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Main Report

Vietnam's Urbanization at a Crossroads

Embarking on an Efficient,
Inclusive, and Resilient Pathway

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ĐẢNG CỘNG SẢN VIỆT NAM - NGƯỜI LÃNH ĐẠO, TỔ CHỨC MỌI THẮNG LỢI CỦA CÁCH MẠNG VIỆT NAM



Photo: Dirk Spijkers/The World Bank



Foreword

Since embarking on comprehensive economic reforms (Đổi Mới) over 30 years ago, Vietnam has been one of the world's great development success stories. Aided by strong foreign direct investment (FDI) inflows, the country's economy has sustained fast, stable, and broad-based growth that has produced impressive welfare gains for the vast majority of the population. Contributing to Vietnam's success has been a vigorous process of urbanization that has seen the share of the population living in towns and cities climb from less than 20 percent in 1986 to more than 36 percent today. Through the spatial concentration of people, skills, and economic activity, urbanization has promoted prosperity by means of denser labor markets and agglomeration economies.

Driven by a confluence of policies related to labor mobility, land management and planning, and intergovernmental fiscal relations, a two-tier urbanization system has emerged in Vietnam. Within this system, the FDI-fueled economic dominance of the first-tier Hanoi and Ho Chi Minh City economic regions has been accompanied by widespread, spatially dispersed urbanization and growth in the remaining second-tier areas of the country. The inefficiencies of this system have manifested themselves in recent years in rising congestion costs and declining returns from agglomeration economies in the major urban areas.

In its march toward upper-middle-income status, and on to high-income status within the next generation, Vietnam must ensure that the efficiency and productivity of its economy will continue to improve. The country's spatial structure and urbanization patterns will therefore play a major role in fulfilling its long-term economic potential. However, this study found that Vietnam's policy makers are at crossroads in devising the country's spatial and urbanization policies.

Part I of this report examines Vietnam's urbanization trends and spatial economic transformation processes, including its spatial patterns of industrialization, productivity, and demographic and physical urbanization. Part II assesses spatial policies related to the labor mobility, land use and urban planning, and fiscal and financing policies that have shaped Vietnam's urbanization process and its outcomes. The report posits that Vietnam's policy makers can choose to follow a path that maintains the spatial policies that have served the country well until now, but whose costs are becoming increasingly evident. Alternatively, lessons from the current urbanization process can guide the adoption of policy reforms that facilitate a transition from a labor-intensive and low-efficiency growth model to one that leverages urbanization as the key driver of productivity and efficiency.

To sustain long-term, productivity-fueled economic growth while minimizing large inequalities between regions, Vietnam must utilize land, labor, and fiscal resources more efficiently. This in turn requires a collective effort at the central and local government levels to promote agglomeration economies and tackle congestion forces in leading urban centers, while also promoting regional integration that connects people and firms in poorer areas with those in richer ones. This report prescribes three main areas of institutional reforms to achieve these higher-level goals: (1) easing constraints on labor mobility; (2) strengthening planning and land use regulations; and (3) improving the responsiveness of fiscal allocations to the needs of fast-growing and higher-efficiency urban areas.

Urbanization will continue to be an important feature of Vietnam's development, but at this critical juncture, as the government of Vietnam finalizes its socioeconomic development strategy for 2021–30, policy makers can pursue reforms that will enable urbanization to support a more efficient and sustainable development pathway. This report hopes to help policy makers understand the country's current spatial and urbanization trajectory, and it recommends integrated and coordinated actions to chart a better way forward.

Ousmane Dione

Country Director, Vietnam

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Abbreviations

BT	build-transfer
CETP	centralized effluent treatment plant
CGR	compound growth rate
DMSP-OLS	Defense Meteorological Satellite Program–Operational Line-Scan
DN	digital number
FDI	foreign direct investment
GDP	gross domestic product
GSO	General Statistics Office of Vietnam
GVA	gross value added
HCMC	Ho Chi Minh City
HERA	Higher Education Reform Agenda
KER	key economic region
LDIF	Local Development Investment Fund
MARD	Ministry of Agriculture and Rural Development
MOC	Ministry of Construction
MOF	Ministry of Finance
MOIT	Ministry of Industry and Trade
MONRE	Ministry of Natural Resources and Environment
MPI	Ministry of Planning and Investment
MRD	Mekong River Delta
NTL	nighttime light
NUA	New Urban Area
ODA	official development assistance
PPC	Provincial People’s Committee
PPP	purchasing power parity
RRD	Red River Delta
SBV	State Bank of Vietnam
SDI	spatial data infrastructure
SEDP	socioeconomic development plan
SEDS	socioeconomic development strategy
SOE	state-owned enterprise
VDB	Vietnam Development Bank
VIIRS	Visible Infrared Imaging Radiometer Suite
VND	Vietnamese dong

All dollar amounts in this report are U.S. dollars unless otherwise indicated.



Introduction

Overview of Vietnam's urbanization

Since the launch of the *Đổi Mới* (economic renovation) reforms in 1986, Vietnam has successfully transformed its economy. Real GDP per capita growth has averaged 5.5 percent a year since 1990, with the result that real GDP per capita has more than quadrupled. In addition to being rapid, Vietnam's growth has been stable—the volatility in annual GDP growth per capita over 1991–2014 was among the lowest in the world. The impact on poverty reduction in Vietnam has been even more pronounced. Per capita income of the bottom 40 percent has grown by 9 percent a year since the early 1990s. Based on the global poverty line of \$1.90 a day, the poverty rate declined steeply, from 50 percent in the early 1990s to just 3 percent in 2012.¹

The decades of rapid economic growth in Vietnam have been accompanied by urbanization and spatial transformation. In 1986 fewer than 13 million residents, or 20 percent of Vietnam's population, lived in areas officially classified as urban. By 2017 that number had grown to 30 million, or 35 percent of the population, with urban areas contributing over half of national GDP (figure I.1). From 2009 to 2014, the

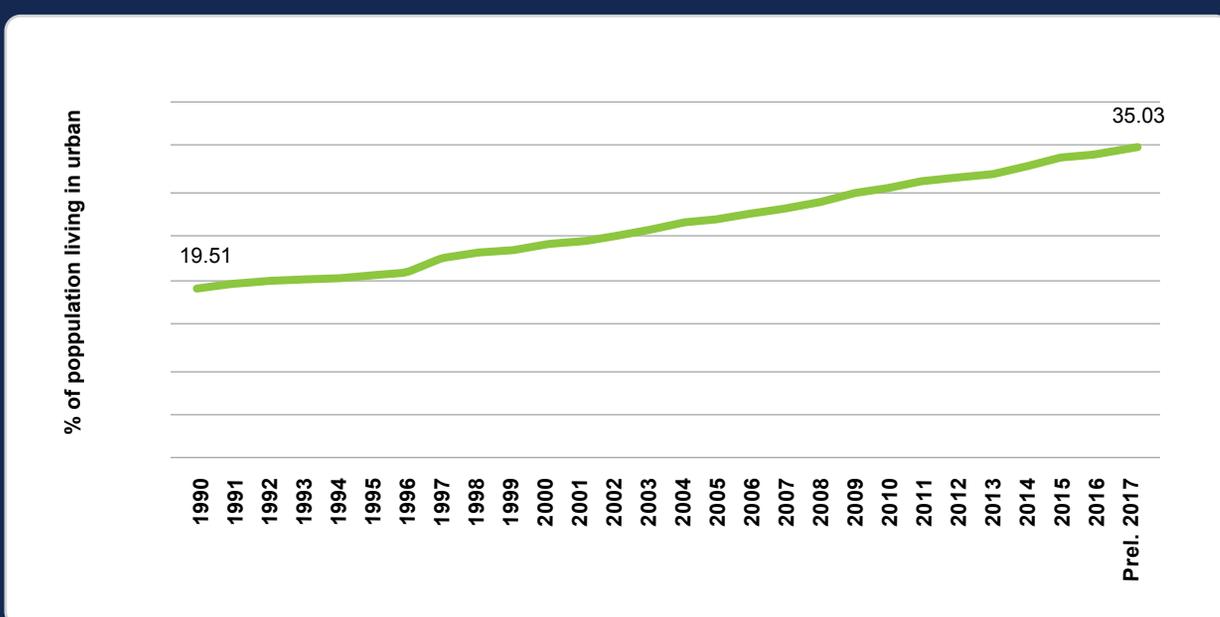
average annual population growth rate in urban areas was a brisk 3.3 percent (General Statistics Office of Vietnam, 2016).

The urbanization process has been associated with the movement of workers and their households from rural areas to urban areas and workers in the agriculture sector to the industrial and service sectors in urban centers. It has also been associated with natural population growth in urban areas. In dealing with urbanization, the country has mounted an impressive record of keeping rural–urban and regional disparities in check through the promotion of rural industrialization and central transfers aimed at poorer areas. These transfers have allowed the expansion of basic services and infrastructure.

Urban development context System of cities

Vietnam's official system of cities and towns consists of two key elements: the administrative structure of city governments and the urban classification system. The overlay of these elements has produced a set of ill-defined spaces in Vietnam such as so-called secondary cities and medium-size cities.

Figure I.1 Urbanization rate: Vietnam, 1990–2017



Source: General Statistics Office of Vietnam, 2017.

Administrative structure

Vietnam is a unitary state divided into four tiers of government (figure I.2):

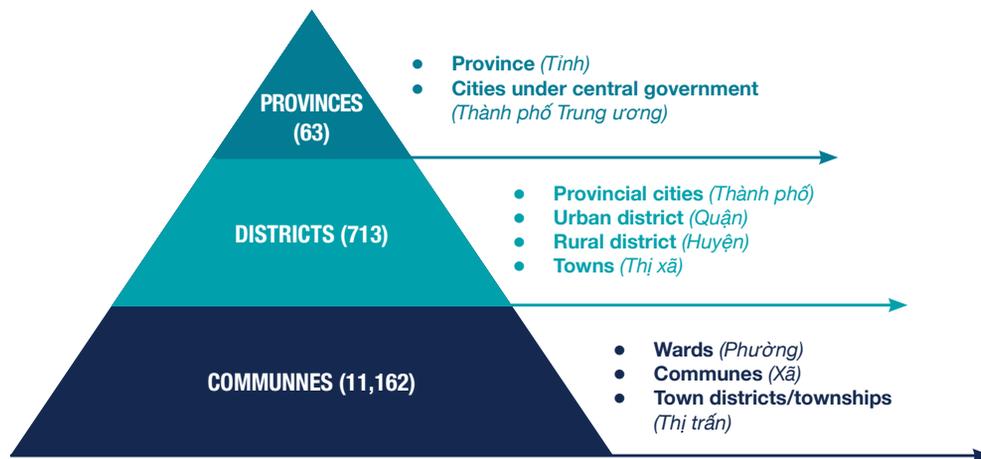
1. Central government
2. 58 provinces and five provincial status municipalities
3. 713 districts
4. 11,162 communes.

The five municipalities given provincial status include the two leading municipalities, Hanoi and Ho Chi Minh City (HCMC), which are classified as “special cities” because of their outsized economic

and political roles in the country. The other three second-tier municipalities are Hai Phong, Da Nang, and Can Tho (in descending order of population size). Districts are categorized as provincial cities, urban and rural districts, and towns. The term *cities* in Vietnam typically refers to municipalities or provincial cities.

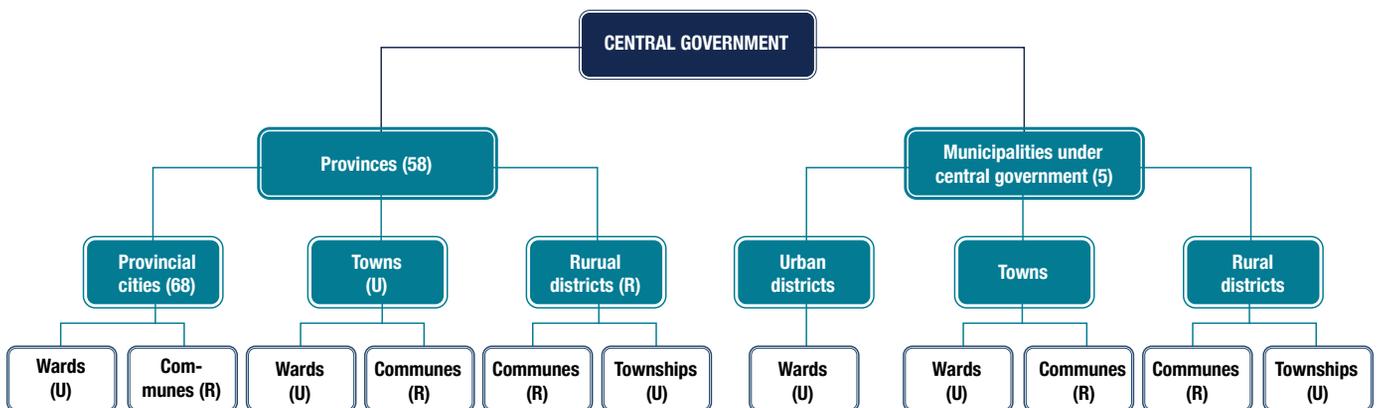
Administratively, except for the five municipalities that include multiple districts, all cities are single-district administrative units. Because all provincial cities are such units, they cannot have other district-level units, including nearby towns and rural districts, under them. Municipalities can, however, have urban districts, rural districts, and towns under them (figure I.3).

Figure I.2 Vietnam’s subnational administrative structure



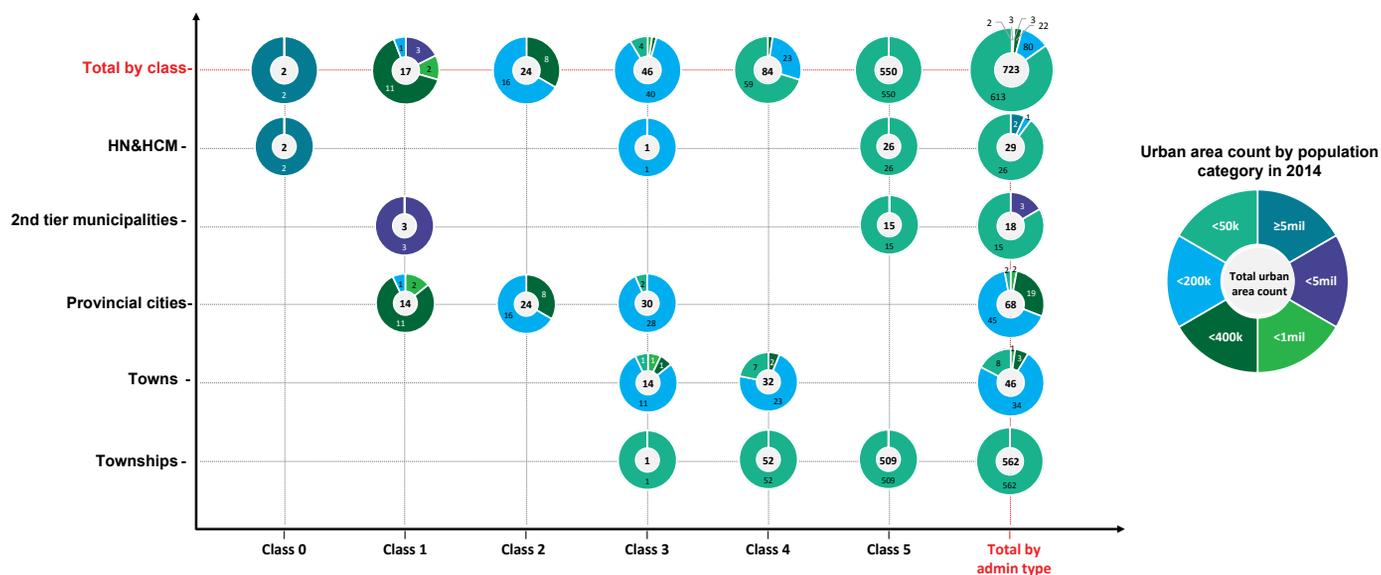
Source: General Statistics Office of Vietnam, 2019.

Figure I.3 Vietnam’s administrative organization, indicating urban (U) and rural (R) administrative status



Source: General Statistics Office of Vietnam, 2019.

Figure I.4 Classification and population breakdown of Vietnam’s urban areas, 2014



Source: World Bank, based on Population Census 2014, General Statistics Office of Vietnam.

Urban classification system

Vietnam’s urban classification system is a fundamental component of its urban development policy.² In this hierarchical system, six classes of urban areas are defined by their levels of economic activities, physical development, population, population density, and infrastructure provision. The system is composed of more than 800 “urban areas” categorized into six classes, ranging from special class (class 0)—Hanoi and HCMC (provincial level)—to class 5 townships and wards.

Figure I.4 shows how urban areas are classified and how they correspond to the administrative structure of cities, towns, and townships, including estimates of their populations. Outside of the five municipalities, the 68 provincial cities fall into class 1 (14, relatively large), class 2 (24, medium size), or class 3 (30, small). Towns are either class 3 or class 4; townships are either class 4 or class 5.

The central government bases its budget transfer allocations to urban areas on the urban classification system. Thus the system influences local decisions and provides strong incentives for cities and towns to try to move up the urban class ladder. The formula used to determine the classification of urban areas assigns a disproportional weight to urban infrastructure.³ This approach creates perverse incentives for cities and towns to invest excessively and inefficiently in infrastructure and to rapidly convert rural land to urban uses (Coulhart, Quang, and Sharpe 2006).

Defining “urban”

Essential to understanding this study’s effort to analyze Vietnam’s urbanization and spatial transformation pathways is first understanding what is officially considered “urban” in the government’s system. Overall, the definition of *urban* is interpreted or calculated slightly differently by various parts of the government. In the administrative organization of Vietnam, the term *urban areas* refers to the over 800 entities designated by the urban classification system as just described. According to the system, urban areas extend from those at the provincial level (class 0) to those at the district level (classes 1 and 2 and the majority of class 3), to those at the commune level (part of classes 3 and 4 and all of class 5). In reality, then, an urban area of a lower administrative level unit could be located under a rural area of a higher-level administrative unit. For example, many townships (class 4 and 5 urban communes) are under rural districts, which are under a municipality.

The Population and Housing Census differs in how it calculates the “urban population,” and thus the share of the population that lives in urban areas (that is, the urbanization rate). In the census, “urban population” refers to those who reside in “urban areas,” which are defined only at the commune level, including wards (*phuong*) and townships (*thi tran*). As a result, significant populations officially classified as “rural” are living within municipality or city boundaries (such as rural districts within Hanoi and HCMC). Conversely, large populations officially classified as “urban” are living within rural districts (*huyen*). This situation

creates confusion for anyone undertaking a statistical analysis and makes it difficult to define a true level of *urban* or *urbanization*, which could have implications for studying Vietnam’s urbanization process (see chapter 2 for a more detailed discussion).

Regional planning system

Vietnam has no regional-level governments. For planning purposes, the country has traditionally been divided into six socioeconomic regions: (1) Northern Midlands and Mountains; (2) Red River Delta; (3) North Central Coast and Central Coast; (4) Central Highlands; (5) Southeast; and (6) Mekong River Delta (map I.1, panel a). Because of their special status, Hanoi and HCMC are considered separate planning units.

Socioeconomic development plans (SEDPs) and socioeconomic development strategies (SEDSs) are prepared for the country and each province (map I.1, panel b) for a five-year and 10-year period, respectively, with a vision of 15–20 years. They are reviewed and updated every five years. These plans have played a big role in the central government’s management of regional disparities. Fiscal transfers have progressively targeted poorer regions and areas, helping to mitigate regional income disparities, despite the growing spatial concentration of economic activity in and around Hanoi and HCMC. Over 1999–2009, the difference in GDP per capita between the richest and the poorest regions declined substantially, from 427 percent in 1999 to 304 percent in 2009 (table I.1).

Map I.1 Socioeconomic regions and provincial-level administrative units, Vietnam

a. Socioeconomic regions (6)



b. Provincial-level administrative units (63)



Disclaimer: The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Table I.1 Average GDP per capita by region: Vietnam, 1999 and 2009
VND, millions (2016 constant prices)

	Northern Midlands and Mountains	Red River Delta	North Central Coast and Central Coast	Central Highlands	South-east	Mekong River Delta	(Max - min)/min	Standard deviation
1999	2.2	5.0	2.9	3.1	11.6	4.3	427%	0.53
2009	11.0	23.1	14.6	13.6	44.5	18.3	304%	0.46

Source: General Statistics Office of Vietnam.

Framework of this study

The government of Vietnam hopes to increase the country's urbanization rate from the current 35 percent to 50 percent by 2025. If well managed, this urbanization offers an opportunity to further boost Vietnam's climb up the international ladder of prosperity. Important to taking advantage of that opportunity is a careful review of Vietnam's urbanization and structural transformation processes to date and an understanding of the challenges and issues associated with these processes. This goal was the starting point of this work, which builds on existing major analytical studies and previous and ongoing policy dialogues with the government of Vietnam.

Structure of the report

Any future policy-making and strategy formulation should be based on a thorough understanding of urbanization patterns, as well as an analysis of the major institutional constraints to getting the most out of urbanization in terms of prosperity, equity, and sustainability. That approach determined the overall structure of this report, which consists of two parts.

Part I examines Vietnam's urbanization trends and spatial economic transformation processes, including the key challenges of the spatial patterns of industrialization and productivity (chapter 1) and the temporal and spatial patterns of demographic and physical urbanization (chapter 2). These chapters also identify the areas requiring improvement if Vietnam is to better leverage urbanization.

Part II looks at spatial policies and the binding institutional constraints that so far have shaped Vietnam's urbanization process and its outcomes. The

three institutional elements that have been central to shaping the urbanization process are policies involving and labor mobility (chapter 3), land use and urban planning (chapter 4), and fiscal and financing policies (chapter 5). Part II also proposes key policy reforms and describes the actions required.

Policy and diagnostic framework

This study uses a policy framework to organize and connect various analytical works and formulate key policy messages and recommendations (figure I.5). In this framework, sustaining long-term, productivity-fueled economic growth while minimizing large spatial inequalities between regions requires an enhanced focus on the efficient use of land, labor, and fiscal resources. Growth and efficiency help to frame the spatial economic and institutional analyses conducted in this study, which in turn outline the key characteristics of Vietnam's urbanization and spatial transformation processes.

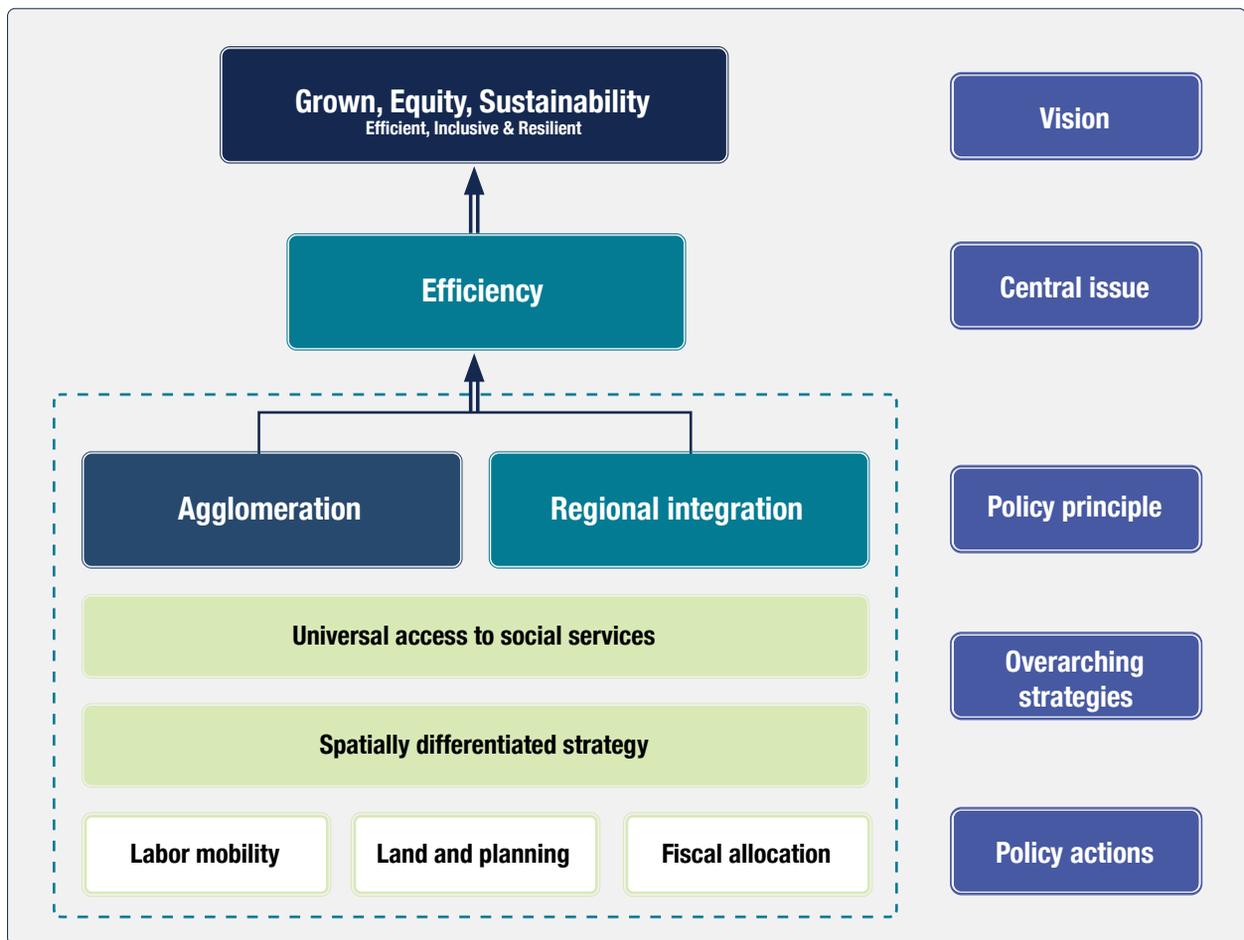
The recommendations in this report have three layers: two policy principles, two overarching strategies, and three areas of policy actions. The two policy principles are (1) fostering positive agglomeration economies and better managing the negative congestion forces in leading urban centers and (2) promoting regional integration to boost labor mobility and, more generally, factor mobility, thereby fostering agglomeration in the right places (both overall and within each tier). These two policy principles should be supported by two overarching strategies: (1) ensuring universal access to quality education, health, and other basic services and (2) adopting a spatially differentiated strategy. In the long run, regional integration connects people and firms in poorer areas with those in richer ones

through enhanced migration flows and better connectivity, counteracting regional divergence. Meanwhile, striving for universal access to quality education, health, and other basic services ensures that when people move to cities it is because of the pull of opportunity rather than the push of distress.

Embarking on a new urbanization pathway by adopting these key policy principles and overarching strategies will require overhauling Vietnam’s three main spatial policies for labor mobility and skills,

land use and urban planning, and the system of intergovernmental fiscal transfers. It will also require prioritizing spending and investment in each region to align with its unique comparative and competitive advantages. Better and more integrated urban and spatial planning within Hanoi, HCMC, and other cities will also be needed. Vietnam’s policy makers will have to make choices and must accept that development may not be best served by industrialization everywhere.

Figure I.5 A policy framework for sustaining long-term growth, equity, and sustainability



Source: World Bank.

Scope and literature

This study analyzes the spatial economic and institutional aspects of Vietnam's urbanization process, which helps in its diagnosis of the binding constraints on the performance of that process and therefore of the different policy pathways moving forward. This report only touches on several other key areas related to the urbanization process because previous or ongoing work by the World Bank or external partners already cover these areas. The subject areas and key literature on which this report builds and supplements include:

- **General country and sector background:** *Vietnam Urbanization Review* (World Bank 2012); *Vietnam 2035: Toward Prosperity, Creativity, Equity, and Democracy* (World Bank 2015c); “Policy Note for Vietnam Socio-Economic Development Strategy 2021–30” (World Bank, forthcoming); “Policy Note for Vietnam Socio-Economic Development Plan 2021–2025” (World Bank, forthcoming)
- **Housing:** *Vietnam Affordable Housing: A Way Forward* (World Bank 2015b)
- **Connectivity and global value chain:** *Formulating an Urban Transport Policy: Choosing between Options* (World Bank 2014); *Vietnam Development Report: Connecting Vietnam for Growth and Shared Prosperity* (World Bank 2019b)
- **Infrastructure and service delivery analysis:** *Vietnam: Towards a Safe, Clean and Resilient Water System* (World Bank 2019c); *Towards Regional Urban Networks: Growth and Resilience in Vietnam's Mekong Delta* (World Bank, forthcoming); “Policy Note: Making Hanoi a Water Pollution and Flood-free City by 2050” (World Bank, forthcoming)

- **Climate change and resilience:** *Coastal Resilience: Risk and Opportunity in Vietnam's Coastal Regions* (World Bank, forthcoming); *Towards Regional Urban Networks: Growth and Resilience in Vietnam's Mekong Delta* (World Bank, forthcoming)
- **Poverty and jobs:** *Vietnam's Future Jobs: Leveraging Mega-trends for Greater Prosperity* (World Bank 2018); *Better Opportunities for All: Vietnam Poverty and Shared Prosperity Update* (World Bank 2019a)
- **Migration:** *Vietnam's Household Registry System* (World Bank 2016)
- **Public and municipal finance:** *Assessment of the Financing Framework for Municipal Infrastructure in Vietnam* (World Bank 2013); *Making the Whole Greater than the Sum of the Parts: A Review of Fiscal Decentralization in Vietnam* (World Bank 2015a); *Development of a City Infrastructure Financing Facility* (World Bank 2017).

Reader's guide to this report

In Vietnam, the primary audience for this report is high-level policy makers at the national and subnational levels and the technical staff of various ministries and departments. This report is also intended to better inform the World Bank's long-term partnership with the government of Vietnam in the areas of urbanization, industrialization, socioeconomic planning, and sustainable development. The findings of this study appear in two documents: (1) an overview report that summarizes key findings and policy recommendations primarily for high-level policy makers and (2) this main report, which targets technical and sector specialists in the areas of urbanization, overall growth, and sustainability.

Endnotes

- 1 The global poverty line is expressed in constant 2011 international dollars and based on purchasing power parity (PPP) exchange rates.
- 2 The urban classification system was first established in 2001 and updated in 2009 with the issuance of Decree No. 42/2009/ND-CP.
- 3 To qualify for one of the six urban classifications, cities and towns must attain at least 70 of a maximum 100 points based on the following criteria: urban infrastructure (maximum 55 points); urban function (maximum 15 points); urban population size and architecture of urban landscape (maximum 10 points each); and urban density and nonfarm labor (maximum 5 points each).

References

- Coulthart, Alan, Nguyen Quang, and Henry Sharpe. 2006. “Vietnam’s Infrastructure Challenge—Urban Development Strategy: Meeting the Challenges of Rapid Urbanization and the Transition to a Market Oriented Economy.” Working paper 37188, World Bank, Washington, DC.
- World Bank. 2012. *Vietnam Urbanization Review*. Washington, DC: World Bank.
- 2013. *Assessment of the Financing Framework for Municipal Infrastructure in Vietnam*. Washington, DC: World Bank.
- 2014. *Formulating an Urban Transport Policy: Choosing between Options*. Washington, DC: World Bank.
- 2015a. *Making the Whole Greater than the Sum of the Parts: A Review of Fiscal Decentralization in Vietnam*. Washington, DC: World Bank
- 2015b. *Vietnam Affordable Housing: A Way Forward*. Washington, DC: World Bank.
- 2015c. *Vietnam 2035: Toward Prosperity, Creativity, Equity, and Democracy*. Washington, DC: World Bank.
- 2016. *Vietnam’s Household Registry System*. Washington, DC: World Bank.
- 2017. *Development of a City Infrastructure Financing Facility*. Washington, DC: World Bank.
- 2018. *Vietnam’s Future Jobs: Leveraging Mega-trends for Greater Prosperity*. Washington, DC: World Bank.
- 2019a. *Better Opportunities for All: Vietnam Poverty and Shared Prosperity Update Report*. Washington, DC: World Bank.
- 2019b. *Vietnam Development Report: Connecting Vietnam for Growth and Shared Prosperity*. Washington, DC: World Bank.
- 2019c. *Vietnam: Towards a Safe, Clean and Resilient Water System*. Washington, DC: World Bank.
- Forthcoming. *Coastal Resilience: Risk and Opportunity in Vietnam’s Coastal Regions*. Washington, DC: World Bank.
- Forthcoming. “Policy Note for Vietnam Socio-Economic Development Plan 2021–2025.” Washington, DC.
- Forthcoming. “Policy Note for Vietnam Socio-Economic Development Strategy 2021–30.” Washington, DC.
- Forthcoming. “Policy Note: Making Hanoi a Water Pollution and Flood-free City by 2050.” Washington, DC.
- Forthcoming. *Towards Regional Urban Networks: Growth and Resilience in Vietnam’s Mekong Delta*. Washington, DC: World Bank.





