or businesses that operate in the city. All of these groups have a vested interest in ensuring the efficient operations of the city. If the city is not well run, housing values will collapse and residents will face the risk of losing their jobs, losing most of their wealth, and confronting personal bankruptcy. The residents in poorly run cities are also at risk of higher crime rates and face greater safety hazards, including injury or losing their lives. Finally, these residents may sacrifice their children’s future prosperity if the city fails to fund local schools. As a consequence, there is much at stake in city management! In this book, we try to understand how to finance and manage a city-corporation to enhance the consumption and investment benefits of its citizens.

1.4 An International Perspective

Despite the ups and downs of US cities and metropolitan areas, economic growth and prosperity in the US appear to be largely a function of urbanization. This observation is true not just for the US, but applies to other countries as well. Consider, for example, the recent history of the People’s Republic of China. Economic growth started to accelerate in China in the early 1980s after the country fully embraced an economic development concept that was centered around the major coastal cities. This policy was designed and implemented under the leadership of the chairman of the Chinese Communist Party, Deng Xiaoping, in the late 1970s. This policy was in stark contrast to economic policies under chairman Mao Zedong that focused primarily on agriculture and heavy industry. Many key industries were moved inland, away from the coastal areas, primarily for military reasons. In contrast, the new economic policies opened China to the world economy and were initially implemented in coastal cities such as Shanghai, Guangzhou, and Shenzhen. These policies drew heavily on lessons learned from Singapore and Hong Kong—two other coastal Asian cities that had been successful urban centers for many decades. This example also shows that cities can serve as laboratories for experimentation in a decentralized system of government. The Chinese government first studied the viability of the new economic approach in a small number of places before adopting it later nationwide.

Cities have also played a prominent role in Europe in reshaping the economic agenda. As in the US, most successful European cities have embraced an economic strategy built around high-end services, technology, and entertainment. Cities such as London, Paris, Berlin, and Madrid are international hubs for many service sector firms. However, it is not all about city size. While size is typically a good indicator of productivity, there are many small- and medium-sized cities in Europe that have thrived for many centuries. For example, Frankfurt, Luxembourg, and Zurich have served important functions in international finance for many decades.
Maybe most surprisingly, a small suburb of Gelsenkirchen called Schalke has been the center of gravity for football in Germany since 1904.

Cities may play an even more important role in many developing economies. Think about famous cities such as New Delhi, Mexico City, Nairobi, or Rio de Janeiro. How does economic policy in such cities differ, if at all, from policy in cities such as New York, Tokyo, or London? All these cities are centers of economic innovation, production, and growth in their respective countries. What might potentially undermine the advantages that arise from urbanization in developing economies are the same forces that can lead to inefficient diffusion of economic activity in general—misguided government spending, tax inefficiencies, and high labor costs of municipal workers, as well as the adverse effects of urban poverty and crime. These problems undermine urbanization advantages and thus the economic potential of cities.

But there are some additional challenges that primarily arise in developing countries where big-city inefficiencies are also the result of corruption. Of course, not all cities in developing countries suffer from corruption, and there can be corruption in developed countries as well. However, we observe stronger legal and law enforcement institutions in countries with higher levels of income. As an economy develops, citizens often need to find ways and means to protect themselves from expropriation of property rights by a corrupt and powerful elite.

In addition, urban poverty tends to be a much more severe problem in most developing countries. Cities in developing countries often need to deal with the influx of poor migrant workers. When rural poverty is widespread, the economic incentives are for poor rural families to migrate to the more prosperous cities in search of economic opportunity. Urban poverty is, therefore, pervasive. To deal
with the negative consequences of uncontrolled rural-urban migration, countries often try to restrict migration. China, for example, uses a sophisticated residency system—called *hukou*—to limit the rights of nonresident citizens.