Part I

Vietnam's urbanization and spatial economic transformation processes

Since the launch of *Đổi Mới* (economic renovation) in 1986, Vietnam has succeeded in transforming its economy, resulting in fast and stable economic growth and impressive progress in alleviating poverty. Vietnam's urbanization and transformation processes in recent decades have been closely intertwined with the country's structural transformation. These dynamic processes have played an essential role in Vietnam's success story.

Chapter 1 examines Vietnam's overall spatial-industrial transformation since *Đổi Mới* and analyzes urban productivity performance. It also describes the spatial economic dimensions of various sectors and industries as they are related to the urbanization process. In doing so, it dives into the country's foreign direct investment (FDI) sector and how it is connected to the system of cities. The chapter also takes a close look at the congestion forces (agglomeration diseconomies) of key metropolitan regions, providing a diagnosis of the underlying sources of these forces. Chapter 2 then examines Vietnam's past urbanization process, especially over the last decade. It looks into the various aspects of urban spatial growth and demographic changes and identifies areas in which the spatial, demographic, and economic aspects of urban growth do not converge.

Chapter 1:

Spatial patterns of industrialization and productivity

Key findings

- Vietnam's fast-paced economic development over the last three decades has been driven by the rapid growth of its industries and services, which now contribute about 85 percent of the country's GDP.
- Overall, structural transformation has been shaped by Vietnam's spatial policies in three main areas: (1) labor mobility; (2) land use and urban planning; and (3) fiscal and financing policy. The spatial policies have been remarkably successful in facilitating broad-based economic growth characterized by an absence of large regional disparities.
- An important element of this success has been the reallocation of labor from agriculture to industry and services *within* rural areas. Even though the jobs created may not be in particularly high value-added activities, the productivity of workers in these jobs has nevertheless been much higher than in the agricultural jobs from which they have been pulled.
- Industrialization has proceeded in two tiers of regions. The first tier consists of the Southeast and Red River Delta regions, which include Hanoi and Ho Chi Minh City (HCMC) and their surrounding areas, respectively. Together, these regions represent about 80 percent of the industrial and service jobs, production, and profits in Vietnam. The second tier consists of Vietnam's remaining four regions.
- Foreign direct investment has been a key driver of economic growth in both the first-tier regions and Vietnam overall. Notwithstanding their contribution to the economy, foreign-owned firms lack integration with both each other and domestic firms, as well as with their host regions.
- Vietnam suffers from a combination of weak agglomeration economies and strong congestion forces in Hanoi and HCMC. Weak agglomeration economies are related to a lack of interfirm linkages and insufficiently integrated local labor markets, which are limiting Vietnam's ability to move to higher value-added activities. Strong congestion forces are the result of inadequate investment to meet the needs of growing urban populations. At the same time, by not being able to easily pull labor from other regions, the twin economic engines, Hanoi and HCMC, are facing an increasingly binding labor constraint on their growth.

Introduction

With the initiation of its economic reforms, *Đổi Mới*, in 1986, Vietnam began liberalizing its domestic economy and opening up to the world economy. In doing so, it became one of the world's great development success stories. Aided by strong foreign direct investment (FDI) inflows, it has achieved fast, stable, and broad-based economic growth that has seen real GDP per capita increase by a factor of more than 4.5 since 1990. At the same time, the share of the population living in extreme poverty has declined dramatically, from almost 53 percent in 1992 to a mere 2 percent in 2016.⁴

Vietnam's urbanization and structural transformation have been central to its success story. To facilitate better understanding of this urbanization and the overall growth dynamics and patterns over recent decades, this chapter aims to place these processes in the context of the spatial pattern of industrialization. In doing so, it allows for the subsequent identification of the gaps among various processes, which in turn can inform future policy making and strategy formulation.

The chapter also looks into the different growth models of Vietnam's six socioeconomic regions,⁵ as well as their industrial and economic outcomes. The analysis drills down to the regional and local levels to examine the spatial nuances of industrialization, which chapter 2 then proceeds to overlay with analysis of the spatial and demographic urbanization processes.

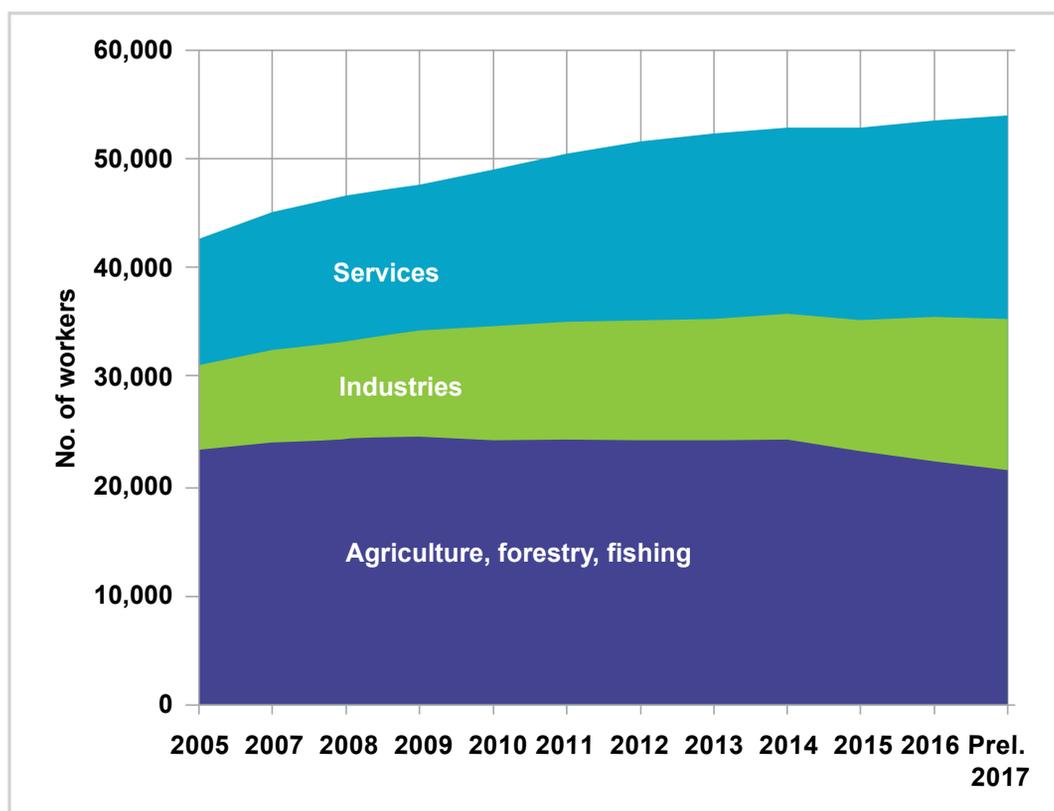
Recent growth of industries and services

Structural transformation and an emerging "urban economy"

Vietnam's structural transformation since 1986 has profoundly changed the country's socioeconomic landscape, including its urban landscape, thereby shaping an emerging "urban economy." This process has increased the share of workers in the secondary

and tertiary sectors, while reducing the share in the primary sector (figure 1.1). As of 2016, about 60 percent of the country's total employment was in the secondary and tertiary sectors (that is, in industries and services), contributing around 85 percent of GDP. This finding indicates a more advanced stage of structural transformation than one might expect in view of Vietnam's relatively low official urbanization rate of 35 percent.⁶ From 2006 to 2016, the total number of firms, employment, revenue, and profit rose by between 4 and 14 percent a year (table 1.1, column D).⁷ The ratio of employment in secondary and tertiary industries to employment in primary industries⁸ continuously increased between 2011 and 2016. However, in certain districts in the Northern Midlands and Mountains, Central Highlands, and Mekong River Delta (MRD), jobs in the secondary and tertiary sectors have been declining since 2011 (map 1.1).

Figure 1.1 Employment by sector: Vietnam, 2005–17



Source: World Bank team's analysis of data from General Statistics Office of Vietnam.

Table 1.1 Level and growth of total number of firms, employment, revenue, profit, and GDP per capita: Vietnam, 2006–16

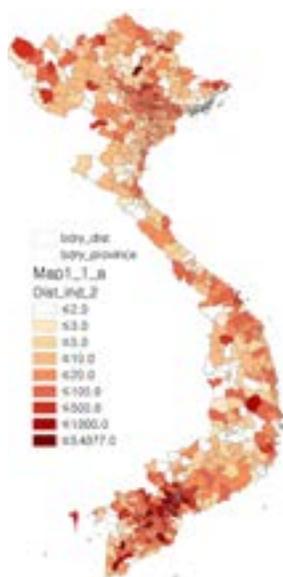
				Net increase, 2006–16	Annual growth rate, 2006–16 (%)	Annual growth rate, 2006–11 (%)	Annual growth rate, 2011–16 (%)
	2006	2011	2016	(A)	(B)	(C)	(D)
Total no. of firms	125,492	324,840	502,958	377,466	14.89	20.95	9.14
Total employment	5,187,456	9,260,608	11,385,382	6,197,926	8.18	12.29	4.22
Total firm revenue (VND, millions^a)	4,880,708,638	10,759,428,771	14,064,921,043	9,184,212,405	11.16	17.13	5.50
Total firm profit (VND, millions^a)	149,222,522	230,342,168	446,514,553	297,292,031	11.58	9.07	14.15
GDP per capita (constant 2011 international \$)	3,630	4,662	5,895				

Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2006, 2011, and 2016. GDP per capita: World Bank's World Development Indicators (WDI) database (<https://databank.worldbank.org/source/world-development-indicators#>).

a. 2016 constant prices.

Map 1.1 Distribution of employment in primary, secondary, and tertiary industries: Vietnam, 2011–16

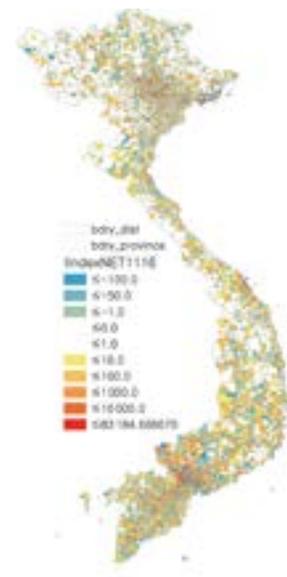
a. Ratio of employment in secondary and tertiary industries to employment in primary industries, 2016



b. Net increase in employment in secondary and tertiary industries, 2011–16



c. Net increase in ratio in panel a, 2011–16



Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2011 and 2016.

Note: The dashed shapes indicate areas with high values outside of Hanoi and Ho Chi Minh City.

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Agricultural employment in decline

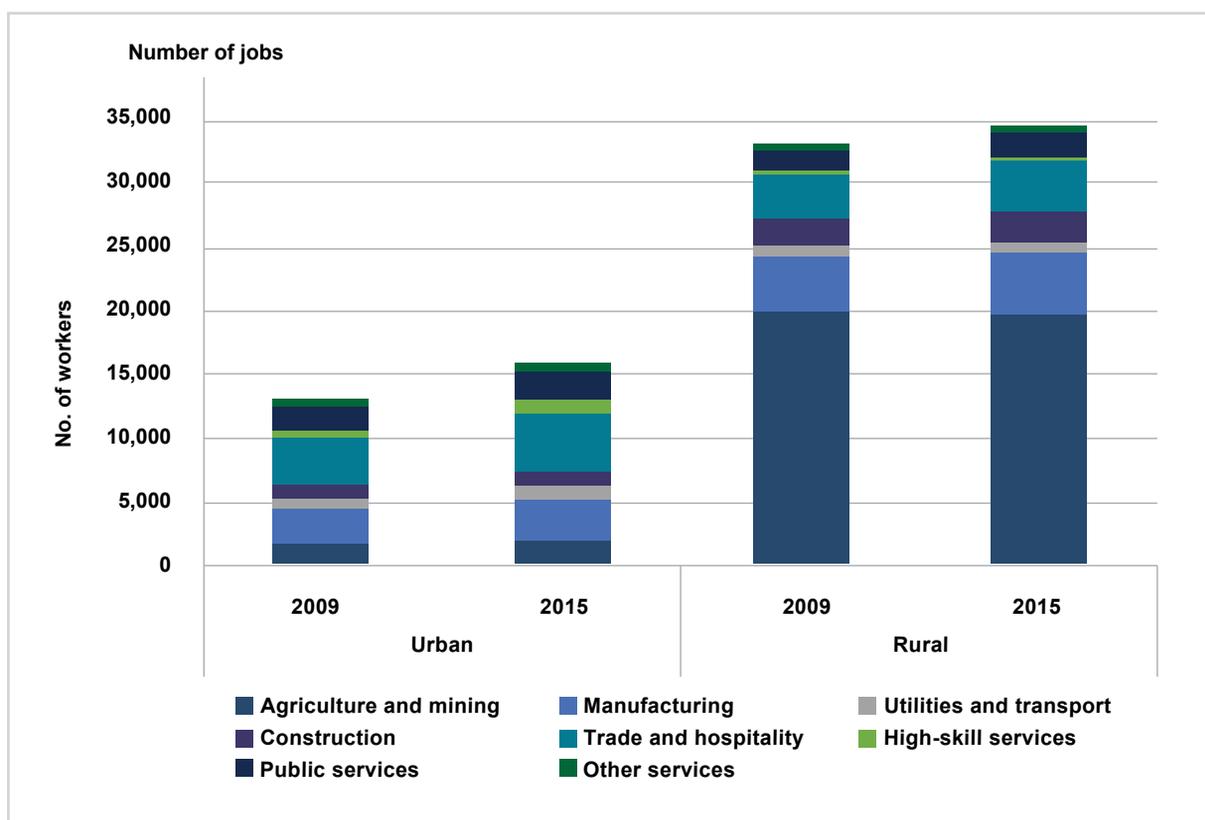
Vietnam is now at a transition point in its structural transformation process whereby agricultural employment, which has been declining as a share of total employment, has also stagnated in absolute terms (figures 1.1 and 1.2). Moving forward, agricultural employment will become significantly smaller. The robust growth of industrial and service jobs overall has been pulling labor out of agriculture, which has been steadily losing its workforce since 2010. In 2015 farming accounted for 44 percent of total employment, down from 80 percent in 1986 (World Bank 2018).

Because a large part of industrial and service employment has been created in rural areas, about one in five rural workers has been able to switch jobs without moving to cities. Nevertheless, rural income per capita is still only a little over half of the urban

income per capita on average. Although this ratio represents a considerable gap between rural and urban incomes, labor mobility has been relatively low, and the rural population has remained almost constant in recent years at around 62 million.⁹ This constancy has limited the growth of urban labor pools—a key ingredient of agglomeration economies—helping to drive up urban wages.

This pattern and pace of structural transformation can be credited for economic growth. The creation of a large number of industrial and service sector jobs, even relatively low productivity ones in rural areas, helped pull labor out of the primary sector and fuel the country's overall productivity growth. Increasingly as it moves forward, however, Vietnam will no longer be able to depend on a large pool of agricultural labor from which it can pull workers to achieve even higher productivity.

Figure 1.2 Employment composition in urban and rural areas: Vietnam, 2009 and 2015



Source: World Bank 2018.

Industrial growth led by export-oriented manufacturing and the FDI sector

Since the launch of *Đổi Mới* in 1986, Vietnam has been a magnet for large-scale FDI inflows, which have grown rapidly over time. In 2018 FDI inflows accounted for almost 30 percent of all gross fixed capital formation, up from 17 percent in 1995.¹⁰ These inflows, which have been instrumental in driving Vietnam's economic growth in recent decades, have been spatially concentrated in and around Hanoi and Ho Chi Minh City (HCMC), with some smaller concentrations in selected second-tier locations such as Da Nang along the coast (map 1.2). The result is an industrialization pattern with a distinctive two-tiered spatial economic structure. The first tier consists of the twin economic engines of Hanoi and HCMC and their respective economic regions—the Red River Delta (RRD) region around Hanoi and the Southeast economic region anchored by HCMC—and the second tier consists of the remaining four regions.

Although only 3 percent of all firms in Vietnam are foreign-owned, these firms generated around 30 percent of total revenue and employment and 54 percent of total profits in the secondary and tertiary sectors in 2016 (table 1.2). By contrast, domestic private firms accounted for 77 percent of the total number of firms, but produced only 12 percent of total profits in 2016, up from 3 percent in 2011.¹¹ A small number of state firms brought in 16 percent of total profits, about 6 percent of employment, and 11 percent of revenue in 2016 (table 1.2).

Most of the major foreign-owned firms are located in and around Hanoi and HCMC, driving the growth of the first-tier RRD and Southeast regions (map 1.2). Table 1.3 lists the 52 districts in which foreign-owned firms employ over 20,000 workers (so-called FDI-strong districts). Only six FDI-strong districts—

Thanh Hoa (Thanh Hoa's provincial city) and Lien Chieu (Da Nang province) in the coastal region, and Chau Thanh (Tien Giang province), Chau Thanh (Ben Tre province), Tieu Can (Tra Vinh province), and Long Ho (Vinh Long province) in the MRD region—are outside the metropolitan regions. Among the 46 FDI-strong districts in the metropolitan regions, 11 are in Hanoi (two districts) and HCMC (nine districts), while the other 35 adjoin Hanoi and HCMC. Eight out of nine HCMC FDI-strong districts are urban, while many of those adjoining Hanoi and HCMC are rural (15). The majority of the FDI-strong districts outside Hanoi and HCMC are those in which foreign-owned firms occupy clustered industrial parks (map 1.3).

Both domestic and foreign-owned firms saw their number, employment levels, and revenue triple or even quadruple between 2006 and 2016. Meanwhile, the profits of domestic firms increased approximately 500 percent, while those of foreign-owned firms increased by about 600 percent. The sources of their growth were drastically different, however. Foreign-owned firms increased their profits in the manufacturing sector alongside a significant expansion of revenue, whereas domestic private firms rapidly increased their profit in the trade sector.

Export-oriented manufacturing and food processing industries sustain Vietnam's industrial economy.¹² Its top 10 export-oriented industries are garments, machinery and equipment for broadcasting, crude oil, flour, trade (wholesale, retail), shoes, processed fish products, electronic devices, semifinished metal products, and furniture. Each of the largest export-oriented sectors—garments and machinery and equipment for broadcasting—create approximately twice as much economic value as the major domestic consumption-based sectors such as real estate and education.

Map 1.2 Distribution of foreign-owned manufacturing firms, Vietnam



Source: World Bank team's analysis based on data from General Statistics Office of Vietnam.

Note: One dot represents five firms. Red circles highlight clusters of foreign-owned firms.

Disclaimer: The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Table 1.2 Share of total firms, employment, revenue, and profit by year and ownership type: Vietnam, 2006, 2011, 2016 (percent)

	Share of total firms			Employment			Revenue			Profit		
	2006	2011	2016	2006	2011	2016	2006	2011	2016	2006	2011	2016
Foreign	3	3	3	22	23	31	20	19	29	24	31	54
Joint stock	12	21	20	16	26	25	13	25	25	14	28	18
Private	82	75	77	38	38	38	32	29	34	7	3	12
State	2	1	0	24	13	6	35	27	11	56	39	16
Total	100	100	100	100	100	100	100	100	100	100	100	100

Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2006, 2011, and 2016.

Table 1.3 FDI-strong districts, Vietnam

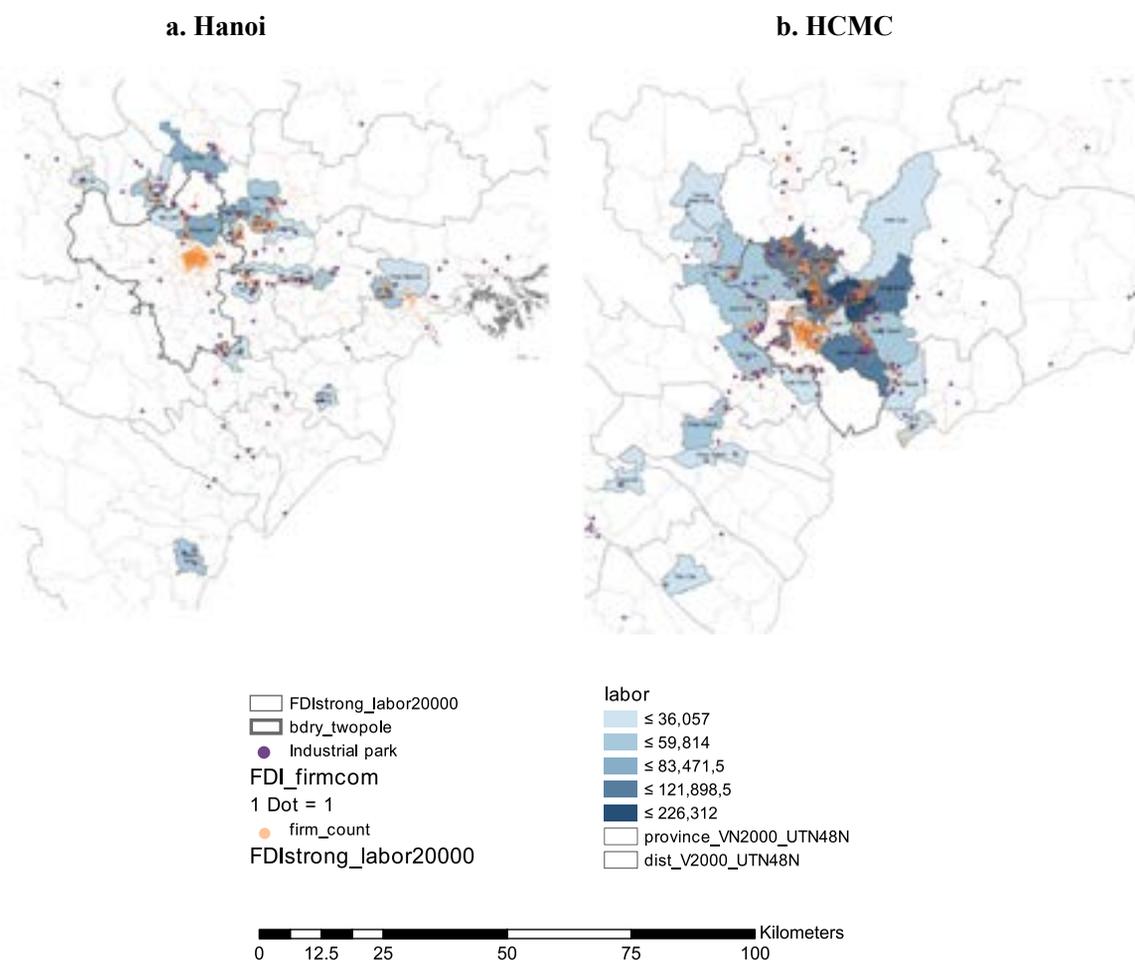
	Region	Province	District	Urban/city/rural	Employment	
Metropolitan areas (north)	Red River Delta	Hanoi	Dong Anh	Rural	74,409	
		Hanoi	Me Linh	Rural	27,988	
		Vinh Phuc	Vinh Yen	City	37,853	
		Vinh Phuc	Binh Xuyen	Rural	24,379	
		Bac Ninh	Yen Phong	Rural	83,472	
		Bac Ninh	Bac Ninh	City	44,205	
		Bac Ninh	Que Vo	Rural	25,140	
		Bac Ninh	Tu Son	Urban	23,243	
		Hai Duong	Hai Duong	City	58,652	
		Hai Duong	Cam Giang	Rural	36,057	
		Hai Phong	An Duong	Rural	53,529	
		Hai Phong	Thuy Nguyen	Rural	28,621	
		Hung Yen	Yen My	Rural	23,971	
		Hung Yen	Van Lam	Rural	20,214	
		Thai Binh	Thai Binh	City	22,098	
	Ha Nam	Duy Tien	Urban	28,602		
		Northeast	Thai Nguyen	Pho Yen	Urban	76,643
			Bac Giang	Viet Yen	Rural	54,193
	Phu Tho		Viet Tri	City	26,484	

Metropolitan areas (south)	Southeast	Ho Chi Minh	Binh Tan	Urban	121,899
		Ho Chi Minh	Thu Duc	Urban	92,746
		Ho Chi Minh	Quan 7	Urban	76,794
		Ho Chi Minh	Quan 1	Urban	65,901
		Ho Chi Minh	Quan 12	Urban	39,699
		Ho Chi Minh	Quan 9	Urban	33,588
		Ho Chi Minh	Tan Binh	Urban	27,136
		Ho Chi Minh	Quan 2	Urban	21,096
		Ho Chi Minh	Cu Chi	Rural	59,814
		Tay Ninh	Trang Bang	Urban	43,659
		Tay Ninh	Duong Minh Chau	Rural	26,443
		Tay Ninh	Go Dau	Rural	24,728
		Binh Duong	Thuan An	City	221,507
		Binh Duong	Ben Cat	Urban	119,540
		Binh Duong	Tan Uyen	Urban	107,454
		Binh Duong	Di An	City	106,764
		Binh Duong	Thu Dau Mot	City	68,182
		Dong Nai	Bien Hoa	City	226,312
		Dong Nai	Trang Bom	Rural	112,509
		Dong Nai	Nhon Trach	Rural	95,554
		Dong Nai	Long Thanh	Rural	41,520
		Dong Nai	Vinh Cuu	Rural	28,182
		Ba Ria--Vung Tau	Phu My	Urban	27,608
		Ba Ria - Vung Tau	Vung Tau	City	25,350
Mekong River Delta	Long An	Duc Hoa	Rural	56,580	
	Long An	Ben Luc	Rural	46,550	
	Long An	Can Giuoc	Rural	25,194	
Outside of metropolitan areas	North Central Coast	Thanh Hoa	Thanh Hoa	City	46,019
	South Central Coast	Da Nang	Lien Chieu	Urban	25,673
	Mekong River Delta	Tien Giang	Chau Thanh	Rural	55,677
		Ben Tre	Chau Thanh	Rural	24,479
		Tra Vinh	Tieu Can	Rural	26,837
Vinh Long		Long Ho	Rural	25,013	

Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2006, 2011, and 2016.

Note: Districts with more than 20,000 jobs in foreign-owned firms are considered FDI-strong districts. Cities are defined as municipalities or provincial cities. FDI = foreign direct investment.

Map 1.3 Foreign-owned firms by employment located on peripheries of Hanoi and Ho Chi Minh City metro areas



Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2006, 2011, and 2016.

Note: Orange dots represent foreign-owned firm locations. Darker shaded districts have higher FDI employment levels. FDI = foreign direct investment.

Industrial linkages and spatial clustering

Export-oriented industries

Based on purchase of inputs and sale of outputs between the industrial sectors, among the top 10 export-oriented industries just listed four major industrial value chains (that is, vertically connected industry groups) can be identified:

- *Processed fish products chain*
- *Textile chain:* garment, textile, and shoe industry chain
- *Machinery chain:* metal and machinery industry chain
- *Flour chain:* flour processing industry chain.

The job location patterns of the industries that comprise the four chains are highly spatially concentrated. Although the majority of the chains developed around the Hanoi and HCMC metro regions, there are differences in location patterns between them:

- The *processed fish products chain* predominates in the MRD and coastal regions.
- The *textile chain* is strongly developed in the two metropolitan regions. However, Hanoi and the RRD specialize in the clothing sector, whereas diverse industries clustered together (such as shoes, fiber, leather, clothing, and textiles) make up the chain in HCMC and the Southeast. A substantial number of textile chain jobs are also located in Da Nang.

- Jobs in the *machinery chain* tend to be concentrated in the two metropolitan regions and Da Nang. Hanoi and the RRD have a higher number of jobs related to electronic devices (as well as machinery and equipment for broadcasting) than HCMC.
- The *flour chain* is centered in HCMC and the MRD. Although Hanoi and the RRD have also developed this chain, a higher number of agricultural service (rather than flour-producing) jobs are spread across the region. Flour production jobs are clustered in the northwest of the Southeast region.

Of the four industrial value chains, foreign-owned firms dominate the machinery chain (including the machinery and equipment for broadcasting and electronic device sectors). Foreign-owned firms also hold major shares in the shoe, leather, clothing, and textile industries, although domestic private firms within these sectors have played relatively larger roles than in the broadcasting machinery and equipment and electronic device sectors. By contrast, the food processing chains (processed fish and flour chains) are primarily owned and maintained by tightly connected domestic firms, indicating less FDI-dependent development.

In the textile chain, links appear to exist between foreign-owned and domestic firms. The clothing and shoe industries, in which foreign-owned firms have a greater share, are linked with the fiber, textile, and rubber product sectors in which more domestic firms participate.

Foreign-owned firms

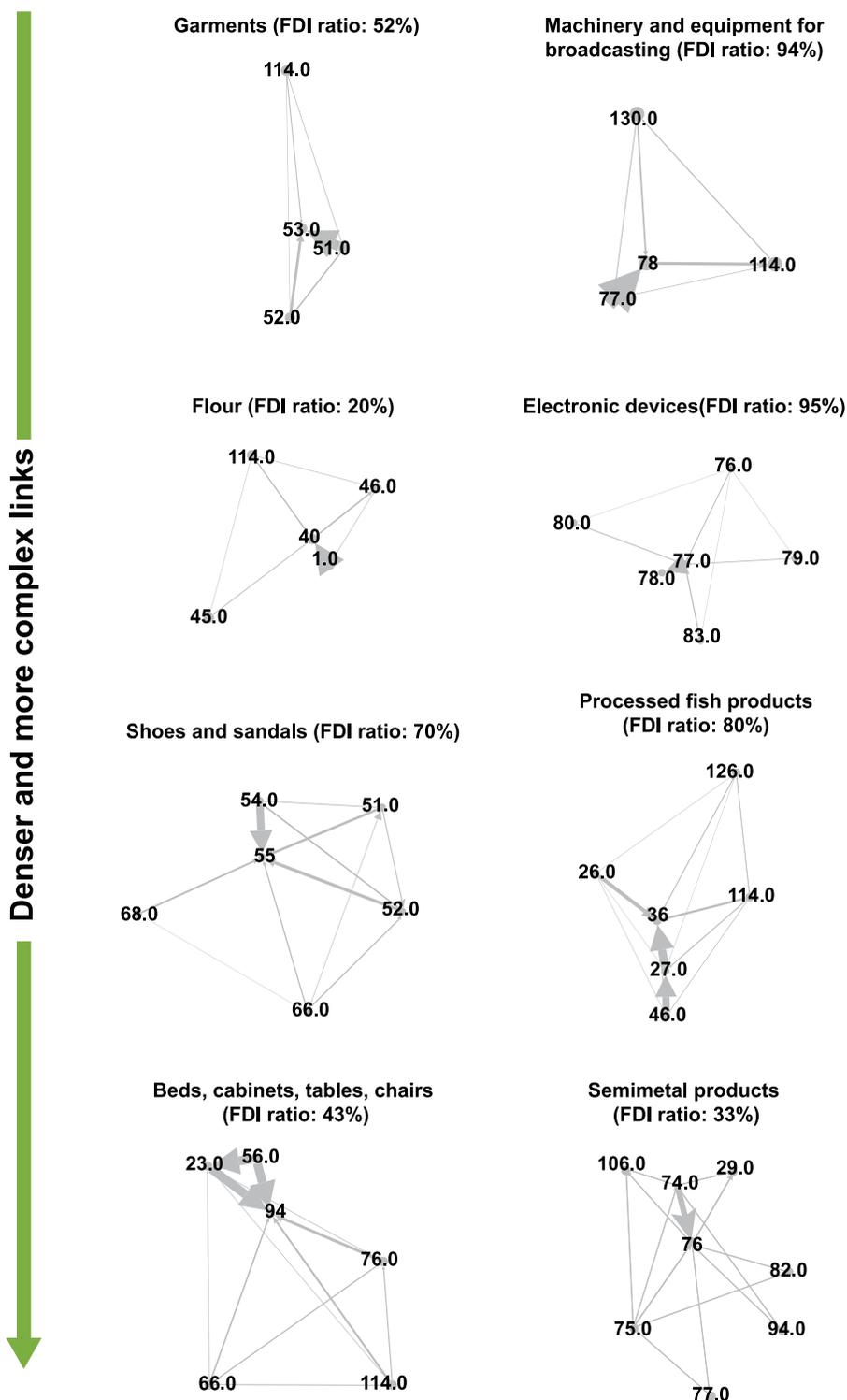
Foreign-owned firms have relatively weak economic links with the domestic economy. The majority of large foreign-owned firms operate in isolated industrial parks in metropolitan districts on the peripheries of Hanoi and HCMC. Figure 1.3 reveals that FDI-dominant manufacturing has relatively simple economic links with other industries or vertically developed sectoral chains. By contrast, industries that consist mostly of domestic firms weave denser and more complex networks with both upstream

and downstream sectors. This finding suggests that, although FDI-based industries have played a crucial role in sustaining the country's economic growth and industrial transformation over the past few decades, Vietnam's FDI-dependent industrial development has not created strong, sustainable economic linkage effects, thereby limiting domestic market development and industrial system upgrading.

Linkages among the major manufacturing subsectors throughout the industrial chains exhibit similar patterns between the FDI and domestic sectors. In other words, the manufacturing subsectors dominated by foreign-owned firms are more tightly connected with other FDI-dominant sectors, while domestic firm-based sectors are well linked with other domestic firm-based industries. For example, in the machinery chain the FDI-dominant machinery and equipment for broadcasting sector is most strongly linked to other FDI-dominant sectors such as electronic devices and household appliances. A domestic industry, such as the semifinished metal products sector, is typically connected with another domestic firm-dominated industry, such as the iron and steel sector.

Vietnam's trade sector, in which 61 percent of the firms are domestic, has developed a series of industrial links. Thus the sector is mainly linked with firms related to pigs, flour, rice cultivation, printing, furniture, food service, fish farming, and processed fish products, which are usually domestically owned, and foreign-owned machinery and equipment for broadcasting firms. Overall, the links between the domestic firm-based manufacturing and trade sectors are much stronger than those between the FDI-based manufacturing and domestic trade sectors. This pattern is consistent with the separation between the FDI-based sectors and the domestic firm-based sectors in manufacturing. Although both job and revenue growth in Vietnam's trade firms (wholesale and retail) slowed between 2011 and 2016, the sector was transformed into a relatively more profitable industry during the same period. This profit growth was driven by its role in both manufactured exports and especially domestic consumption.

Figure 1.3 Subnetworks of eight major export-oriented industries, Vietnam



Source: World Bank team's analysis of data from General Statistics Office of Vietnam (GSO); Enterprise Census, 2006, 2011, and 2016; and input-output original-destination data from GSO.

Note: The industries at the bottom have denser and more complex links than those at the top. For example, the networks at the very top (garment and machinery and equipment for broadcasting industries) are the least dense among the eight networks, while those at the bottom (furniture and semifinished metal products industries) have the most complex or densest networks. The foreign direct investment (FDI) ratio is the share of foreign-owned firms in the total employment of each industry.

Spatial variation in industrial structure and growth

The heavy concentration of FDI in the two major metropolitan regions has contributed to Vietnam's two-tiered regional economic and industrial structure. As described earlier, the first tier of this structure consists of the twin economic engines of Hanoi and HCMC and their respective economic regions, the RRD and the Southeast. Together in 2014, these two regions were home to 35.2 million people, or 38.9 percent of Vietnam's overall population, but they accounted for over 70 percent of nonfarm production and employment.¹³

By contrast, Vietnam's remaining regions, the second tier, have relatively lower concentrations of urban populations and nonfarm jobs. Nevertheless, they remain home to more than 55.3 million people. Within this second tier is a heterogeneous landscape of urban settlements, ranging from the relatively large municipalities of Da Nang and Can Tho to provincial cities and scattered towns and townships. Spatial development policies in three areas—labor and migration, land use and urban planning, and fiscal and financing policy (examined in more detail in chapters 3, 4, and 5, respectively)—have largely shaped the development pattern of the second-tier regions, especially that of rural areas. However, their city centers are not growing industrially and therefore may lack fuel for future sustained growth.

First-tier regions

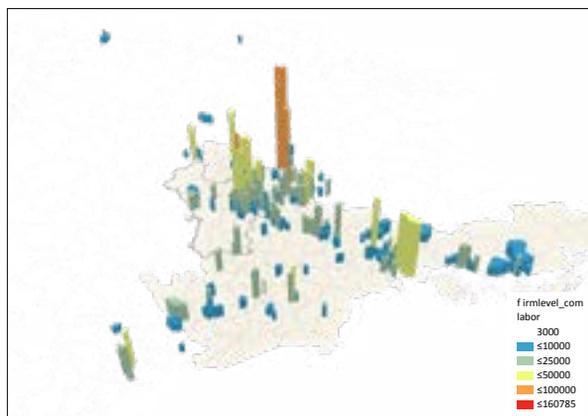
The high percentage of rural districts among the top 52 FDI-strong districts is indicative of a vibrant, FDI-fueled, rural industrialization trend within the two metropolitan regions, Hanoi and HCMC. A little over half of the new jobs created between 2011 and 2016 were in rural districts, some of which contain class 4 or 5 towns and townships.¹⁴ Over 80 percent of the new jobs in rural areas were in industrial sectors—in particular, the manufacturing sector—whereas most of the job growth in the cities was in the service sectors. Industrial growth in the large cities was mostly in rural districts within the city boundaries. Rural areas outside the two metropolitan regions have also grown strongly—a finding suggested by the fact that the two metropolitan regions' shares of national employment and production barely changed between 2011 and 2016.

Most FDI-strong districts show strong industrial transformation in the secondary sectors. However, the districts within Hanoi and HCMC exhibit stronger growth in the tertiary sectors, and manufacturing has moved into the neighboring suburban districts. This suburbanization of manufacturing has been especially conspicuous in the HCMC metro region.

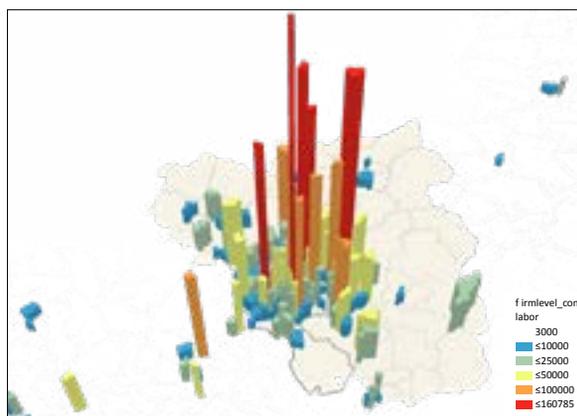
Population growth is much stronger within the boundaries of Hanoi and HCMC than in other regions. By contrast, employment growth is stronger in their neighboring border districts than in their inner districts. HCMC exhibits much more concentrated job growth in its eastern border districts, and, although the population is growing there as well, it is also growing in the western parts of the city. Similarly, Hanoi exhibits stronger job growth in its neighboring districts (the east of Hanoi), whereas population growth occurs more strongly within Hanoi. The Hanoi and HCMC metro areas have thus developed different spatial patterns of job concentration. Meanwhile, whereas the HCMC metro area has developed high degrees of job concentration around the city, Hanoi's job market is quite dispersed (map 1.4), which may affect labor productivity through the region's labor agglomeration.

Map 1.4 Spatial distribution of employment in Hanoi and Red River Delta region and Ho Chi Minh City and Southeast region, 2016

a. Hanoi and Red River Delta region



b. HCMC and Southeast region



Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2016.

Second-tier regions

Within the second-tier regions, overall development has been geographically dispersed. It is underpinned by three main spatial policies that combine restricted geographic labor mobility with land and other subsidies to help promote rural industrialization and a system of fiscal transfers that strongly prioritizes spatial equity over spatial efficiency. These policies have discouraged people from moving to Hanoi and HCMC by raising the socioeconomic costs of migration (see chapter 3), while attempting to bring more industrial jobs, as well as infrastructure and basic services, to them. It is a classic strategy of bringing jobs and services to people instead of encouraging people to move to jobs and services. One result, as illustrated earlier, is that a large number of workers have left agriculture without moving to urban areas, thereby missing out on a potential urban productivity “bonus” associated with the presence of agglomeration economies in large urban areas.

Although there is no formal definition of *secondary cities* in Vietnam, they can be placed in the “system of cities” framework overlaid by an urban classification system and an administrative structure of cities, towns, and townships, as described in this report's introduction. In this context, the term *secondary cities* refers to the cities that follow Hanoi and HCMC in size. These include the three municipalities of Hai Phong, Da Nang, and Can Tho, and the 68 other provincial cities. In terms of administrative structure, stronger industrial growth is seen either in the

periphery districts within the boundaries of Hanoi and HCMC or in the mostly rural districts of neighboring provinces in the metropolitan regions. In terms of the urban classification system, industrial growth appears mainly in class 0 (special class) and class 1 districts and in class 4 and 5 townships.

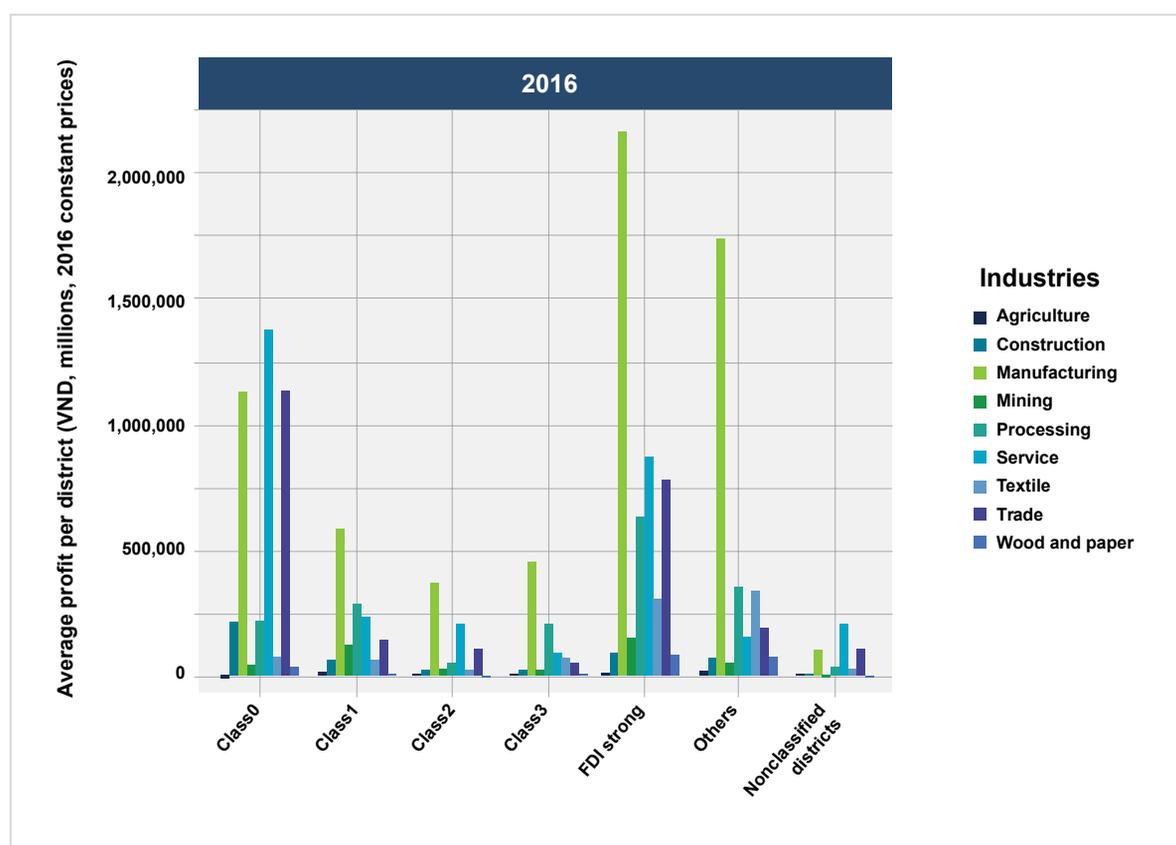
In urban districts outside the metropolitan regions, the tertiary sector has grown more strongly than the secondary sector—that is, urban districts 20 kilometers or more outside the two metropolitan regions have a job growth rate that is three times higher for the tertiary sector than for the secondary sector. This trend reflects the fact that most provincial cities support the consumption and service activities of their own regions instead of having strong manufacturing bases. Overall, the provincial cities have not experienced a manufacturing-based industrial transition. In other words, the provincial cities outside the two metropolitan regions function as “consumer cities” as opposed to “production cities,” reflecting a process of urbanization without industrialization.¹⁵ Thus many of the tertiary sector–dominant districts in provincial cities outside the metropolitan regions have seen relatively low levels of industrialization. Their industrial employment growth has also been slow, with an average of just 2,097 jobs per district added between 2011 and 2016. By contrast, most metropolitan region districts exhibit high job growth with ongoing urbanization. Most of these districts are FDI-strong.

Regional patterns of population growth do not necessarily reflect job growth patterns. For example, districts in the Central Highlands and the northwest have experienced population growth but stagnant or declining job growth. Industrially strong-growth districts lie mostly within Hanoi and HCMC or the two cities' neighboring districts. Growth not only in employment, but also in number of firms, revenue, and profit, is stronger in the metropolitan regions.

The profit levels of FDI-strong districts are much higher than those of districts in other city classes,

and even higher than the districts in class 0 cities. In particular, profits from manufacturing, textiles, and processing are higher in FDI-strong districts than in districts in class 0 cities, but their service and trade profit levels are slightly lower than those in the latter districts—an indication of their strong specialization in the secondary sectors (see figures 1.4 and 1.5). Indeed, the manufacturing-based FDI-strong districts have transformed into *production economies*, unlike the situation in the medium-size and provincial cities where manufacturing jobs are rare.

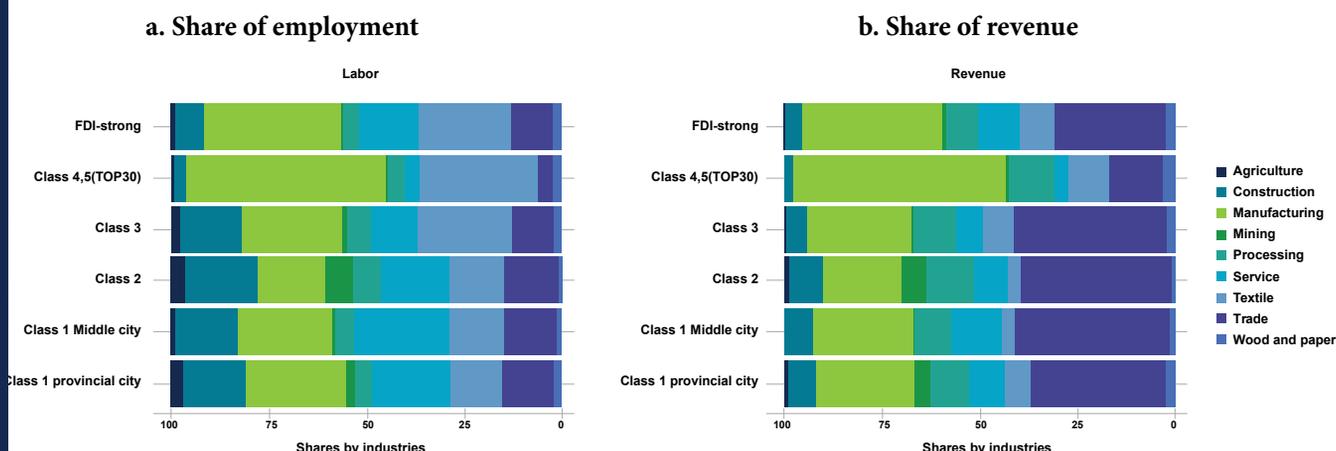
Figure 1.4 Average profit per district by city class group and FDI-strong district group: Vietnam, 2016



Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2016.

Notes: FDI-strong districts correspond to those in which foreign-owned firms employ over 20,000 workers. These districts are listed in table 1.3.

Figure 1.5 Share of employment and revenue by industry, city class group, and FDI-strong district group: Vietnam, 2016



Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2016.

Notes: FDI-strong districts correspond to those in which foreign-owned firms employ over 20,000 workers. These districts are listed in table 1.3.

The other three municipalities—Hai Phong, Da Nang, and Can Tho—have experienced growth in tertiary sector jobs and a decline in secondary sector jobs within established urban districts in the city

boundaries. Among them, Hai Phong, which is located in the first-tier RRD region, shows a comparatively stronger industrial base and growth.

Policy results

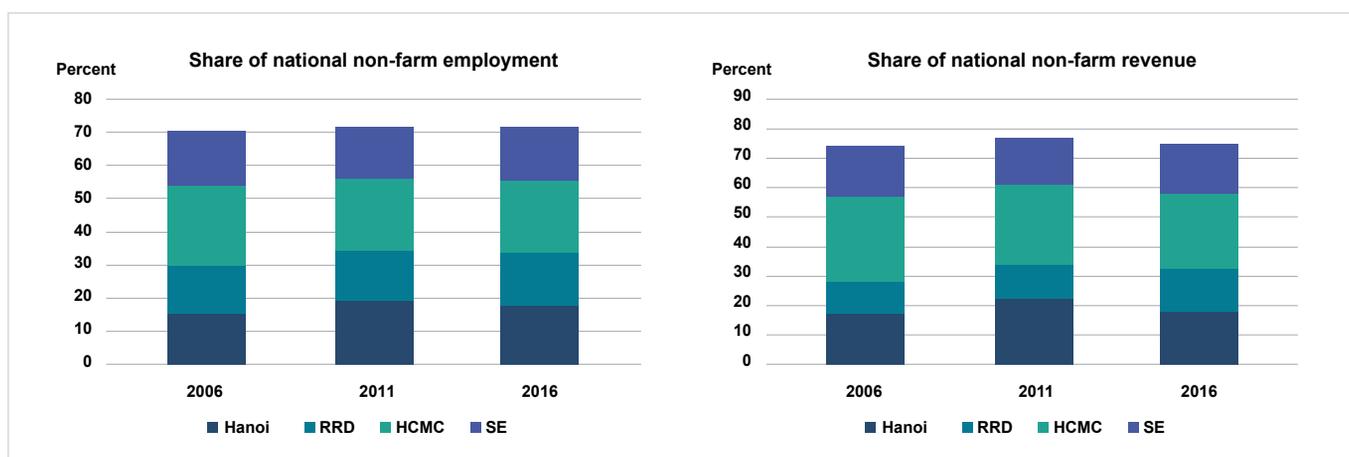
As a result of its main spatial policies, the first-tier regions, despite being more urbanized and industrialized, have grown at the same rate as the less urbanized and less industrialized second-tier regions. Employment and revenue growth have thus been evened out across both tiers of regions. Consequently, the share of national nonfarm

jobs and revenue for Hanoi and HCMC, and their surrounding regions, the RRD and Southeast, barely changed between 2006 and 2016 (figure 1.6). This pattern deviates from that observed in most regions of the world in recent decades, where more productive and more urban regions have been growing much faster (figure 1.7).

Figure 1.6 Share of national nonfarm employment and revenue: Hanoi, Red River Delta, Ho Chi Minh City, and Southeast regions, 2006–16

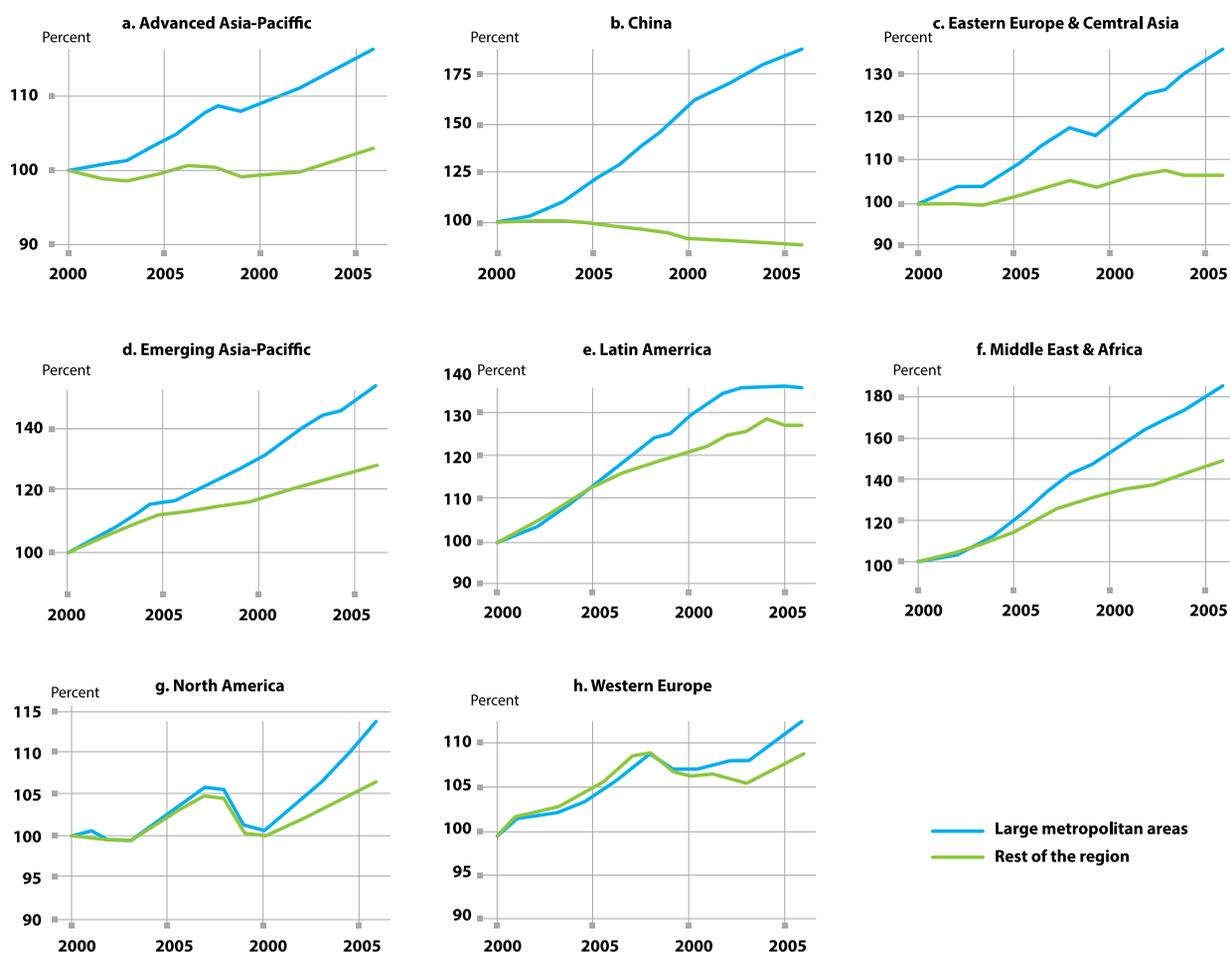
a. Nonfarm employment

b. Nonfarm revenue



Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2006, 2011, and 2016.

Figure 1.7 Evolution of employment in metropolitan versus nonmetropolitan areas: various regions and countries, 2000–2016



Source: Brookings Institution 2018.

Note: 100 = employment level in 2000.

Spatial patterns of productivity, agglomeration economies, and congestion forces Nationwide productivity pattern

One of the key benefits of urbanization is that the resulting concentration of people and economic activity can lead to higher productivity through positive agglomeration economies. However, acting against these agglomeration economies, and tending to depress both productivity and livability, are negative congestion forces, which arise from the pressure of urban populations on basic services, infrastructure, land and housing, and the environment. This section analyzes evidence related to labor productivity, agglomeration economies, and congestion forces.

Labor productivity, measured at 2016 constant prices, in Vietnam's nonprimary industries increased from VND 941 million to VND 1.24 billion per worker between 2006 and 2016.¹⁶ However, there was a large drop in the growth rate of labor productivity between 2006–11 and 2011–16, from 4.31 percent a year to 1.23 percent a year (table 1.4). It is also notable that the share of revenue given out in wages increased between 2006 and 2016 (5.29 percent annual increase), as indicated by the negative growth of labor cost productivity—see table 1.4 and figure 1.8, panel b.

Table 1.4 Labor productivity and labor cost productivity patterns: Vietnam, 2006–16

				Net increase	Annual growth rate	Annual growth rate	Annual growth rate
	2006	2011	2016	(2006–16)	(2006–16)	(2006–11)	(2011–16)
Labor productivity (VND, millions)	941	1,162	1,235	294	2.76%	4.31%	1.23%
Labor cost productivity	17.91	14.7	10.55	-7.72	-5.29%	-3.88%	-6.68%

Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2006, 2011, and 2016.

Notes: All monetary values are measured in 2016 constant prices. Statistics exclude the primary sector. Labor productivity is defined as total revenue divided by total employment, and labor cost productivity is defined as total revenue divided by total labor cost.

The primary cause of the labor productivity growth slowdown has been the stagnation of productivity improvements in the tertiary sector (figure 1.8, panel a). Productivity improvements in the trade sector have especially stalled (figure 1.8, panel c). Also, despite possessing the highest levels of firm investment, the service sector has experienced declines in productivity and investment (figure 1.8, panels c and d).

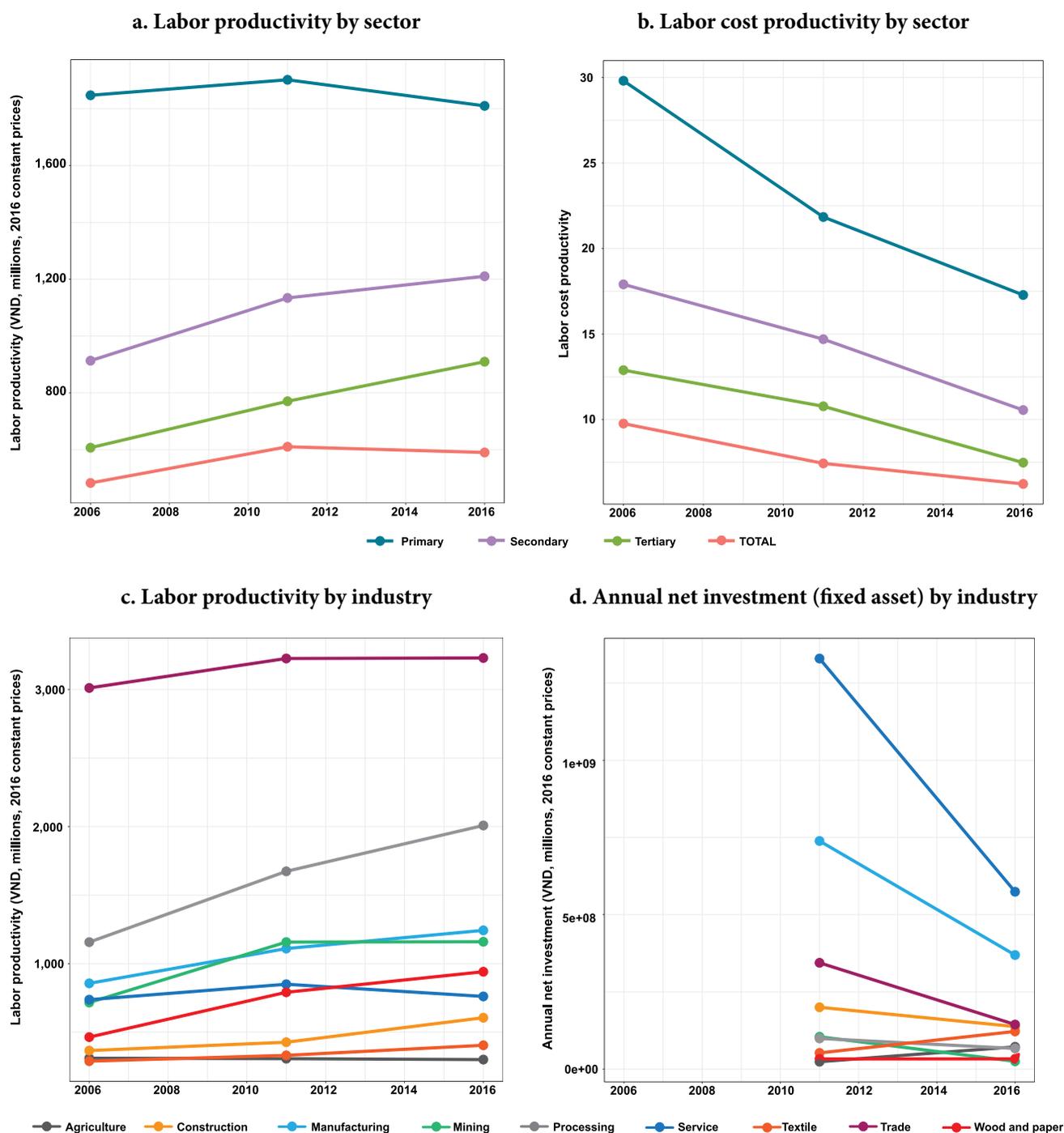
The recent productivity growth slowdown occurred alongside a series of significant economic trends. Although these trends may not be the direct cause of Vietnam's slow productivity growth, certain signals are worrying:

- Total net annual investment by firms fell by approximately 50 percent between 2006–2011 and 2011–16 (figure 1.9). Net investment in fixed assets declined in most industries, but most notably in services (figure 1.8, panel d).
- Between 2006 and 2016, firms in sectors such as trade, services, and manufacturing experienced larger percentage increases in the number of firms than in total revenue or employment, implying that the average firm size declined, diluting economies

of scale. The number (and proportion) of small firms (five or fewer employees) increased between 2011 and 2016 in both the secondary and tertiary sectors, whereas the net growth in the number of firms that employ between 6 and 720 workers fell by more than 50 percent, compared with the net growth between 2006 and 2011. The number of large firms (more than 720 employees) grew only in the secondary sector. Overall, the growth in the number of firms in each size category recently slowed, with the exception of small firms.

- The slowdown of national labor productivity growth mirrored recent trends of a lack of productivity improvement in Hanoi and HCMC. Thus HCMC experienced sluggish labor productivity growth between 2011 and 2016, whereas Hanoi experienced a slight decline in labor productivity, together with the MRD region (table 1.5; figure 1.10, panel a). In line with national trends, these two cities stand out because of declining annual net investment in fixed assets (figure 1.10, panel b) and the proliferation of small firms, as compared with other regions.