Finally, cities may lack fiscal capacities. In particular, local taxation of income and profits can be challenging. The informal sector, which consists of unregistered enterprises such as street vendors, repair shops, or small farms, is typically much larger in developing countries, and it can be difficult to enforce taxation and regulation in this sector of the economy. Other than licenses and fees—an invitation for local corruption, by the way—significant local taxation is often not feasible. Central government taxation is the primary means for raising revenues for government services in most developing countries. That causes problems if these resources are not properly transferred to state and local governments.

### 1.5 Moving Forward

According to Christaller’s (1933) central place theory, the primary purpose of a market town or city is the provision of a variety of goods and services for the surrounding market areas. Cities appear to be the engines of economic growth and prosperity. We will discuss in this book why the geographic concentration of economic activity can be beneficial to firms and workers. Geographic concentration not only lowers transportation and communication costs but also potentially creates positive spillover effects that increase productivity. For a city to reap the benefits of agglomeration, the city must efficiently provide a variety of goods and services: protection from crime and natural hazards, the provision of affordable education, infrastructure, the protection of the environment, and the enforcement of property rights and contracts. Private nonprofit organizations that rely on the generosity of donors and volunteers often supplement the provision of public goods and services by local governments.

To provide key public goods and services, cities typically rely on mechanisms in which participation is not voluntary. The local government can levy taxes, impose regulations, and force individuals and firms to comply. In democratic systems, we tend to appoint our leaders via elections. Fair and open elections have the potential to generate reasonable outcomes. However, pork barrel politics, rent-seeking behavior, and corruption will lead to policy failures. With cities, there is the potential not only for market failure but also for government failure!

How do citizens monitor their elected leaders and the large bureaucracy that oversees and implements government programs? Who holds politicians accountable? We will see that fiscal competition and decentralization of government power provide key economic advantages since they encourage competition between cities, regions, states, and even countries. Fiscal competition provides a potential solution to the problem of monitoring and identifying ineffective or corrupt leaders. Households can also move away from inefficiently operated or corrupt cities and states. Individuals can not only vote at the ballot box but also vote with their feet by moving to a different location.

The downside of fiscal competition is that it potentially creates large inequities, when households sort into neighborhoods and communities based on income. Moreover, segregation by race and ethnicity can have additional undesirable effects for a society. If the quality of local public goods and services is based on
Introduction

the local tax base, segregation by income will give rise to large differences in public goods provision and thus unequal access to economic opportunity. A cleverly designed system of intergovernmental transfers can alleviate most of the problems created by inequality.

Nevertheless, we often observe that cities are not properly managed and face serious problems. High levels of crime, failing urban schools, poor infrastructure, and a lack of quality and affordable housing are just a few problems that have haunted many cities for a number of decades. Effective management of cities is exceedingly difficult. It requires ingenuity, commitment, intelligence, creativity, and grit. Many cities all over the world come up woefully short and do not meet even minimal efficiency standards. There is no invisible hand that makes sure that a city will function and succeed. If a society cannot manage its cities, economic decline is the likely consequence. New York City is a prime example of the rise and fall, decline and renewal of a major city. Some cities may triumph and rise to great prominence, but many will fail along the way.

Understanding the role that cities play in the economy and learning how to take full advantage of the opportunities that cities offer will make you a smarter and more successful economist, manager, policymaker, or city resident. This book provides you with the skills, tools, and concepts you will need to achieve this goal.

1.6 Problem Sets

1. Why are urbanization and economic prosperity positively correlated? Discuss two possible explanations.
2. What are the characteristics of shrinking cities, such as Detroit or Buffalo? What policies do you recommend for these cities?
3. What types of challenges do successful cities currently face? What policy options do you recommend to deal with these challenges?
4. How would you distinguish cities that are likely to succeed in the future from those that will struggle?
5. Explain why cities need both low-skill and high-skill workers to function properly.
6. Who are the main stakeholders in cities and what interests do they have?
7. What are the objectives of the mayor and the city council of a city?
8. Why do you think unionization rates are higher among municipal workers than workers in the private sector?
9. What are some additional challenges that arise in managing cities in developing countries? Discuss two.
10. Cities compete for mobile workers and firms. Discuss some advantages of this type of competition.
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