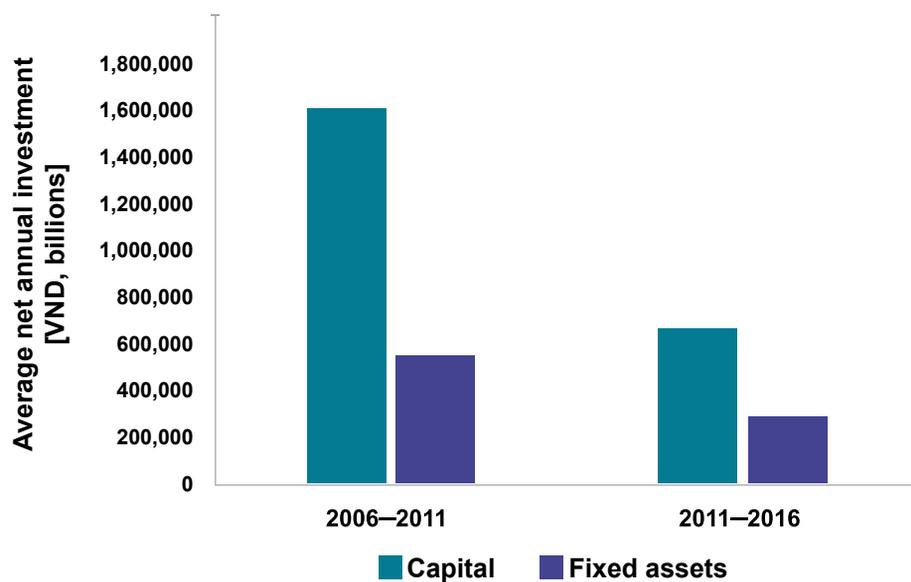
Figure 1.8 Sector and industry breakdown of labor productivity, labor cost productivity, and annual net investment in fixed assets: Vietnam, 2006–16



Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2006, 2011, and 2016.

Note: Monetary values in panels a, c, and d are measured in 2016 constant prices. Labor cost productivity in panel b is equal to total revenue divided by total labor cost. Annual net investment (fixed asset) by industry in panel d is defined as the change in the aggregate value of an industry's total fixed assets between year t and year $t - 5$ divided by 5.

Figure 1.9 Average net annual investment in capital and fixed assets: Vietnam, 2006–16



Note: Values are measured in 2016 constant prices. Statistics exclude the primary sector. *Annual investment (capital)* is defined as the change in the value of the total capital stock between year t and year $t - 5$ divided by 5, where $t = 2016$ or 2011 . *Annual investment (fixed assets)* is defined as the change in the aggregate value of total fixed assets between year t and year $t - 5$ divided by 5.

Table 1.5 Labor productivity, labor cost productivity and investment trends by year and region, and net growth and annual growth pattern: Vietnam, 2006–16

a. Level of labor productivity, labor cost productivity and net annual investment (fixed)

	Labor productivityn (VND millions)			Labor cost productivity			Net annual investment (fixed) (VND millions)	
	2006	2011	2016	2006	2011	2016	2006-2011	2011-2016
Hanoi	1,051.12	1,298.21	1,293.20	18.25	13.97	11.94	178,595,074.63	28,495,750.48
HCMC	1,080.64	1,385.64	1,457.65	17.17	15.43	11.11	159,039,524.14	60,935,485.72
Red River Delta	667.58	902.49	1,039.98	16.98	14.34	7.57	53,148,184.33	48,789,196.70
South-East South	943.17	1,186.58	1,254.96	17.51	14.65	9.90	58,094,800.96	51,364,409.19
Central Coast	669.74	773.35	868.47	17.30	13.74	9.95	41,921,163.40	39,986,573.00
Mekong River Delta	1,321.02	1,440.50	1,409.72	32.25	23.68	15.21	29,007,854.56	17,260,482.51
North region	624.79	757.70	1,077.77	15.25	12.78	11.27	31,643,974.77	36,378,073.79
Central Highlands	1,182.30	1,284.98	1,598.94	27.39	20.01	22.66	7,931,408.37	6,195,068.59

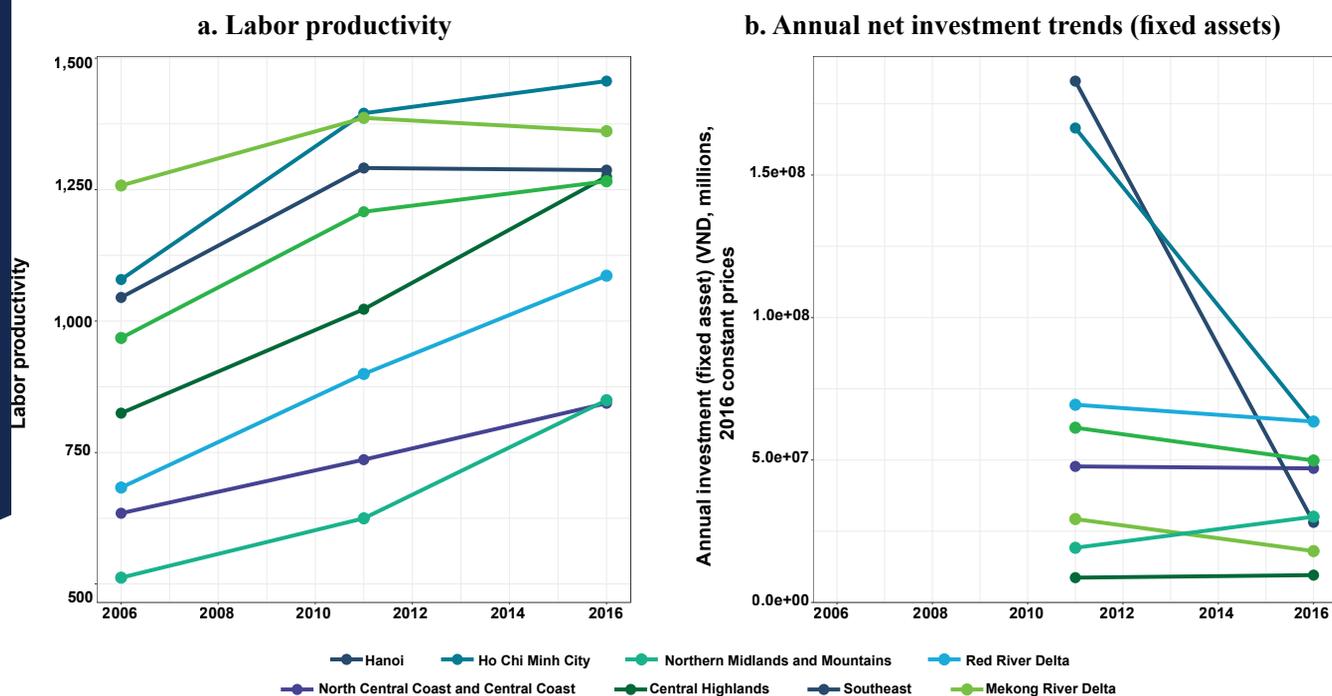
b. Net increase and growth rates of labor productivity, labor cost productivity and net annual investment

	Net increase			Growth rate (%)		
	Labor productivity (VND millions)	Labor cost productivity	Net annual investment (fixed) (VND millions)	Labor productivity	Labor cost productivity	Net annual investment
	2011-2016	2011-2016	2011-2016	2011-2016	2011-2016	2011-2016
Hanoi	-5.02	-2.03	-150099324.15	-0.08	-3.09	-30.72
HCMC	72.01	-4.31	-98104038.42	1.02	-6.35	-17.46
Red River Delta	137.49	-6.77	-4358987.63	2.88	-12.00	-1.70
South-East South	68.38	-4.75	-6730391.77	1.13	-7.54	-2.43
Central Coast	95.12	-3.79	-1934590.40	2.35	-6.25	-0.94
Mekong River Delta	-30.78	-8.48	-11747372.05	-0.43	-8.48	-9.86
North region	320.08	-1.51	4734099.02	7.30	-2.49	2.83
Central Highlands	313.96	2.66	-1736339.78	4.47	2.52	-4.82

Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2006, 2011 and 2016.

Note: Monetary values are measured in 2016 constant prices. Labor cost productivity is equal to total revenue divided by total labor cost. Annual net investment (fixed) is defined as the change in the aggregate value of an industry's total fixed assets between year t and year $t - 5$ divided by 5.

Figure 1.10 Labor productivity and annual investment trends by region: Vietnam, 2006–16



Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2006, 2011, and 2016.

Note: Monetary values are measured in 2016 constant prices.

Spatial pattern of labor productivity

In developed and developing countries alike, a country's leading regions or cities generally exhibit a significant productivity advantage over the rest of its regions. Such a productivity advantage tends to be the result of an agglomeration premium that arises from the benefits associated with urban size and density. These benefits take several forms, including the benefits produced by the better matching of workers with jobs that occurs in large and dense urban areas, the emergence of dense networks of local suppliers of intermediate inputs into the final production of other firms, and the knowledge spillovers between workers and firms that arise as a result of their geographic proximity in dense urban areas. Investments and labor concentrate in the higher productivity areas, resulting in their faster growth.

Unfortunately, it is difficult to assess Vietnam's agglomeration premium because data constraints prevent calculation of levels of value added for the country's regions. Instead, as in the preceding analysis, the aggregate revenue of firms per worker is used as an indicative proxy measure of a region's labor productivity.¹⁷

Vietnam's first-tier regions, the RRD and Southeast, demonstrated a sizable productivity premium over the rest of the country in 2016—about 15 percent between the two tiers as a whole. The premium was, however, even larger in 2011, when it stood at around 25 percent. The fall in the productivity premium between 2011 and 2016 was the result of a significant slowdown in the productivity growth rate of the first-tier regions during that period (0.83 percent), compared with the previous period, 2006–11 (4.89 percent). By contrast, the productivity growth rates of the second-tier regions were similar for the two periods (table 1.6).

Although the labor productivity of the Hanoi and HCMC municipalities is still higher than that of other regions, the average productivity of the RRD and Southeast regions as a whole is closer to that of some of the other regions. In 2016 the Southeast region's labor productivity was about 60 percent higher than that of the least productive region, the North Central Coastal and Central Coast, whereas nuances are also observed for other regions, such as the MRD and Central Highlands, which show very high regionwide average labor productivity (see table 1.7).

Table 1.6 Labor productivity differential between first- and second-tier regions: Vietnam, 2006–16

	Labor productivity (VND, millions)			Growth rate (%)	
	2006	2011	2016	2006–11	2011–16
First-tier regions	969.7	1,231.4	1,283.4	4.89	0.83
Second-tier regions	868.9	983.8	1,113.4	2.52	2.50

Source: World Bank team's analysis of data from Vietnam's Enterprise Census, 2009, 2011, and 2016.

Note: Monetary values are measured in 2016 constant prices.

Table 1.7 Labor productivity of each socioeconomic region: Vietnam, 2006, 2011, 2016

	Labor productivity (VND, millions)			Growth rate (%)	
	2006	2011	2016	2006–11	2011–16
Northern Midlands and Mountains	624.8	757.7	1,077.8	3.93	7.30
Red River Delta (including Hanoi)	883.6	1,144.8	1,180.8	5.32	0.62
North Central Coast and Central Coast	669.7	773.3	868.5	2.92	2.35
Central Highlands	1,182.3	1,285.0	1,598.9	1.68	4.47
Southeast (including Ho Chi Minh City)	1,026.0	1,304.6	1,370.1	4.92	0.99
Mekong River Delta	1,321.0	1,440.5	1,409.7	1.75	-0.43
Total	940.9	1,161.8	1,235.3	4.31	1.23

Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2006, 2011, and 2016.

Note: Monetary values are measured in 2016 constant prices.

A more nuanced spatial pattern of city and district-level labor productivity

Although district-level labor productivity varies widely, high productivity districts tend to be clustered around the two metropolitan regions. To explore this finding in more detail, this section classifies districts into four types based on their levels of employment (labor pool size) and labor productivity:¹⁸

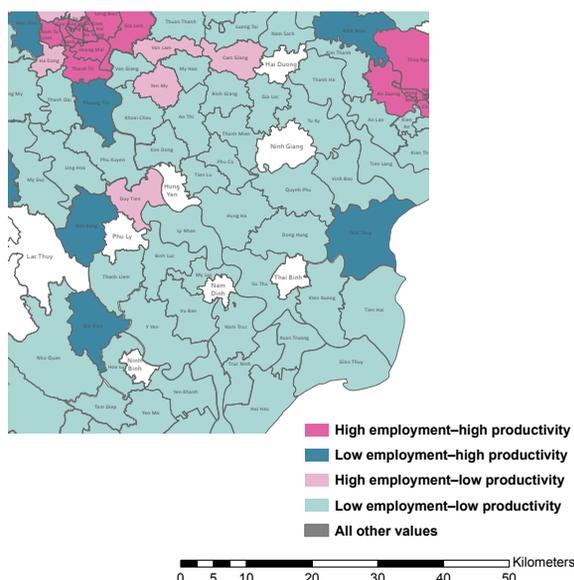
- *High-high districts*: districts with high employment and high productivity
- *Low-high districts*: districts with low employment and high productivity

- *High-low districts*: districts with high employment and low productivity
- *Low-low districts*: districts with low employment and low productivity.

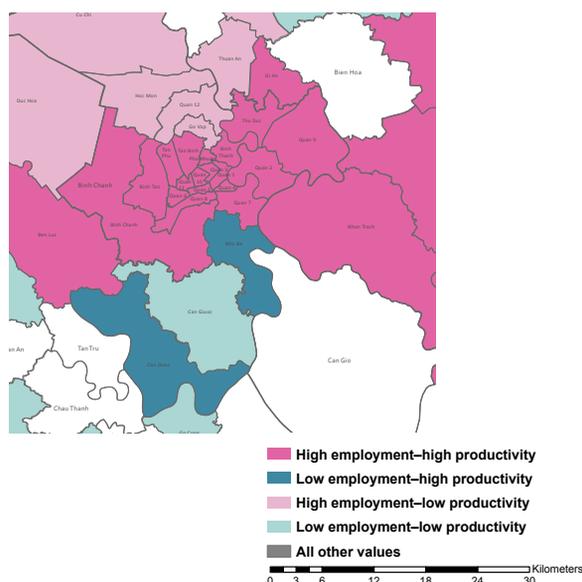
As shown in map 1.5, the high-high districts (dark pink in the map) are either inside Hanoi and HCMC municipalities or just outside their borders. However, among the high-high districts are also high-low districts (light pink)—that is, districts with high employment but low productivity.

Map 1.5 Employment level–labor productivity taxonomy of Hanoi and Ho Chi Minh City regions: Vietnam, 2016

a. Hanoi



b. HCMC



Source: World Bank team’s analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2016.

Note: The classification of high versus low is based on the mean values of district labor productivity and employment.

Productivity levels of the other municipalities vary. Some of Hai Phong’s districts have higher labor productivity with a relatively high employment level. Da Nang falls into the low-low category. Parts of Can Tho are low employment–high productivity districts. However, the districts in these three municipalities have limited labor pools, ranging from 30,000 to 100,000 workers per district, despite their being the country’s three largest municipalities after Hanoi and HCMC. This suggests that these municipalities may lack sufficiently deep local labor markets to generate substantial agglomeration benefits.

The low employment–high productivity districts are scattered throughout various regions. These districts are in regions such as the MRD that are relatively far from Hanoi and HCMC. By contrast, most districts in the coastal regions are categorized as low productivity districts, with the exception of the provincial city of Quang Ngai. Overall, the employment and productivity patterns outside the metropolitan regions indicate district-bounded economies without much agglomeration.

Pattern within the first tier

Despite detailed variance in productivity level by firm size between Hanoi and HCMC, highly productive firms in both the manufacturing and service sectors are concentrated in the two metropolitan regions. In fact, districts in the two account for more than half of all the high productivity districts in both of these sectors. The higher numbers of high productivity districts in the HCMC metro area than in the Hanoi metro area is consistent with the HCMC region's overall higher productivity.

In manufacturing, higher numbers of Hanoi's and HCMC's neighboring districts are categorized as highly productive than are districts within the two cities. Districts with high service sector productivity are more concentrated in intracity districts (mainly urban core districts in HCMC). This finding signals tertiary sector-based transformation in the urban areas of Hanoi and HCMC (primarily HCMC) and manufacturing concentration in the suburban districts of the metropolitan areas.

Hanoi and HCMC have diverged in terms of industrial transformation primarily because of differing performance in the service and trade sectors, despite the improvement in manufacturing performance in both regions (figure 1.11). The profit growth patterns of firms in Hanoi and HCMC sharply diverged between 2011 and 2016, implying that HCMC has been more successful in transforming its economic structure toward higher value-added activities. Panel a of figure 1.11 compares the profit growth of Hanoi and its neighboring metropolitan region. The RRD region's profit growth rate was higher between 2011 and 2016 than the stagnating profit of firms in Hanoi. Conversely, HCMC's profit growth was still stronger than that of its neighboring region, the Southeast. The share of HCMC firm revenue in firm revenue of its entire metro area, comprising HCMC and the rest of the Southeast, stayed stable at around 60 percent between 2011 and 2016, whereas the share of Hanoi firm revenue in the firm revenue of its entire metro area, comprising Hanoi and the RRD, declined sharply, from 65 percent to 56 percent. More conspicuously, the share of HCMC profits in those of its entire metro region gradually increased (from 56 to 60 percent) from 2011 to 2016, whereas the share of Hanoi profits in those of its entire metro area declined significantly (from 83 to 62 percent)—see figure 1.11, panel b.

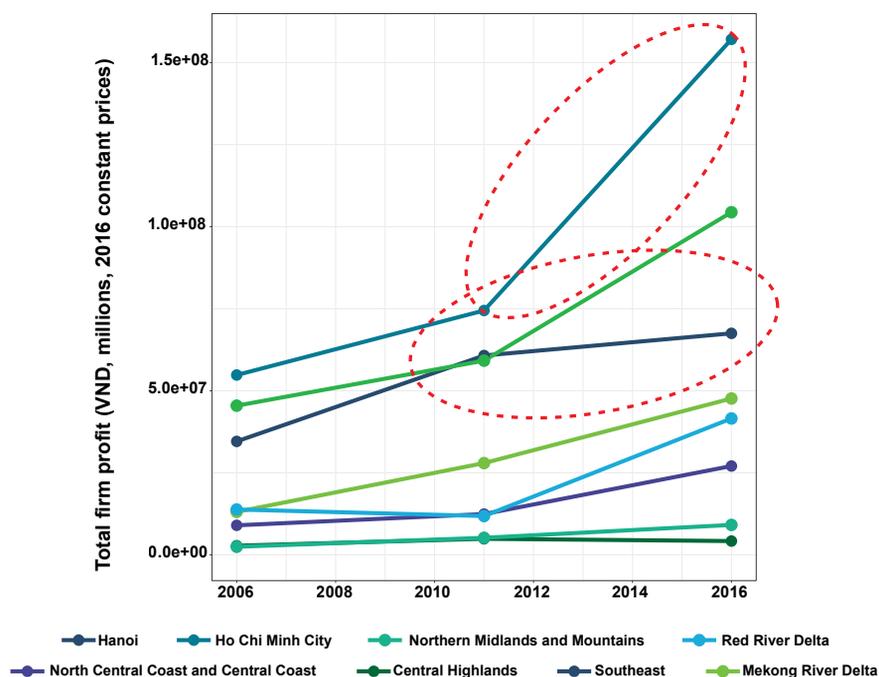
Compared with those in Hanoi, small firms in the HCMC metro region are much more productive. This productivity stems from the higher labor productivity of small firms in the tertiary sector, especially the trade and service industries, which are almost four times more prevalent in HCMC than they are in Hanoi. The profit levels of HCMC's most profitable trade industries are about three times higher than Hanoi's. The most profitable trade industries in HCMC in 2016 were mainly the consumption-based wholesale industries such as foods and household products. The most profitable trade industries in Hanoi included the machinery and metal wholesale industries (such as machinery and other equipment). Real estate is the most profitable service industry in both Hanoi and HCMC. The other most profitable industries in HCMC are professional and logistics services, whereas Hanoi's most profitable service industries are primarily administrative.

The sharp divergence in ability to generate profit between Hanoi and HCMC stems from the stagnation of revenue and the decline in profits in Hanoi's inner-city old core districts (figure 1.12). The HCMC metro area shows rising profits over time in both its core (HCMC municipality) and its suburban districts. By contrast, Hanoi's old core districts show declining profits. Revenue growth rates from the industries in the trade sector in Hanoi's old core significantly slowed between 2006 and 2011, and net profits in this area fell during the same period, whereas both increased in HCMC's urban core districts. Overall, this suggests that HCMC's urban core districts have been more successful at transitioning to higher value added and more efficient tertiary sectors than Hanoi's urban core districts.

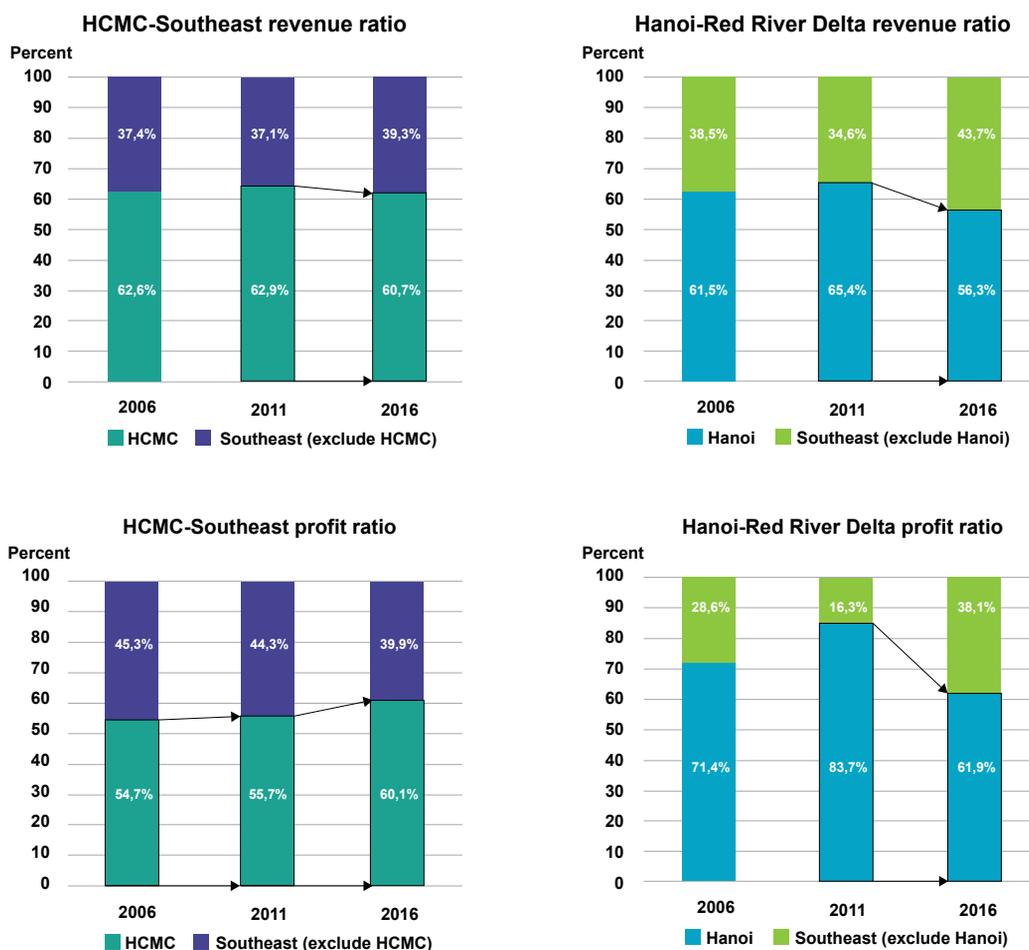
Unlike the situation with small firms, large firms (those with more than 1,000 employees) in the Hanoi metro area are much more productive than those in the HCMC metro area. Indeed, large firms in HCMC high productivity districts exhibit decreasing scale productivity, whereas those in Hanoi high productivity districts are subject to increasing scale productivity. The productivity gap is primarily due to the differing labor productivity levels of very large manufacturing firms (those with more than 10,000 employees)—see annex 1A.

Figure 1.11 Total firm profit by region and profit and revenue shares of municipality and neighboring region: Vietnam, 2006–16

a. Total firm profit by region



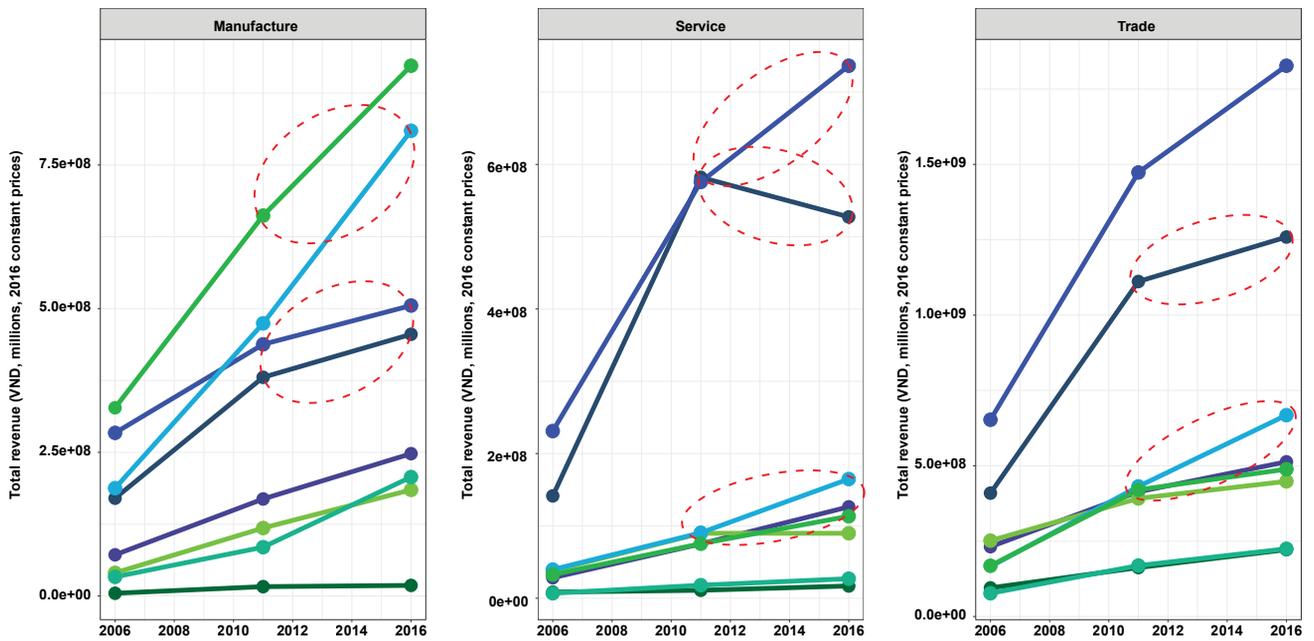
b. Shares generated by municipality and neighboring region



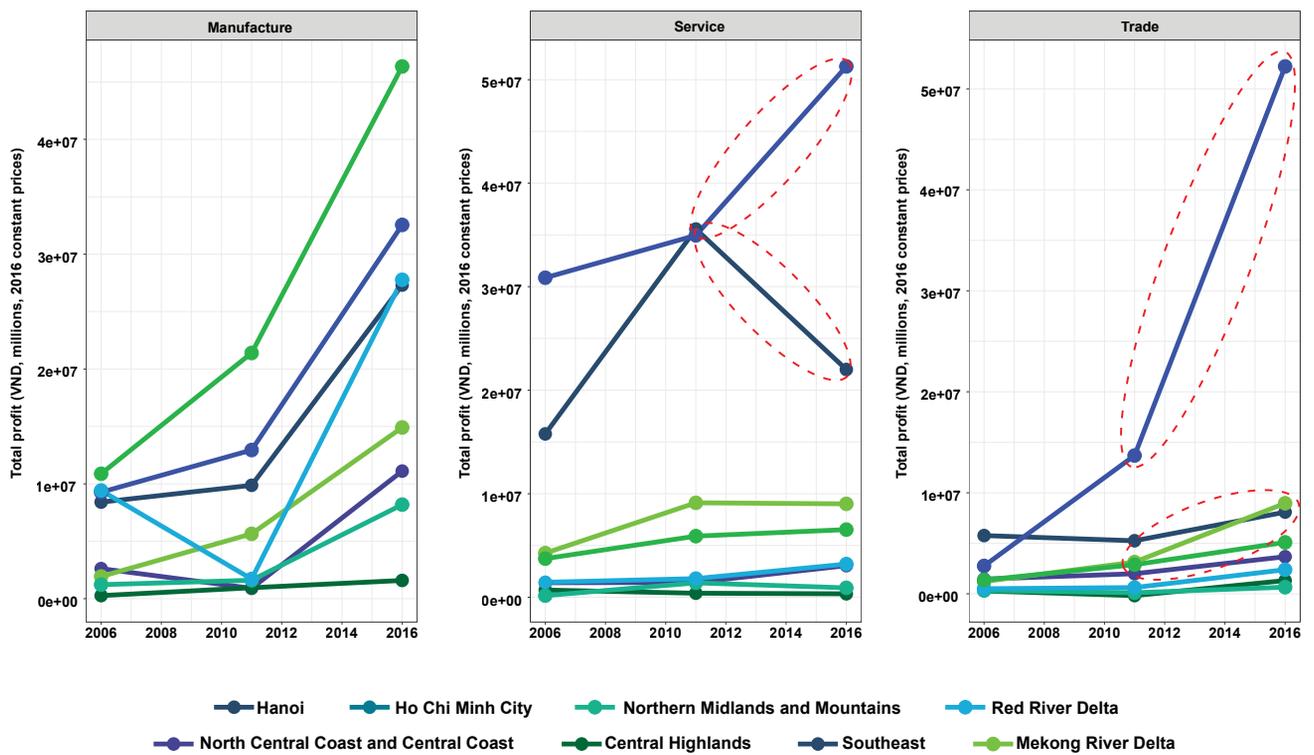
Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2006, 2011, and 2016.

Figure 1.12 Divergence of performance in service and trade sectors between Hanoi and HCMC, despite improvement in manufacturing performance in both regions: Vietnam, 2006–16

a. Total revenue by sector by region



b. Total profits by sector by region



Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2006, 2011, and 2016.

Low productivity of secondary cities

The productivity of the three other municipalities, as well as most of the other secondary cities (provincial cities), is much lower than that of Hanoi and HCMC. Thus Hai Phong, Da Nang, and Can Tho are similar to the low productivity districts in the Hanoi metro area in terms of their firm size distributions. Most firms in these three municipalities have fewer than 10 employees. Large firms in the three municipalities are significantly less productive than firms of the same size in Hanoi or HCMC and perform much like firms in low productivity districts in the Hanoi and HCMC metro areas. Overall, this pattern of productivity by firm size is consistent with smaller labor pools (that is, less overall employment), as discussed earlier. Therefore, a group of the most productive firms (*frontier firms*) in the three municipalities can only attain productivity levels equivalent to those of the most productive firms in low productivity districts in the Hanoi and HCMC metro areas.

Finally, a group of outlier districts have high productivity despite their small labor pools (that is, low overall employment levels). These districts usually have a small number of firms and the highest level of labor productivity. Firms in low employment–high productivity districts that have between 50 and 5,000 employees are extremely productive. In particular, firms (especially those in the trade, processing, manufacturing, and wood and paper sectors) with about 1,000 workers show the highest productivity, beyond even that of similar-size firms in FDI-strong districts. Geographically, these districts are of two types. One type is in the outskirts of the metropolitan areas and close to FDI-strong districts, which indicates an extension of the metropolitan regions' economic influence. The other type encompasses districts far from the two metropolitan regions, mainly in the MRD region, which has a higher number of domestic firms. The majority of the outlier districts are strong in the secondary sector, except for a few local towns dependent on tourism such as Tuy Phong, Gia Nghia, and Ca Mau. This pattern reveals instances of spontaneous, stand-alone industrialization based on a small number of foreign-owned and domestic firms.

Productivity gains from FDI concentration despite lack of industrial linkages

The concentration of FDI is one of the key factors in higher productivity. FDI-strong districts are on average as productive as HCMC high productivity districts (see annex 1A). In particular, the manufacturing sector in the FDI-strong districts shows the highest productivity among all regional groups. However, productivity levels among FDI-strong districts vary widely. Approximately half the FDI-strong districts are classified as high productivity in manufacturing, while the other half are low productivity districts. These districts primarily involve low value-added and labor-intensive FDI manufacturing (such as textiles).

Foreign-owned firms are more productive in the RRD region, whereas domestic firms are more productive in the Southeast region. In particular, FDI-based large manufacturing industries (such as machinery and equipment for broadcasting) in the Hanoi metro area are more productive than foreign-owned manufacturing firms in the HCMC metro area. The HCMC metro area has more large firms (that is, firms employing more than 100,000 workers) in the textile industry than the Hanoi metro region. Those firms are usually much less productive than Hanoi's broadcasting machinery and equipment firms. By contrast, domestic firms in high productivity districts in the HCMC metro area are more productive than those in the Hanoi metro region. Hanoi's domestic firms have less than one-tenth the productivity levels of the region's foreign-owned firms. Thanks to these fast-growing, FDI-based manufacturing industries, the Hanoi metro region (especially Hanoi's suburban districts in the RRD region) enjoyed strong profit growth between 2011 and 2016, recovering profit lost between 2006 and 2011.

Agglomeration diseconomies and limited labor pools

Limited size of local labor markets beyond Hanoi and HCMC metro areas and weak agglomeration economies

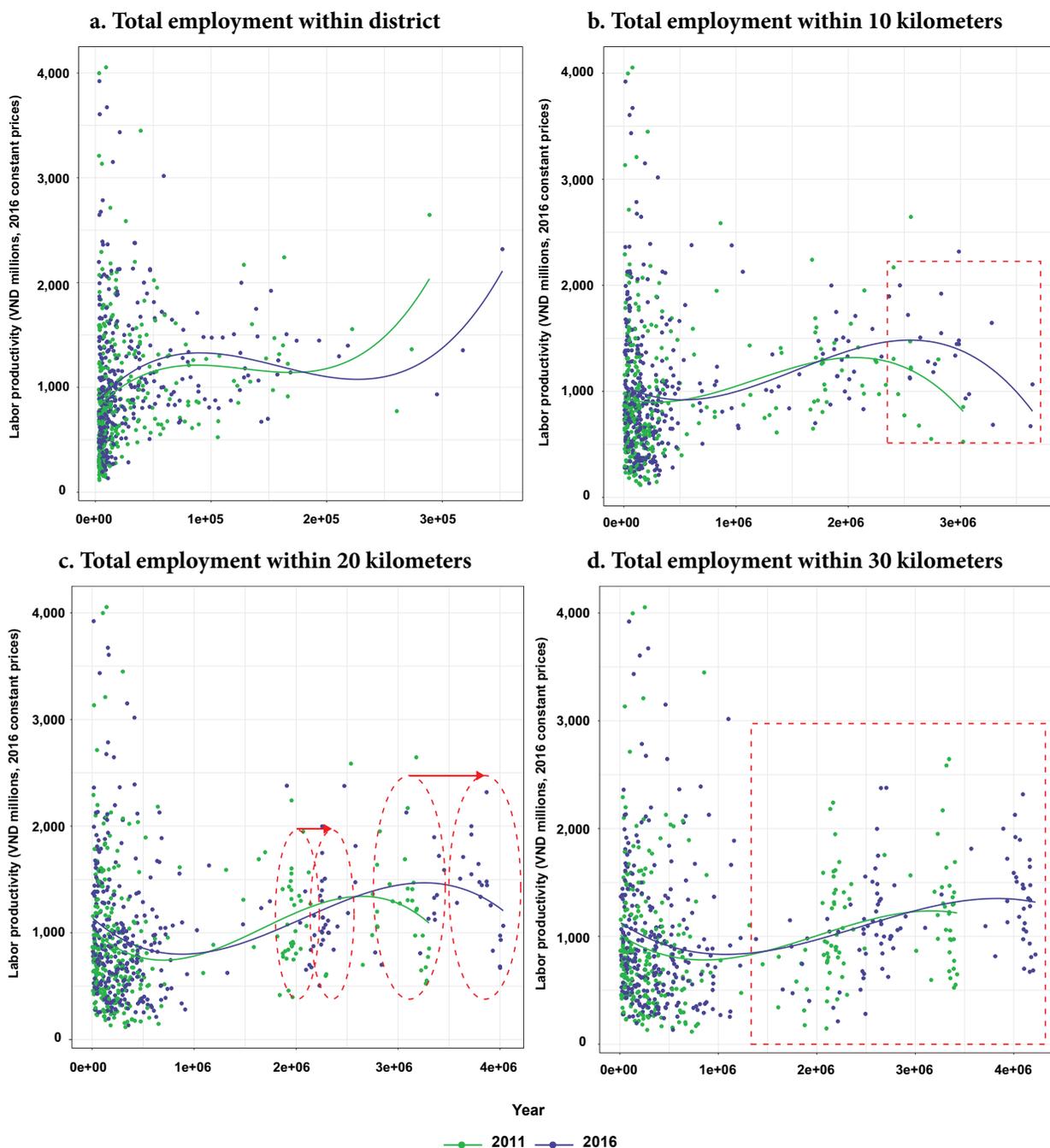
Districts with large labor pools—that is, high employment levels—are generally concentrated in the Hanoi and HCMC metro areas (dark and light pink, map 1.5). By contrast, districts with limited labor pools—that is, low employment levels—are more spread out across the country (dark and light green). The disparity in labor pool size between metro and nonmetro areas becomes more apparent when the labor pools of neighboring districts are aggregated. Aggregating labor pool size within a 30-kilometer radius of each district's centroid reveals that the largest labor pool is located within the HCMC metro area (about 4 million workers within a 30-kilometer radius). The second largest labor pool is found primarily in the Hanoi metro area, which has around 2.5 million workers within a 30-kilometer radius. By contrast, secondary cities outside of the two metropolitan regions have rather shallow labor pools. The municipalities of Hai Phong, Da Nang, and Can Tho each have between 200,000 and 800,000 workers within 30 kilometers.

Vietnam's cities will begin to face much more significant challenges in securing a strong urban labor force because of the country's diminishing demographic dividend. Vietnam's fertility rate has fallen by more than half since 1986 and is now below that required to maintain a stable population (see also chapter 2).¹⁹ As a result, the age distribution of the population is now barrel- rather than pyramid-shaped—that is, the size of the age cohorts between the ages of 5 and 40 is fairly even instead of the younger age groups being significantly larger. This means that labor force growth will remain low, and, in time, the labor force will become progressively smaller.

Although the HCMC metro districts are generally more productive with a bigger labor market, they may not fully exploit the benefits of agglomeration. Thus, although labor productivity generally increases as the size of the labor pool increases, from VND 1 billion to VND 1.4 billion (constant 2016 prices), it decreases in areas with the largest labor pools (figure 1.13, panels b, c, and d). Productivity improvements through the agglomeration of labor pools occur where approximately 2.5 million workers are gathered within a 10-kilometer radius. As labor pools become larger, increasing their radiuses to 20 and 30 kilometers in high-labor districts, overall labor productivity falls at the regional level, indicating that no agglomeration effects are generated beyond a 10-kilometer radius. Instead, negative congestion effects set in. As a result, a series of HCMC districts have not reaped the full benefits of agglomeration.

Overall, there are signs of agglomeration diseconomies due to congestion forces associated with the pressure of urban populations on basic services, infrastructure, land, housing, and the environment. In the largest labor pool areas, many districts with high manufacturing employment do not achieve agglomeration economies. Labor productivity in the manufacturing sector is similar to the patterns in all other industrial sectors, but it shows a much clearer inverted-U pattern (figure 1.14). In addition, few districts have more than 50,000 workers (figure 1.14, panel a). Labor markets in manufacturing districts tend to be limited by their own district boundaries, without much integration that would create larger labor markets. This is consistent with national labor productivity patterns based on FDI manufacturing.

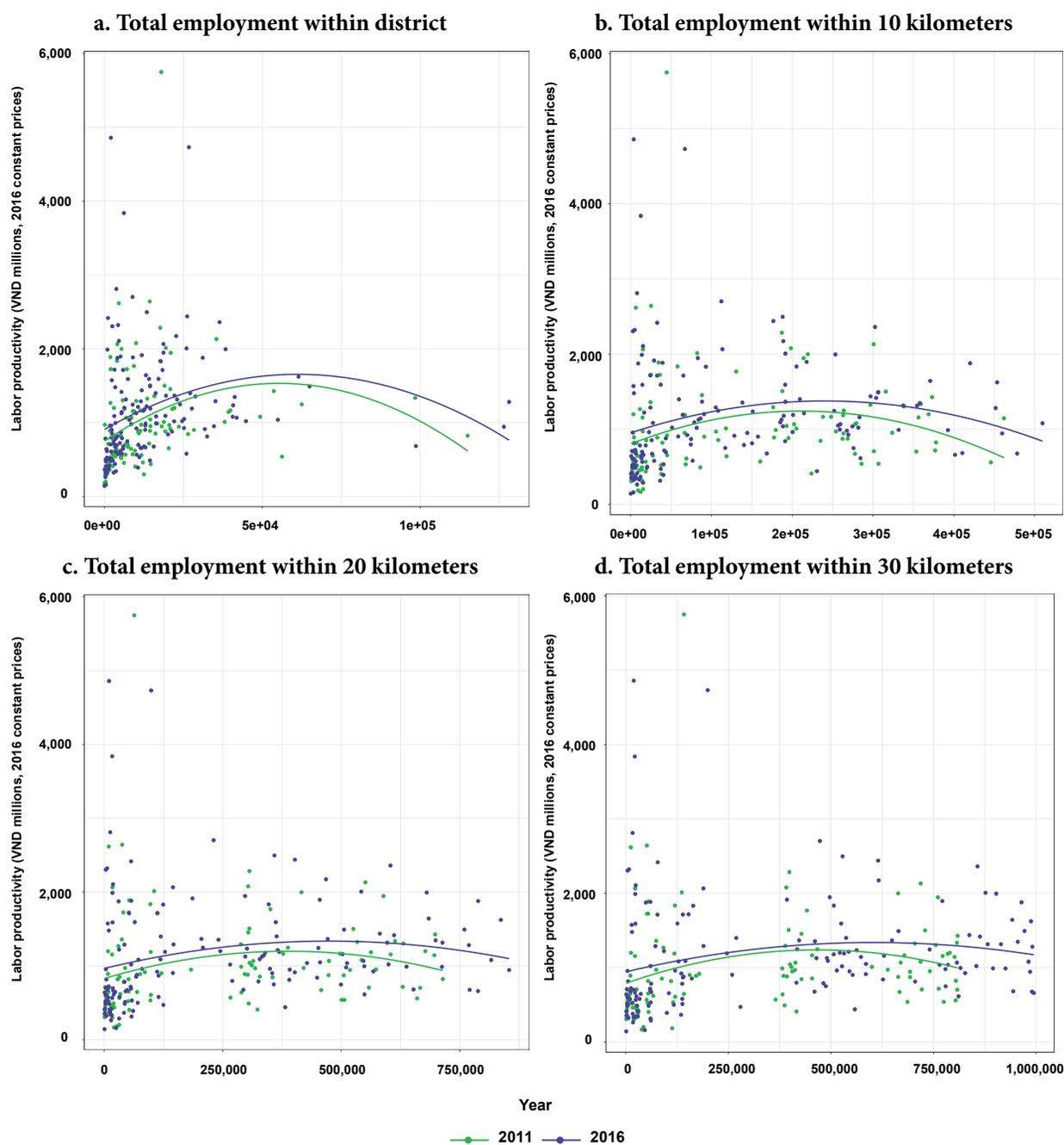
Figure 1.13 Relationship between district-level productivity and labor pool size:
Ho Chi Minh City metro area, 2011 and 2016



Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2011, and 2016.

Note: Green dots and trend lines are for 2011, and purple dots and trend lines represent 2016.

Figure 1.14 Relationship between labor productivity and labor pool size, manufacturing only: Ho Chi Minh City metro area, 2011 and 2016



Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2011, and 2016.

Note: Green dots and trend lines are for 2011, and purple dots and trend lines represent 2016.

Sources of limited agglomeration economies and strong congestion forces

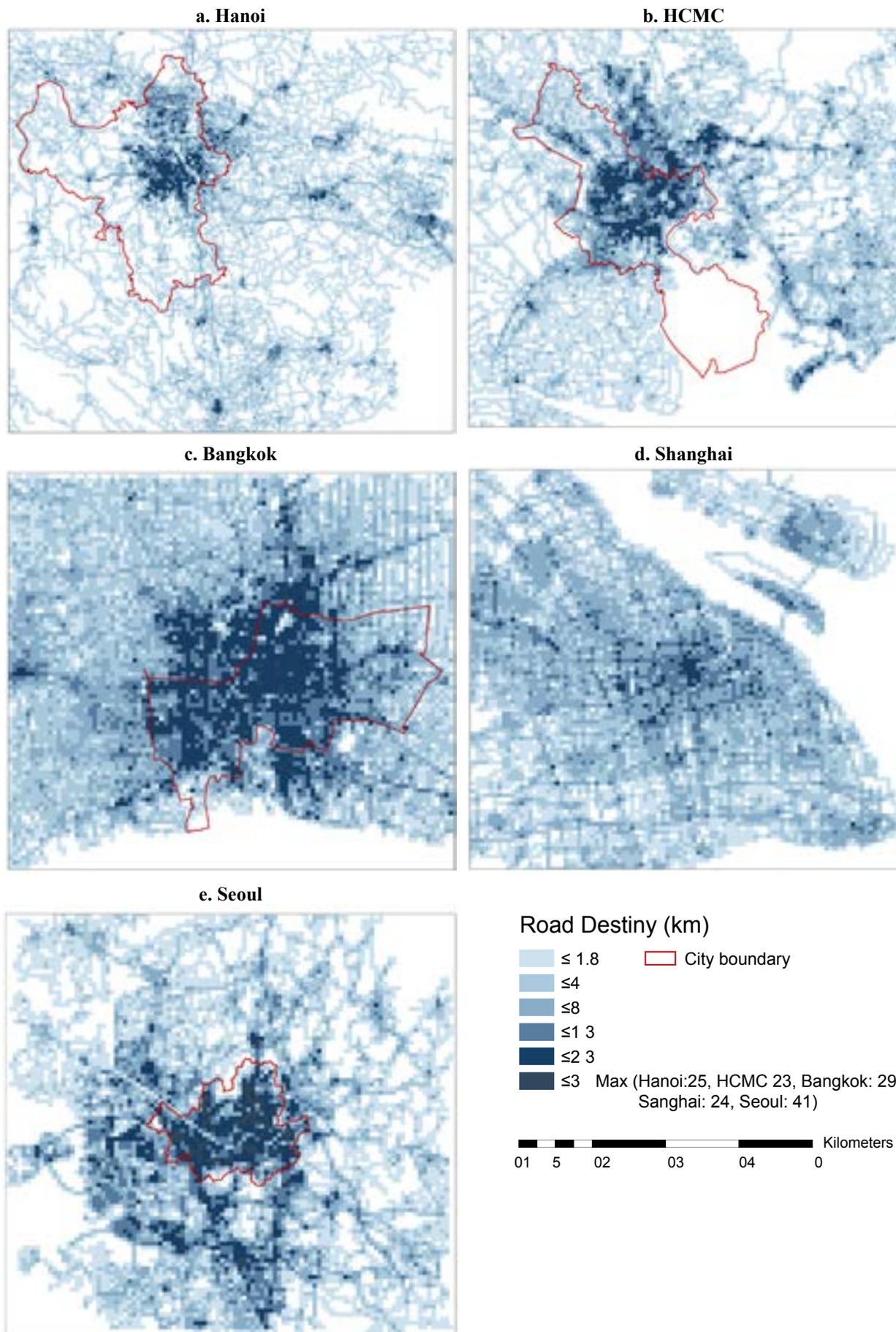
Low productivity in the largest labor pool areas can be explained by the spatial patterns of the high- versus low productivity districts in the two metropolitan regions. High productivity districts in the HCMC metro area are located within the city itself and the city's neighboring areas that function as industrial (manufacturing) enclaves, including Dong Nai, where many industrial parks are located. The low productivity districts are located on the north side of HCMC, appearing as a ribbon stretching from west to east and splitting the high productivity districts. This location indicates a lack of connection between the high productivity and low productivity districts on a relatively small spatial scale: the north side of HCMC (Hoc Mon, Cu Chi, and Goo Vap), areas west of HCMC (Duc Hoa, Thu Thua, and Can Giuoc), and the northeast side of HCMC (Tan Uyen, Thuan An, and Vihn Cu).

The productivity gap between the high and low productivity districts in the HCMC metro area is wide, with the low productivity districts also being those with the largest labor pools. This gap drags down overall productivity at the regional level when the labor pool radius is enlarged to 20 or 30 kilometers. By contrast, districts with large labor pools in the Hanoi metro area have relatively higher productivity than their neighboring low productivity districts. Therefore, these low productivity districts do not detract as much from the region's overall labor productivity. However, the positive effects of agglomeration are minimal because most workers in the region (2 million of the total 2.5 million) are located within 10 kilometers of Hanoi's borders. When the radius to aggregate labor

pools is enlarged from 10 to 20 to 30 kilometers, the total aggregated labor pool does not change much—from 2 million to 2.5 million, as compared with 2.5 million to 4 million in the HCMC metro area. Industrial activities in the Hanoi metro area are located relatively far from each other over extensive areas in the RRD region. The dispersed industrial development is in line with urban spatial growth patterns in the Hanoi and RRD region (see chapter 2). Therefore, when compared with HCMC, the Hanoi metro region shows signs of lacking agglomeration economies.

One factor that may help explain the weakness of agglomeration economies and is a force underlying congestion is the weak development of road infrastructure networks in the HCMC and Hanoi metro regions. Map 1.6 benchmarks the road network density within a 50-kilometer radius of the centers of HCMC and Hanoi against the equivalent densities for three major metro areas in Asia: Bangkok, Shanghai, and Seoul. Although Bangkok and HCMC have similar populations, Bangkok has a much higher road density, not only within the city but also throughout the entire metro region. Seoul, with its much higher population density and limited area, has developed much denser road networks, especially within the city boundary and to the south of the city. The maximum road density is about 41 kilometers per square kilometer, which is almost twice as dense as the 23–25 kilometers per square kilometer in the Hanoi and HCMC metro areas. Although Shanghai's maximum road density is similar to that of Hanoi and HCMC (23–25 kilometers per square kilometer), the city's networks are much more extensively developed over its entire metro region.

Map 1.6 Road network density benchmarking, Hanoi and Ho Chi Minh City and three additional major Asian metropolitan areas



	Hanoi	HCMC	Bangkok	Shanghai	Seoul
Area (km ²)	3,329	2,061	1,569	6,341	605.2
Population	7,781,631 ^a	8,636,899 ^b	8,305,218 ^c	26,317,104 ^d	9,838,892 ^e
GDP (nominal, US\$, billions)	40.1 ^f	60.83 ^g		494 ^h	
GDP per capita (US\$)	5,080	7,089		20,425	

a. General Statistics Office of Vietnam, *Statistical Handbook of Vietnam 2014*, Hanoi, 2015.

b. General Statistics Office of Vietnam, “Area, Population and Population Density by Province,” Hanoi.

c. National Statistics Office, “The 2010 Population and Housing Census: Whole Kingdom,” 2012, [http:// popcensus.nso.go.th](http://popcensus.nso.go.th).

d. Shanghai Bureau of Statistics, 2017年上海市国民经济运行情况 [The Operation of the National Economy in Shanghai in 2017], January 19, 2018.

e. 행정안전부. 행정안전부> 정책자료> 통계> 주민등록 인구통계, [http:// www.mois.go.kr](http://www.mois.go.kr).

f. <http://thongkehanoi.gov.vn/uploads/files/source/2018/Thang%2012%20nam%202018>.

g. “TP.HCM: GDP bình quân đầu người cuối năm 2015 đạt hơn 5.500 USD.”

h. Statistical Bureau of Shanghai, 上海市2017年国民经济和社会发展统计公报 [Statistical Communiqué of Shanghai on the 2017 National Economic and Social Development], March 8, 2018.

Insufficient investment in both road space and public transport alternatives as well as poor traffic management have also contributed to mounting traffic congestion in Hanoi and HCMC. In particular, investment has failed to keep pace with the growth of the vehicle kilometers associated with the growth in vehicle ownership. Thus, although recent data are difficult to find, between 2006 and 2011 the number of registered cars in Hanoi rose by 179 percent and the number of motorcycles by 85 percent. Even though vehicle kilometers did not rise proportionally, the insufficient investment just noted contributed to rising traffic congestion.

Additional evidence of mounting congestion forces arising from inadequate levels of investment in infrastructure and basic services can be found in the fact that, as a result of insufficient connections to the sewerage system and insufficient treatment

capacity, 80 percent of Hanoi's wastewater is directly discharged into its rivers. As a result, roughly half of the city's population lives in areas classified as “heavily polluted.” Meanwhile, only a quarter of Hanoi's area is estimated to have a fully functional drainage system, which, because of the city's rainfall patterns and lack of green infrastructure, contributes to frequent flooding (World Bank, forthcoming).

Finally, although not at the levels of some other Asian cities, Vietnam's cities suffer from poor-quality air, as evidenced by its levels of fine particulate matter—in particular, PM_{2.5} levels—which exceed the World Health Organization's standard for safe air. In 2013 the total deaths in Vietnam from air pollution were an estimated 66,314, up from 57,774 in 1990, and the total welfare costs associated with this pollution amounted to 5.2 percent of national GDP (World Bank and Institute for Health Metrics and Evaluation 2016).

Summary

Vietnam's rapid economic development over the last three decades has been driven by the rapid growth of industries and services, which now contribute about 85 percent of its GDP. Industrialization has been accompanied by spatial economic transformation, which is examined in more detail in the next chapter.

The metro areas of Hanoi and Ho Chi Minh City have led the country's industrialization and urbanization, although their shares of the country's total industrial output have remained stable in recent years. Industrialization has also progressed rapidly in rural areas, which account for about 40 percent of industrial and service sector employment. This steady and broad industrialization process, helped by strong fiscal redistribution and aggressive economic promotion by local governments, has supported Vietnam's rapid and equitable economic growth. This pattern and pace can be credited not only for regional equity but also for economic growth because the creation of a large number of industrial and service sector jobs, even those of relatively low productivity, have helped to pull labor out of the primary sector and fuel the overall productivity of the country.

Suburban and rural industrialization. A little over half of additional jobs created between 2011 and 2016 in Vietnam were in rural districts, some of which contain class 4 or 5 towns and townships. Over 80 percent of the new jobs in such areas were in industrial sectors, especially in manufacturing, whereas most job growth within the cities was in service sectors. Of these rural industries, almost half were located in the districts adjoining the Hanoi and HCMC municipalities. Indeed, the rural areas outside the two metropolitan regions have grown significantly, whereas the share of employment and production of the two metropolitan regions combined has changed little and the share of other cities has declined.

FDI dominance. Many of the industries in metropolitan suburbs were established with foreign direct investment. In fact, the presence of foreign-owned establishments is a strong indicator of industrial growth. Of the 52 districts with more than 20,000 workers employed by foreign-owned firms, 43 are in the Southeast and the RRD regions. Many of these are located in single-firm complexes that are often self-sufficient in terms of support services such as logistics and employee housing. Indeed, most rural industrial complexes are

isolated, lacking related services in the neighborhood. Because firms find it costly and inefficient to provide such services, local planners should provide for the development of related services. This will require larger, more consolidated industrial developments rather than the scattering of small ones that is the norm today.

Two-tiered system. FDI-based industrialization has contributed to a two-tiered regional economic system in Vietnam. Vietnam's industrial transformation is dependent on the Hanoi and HCMC metro regions. In recent years, FDI-based industrial transitions have not generated strong employment growth because of the country's key spatial policies.

Growth of secondary cities. Growth of secondary cities (provincial cities and towns) and smaller townships (mainly in rural districts) has mainly occurred within the two metropolitan regions. In the meantime, secondary cities outside the two regions have seen limited growth, indicating they may lack fuel for growth, functioning primarily as local consumption centers with very weak industrial bases and labor markets. That said, service-based economies outside the metropolitan regions, benefiting from the development of tourism and new firms in the tertiary sector, show mixed signs of economic transformation. Although this type of transition may cause an economic upswing in some regions, its potential for generating opportunities for the country's long-term growth by increasing value-added activities is still unclear.

Declining productivity premium between the two tiers of regions and congestion forces. Industrial structure varies considerably across regions and different types of cities, but metropolitan areas exhibit superior productivity. And yet their growth and that of the rest of the country as a group have been even in recent years. Despite being more urbanized and industrialized, the first-tier regions have seen their employment and revenue grow at the same rate as in the less urbanized and less industrialized second-tier regions. Consequently, the share of national nonfarm jobs and revenue for Hanoi and HCMC and their surrounding regions of RRD and Southeast barely changed from 2006 to 2016. Furthermore, although they retain a significant advantage, the productivity premium of Vietnam's first-tier regions is eroding. The decline of the productivity premium for the first-tier regions of Hanoi and HCMC stems from both the failure to leverage agglomeration economies and the failure to invest sufficiently in infrastructure and basic services to help keep congestion forces at bay.

Lack of industrial linkages. In Vietnam, only a few groups of industries—furniture, semimetal products, footwear, and fishery products processing—have substantial vertical and horizontal linkages among firms. For these industries, agglomeration economies usually taper off at a fairly small agglomeration size. Other major export-oriented industry groups—electronic devices, apparel, and flour—have few interindustry networks. In general, electronic devices and apparel tend to benefit considerably from agglomeration economies. But in Vietnam, they have few industrial linkages because, first, the majority of them are foreign-owned firms whose linkages remain more international than local, and, second, the infrastructure and industrial land supply and the planning system in Vietnam do not facilitate linkages and agglomeration.

Limited benefits from agglomeration. The HCMC metro area may not reap the full benefits of agglomeration. From 2006 to 2016, productivity improvements through the agglomeration of labor pools occurred where some 2.5 million workers were within a 10-kilometer radius. As labor pools became larger, increasing their radiuses to 20 kilometers and 30 kilometers in high employment districts, overall labor productivity at the regional level decreased. This pattern is consistent with a lack of spatially connective infrastructure constraining the benefits of agglomeration. Urban areas tend to lack transportation infrastructure and public transportation services, especially for medium and long distances, thereby limiting the labor pool to the commuting range by motorcycle and also the interactions among businesses to a small range.

Infrastructure bottleneck. Despite the highest levels of employment concentration in the metropolitan regions, the current levels of infrastructure connectivity and regional linkages do not reflect the capacity of the regions' economic activities. In addition, the Hanoi metro area suffers from a lack of agglomeration economies because industrial functions in the city and the RRD region are dispersed over extensive spatial areas and contained in small, fragmented industrial parks throughout the region.

Redesigning spatial economic strategies. The findings of this analysis call for a significant redesign of the country's spatial economic strategies to create richer industrial and spatial linkages that make the most of potential agglomeration economies and to address the mounting congestion forces that arise from the pressure of urban populations on basic services, infrastructure, land, housing, and the environment. It is essential to design diverse policies to improve labor mobility and funding mechanisms to improve regional infrastructure networks and promote industrial linkages. This is especially critical because of the emerging macrostructural challenges the country is facing, including the depletion of surplus agricultural labor and the country's demographic transition. Taking the next step will require a shift in emphasis to promote productivity growth *within* the secondary and tertiary sectors, along with an associated shift to ever higher value-added activities.

Annex 1A Average labor productivity of Vietnamese firms by labor size in six productivity groups and FDI-strong districts

Code	Labor size	Service	Trade	Construction	Manufacturing	Wood and paper	Processing	Agriculture	Textile	Mining	Total
HCMC High productivity	5	888.3	2,945.1	1,280.4	1,064.1	1,129.3	1,195.1	672.4	1,524.9	558.8	1,868.3
	10	870.6	3,642.3	997.4	739.1	1,043.7	889.6	236.9	633.2	782.3	2,021.7
	100	1,164.0	3,811.1	923.3	1,001.7	980.4	2,150.0	661.1	459.2	1,293.1	1,857.0
	1,000	1,085.7	4,949.2	858.1	1,575.0	1,166.9	2,854.0	1,281.4	373.5	2,795.5	1,674.5
	10,000	6,276.0	2,974.6	1,391.8	1,349.6	709.3	3,813.2	372.4	459.9	0	1,209.5
	100,000	247.1	2,212.3	0	2198.3	0	3,245.8	0	336.0	0	1,021.6
	Total	927.2	3,145.4	1,145.0	1,040.9	1,099.8	1,524.4	625.1	867.8	920.1	1,866.7
HCMC Low productivity	5	638.9	2,105.7	1,034.4	1,155.4	716.3	422.4	1,032.7	747.3	79.1	1,383.2
	10	644.8	2,365.7	915.6	830.5	961.4	783.0	183.5	582.2	292.3	1,384.7
	100	479.1	2,392.8	628.9	1,004.2	746.6	1,505.7	1,044.3	366.6	753.6	1,079.2
	1,000	464.7	4,382.0	424.8	842.6	849.9	1,453.4	1,338.7	293.1	1,383.8	748.5
	10,000	382.0	0	0	964.9	1,133.8	2,113.6	0	274.1	0	636.0
	100,000	0	0	0	0	0	0	0	407.9	0	407.9
	Total	609.5	2,179.0	916.7	998.4	816.5	779.6	1,935.1	488.0	614.6	1,297.6
Hanoi-High-productivity	5	468.5	1,455.4	470.9	405.8	648.5	232.6	287.6	322.9	210.4	904.2
	10	695.4	2,685.9	704.7	818.6	1,077.0	418.3	321.6	434.5	428.9	1,549.29
	100	806.6	3,075.2	825.8	1,014.6	1,095.2	1,368.9	228.8	429.5	669.8	1,578.3
	1,000	1,012.6	4,861.4	761.9	1,415.9	938.2	2,150.3	865.0	442.2	10,093.4	1,583.4
	10,000	1,059.1	3,030.7	516.2	2,187.8	1,615.4	1,110.8	320.3	369.9	647.5	1,489.1
	100,000	0	424.3	0	5,425.2	0	0	0	186.4	0	3,718.6
	Total	607.5	2,060.2	699.3	782.7	959.3	609.1	318.8	387.6	574.2	1,219.3
Hanoi Low productivity	5	353.1	1,281.5	382.1	506.5	1,141.6	294.1	129.0	539.3	266.1	802.5
	10	357.4	2,172.0	705.0	696.3	927.3	1,098.5	126.5	535.5	846.0	1,134.9
	100	621.2	2,637.9	597.0	996.6	858.9	1,775.7	303.2	401.2	1,081.9	1,198.1
	1,000	493.6	2,109.2	425.3	1,050.2	959.0	2,546.5	524.1	303.7	0	852.7
	10,000	248.9	0	387.9	907.7	817.0	834.0	80.9	165.5	0	579.3
	100,000	0	0	0	1,345.9	0	0	0	0	0	1,345.9
	Total	408.9	1,702.9	527.4	802.7	979.7	1,088.6	191.5	397.1	576.8	969.3

Middle city	5	637.3	2,934.4	1,331.4	456.2	1,365.7	144.5	433.8	174.3	2,254.0	1,716.5
	10	613.3	3,354.1	460.8	503.5	556.7	635.2	138.6	352.8	795.3	1,607.5
	100	698.6	4,259.1	510.9	762.4	889.4	5,902.8	257.6	337.8	915.9	1,572.0
	1,000	849.2	4,315.3	564.7	1,492.0	692.2	2,857.0	242.6	247.0	708.8	1,252.8
	10,000	417.5	1,762.3	364.1	2,003.0	524.4	820.5	0	160.1	0	1,019.2
	100,000	0	0	0	522.4	0	0	0	203.7	0	310.0
	Total	673.8	3,201.2	711.2	694.2	951.2	2,427.6	296.4	277.3	1,391.8	1,623.2
Low labor-high-productivity outlier	5	916.5	3,267.9	1,305.9	175.8	261.8	396.0	188.2	86.1	1,114.6	1,980.2
	10	863.9	3,916.0	1,084.9	802.6	394.8	980.9	155.0	402.2	2,133.6	1,871.3
	100	921.5	10,018.5	917.1	2,725.3	1,360.4	6,281.8	164.3	195.8	885.8	3,243.3
	1,000	822.2	45,100.7	303.2	5,701.9	2,634.4	5,633.3	1,393.8	621.6	1,504.6	5,519.7
	10,000	0	0	7,653.3	3,452.7	1,827.6	1,009.9	142.6	478.0	0	2,393.5
	100,000	0	0	0	0	0	0	0	0	0	0
	Total	929.0	4,486.0	1,084.6	1,949.7	918.1	3,552.6	225.4	386.5	1,333.3	2,381.3
FDI-strong districts	5	916.8	2,823.9	1,238.6	1,175.4	1,167.5	848.7	687.0	1,841.5	871.0	1,842.0
	10	734.2	3,345.6	839.2	826.6	1,054.3	1,068.5	99.9	557.2	1,049.7	1,792.2
	100	990.9	3,418.4	726.6	1,083.3	950.6	2,210.6	210.1	424.7	1,116.7	1,547.7
	1,000	1,084.1	5,603.6	579.4	1,355.9	1,006.4	2,880.0	976.1	361.6	7,520.2	1,425.5
	10,000	588.9	3,262.4	915.8	1,414.5	1,085.1	3,523.9	156.2	337.2	24,991.8	1,137.4
	100,000	0	2,212.3	0	3,462.4	0	3,245.8	0	298.1	0	1,438.9
	Total	894.5	2,989.2	994.0	1,099.9	1,064.1	1,491.5	562.1	775.8	1,536.0	1,733.8

Source: World Bank team's analysis of data from General Statistics Office of Vietnam, Enterprise Census, 2006, 2011, and 2016.

Endnotes

4. The data on real GDP per capita growth cited here are from the World Bank's World Development Indicators (WDI) database (<https://databank.worldbank.org/source/world-development-indicators#>). Real GDP per capita is in constant 2011 international dollars at purchasing power parity (PPP) exchange rates, and extreme poverty is based on the global poverty line of \$1.90 a day (constant 2011 international dollars).
5. Vietnam's General Statistics Office (GSO) divides the country into six socioeconomic regions: (1) Northern Midlands and Mountains, (2) Red River Delta, (3) North Central Coast and Central Coast, (4) Central Highlands, (5) Southeast, and (6) Mekong River Delta. The six regions cover 58 provinces and five provincial-level municipalities.
6. It has been suggested that Vietnam's official statistics understate the country's actual level of urbanization (OECD 2018). The issue of potential mismeasurement of Vietnam's official level of urbanization is discussed in chapter 2 (see especially box 2.1).
7. In this chapter, profit is defined as the total profit before tax, which includes profit from business, financial, and other activities.
8. In this chapter, the primary sector includes agriculture and mining; the secondary sector includes manufacturing, processing, textiles, and wood and paper; and the tertiary sector includes construction, trade, and services.
9. According to United Nations' World Urbanization Prospects (2018 revision) data, Vietnam's estimated rural population in 2019 was 61.74 million, or almost identical to its estimated rural population of 61.73 million in 2012.
10. Data from UNCTAD's FDI country fact sheet for Vietnam (https://unctad.org/sections/dite_dir/docs/wir2019/wir19_fs_vn_en.pdf).
11. Joint stock companies account for 18 percent of total profits. If these companies are counted as domestic firms (they account for 99.6 of total firms), then they produce 30 percent of the total profits generated in Vietnam.
12. In statistics produced by the General Statistics Office of Vietnam, the manufacturing sector is often broadly defined to include the food processing and textile industries.
13. Based on data from General Statistics Office of Vietnam, Enterprise Census, 2016.
14. See this report's introduction for a description of Vietnam's urban classification system.
15. See Gollin, Jedwab, and Vollrath (2016) for definitions of production cities (economies) and consumption cities (economies). Production cities are associated with urbanization with industrialization, while consumption cities are associated with urbanization without industrialization.
16. In this report, labor productivity is defined and calculated based on total revenue generated by firms divided by the total employment (source: Enterprise Census data from the General Statistics Office of Vietnam). The total revenue of firms includes both final output and sales to other industries (intermediate inputs).

17. The aggregate revenue of a region's firms is an imperfect proxy of its gross value added because it leads to double counting of the value of intermediate products and raw materials in the measurement of output. For firms using similar production technologies, however, it can be shown that the revenue per worker comparison understates the productivity differential. For regional aggregates, the comparison would be a reliable proxy of productivity only to the extent that the economic structures of the two regions are similar.
18. The classification of high versus low is based on the mean values of district labor productivity and employment.
19. According to the World Bank's World Development Indicators (WDI) database (<https://databank.worldbank.org/source/world-development-indicators#>), Vietnam's total fertility rate (births per woman) declined from 4.1 in 1986 to 2.0 in 2017.
20. See, for example, Henderson (2010) and World Bank (2009).

References

- Brookings Institution. 2018. *Global Metro Monitor 2018*. Metropolitan Policy Program at Brookings, Washington, DC.
- Chauvin, J. P., E. Glaeser, Y. Ma, and K. Tobio. 2017. “What Is Different about Urbanization in Rich and Poor Countries? Cities in Brazil, China, India and the United States.” *Journal of Urban Economics* 98 (C): 17–49.
- Duranton, G. 2016. “Agglomeration Effects in Colombia.” *Journal of Regional Science* 56 (2): 210–38.
- Gollin, D., R. Jedwab, and D. Vollrath. 2016. “Urbanization with and without Industrialization.” *Journal of Economic Growth* 21 (1): 35–70.
- OECD (Organisation for Economic Co-operation and Development). 2018. *OECD Urban Policy Reviews: Viet Nam 2018*. Paris: OECD Publishing.
- Roberts, M., F. Gil Sander, and S. Tiwari, eds. 2019. *Time to ACT: Realizing Indonesia’s Urban Potential*. Washington, DC: World Bank.
- World Bank. 2018. *Vietnam’s Future Jobs: Leveraging Mega-trends for Greater Prosperity*. Washington, DC: World Bank.
- _____. Forthcoming. *Making Hanoi a Water Pollution and Flood-free City by 2050*. Washington, DC: World Bank.
- World Bank and Institute for Health Metrics and Evaluation. 2016. *The Cost of Air Pollution: Strengthening the Economic Case for Action*. Washington, DC: World Bank.

Chapter 2:

Temporal and spatial patterns of demographic and physical urbanization

Key findings

- Since the 1970s, Vietnam's pace of demographic urbanization has been consistently lower than that of East Asia and Pacific (EAP) developing countries overall. As a result, Vietnam remains at a relatively lower level of urbanization based on official measures, despite significant movement of labor from agriculture to industry and services.
- The pace of urbanization did, however, accelerate markedly following the launch of Đổi Mới in 1986, reaching a peak between 2000 and 2010, while generally remaining behind the pace for other EAP developing countries. Since then, the pace of urbanization has steadied, as has the rate of growth of the absolute number of people living in Vietnam's cities.
- The steadying of Vietnam's pace of urbanization since 2010 is consistent with a slowdown in rural-urban migration. Whereas in 2009 the net number of people who had moved to urban areas in the preceding five years was 3.3 million, by 2014 this number was down to 2.7 million.
- In contrast to the steadying pace of demographic urbanization, the physical, or spatial, expansion of urban areas has accelerated dramatically over the last decade. This is a result of both rapid growth on the rural peripheries of the Hanoi and Ho Chi Minh City (HCMC) metro regions and the emergence of urbanization in many rural districts outside of these regions.
- More generally, there has been a spatial mismatch between where urban population growth and urban physical expansion (involving the conversion of agricultural to nonagricultural land) have been occurring.
- The accelerated expansion of urban areas and the spatial mismatch with urban population growth raise concerns about the efficiency of land use and the efficacy of Vietnam's current urban classification system.

Introduction

As global experience and history demonstrate, economic development and structural transformation are invariably accompanied by urbanization—that is, when cities increase in number, population, and physical size (or extent) in terms of land area covered.²⁰ Vietnam is no exception. Since the launch of Đổi Mới in 1986, which served to kickstart the country's economic development, Vietnam has experienced accelerated

urbanization.²¹ However, the way in which urbanization occurs also matters for economic development. Whether urban areas grow outward or upward has implications for the efficiency of land use. Similarly, whether urban development is more concentrated in a few key metropolitan areas or is geographically more widely dispersed can have implications for the realization of agglomeration economies.

This chapter analyzes the temporal and spatial patterns of urbanization in Vietnam. In doing so, it first examines the overall pace of demographic urbanization and patterns of migration, especially rural–urban migration. Drawing on nighttime lights data, it then turns to an analysis of the patterns of physical urban growth—that is, growth in the

land area identified as urban. In short, the chapter analyzes urbanization from both a demographic and a physical urban development perspective. This analysis in turn provides insights into how Vietnam’s patterns of demographic urbanization align with its patterns of physical urbanization and thus its efficiency of land use.

Population structure and migration

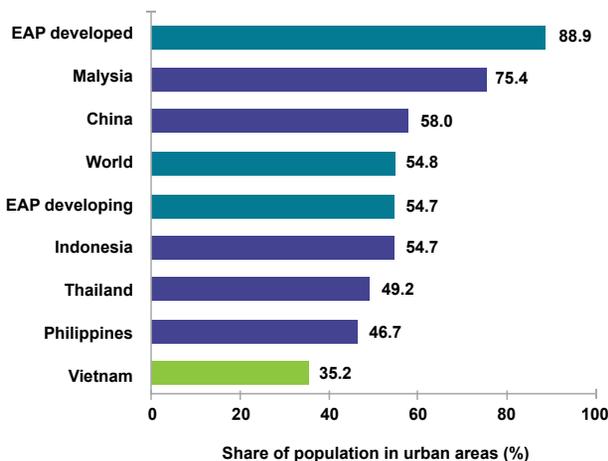
Level and pace of demographic urbanization

Vietnam remains at a relatively low level of urbanization, at least if one looks at data based on official national definitions of urban areas. Thus the share of the country’s population that lived in (officially classified) urban areas in 2017 stood at a little over 35 percent, or somewhat behind the share living in urban areas of East Asia and Pacific (EAP) developing countries overall (figure 2.1). And yet despite this low level of urbanization, the share of national gross value added (GVA) generated by Vietnam’s agriculture sector was only around 15 percent in 2017.²² This is about the same as the share of GVA generated by Indonesia’s agriculture sector (despite Indonesia’s much higher level of urbanization), and it is consistent with Vietnam’s widespread rural industrialization.²³

Vietnam’s low level of urbanization vis-à-vis other EAP developing countries can be explained by the fact that over the last half-century its pace of urbanization—

as measured by the growth rate in the share of its population living in urban areas—has been persistently lower than that of the overall region (figure 2.2). In fact, a large gap in the pace of urbanization opened up between Vietnam and the overall region because the share of Vietnam’s population living in cities came to a virtual standstill in the 1970s and early 1980s, whereas the pace of urbanization was accelerating sharply, to nearly 3 percent a year, in the rest of the region. In the 25 years that followed the introduction of *Đổi Mới* in 1986, Vietnam’s pace of demographic urbanization picked up sharply, closing the gap, but remaining below the pace of the rest of the region. After reaching a peak of 2.2 percent a year over the period 2000–2010, Vietnam’s pace of urbanization fell back very slightly to 2.1 percent a year between 2010 and 2017. However, because the pace slowed even more in the rest of the region, Vietnam’s pace of urbanization is now on a par with that of EAP developing countries overall.

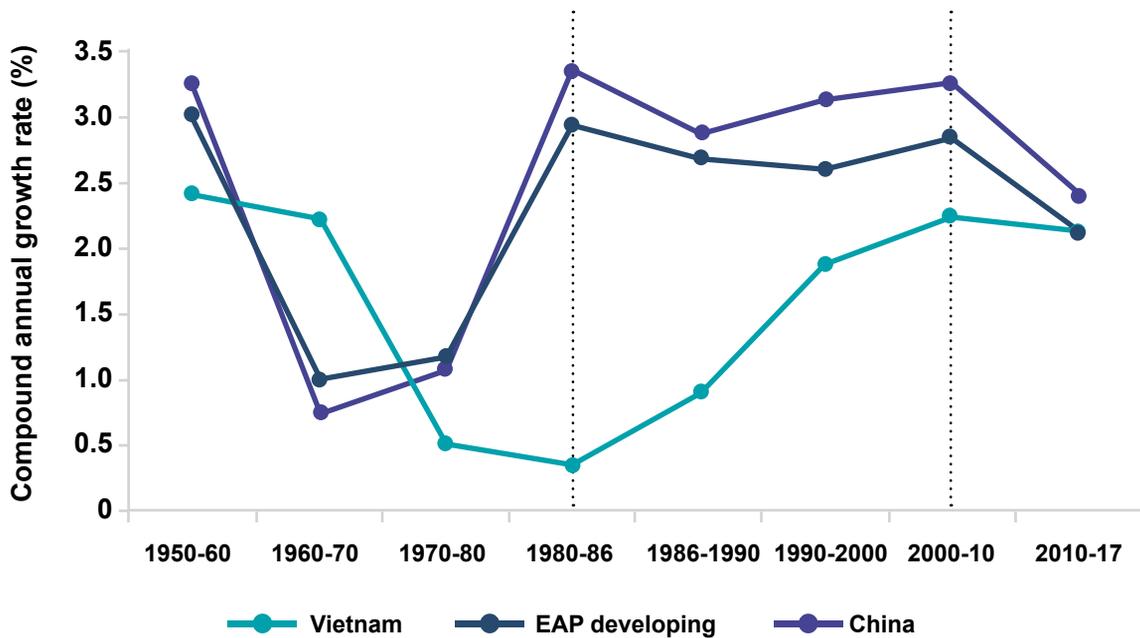
Figure 2.1 Vietnam remains at a low level of urbanization



Source: World Bank team’s calculations based on data from United Nations World Urbanization Prospects: 2018 Revision database (<https://esa.un.org/unpd/wup/>).

Note: Following World Bank definitions, EAP developed countries include high-income economies, whereas EAP developing countries include non-high-income economies. EAP = East Asia and Pacific.

Figure 2.2 Vietnam's pace of urbanization accelerated following Đổi Mới, but has leveled off since 2010



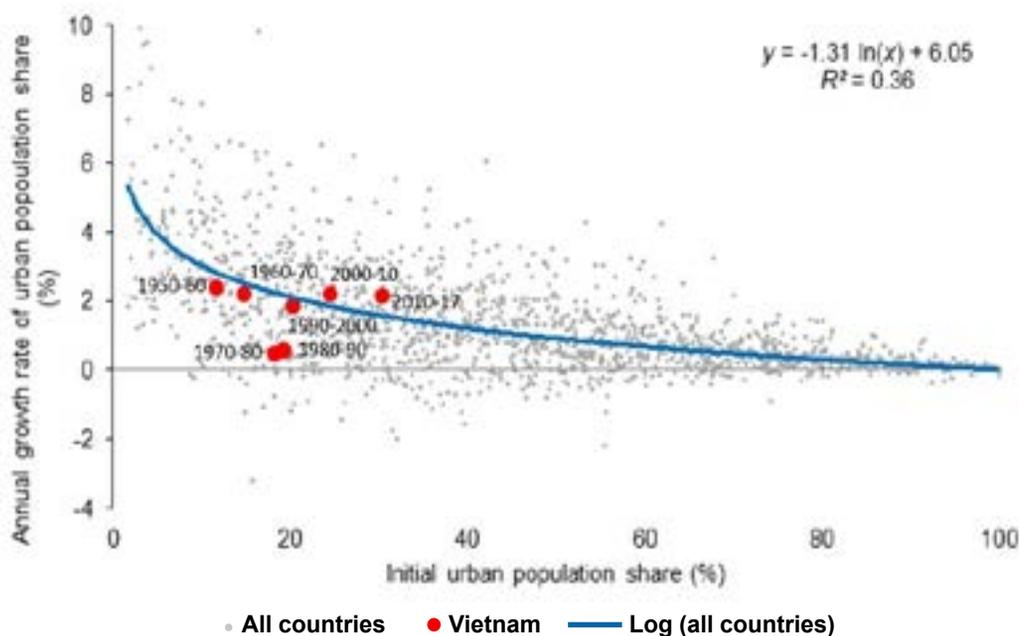
Source: World Bank team's calculations based on data from United Nations World Urbanization Prospects: 2018 Revision database (<https://esa.un.org/unpd/wup/>).

Note: EAP developing countries include all non-high-income economies in East Asia and Pacific (EAP). Growth rates are calculated as compound annual growth rates of the urban share of the population over 10-year intervals, with the exception of 1980–86, 1986–90, and 2010–17. The first vertical dashed line divides pre-1986 and post-1986 growth; the second divides pre-2010 and post-2010 growth. Urban population data for Vietnam prior to 1979 is generally considered less reliable than urban population for subsequent years.

A similar picture emerges when benchmarking Vietnam's pace of urbanization against the experiences of countries globally going back to 1950 (figure 2.3). In the 1970s and 1980s, the growth rate of the share of Vietnam's population living in urban areas was near zero,

or far below the rate one would predict for a country at its level of urbanization based on global historical experiences. However, in the 1990s Vietnam's pace of urbanization "normalized" to a rate close to that one would predict for a country at its level of urbanization.

Figure 2.3 Vietnam's pace of urbanization has normalized since Đổi Mới



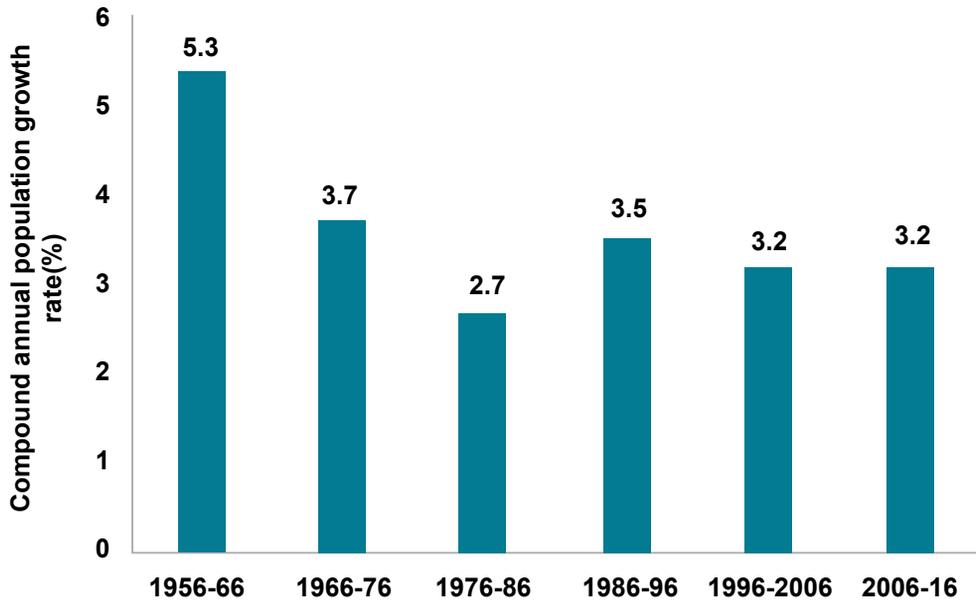
Source: World Bank team's calculations based on data from United Nations World Urbanization Prospects: 2018 Revision database (<https://esa.un.org/unpd/wup/>).

Note: This figure benchmarks Vietnam's pace of urbanization against the global experience for the periods 1950–60, 1960–70, 1970–80, 1980–90, 1990–2000, 2000–2010, and 2010–15. Each data point shows the average growth rate of a country's urban population share over a given period for its urban population share at the beginning of that period. Therefore, the figure contains seven observations for each of 231 countries. Urban population data for Vietnam prior to 1979 is generally considered less reliable than urban population for subsequent years.

Although the growth rate of the share of a country's population that is living in urban areas indicates the speed at which it is transforming from a rural to an urban society, the growth rate of its absolute urban population measures the speed at which the number of people living in cities is growing. Even if the share of a country's population living in urban areas is stable (consistent with a lack of rural–urban migration), the number of people living in its cities will still increase in the presence of natural population growth. Consistent with this, in the 10 years preceding the start of the Đổi

Mới process, Vietnam's absolute urban population grew at an average annual rate of 2.7 percent even as the share of its population living in urban areas remained near stable (figure 2.4). However, in the 10 years immediately following the start of Đổi Mới, the average annual growth rate of the absolute urban population increased to 3.5 percent. This outcome was presumably the result of the upturn in rural–urban migration following 1986. Since then, the average annual growth rate of Vietnam's absolute urban population has held steady at around 3.2 percent.

Figure 2.4 Growth of urban population: Vietnam, 1956–2016



Source: World Bank team's calculations based on data from United Nations World Urbanization Prospects: 2018 Revision database (<https://esa.un.org/unpd/wup/>).

This analysis of Vietnam's level and pace of urbanization is based on its *official definition* of urban areas as employed in its national population and housing census. However, recent work by, for example, the Organisation for Economic Co-operation and Development (OECD 2018) suggests that measures of urbanization based on this official definition may understate Vietnam's "true" level of urbanization. Thus using an alternative functional definition of urban areas based on the approximation of commuting zones around cities, OECD estimates that 41 percent of Vietnam's population lived in urban areas in 2013.²⁴ This estimate is 9 percentage points higher than the estimate of 32.4 percent based on Vietnam's official definition of urban area for the same year, which would seem to imply the existence of significant "hidden urbanization." In other words, some areas possess urban characteristics, but they are nevertheless classified as rural in official statistics. Although this may be the case, a 41 percent share of the population living in urban or "urban-like" areas remains below the estimated level of urbanization (50.7 percent) for EAP developing countries overall in 2013.²⁵

Unfortunately, time series data on urbanization rates based on the OECD methodology are not available.²⁶ It is therefore not possible to use the methodology to examine Vietnam's pace of urbanization over time. This study must then rely on data based on the country's official definition of urban areas. Nevertheless, even if official statistics do understate Vietnam's "true" level of urbanization, they will continue to provide an accurate picture of the pace of urbanization, assuming that the level of mismeasurement of urbanization has remained the same over time.

As explained in box 2.1, the OECD methodology is not the only one to emerge as an alternative to official definitions of urban areas in recent years. The box also explains this study's reasoning for basing its analysis of Vietnam's demographic urbanization trends on the country's official definition of urban area despite the emergence of these alternatives.

Box 2.1. Why rely on Vietnam's official definition of urban area?

In Vietnam's national population census, the "urban areas" used to calculate the urban population are defined at the commune level, including both wards (*phuong*) and townships (*thi tran*). This approach is a mismatch with the country's urban classification system, which breaks down urban areas into six classes, from special class to classes 1–5. These classes represent administratively different entities—from provincial level to district level, down to commune level.

Not only is Vietnam's official definition of urban areas complex, but it also differs from the country's own urban classification system (described in the introduction to this report and the basis for urban development policy) and the official definitions of urban used by other countries. However, it is not true that Vietnam employs one definition of urban areas and the rest of the world another. In fact, the official definitions of urban areas differ, often considerably, across all countries. Thus different countries employ different numbers and combinations of criteria, and when countries happen to share one criterion, the thresholds applied to that criterion can differ markedly. For example, where it is used, the minimum population size threshold varies from between 200 and 100,000 persons, depending on the country (Dijkstra et al. 2019). Furthermore, many countries fail to use any explicitly stated criteria to define urban areas. Instead, they just list their urban areas by name or designate the administrative units that constitute urban areas (Dijkstra et al. 2019; Roberts et al. 2017).

In response to the lack of uniformity in definition, and aided by advances in geospatial technologies, several approaches have emerged over the last decade that aim to achieve a consistent definition of urban areas across countries at either a regional or a global level (Bosker, Park, and Roberts 2018). Among these approaches are the OECD and European Commission's functional urban area approach (OECD 2012, 2018); the World Bank's Agglomeration Index (AI) (Uchida and Nelson 2009; World Bank 2009); the European Commission's "degree of urbanization" approach (Dijkstra and Poelman 2014; Dijkstra et al. 2019); and approaches that identify urban areas based on, for example, built-up area footprints (see, for example, World Bank 2015).

Because each of these approaches relies—to a greater or lesser extent—on a relatively small number of transparent criteria for the definition of urban areas and the advantage of consistency of definition they provide, it is tempting to select one approach and apply it throughout this report to the analysis of urban population trends and patterns. However, this is largely not²⁷ done for three reasons:

1. Among the different regional and global approaches to defining urban areas, it is not *a priori* clear which approach should be preferred. Associated with this is a lack of consensus on whether a functional or morphological approach to delineating cities should be preferred. There is also a lack of consensus on whether cities, and their cores, should be identified by the presence of people or buildings.^a
2. For a given regionally/globally consistent approach to defining urban areas, the results obtained are sensitive to the input data used (Dijkstra et al. 2019; Roberts et al. 2017). For example, the AI, degree of urbanization, and functional urban area approaches all rely on a gridded population data set as input. However, competing population grids are available, and, again, it is not *a priori* clear which grid should be preferred.^b
3. The scope for temporal analysis using the regional/global approaches is limited. The exception is the degree of urbanization approach used by the European Commission (EC) to report results for all countries on levels of urbanization for 1975, 1990, 2000, and 2015. However, according to these results, the share of Vietnam's population living in urban areas was 78 percent in 1975, increasing to 81 percent in 2015. Such results must be treated with caution, as should the fact that, according to the approach, Vietnam in 2015 was more highly urbanized than the United States.

Despite its drawbacks, the use of Vietnam's official definition of urban areas as the basis of this report's analysis of urban population trends and patterns does have the arguably considerable advantage of being the politically accepted definition within the country. And although it is true that use of the official definition may imply some mismeasurement of the country's level of urbanization, in the absence of a commonly agreed on alternative definition, it is impossible to gauge exactly how severe that mismeasurement might be. Indeed, even though it has long been argued that India's official measured level of urbanization is biased downward—as some have argued is the case for Vietnam (OECD 2018)—because of “hidden” urbanization, recent research, based on the analysis of high-resolution satellite imagery and machine learning techniques, has emerged to challenge this conclusion (Galdo, Li, and Rama 2020). Furthermore, even assuming that Vietnam's measured level of urbanization is biased, this does not imply that estimates of Vietnam's pace or speed of urbanization derived from its official urban population data will be similarly biased. Indeed, if the degree of mismeasurement has remained the same over time, estimates of the pace of urbanization will remain unbiased.

Source: World Bank team.

a. Both the AI and the OECD-EC approaches represent functional approaches, whereas the degree of urbanization and approaches that associate urban areas with built-up area are morphological approaches. Meanwhile, built-up area approaches identify urban areas by the presence of buildings, whereas the degree of urbanization, AI, and OECD-EC approaches identify them more with the presence of people.

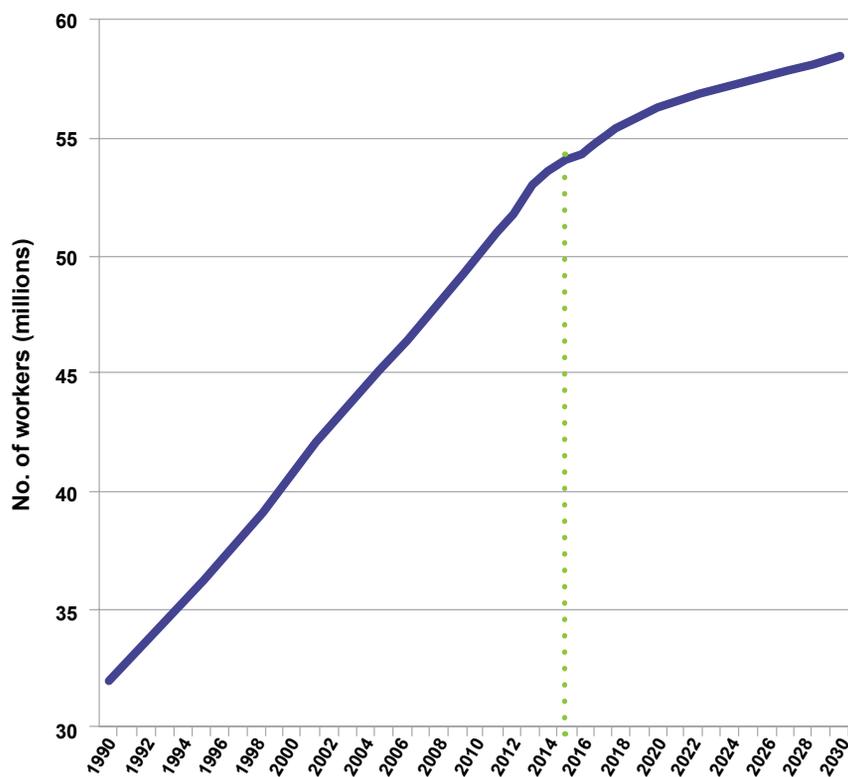
b. Three main global population grids have been used as input into the different approaches for a regionally/globally consistent definition of urban areas: GHS-POP, WorldPop, and LandScan. For a comparison of results across approaches using these different population grids, see Roberts et al. (2017).

Demographic structure

Looking forward, the speed at which Vietnam's absolute urban population increases will depend on the rate of natural population growth in its existing urban areas, the speed at which net rural–urban migration occurs, and the speed at which rural areas are reclassified as urban in official statistics. For natural population growth, the age distribution of Vietnam's population displays a barrel rather than a pyramid shape—that is, the size of age cohorts between the ages of 5 and 40 are fairly even instead of younger age groups being significantly larger. This is a result of the country's low fertility rate, which

has fallen by more than half since 1986 and is now below the replacement rate required to maintain a stable population.²⁸ As a consequence, the growth of Vietnam's labor force (defined as workers ages 15–64) will remain low and become gradually smaller in the years ahead (see figure 2.5). In the five years between 2012 and 2017, the labor force grew by only 2.5 million, or less than half the 5.2 million increase during the preceding five years. Between 2009 and 2019, the shares of women in the urban labor force were almost unchanged²⁹ (47.1 percent in 2009 and 47.3 percent in 2019).

Figure 2.5 Growth of labor force: Vietnam, 1990–2030



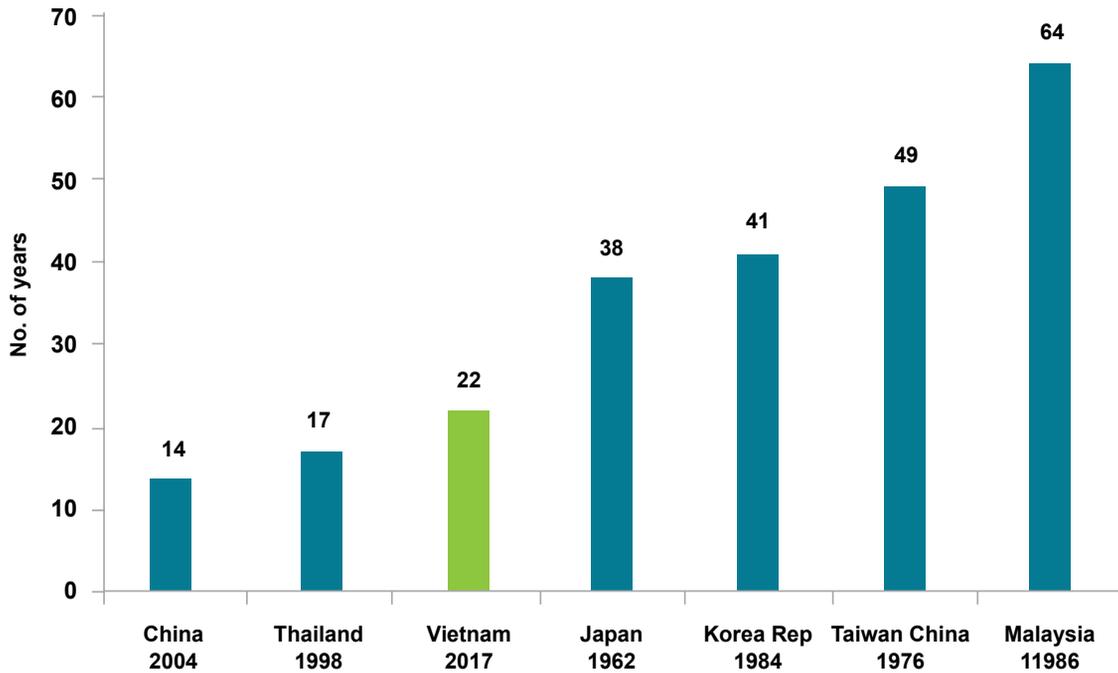
Source: International Labour Organization, 2018.

Note: Data from 2018 onward is projected. The vertical line depicts an inflection point in the growth of the labor force.

As a result, Vietnam has only two decades of positive labor force growth left (World Bank, forthcoming)—see figure 2.6.³⁰ The demographic transition stemming from this age structure and low fertility is a central structural challenge that will have a profound impact on the future trajectory of Vietnam's urbanization and industrialization processes. The country's economic growth will increasingly depend on investment in

both physical and human capital and the growth of productivity rather than the growth in the quantity of labor. Because young people tend to be more mobile,³¹ the demographic structure could also reduce future levels of geographic labor mobility and rural–urban migration. It could also lead to more rapid aging of the population in smaller urban settlements and rural areas that provide less of a pull for migrants.

Figure 2.6 Diminishing demographic dividend, years with positive labor force growth remaining: selected economies



Source: World Bank, forthcoming.

Note: The years indicated on the horizontal axis show the year in which the per capita GDP of each country reached \$2,500 (constant 2011 international dollars at purchasing power parity exchange rates); the numbers on the vertical axis (and the bar labels) show the number of years that labor force growth remained (or is projected to remain) positive.

Geographic distribution and movement of population

Apart from the Central Highlands, which has a much smaller population, Vietnam's regions are demarcated, besides their geographical features, to have roughly similar population sizes (see table 2.1).

Table 2.1 Population by region: Vietnam, 2009 and 2014

Region	Population, 2009	Population, 2014	Population share, 2009 (%)	Population share, 2014 (%)	Net population growth	Net population growth share (%)	Annual growth rate (%)
Vietnam (sum of regions)	85,784,351	90,493,352	100.00	100.00	4,709,001.57	100.00	1.07
North	12,208,830	12,830,311	14.23	14.18	621,481.10	13.20	1.00
Red River Delta	18,433,563	19,452,842	21.49	21.50	1,019,278.94	21.65	1.08
Hanoi	6,448,837	7,067,456	7.52	7.81	618,618.97	13.14	1.85
Central Coast	18,835,393	19,482,435	21.96	21.53	647,041.82	13.74	0.68
Central Highlands	5,107,437	5,504,560	5.95	6.08	397,122.87	8.43	1.51
Southeast and South	14,020,257	15,721,353	16.34	17.37	1,701,095.50	36.12	2.32
HCMC	7,123,340	7,955,282	8.30	8.79	831,941.92	17.67	2.23
Mekong River Delta	17,178,871	17,501,852	20.03	19.34	322,981.33	6.86	0.37

Source: World Bank team's analysis based on data from General Statistics Office of Vietnam, 2009 Population and Housing Census, and United Nations Population Fund, 2014 Intercensal Population and Housing Survey.

Before Đổi Mới, population movements were directed by the government and were quite limited, consistent with the near zero pace of urbanization in the years leading up to 1986 (figures 2.2 and 2.3). Recently, however, the geographic distribution of Vietnam's population has been shifting more rapidly because of increased migration (table 2.2), thereby also helping to explain the post-1986 acceleration in the country's pace of urbanization. The total number of migrants—those who have moved within the preceding five years—grew from about 3.2 million in 1994 to 4.5 million in 1999 and to 6.7 million in 2009.³² A growing majority of the migration was to urban areas. However, after 2010 the number of people who had moved within the last five years declined, to 5.7 million in 2014. This represented a decline in the stock of recent migrants—defined as the share of the population age

5 and over who had moved within the previous five years—from 8.57 percent in 2009 to 6.81 percent in 2014. In general, more women move across provinces than men. Women represented 53.1 percent and 51.8 percent of interprovincial migrants in 2009 and 2019, respectively.³³

The overall migration level in Vietnam is relatively low. The annual average rates, calculated for the period 2005–14, of 0.52 percent a year for interprovincial migration and 0.36 percent for interregional migration are well below the rates of other countries at a similar stage of growth and development. For example, migration across provinces in the Republic of Korea (which are much larger units than provinces in Vietnam) was 1.5 percent during its fast economic transition from the 1950s to the 1990s.

Table 2.2 Population age 5 and older by type of migration: Vietnam, 1999–2014

Type of migration	1999		2009		2014	
	Number	Percent	Number	Percent	Number	Percent
Intradistrict	1,342,568	1.94	1,619,778	2.06	1,430,235	1.72
Interdistrict	1,137,843	1.65	1,708,896	2.18	1,644,257	1.97
Interprovincial	2,001,408	2.90	3,397,904	4.33	2,594,297	3.12
Total internal migrants	4,481,819	6.49	6,726,578	8.57	5,668,788	6.81
Total population (ages 5+)	69,045,517	100.00	78,452,863	100.00	83,282,551	100.00

Source: World Bank team's analysis based on data from General Statistics Office of Vietnam, 2009 Population and Housing Census, and United Nations Population Fund, 2014 Intercensal Population and Housing Survey.

A sample survey of migrants in 2015 found that, consistent with the common worldwide pattern, the most frequently cited motivation by far for migration was economic—for employment, better pay, or better working conditions.³⁴ Migration for employment alone was cited by 34.7 percent as the primary reason for migration. Migration for education was also highly cited (23.4 percent), especially for migration to medium-size cities. Meanwhile, migration for family-related reasons was cited by 25.5 percent of sampled migrants. Such migration is frequently tied closely to migration for employment and education because the former is often undertaken to, for example, join a family's main wage earner or to rejoin family after education. Women are more likely to migrate for non-work purposes than men possibly because women tend to get married and live with husband in other provinces. According to the 2012 Vietnam Household Living Standards Survey, the proportions of male and female work migrants were 4.8 and 3.9 percent, while the shares of male and female non-work migrants were 2.3 and 4.3 percent, respectively. Also, people living in a household with female heads are more likely to migrate.³⁵

Consistent with these motivations, urban areas, where most industrial and service jobs are created, were the destination for the increasing majority of migrants—from just over 53 percent in 1999 to around 59 percent in 2014 (table 2.3). Meanwhile, in 2014 a further one-third of migrants moved from relatively poorer to relatively richer rural areas that had more productive agriculture or rising numbers of nonfarm jobs. The growing industrialization and urbanization of rural areas, mostly in the metropolitan suburbs as described later in this chapter, appear to be the primary reason for a small but significant number of people moving from urban to rural areas. Notably, the decline in migration between 2009 and 2014 consisted mainly of residents of rural areas moving to either urban areas or other rural areas.

Table 2.3 Migration flows, rural and urban: Vietnam, 1999–2014

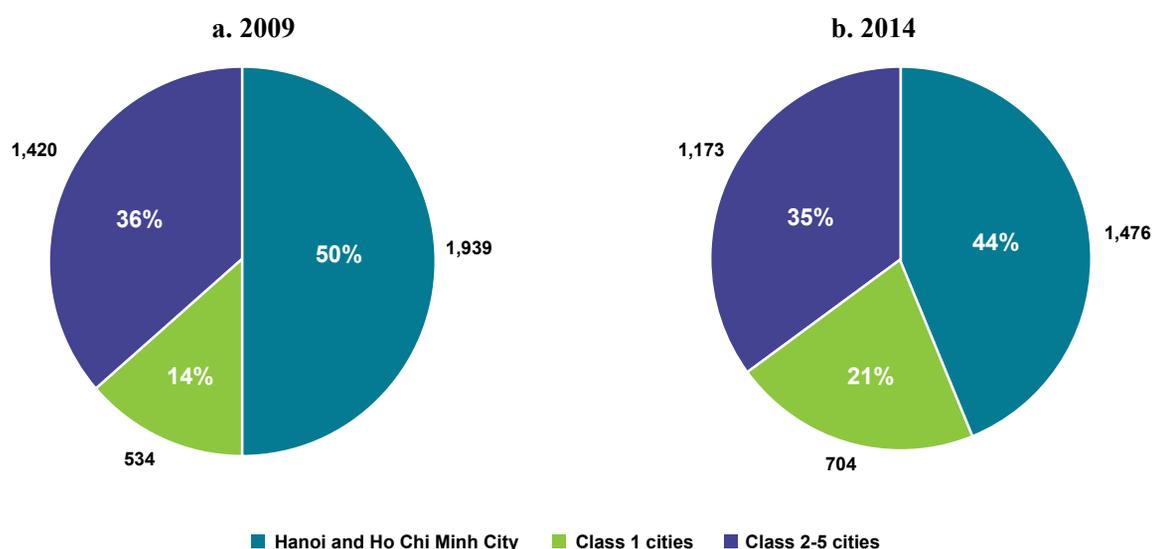
	1999		2009		2014	
	Number	Percent	Number	Percent	Number	Percent
To urban areas						
From rural areas	1,215,955	27.1	2,112,071	31.4	1,642,186	29.0
From urban areas	1,172,705	26.2	1,777,716	26.4	1,707,063	30.1
To rural areas						
From rural areas	1,660,216	37.0	2,271,841	33.8	1,632,988	28.8
From urban areas	432,943	9.7	564,949	8.4	686,551	12.1
Total	4,481,819	100.0	6,726,578	100.0	5,668,788	100.0

Source: World Bank team's analysis based on data from General Statistics Office of Vietnam, 2009 Population and Housing Census, and United Nations Population Fund, 2014 Intercensal Population and Housing Survey.

Because the fertility levels in Vietnam's rural and urban areas are about the same, it follows that the increase in the urbanization level—the share of the urban population in the total national population—is driven mostly by rural–urban migration. Therefore, the slowdown of rural–urban migration has led to a leveling off of the pace of urbanization and of the rate of urban population growth. Indeed, as already seen, Vietnam's pace of demographic urbanization peaked between 2000 and 2010 and has since fallen back very slightly (figure 2.2), while the rate of urban population growth peaked between 1986 and 1996 before also falling back slightly (figure 2.4).

Overall, urban population growth is driven by the economically dominant metropolitan regions—HCMC, Hanoi, and their neighboring areas. Between 2009 and 2014, HCMC's population growth alone accounted for 17.7 percent of the national population growth and was almost equivalent to that of the next three largest cities—Hai Phong, Da Nang, and Can Tho—and 58 provincial cities combined. Although the class 1 cities have become home to an increasing share of migrants to urban areas (figure 2.7), most of the increases occurred in Binh Duong and Dong Nai—two cities that adjoin HCMC, which apparently took the latter's share of migrants—and some in Da Nang. Little occurred elsewhere. Binh Duong, which borders HCMC, was particularly strong in attracting migrants (second only to HCMC in the country), and now approximately 30 percent of its total population is composed of migrants who have moved there in the last five years.

Figure 2.7 Migrant flows to urban areas, shares by type of area: Vietnam, 2009 and 2014



Sources: General Statistics Office of Vietnam, 2009 Population and Housing Census, and United Nations Population Fund, 2014 Intercensal Population and Housing Survey.

As a result, the Southeast region, which is anchored by HCMC and the neighboring industrial cities, has been the major population magnet and the only region with consistently positive net migration rates (table 2.4). In fact, it was the destination for more

than 50 percent of total internal migration. Another 17 percent moved into the provinces in the Red River Delta region, but they also saw an almost equal number move out (table 2.5), resulting in near zero net migration (table 2.4).

Table 2.4 Net migration rate: Vietnam, 2010–17

percent

	2010	2014	2015	2016	2017
Northern Midlands and Mountains	-3.9	-2.0	-1.9	-2.5	-1.1
Red River Delta	0.5	-0.5	0.0	0.5	0.0
North Central Coast and Central Coast	-5.7	-1.8	-1.8	-1.1	-0.2
Central Highlands	-0.3	1.6	-1.1	-2.4	-0.7
Southeast	19.9	11.2	9.7	8.4	5.6
Mekong River Delta	-8.4	-6.7	-5.4	-4.6	-4.0

Source: GSO 2018.

Table 2.5 Interprovincial migration flows by region: Vietnam, 2014

		Destination						
		Northern Midlands and Mountains	Red River Delta	North Central Coast and Central Coast	Central Highlands	Southeast	Mekong River Delta	Total
Origin	Northern Midlands and Mountains	57,930	114,135	7,243	12,973	31,346	789	224,416
	Red River Delta	53,334	224,618	50,597	12,980	87,957	3,147	432,632
	North Central Coast and Central Coast	9,418	70,648	141,736	48,575	348,214	8,714	627,304
	Central Highlands	2,234	5,952	26,239	24,225	61,598	1,892	122,142
	Southeast	6,956	20,253	102,504	23,850	207,228	64,455	425,247
	Mekong River Delta	708	2,975	7,432	5,129	583,358	162,952	762,555
	Total	130,581	438,582	335,751	127,733	1,319,701	241,950	2,594,297
Net migration (total)		-93,835	5,950	-291,553	5,591	894,454	-520,605	

Source: General Statistics Office of Vietnam, 2014 Population and Housing Census.

Physical and spatial growth of urban areas

The physical, or spatial, growth of urban areas, perhaps beyond their administrative boundaries, is an important aspect of urbanization, but one that is difficult to assess because of data limitations. For that reason, this chapter relies largely on nighttime lights (NTL) data to analyze the physical expansion of urban areas. Such data have been used widely to estimate urban expansion and subnational-level economic growth because NTL levels closely correlate with

built-up area, economic activities, improvements in infrastructure, and progress in electrification (see box 2.2 for an overview of this technique). Therefore, this analysis refers to *spatial urbanization* to differentiate it from analysis of other demographic and industrial factors presented earlier in this chapter and elsewhere in this report. Here, the term *growth* refers mainly to urban spatial growth as measured by NTL.

Box 2.2 Measuring urban spatial growth using nighttime light

What does nighttime light (NTL) capture? Why is NTL used to estimate urban growth?

NTL data collected by satellites measure the intensity of lights at night within a given spatial area. As noted, such data are often used to estimate the physical expansion of urban areas and economic growth because NTL levels closely correlate with built-up area, economic activities, improvements in infrastructure, and progress in electrification. Academic and policy studies conducted by major international institutions such as the Corporacion Andina de Fomento (CAF), International Labour Organization (ILO), and World Bank have used NTL data to examine spatial patterns of urban development and industrial growth (see, for example, CAF 2017; Ellis and Roberts 2016; Dingel, Miscio, and Davis 2019; Zhang and Seto 2011).

How does NTL-based measurement define a city's urban extent?

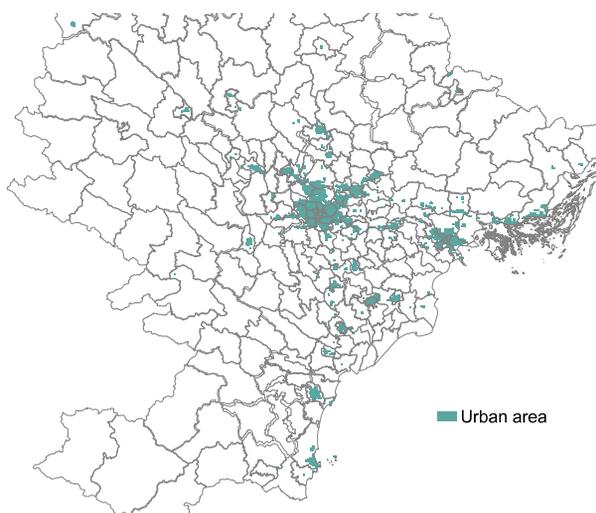
An *urban extent* is a spatial area identified as “urban” because it exceeds a certain level of brightness at night (see Roberts et al. 2015). More technically, an urban extent is a contiguous group of pixels whose NTL values are above a certain “digital number” (DN) threshold value at a grid cell level, where DN is a measure of luminosity and grid cells are defined at a high spatial resolution of 30 arc seconds, which is about 1 square kilometer at the equator. Vietnam's DN threshold value is 53 based on the application of 2010 Radiance Calibrated (RadCal) NTL data.^a If one uses this method, “urban extents” do not necessarily conform to the administrative boundaries of urban areas in Vietnam (map B2.1.1).

What metrics are used to analyze Vietnam's spatial urbanization?

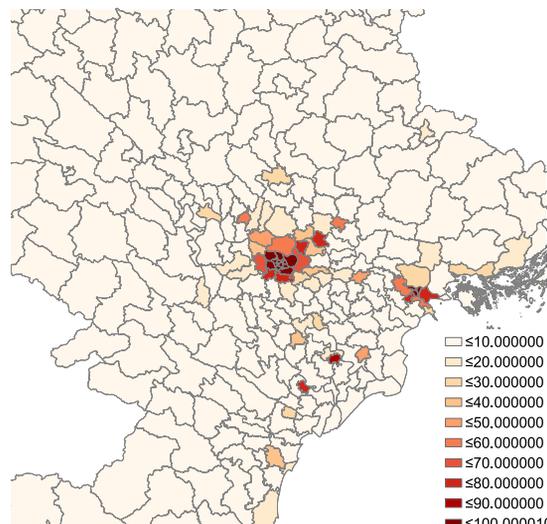
This chapter uses three NTL-based metrics to provide insights into Vietnam's patterns of urban expansion: (1) net NTL growth value, (2) the compound annual growth rate (CAGR) of NTL intensity, and (3) the urban extent rate.

- *Net NTL growth* is the change in total NTL intensity (DN values) within a given spatial boundary (here, usually a district) between two time periods. This metric shows the average increase or decrease in total NTL emitted by an area.
- The *compound annual growth rate* of NTL intensity (DN values) indicates the speed of urban growth for a given spatial unit (such as a district).
- *Urban extent rate* is the share of a district's area classified as urban (grid cells with NTL values above the DN = 53 threshold) using the NTL methodology (see map B2.2.2). This metric can proxy the extent to which a single district is “spatially urbanized.” A district's urban extent rate is analogous to the building coverage ratio of a land parcel in the sense that it measures the proportions of district areas that are spatially developed.

**Map B2.2.1 Urban area and district boundaries:
Vietnam, 2017**



**Map B2.2.2 Urban extent rate at district level:
Vietnam, 2017**



Source: World Bank team's analysis based on Visible Infrared Imaging Radiometer Suite (VIIRS) nighttime light data downloaded from <https://ngdc.noaa.gov/eog/>, where these data have been converted to RadCal values based on Locally Weighted Scatterplot Smoothing (LOWESS).

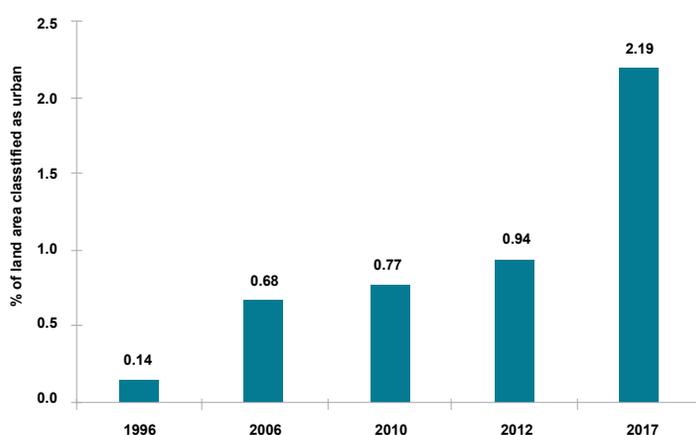
Note: Urban areas are delineated based on the threshold DN = 53. A district's urban extent rate is the share of its area that is classified as urban using the NTL methodology outlined in this box.

a. Radiance-calibrated NTL data have an advantage over "standard" DMSP-OLS (Defense Meteorological Satellite Program–Operational Line-Scan) NTL data because they are not top-coded. In other words, there is no upper limit on the level of luminosity reported in the data due to satellite sensor saturation (see Ellis and Roberts 2016).

A past decade of accelerated spatial urbanization and expansion

Vietnam's speed of "spatial" or "physical" urbanization—that is, the growth of land area classified as urban using the NTL methodology—has accelerated dramatically in the last decade. Prior to 2010, the country experienced a relatively controlled expansion of urban areas, even as the pace of demographic urbanization accelerated. As Vietnam's spatial urbanization progressed over several decades, it shaped major metropolitan clusters around Hanoi and HCMC. Based on the NTL data, the share of Vietnam's total land area classified as urban (the aggregate urban extent area) increased by 0.8 percentage points between 1996 and 2012, from 0.13 percent to 0.93 percent. By 2017 the country's total urbanized area had reached 2.2 percent (figure 2.8), for a compound annual growth rate of 17.7 percent over the period 2012–17. Such a pace of spatial urbanization is very rapid by international standards. For example, using a similar NTL methodology, Ellis and Roberts (2016) report a growth rate for South Asia's urbanized land area of slightly over 5 percent a year between 1999 and 2010—a rate they regard as rapid.

Figure 2.8 Aggregate land area covered by urban areas: Vietnam, 1996–2017



Source: World Bank team's calculations based on analysis of Defense Meteorological Satellite Program–Operational Line-Scan (DMSP-OLS) and Visible Infrared Imaging Radiometer Suite (VIIRS) nighttime light data downloaded from <https://ngdc.noaa.gov/eog/>.

Note: Land is classified as urban based on the NTL methodology outlined in box 2.1.

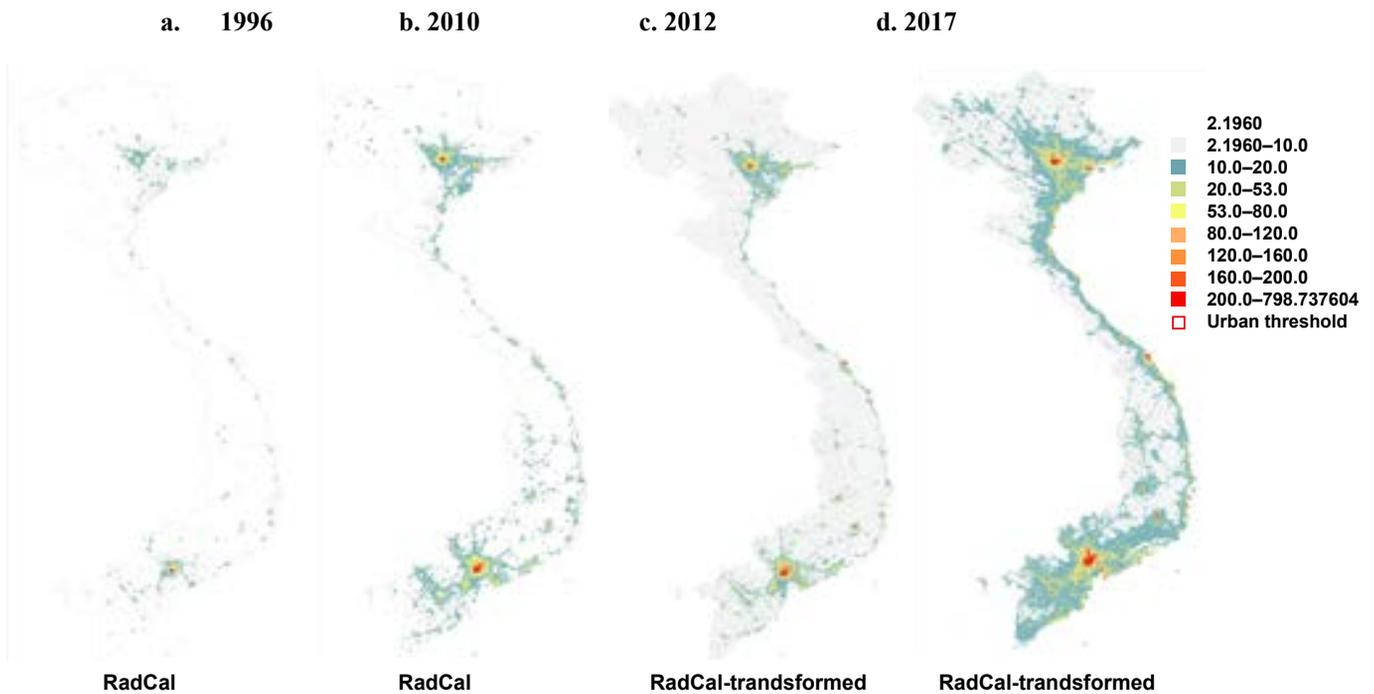
Contribution of recent urban spatial growth to a two-tiered urbanization pattern

Between 2012 and 2017, urban spatial growth, as measured by net NTL growth, proceeded rapidly in the Hanoi–Red River Delta and the HCMC–Southeast regions, as well as along Vietnam’s coast (map 2.1). By contrast, net NTL growth in the Central Highlands region declined, implying a lack of urban spatial growth. Meanwhile, the Mekong River Delta experienced an overall increase in urban spatial growth, but with significant variation within the region. The parts of the Mekong River Delta that experienced more urban spatial growth were clustered around the north side, closer to HCMC; near the coastal line to the southeast of the region; and along the border to the northwest

of the region. Other parts of the Mekong River Delta exhibited only very slow and scattered spatial growth.

Rapid urban spatial growth in the Hanoi and HCMC metro regions was mainly experienced by secondary cities—in particular, small towns or townships in the peripheries of these regions, some of which are in rural districts that previously had very low levels of urbanization. Emerging districts within HCMC and its neighboring provinces of Dong Nai, Ba Ria-Vung Tau, and Binh Duong showed the strongest spatial growth (an absolute DN increase of more than 12,000). Some districts along the coastal region, especially those around a number of provincial cities, also experienced strong net NTL growth.

Map 2.1 Spatial patterns of net NTL growth: Vietnam, 1996–2017



Source: World Bank team’s analysis based on Radiance Calibrated (RadCal) Defense Meteorological Satellite Program–Operational Line-Scan (DMSP-OLS) nighttime lights data for 1996 and 2010 and Visible Infrared Imaging Radiometer Suite (VIIRS) nighttime lights data transformed into RadCal values for 2012 and 2017. All nighttime lights data downloaded from <https://ngdc.noaa.gov/eog/>.

Note: The VIIRS data for the years 2012 and 2017 were converted to RadCal values based on Locally Weighted Scatterplot Smoothing (LOWESS) to facilitate comparison with the DMSP-OLS data for 1996 and 2010.

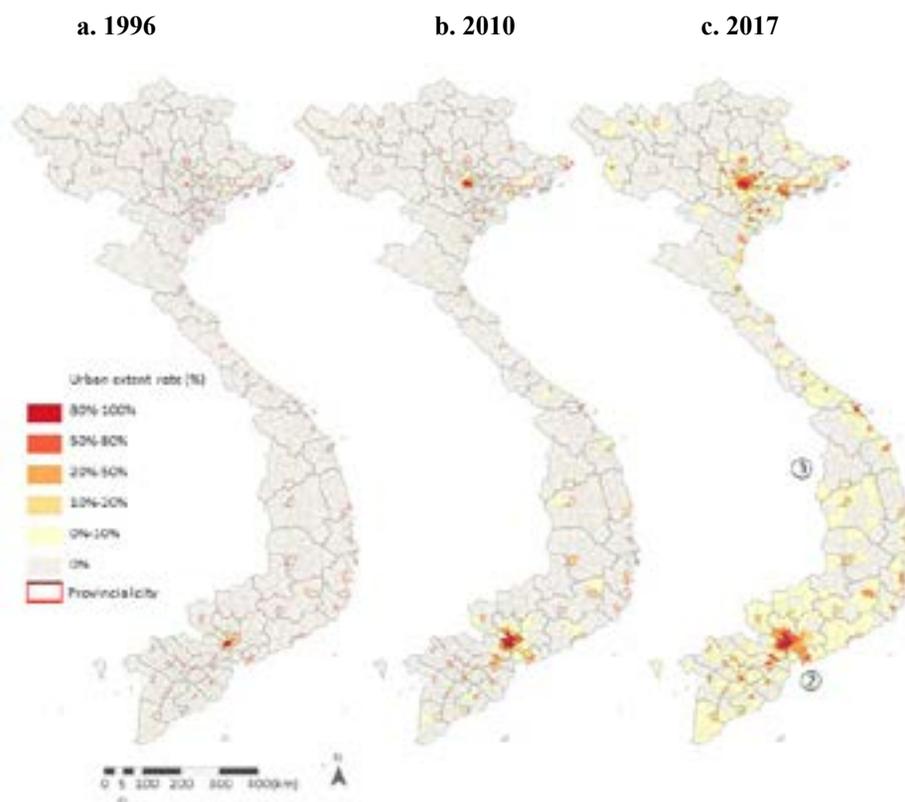
Disclaimer: The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Meanwhile, large areas outside of the two metro regions and spread around the country entered low-level urbanization. Outside of the two metro regions, many districts throughout the country, including in the Mekong River Delta and Central Highlands, now have urban extent rates of between 10 and 20 percent (map 2.2). One question surrounding this mushrooming of districts in the early stages of urbanization is whether they will reach the next stage of urbanization (that is, an urban extent rate of over 20 percent, reaching up to 50 percent). If so, urbanization in Vietnam may be a more difficult to manage process than in previous decades, especially in terms of avoiding the further erosion of land use efficiency and sustainability. Although it is too early to predict specific consequences, low-level urbanized districts are scattered throughout most regions, which could affect

whether and how this phenomenon may generate the potential to create sizable urban concentrations that can achieve agglomeration economies (see chapter 1).

By contrast, the existing highly urbanized inner-city districts (or the “old cores”) in Hanoi and HCMC and in the other three municipalities—Ngo Quyen, Hong Bang, and Le Chan in Hai Phong; Ngu Hanh Son and Thanh Khe in Da Nang; and Ninh Kieu in Can Tho—have recently experienced weak urban spatial growth. These areas may have limited possibilities for densification through vertical development, and the size of areas for new horizontal development may be restricted. In Hanoi and HCMC, much stronger growth occurred in outskirt districts, some of which are officially rural districts within the municipality boundaries.

Map 2.2 Urban extent rate in Vietnam’s districts, 1996–2017



Sources: World Bank team’s analysis based on Radiance Calibrated (RadCal) Defense Meteorological Satellite Program–Operational Line-Scan (DMSP-OLS) nighttime lights data for 1996 and 2010 and Visible Infrared Imaging Radiometer Suite (VIIRS) nighttime lights data transformed into RadCal values for 2017. All nighttime lights data downloaded from <https://ngdc.noaa.gov/eog/>.

Note: The VIIRS data for the year 2017 were converted to RadCal values based on Locally Weighted Scatterplot Smoothing (LOWESS) to facilitate comparison with the DMSP-OLS data for 1996 and 2010. A district’s urban extent rate is the share of its area that is classified as urban using the NTL methodology outlined in box 2.1.

Disclaimer: The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Mismatch among the demographic, physical, and economic growth of urban spaces

Considerable mismatch among population, economic, and spatial growth in different types of areas at different levels

Unlike population growth, which has been mainly concentrated in big cities, urban spatial growth has been much more dispersed throughout the country. Between 2012 and 2017, about 40 percent of urban spatial growth occurred in five large municipalities, provincial cities, and towns (table 2.6). Rural districts, which occupy much more of the country's land area, accounted for the remaining 60 percent of growth. By contrast, the opposite pattern held for population growth, with nearly 60 percent of total growth in cities and towns and 40 percent in the rest of the country.

Both Hanoi and HCMC experienced stronger urban spatial growth in their outskirts or neighboring districts and stronger population growth in the districts that immediately adjoin their cores. By contrast, their core areas experienced both weak population *and* spatial growth. Although Hanoi's growth pattern is similar to HCMC's, many of its districts experienced much lower levels of urban spatial growth. Among the districts with high growth, the high population growth districts are inside Hanoi, surrounded by the high spatial growth districts in the northeast of Hanoi.

Although jobs in the HCMC metro area are concentrated around the city, Hanoi's job market is more spatially dispersed (map 2.3), which adversely affects labor efficiency related to the region's labor agglomeration (see chapter 1). This finding is also in line with the distinct spatial development patterns of the two metropolitan regions (see map 2.4), again indicating weaker agglomeration benefits in the Red River Delta despite its better infrastructure connectivity.

Table 2.6 Share of NTL growth and population growth by type of administrative unit, 2012–17

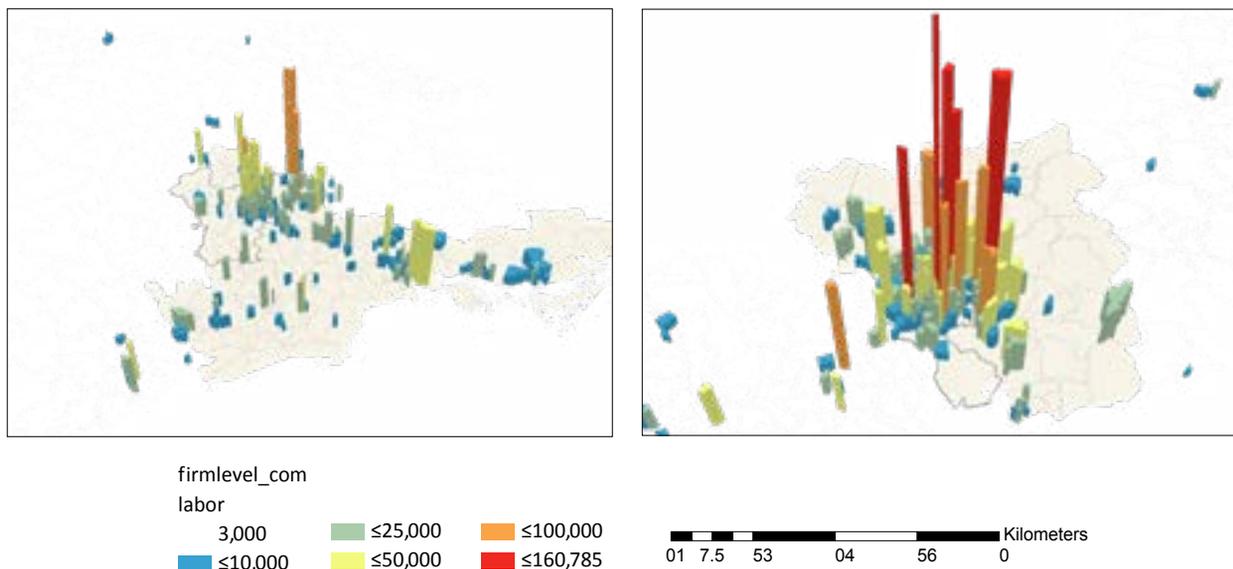
City category	Administrative unit		Net NTL growth (%)	Net population growth (%)
Cities	Municipalities	Hanoi	6.43	13.14
		Ho Chi Minh City	8.75	17.67
		Hai Phong	2.56	2.20
		Da Nang	2.12	2.49
		Can Tho	0.67	1.03
	Provincial cities	Provincial cities	13.97	13.30
Non-city area	Town	46 towns (without one town in HN)	6.03	10.59
	District	Rural area	59.47	39.59
SUM			100.00	100.00

Source: World Bank team's analysis based on Radiance Calibrated (RadCal) Defense Meteorological Satellite Program–Operational Line-Scan (DMSP-OLS) nighttime lights data for 1996 and 2010 and Visible Infrared Imaging Radiometer Suite (VIIRS) nighttime lights data transformed into RadCal values for 2017; General Statistics Office of Vietnam, 2009 Population and Housing Census and 2014 Intercensal Population and Housing Survey.

Map 2.3 Spatial patterns of job concentration, Hanoi–Red River Delta region and Ho Chi Minh City–Southeast region

a. Hanoi–RRD region

b. HCMC–Southeast region

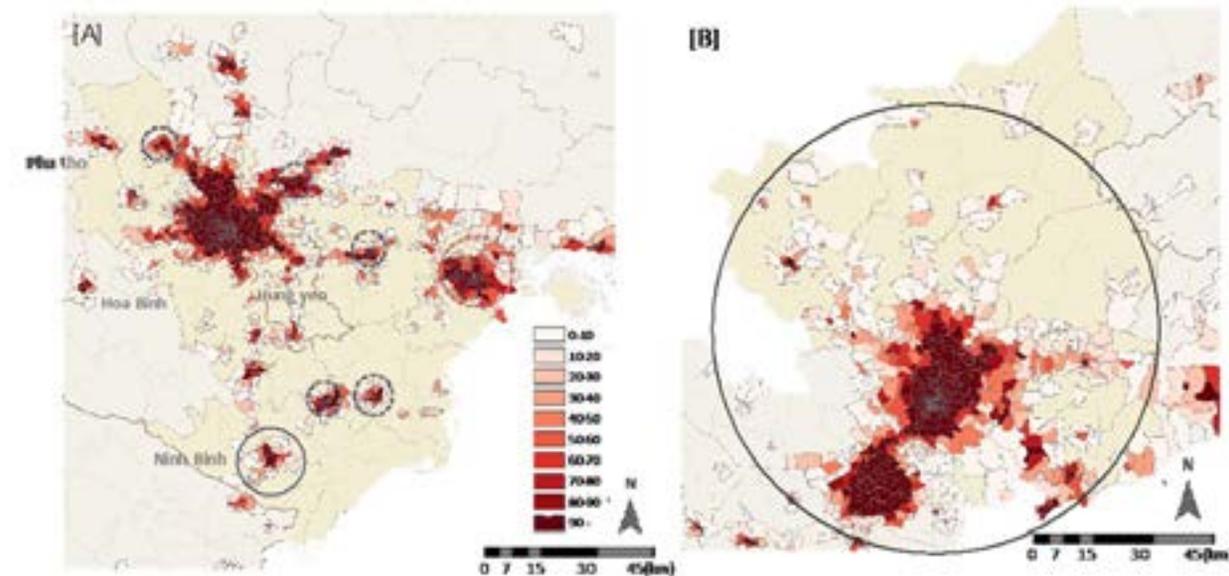


Source: World Bank team’s analysis based on data from General Statistics Office of Vietnam, Enterprise Census, 2016.

Map 2.4 Spatial patterns of urban development based on NTL data: Hanoi and Ho Chi Minh City, 2014

a. Hanoi

b. HCMC (urban extent rates of communes)



Source: World Bank team’s analysis based on Visible Infrared Imaging Radiometer Suite (VIIRS) nighttime lights data for 2014 downloaded from <https://ngdc.noaa.gov/eog/>.

Note: A commune’s urban extent rate is the share of its area classified as urban using the NTL methodology outlined in box 2.1.

Vietnam's growth patterns misaligned with its system of cities

In Vietnam, there is no official definition of secondary (“medium-size”) cities. Among the city classes in the country's urban classification system, the districts in class 0³⁶ (Hanoi and HCMC) and class 1³⁷ boast the strongest spatial and population growth. Those outside the two metropolitan regions show much slower economic growth. Among class 1 districts, those deviating from the correlated pattern of urban spatial growth and population growth are provincial cities and a few urban districts in Da Nang (Hai Chau and Thanh Khe) and Hai Phong (Hai An, Ngo Quyen, Le Chen, and Hong Bang), which show faster spatial growth than population growth. Da Lat and Nha Trang also show higher spatial growth. By contrast, Buon Ma Thuot, a provincial city in Dak Lak province in the Central Highlands, and My Tho in the Mekong River Delta display faster population growth than spatial growth. However, as discussed in chapter 1, most provincial cities outside the two metropolitan regions, including the relatively large class 1 cities, exhibit much weaker industrial and economic growth, coupled with very limited employment growth.

Some of the class 4 and 5 townships (and towns) show relatively strong growth. In particular, those located within the two metropolitan regions show far stronger urban spatial and industrial growth than other townships. A majority of these high-growth districts exhibit faster spatial growth than population growth, much like the high-growth districts in classes 0 and 1. The growth of the remaining townships scattered throughout the country is fairly limited and differs little from that of class 2 and 3 districts.

Finally, class 2 and 3 districts are significantly slower in both spatial and population growth than the class 0 and 1 districts and some class 4 and 5 townships. Class 2 and 3 districts differ completely from class 0 and 1 districts in terms of the correlated pattern of population and spatial growth. More specifically, the districts with stronger spatial growth show no indications of having attained higher population growth or vice versa. However, three districts show exceptionally higher growth than other class 2 or 3 districts—Thuan An, Di An, and Tinh Gia. The growth of Thuan An and Di An, located in Binh Duong province, is influenced by the growth of the HCMC metro region. Tinh Gia, a rural district of Thanh Hoa province on the border between the Red River Delta and the Central Coast region, leans more toward spatial growth than population growth, mainly because of the development of Hai Hoa beach ecotourism and the Nghi Son economic zone, which attracts foreign direct investment.

Summary

In Vietnam, a steadying of the pace of demographic urbanization has been accompanied by accelerated physical urbanization. The pace of demographic urbanization peaked between 2000 and 2010, and since then the pace has declined marginally. As of 2014, about 1.6 million urban residents had moved from rural areas in the preceding five years, down from around 2.1 million in 2009. In contrast to this steadying of the pace of demographic urbanization, the spatial and physical expansion of urban areas accelerated, in particular in the two metropolitan regions and in a large number of rural districts dispersed across the country that began to enter a very low level of urbanization as a result of industrial development. Urban expansion has been prioritized over urban redevelopment or densification by local governments because of the larger revenue potential from land conversion and the lack of regulatory and institutional oversight for rural to urban land conversion.

These contrasting trends between the demographic and spatial/physical growth of cities reflect the slowing growth of the labor force, restricted labor mobility, and the dispersion of industrialization due in part to the congestion of core economic areas and in part to government policies and programs favoring geographically dispersed investments (see chapter 1). The result has been a failure to realize substantial agglomeration economies and slow overall productivity growth, especially in the leading metropolitan areas. The rapidly declining growth of the labor force as a result of Vietnam's demographic transition, however, calls for giving top priority to accelerating the growth of efficiency and productivity.

The age distribution of the Vietnamese population displays a barrel rather than a pyramid shape—that is, the size of age cohorts between the ages of 5 and 40 is fairly even instead of younger age groups being significantly larger. As a result, the growth of the labor force will remain low, eventually becoming negative so that the labor force actually begins to shrink. This finding helps explain the slow pace of employment growth in industries and services as well as the significant increase in wages, which averaged about 12 percent a year in real terms between 2010 and 2017.

Although metropolitan areas have generally experienced both urban spatial and population growth, their relative patterns are spatially differentiated within the areas. In HCMC, the old core areas do not demonstrate any substantial spatial or population growth, whereas the areas surrounding these cores exhibit stronger population growth or stronger spatial and population growth. The outer districts within HCMC and the border districts in neighboring provinces have stronger spatial growth than population growth. In Hanoi, such higher spatial growth is also found in the outer districts, and the areas surrounding the old core areas display high population growth.

Moving forward, efficiency issues will continue to affect the vast majority of low-level urbanized districts. Many of the districts experiencing the strongest spatial growth in the metropolitan regions are rural districts and districts with medium urban extent rates (20–50 percent). These high spatial growth districts have been developed in land-extensive ways. Their growth thus far has been strongly correlated with the industrial growth of the metropolitan regions. As further spatial expansion occurs (from 20–50 percent to 100 percent of urban extent rates), Vietnam's future urbanization path will require robust management and sustainable urban development strategies by considering the efficient allocation of public resources and effective investment beyond what the current urban classification system can deliver.

Finally, because population growth has occurred primarily in limited areas of certain cities, urban challenges in providing housing and infrastructure services are likely to arise. In addition, the old core areas of the country's five largest cities have shown spatial and population growth below the national average. This finding indicates that vertical densification in these urban core districts has been minimal, which raises a question about land use efficiency and regeneration of the urban inner-city districts. Future spatial development and land use patterns will affect the sustainability of Vietnam's ongoing urban transformation, as well as its ability to maintain the affordability of urban services.

Endnotes

21. The Sixth National Congress of the Communist Party of Vietnam called for *Đổi Mới* in December 1986 with the actual policy changes coming into effect around 1988–89.
22. Based on data from the World Bank's World Development Indicators (WDI) database (<https://databank.worldbank.org/source/world-development-indicators>, world-development-indicators, world-development-indicators).
23. As discussed later in this chapter, rural industrialization has contributed to a rapid physical expansion of urban areas even as the pace of demographic urbanization has steadied.
24. This definition was developed by OECD in collaboration with the European Commission (EC). Therefore, box 2.1 refers to it as the OECD-EC approach or methodology.
25. The estimated level of urbanization for EAP developing countries overall in 2013 is based on those countries' official definitions of urban area. Applying the OECD methodology to these countries would also likely result in a higher estimated level of urbanization for the region overall.
26. OECD (2018) does report population growth trends for Vietnam's urban areas as defined in that report. However, in doing so the report takes the boundaries of the areas as fixed over time. For analysis of urbanization trends and how these compare with those of other countries, the report falls back on World Urbanization Prospects data, which utilize Vietnam's official definition of urban areas. The OECD report tends to benchmark Vietnam's urbanization against OECD countries and developed countries such as the Republic of Korea, as well as against Southeast Asia. By contrast, this study benchmarks against EAP developing countries (figure 2.2) and the global historical experiences of countries (figure 2.3).
27. Such an approach has been taken in several regional reports published by the World Bank, where a consistent definition of urban areas across countries within a region is of paramount importance (see Ellis and Roberts 2016; Ferreyra and Roberts, eds., 2018; World Bank 2015).
28. Based on the World Bank's World Development Indicators (WDI) database (<https://databank.worldbank.org/source/world-development-indicators/>), Vietnam's total fertility rate (births per woman) declined from 4.1 in 1986 to 2.0 in 2017.
29. Population and Housing Censuses 2009 and 2019, GSO
30. Although positive from the viewpoint of the development of a more skilled labor force, the expansion of higher education will amplify the decline in labor force growth.
31. See, for example, Lall, Selod, and Shalizi (2006) for a general discussion of evidence for developing countries on this point.
32. General Statistics Office of Vietnam, 2009 Population and Housing Census.
33. General Statistics Office of Vietnam, 2009 and 2019 Population and Housing Census.
34. United Nations Population Fund, 2015 National Internal Migration Survey.
35. World Bank, 2015. Migration in Vietnam: New evidence from recent surveys.
36. The current urban classification system designates Hanoi and HCMC as class 0 cities at the municipality level, within which one district in Hanoi is designated as class 3, and 21 communes are designated as class 4 or 5. Classes 2 and 3 are designated at the district level, while classes 4 and 5 are designated at the commune level.
37. Class 1 cities include the urban core districts of Hai Phong, Da Nang, Can Tho, and 15 other large provincial cities (among the 68 of them).
38. United Nations Population Fund, 2014 Intercensal Population and Housing Survey.

References

- Bosker, M., J. Park, and M. Roberts. 2018. “Definition Matters: Metropolitan Areas and Agglomeration Economies in a Large Developing Country.” Discussion Paper DP13359, Center for Economic Policy Research, London.
- CAF (Development Bank of Latin America). 2017. *Urban Growth and Access to Opportunities: A Challenge for Latin America*. Report on Economic Development (RED). Caracas: CAF.
- Dijkstra, L., A. J. Florczyk, S. Freire, T. Kemper, M. Pesaresi, and M. Schiavina. 2019. “Applying the Degree of Urbanization to the Globe: A New Harmonized Definition Reveals a Different Picture of Global Urbanization.” Unpublished paper, European Commission, Brussels.
- Dijkstra, L., and H. Poelman. 2014. “A Harmonised Definition of Cities and Rural Areas: The New Degree of Urbanization.” Regional working paper, Directorate-General for Regional and Urban Policy, European Commission, Brussels.
- Dingel, J. I., A. Miscio, and D. R. Davis. 2019. “Cities, Lights, and Skills in Developing Economies.” *Journal of Urban Economics*.
- Ellis, P., and M. Roberts. 2016. *Leveraging Urbanization in South Asia: Managing Spatial Transformation for Prosperity and Livability*. Washington, DC: World Bank.
- Ferreyra, M. M., and M. Roberts. 2018. *Raising the Bar for Productive Cities in Latin America and the Caribbean*. Washington, DC: World Bank.
- Galdo, V., Y. Li, and M. Rama. 2020. “Identifying Urban Areas by Combining Human Judgement and Machine Learning: An Application to India.” Policy Research Working Paper 9160, World Bank, Washington, DC.
- GSO (General Statistics Office of Vietnam). 2018. *Statistical Yearbook 2017*. Hanoi: General Statistics Office.
- Henderson, J. V. 2010. “Cities and Development.” *Journal of Regional Science* 50 (1): 515–40.
- Lall, Somik V., Harris Selod, and Zmarak Shalizi. 2006. “Rural-Urban Migration in Developing Countries: A Survey of Theoretical Predictions and Empirical Findings.” Policy Research Working Paper 3915, World Bank, Washington, DC.
- OECD (Organisation for Economic Co-operation and Development). 2012. *Redefining “Urban”: A New Way to Measure Metropolitan Areas*. Paris: OECD Publishing.
- _____. 2018. *OECD Urban Policy Reviews: Viet Nam 2018*. Paris: OECD Publishing.
- Roberts, M., B. Blankespoor, C. Deuskar, and B. Stewart. 2017. “Urbanization and Development—Is Latin America and the Caribbean Different from the Rest of the World?” Policy Research Working Paper 8019, World Bank, Washington, DC.
- Roberts, Mark, Benjamin Steward, Mihir Prakash, and Katie McWilliams. 2015. “Global Night Time Lights Urban Extents and Growth Patterns Product.” World Bank, Washington, DC.
- Uchida, H., and A. Nelson. 2009. *Agglomeration Index: Towards a New Measure of Urban Concentration*. Washington, DC: World Bank.
- World Bank. 2009. *World Development Report 2009: Reshaping Economic Geography*. Washington, DC: World Bank.
- _____. 2015. *East Asia’s Changing Urban Landscape: Measuring a Decade of Spatial Expansion*. Washington, DC: World Bank.
- _____. Forthcoming. “Report on SEDP Policy Note ‘Keeping Growth Going.’” Washington, DC.
- Zhang, Q., and K. C. Seto. 2011. “Mapping Urbanization Dynamics at Regional and Global Scales Using Multi-Temporal DMSP/OLS Nighttime Light Data.” *Remote Sensing of Environment* 115 (9): 2320–29.





Part II

Key spatial policies and institutional binding constraints on efforts to reshape Vietnam's urbanization pathway

The urbanization pathway described in part I has so far had the presumably intended effects of improving spatial equity, restraining migration, and limiting the emergence of slums in major urban centers, which are a common woe for many other urbanizing developing countries. However, recent years have seen the emergence of significant challenges with the overall efficiency of the urban system. Exacerbating the efficiency challenges has been a shift in structural circumstances. Vietnam's structural transformation dividend, arising from the shifting of labor from agriculture to industry and services, is diminishing because the stock of surplus agricultural labor is almost depleted. And the demographic dividend is diminishing, with the future urban labor force projected to shrink.

Vietnam's policy makers therefore find themselves at a crossroads. On the one hand, they can continue along the previous pathway—a pathway that has served the country well in recent decades, but whose costs are becoming increasingly evident. Or they can take the pathway of rethinking urbanization policies to adapt to the emerging challenges. Such a pathway offers the prospect of a move from a labor-intensive and low-efficiency growth model that is in danger of becoming unviable to an alternative model based on making better use of urbanization as the key driver of productivity, efficiency, and economic growth.

Part II of this report examines three spatial policies that have shaped the urbanization pathway so far. They have also become critical institutional elements that would constrain efforts to shift Vietnam's urbanization to a different pathway. Part II also proposes policy actions to achieve that goal. Chapter 3 looks at the institutional constraints on labor force mobility—in particular, the ho khau residence certificate registration system—and proposes recommendations to improve that mobility. Chapter 4 focuses on land and the four aspects of land associated with the urbanization process—land conversion, land allocation, land regeneration, and land use planning—and it proposes institutional reforms. Finally, chapter 5 studies the fiscal allocation and redistribution system and urban financing mechanism in Vietnam and their impacts on shaping the current urbanization.

Chapter 3

Easing constraints on labor mobility

Key findings

- Vietnam is undergoing a declining concentration of migration flows to the two economic pole regions and a growing spatial dispersion of the population to other regions. Meanwhile, interprovincial and interregional migration levels have concurrently declined, indicating that migrants are moving within a relatively limited range of their home areas.
- Metropolitan regions are characterized by weak agglomeration economies. Labor pool and efficiency patterns outside the metropolitan regions of Hanoi and Ho Chi Minh City (HCMC) indicate district-bounded economies without much agglomeration. The relatively low productivity of the largest labor pools of the two metropolitan regions are indicative of the impact of various institutional and structural limitations on labor mobility.
- Migration policies are a key factor in labor mobility. The long-standing ho khau residence certificate registration system creates inequalities in opportunities between citizens with permanent registration and those without. Consequently, migrant workers suffer from reduced access to basic public services, economic opportunities, and social welfare protections. The socioeconomic costs for migrant workers act in turn as significant disincentives for migration.
- Migrant workers lack affordable quality housing. Inadequate affordable housing and financing policies have led to a large affordable housing gap, forcing many migrants to live in poor housing conditions.
- Long-term policy development, planning, and fiscal resource allocation at both the national and the subnational level are limited by the exclusion (or underestimation) of migrants.

Key policy actions

- Improved labor mobility is central to enhancing agglomeration economies. Because of the country's diminishing demographic dividend, the metropolitan regions of Hanoi and HCMC, along with other large cities, must leverage migrant inflows to support the urban labor force needed to sustain efficient growth over the long term.
- Increased labor mobility would be facilitated by addressing key institutional and structural constraints that discourage migration (especially of families) through
- Reducing the socioeconomic costs borne by migrants and their families by eliminating inequities stemming from the residence certificate registration system
- Expanding the supply of affordable housing by reforming ineffective policies for affordable housing financing and development
- Improving planning and fiscal allocation practices at the central and local government levels to respond to the demands of migrants for public services, infrastructure, and skills development.

Introduction

The literature on migration in Vietnam establishes links among the country's economic structure, domestic labor market, and migration, and it recognizes that internal migration has been one of the main conduits for structural change (Abella and Ducanes 2011; Coxhead, Cuong, and Vu 2015). The launch of the Đổi Mới reforms in 1986 served as a catalyst for a sustained period of fast economic growth that was driven by external trade fueled by foreign direct investment (FDI). Following the market liberalization reforms, overall levels of migration increased significantly in the 1990s. Indeed, labor mobility was crucial to the country's structural and spatial transformation because surplus rural labor was able to fulfill, to some degree and in a market-driven manner, the labor needs of the burgeoning industrial parks and economic processing zones in the major metropolitan and urban areas (Coxhead, Cuong, and Vu 2015).

As discussed in chapter 2, the empirical evidence has revealed that most migration has been confined to a relatively limited geographical range and that this pattern has become more pronounced in recent years. In fact, the prevalence of intraprovincial migration is indicative of substantial constraints on labor mobility. This finding has had broader implications for the efficiency of the labor market, particularly in Vietnam's two major metropolitan areas, Hanoi and Ho Chi Minh City (HCMC), which serve as the engines of economic growth in Vietnam. Migration policies are a significant determinant of the volume and quality of labor flows to cities, which directly affect the growth of agglomeration economies in metropolitan and urban areas.

This chapter reviews the institutional and structural constraints that limit labor mobility, including the socioeconomic costs borne by migrants due to the restrictions in accessing basic public services arising from the residence certificate registration system. It concludes with policy reforms that would promote a more efficient urbanization pathway by improving labor mobility.

Evidence of constrained labor mobility

After the launch of Đổi Mới, the economic and livelihood opportunities produced by the rapid expansion of the FDI-fueled manufacturing sectors in the Hanoi and HCMC metro areas, and to a lesser extent in other large cities in second-tier regions such as Hai Phong, Da Nang, and Can Tho, spurred the migration of millions of rural workers. More recent years saw a notable decrease in overall migration levels—from 6.7 million in 2009 to 5.7 million in 2014, for an average annual decrease of 3.4 percent.³⁸ Furthermore, there was a decline in the concentration of flows to the Southeast region, which historically has been the strongest magnet for migrant labor. That region's net migration rate declined significantly, from 19.9 percent in 2010 to 5.6 percent in 2017 (table 3.1). Concurrently, the three regions that historically have been the sources of migrant outflows—the Northern Midlands and Mountains, North Central Coast and Central Coast, and Mekong River Delta—saw sharp improvements in their net migration rates. Notably, the net migration rate for the country's other economic pole region, the Red River Delta, was generally maintained at zero over this period, indicating that net migration flows to the region were generally stable as neither a net contributor nor a net receiver of migrants, even as there were major shifts in patterns in the other regions.

Table 3.1 Net migration rate: Vietnam, 2010–17*percent*

	2010	2014	2015	2016	2017
Northern Midlands and Mountains	-3.9	-2.0	-1.9	-2.5	-1.1
Red River Delta	0.5	-0.5	0.0	0.5	0.0
North Central Coast and Central Coast	-5.7	-1.8	-1.8	-1.1	-0.2
Central Highlands	-0.3	1.6	-1.1	-2.4	-0.7
Southeast	19.9	11.2	9.7	8.4	5.6
Mekong River Delta	-8.4	-6.7	-5.4	-4.6	-4.0

Source: GSO 2018.

Meanwhile, the central government's policy actions to promote rural industrialization were catalytic in reducing the income gap between urban and rural areas and between regions. As employment opportunities expanded in rural (or previously rural) areas, many potential migrant workers chose to stay in their home areas or within their home provinces instead of moving to the major metropolitan and urban areas where they would also have to bear the greater socioeconomic costs of migration.

The decline in national net migration rates and, in particular, net migration to the Southeast region reinforces the observation that Vietnam is going through a phase of a declining concentration of migration flows to the two economic pole regions and a growing spatial dispersion of the population to other regions. As industrial and service jobs have grown rapidly in both urban and rural areas, labor has been pulled away from the agriculture sector, resulting in a declining agricultural workforce since 2015. Because a large part of the recent industrial and service employment growth has been in rural areas, about one in five rural workers has been able to switch jobs without moving to cities.

Indeed, the patterns of interprovincial and intraprovincial migration over the past 15 years suggest that the destinations of migrants tend to be within a relatively limited range of their home areas. Interprovincial and interregional migration has slowed considerably in recent years. This trend is partly a function of cyclical macroeconomic factors and the central government's rural industrialization

policies. However, it is also indicative of the impact of various institutional and structural constraints on labor mobility.

How did these patterns affect the labor pools in the major metropolitan areas? Chapter 2 details how the labor pool and efficiency patterns outside the metropolitan regions of Hanoi and HCMC indicate district-bounded economies without much agglomeration. To varying degrees, the labor efficiency in the largest cities has not improved in line with urban spatial and population growth. On the one hand, the weak agglomeration economies are a result of poor infrastructure connectivity within the expanses of the two major metropolitan areas and the weak industrial linkages of FDI firms that are typically ensconced within self-contained industrial enclaves. On the other hand, the general decline in the overall productivity of the labor pool in the two metropolitan areas when the labor pool expands beyond the 10-kilometer buffer boundaries of Hanoi and HCMC suggests that the volume and quality of migrant labor inflows to the two areas have been inadequate in terms of keeping up with the needs of those labor markets. The relatively low productivity of the largest labor pools of Vietnam's two major metropolitan areas points to, among other things, the impacts of various institutional and structural limitations on labor mobility, as well as inadequacies in educational and vocational training systems. Moving forward, improving labor mobility will entail a range of policy actions to alleviate the significant socioeconomic costs that discourage migration, particularly by families.

The socioeconomic costs borne by migrant workers

The residence certificate registration system

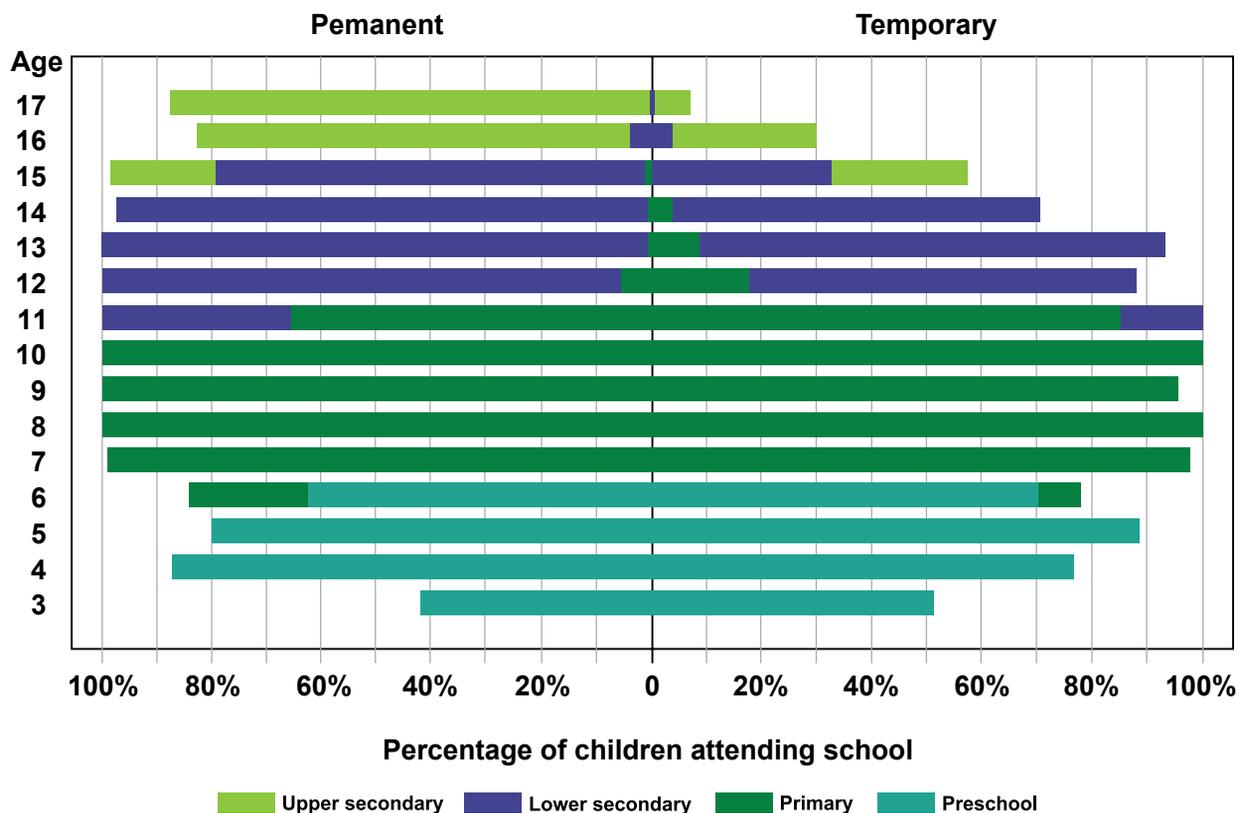
The ho khau residence certificate registration system dates back to the independence and agrarian reform of Vietnam in the 1950s. The system was originally instituted to restrict population movements to major urban centers, especially Hanoi and Hai Phong in the Red River Delta region. Under this system, a household registration booklet (ho khau) was necessary to access basic public and social welfare services, including housing, education, health care, and employment. Refinements of the system were enacted under the Law on Residence in 2007 to, in theory, simplify the process for migrants wishing to apply for permanent residency, which provides full rights to public services in the place of residence. However, amendments to the Law on Residence in 2014 pivoted toward tightening the restrictions of the system, including lengthening the required period before migrants can apply for permanent residency. Furthermore, in practice the largest cities—HCMC, Hanoi, Hai Phong, Da Nang, and Can Tho—have typically enforced strict interpretations of the system. In 2017 the Ministry of Public Security introduced new reforms (Resolution 112/NQ-CP) to modernize administration of the system. However, it is not clear what the eventual implications are for the ability of migrants to access public services—see annex 3A and World Bank (2016) for details on the ho khau system.

Extensive research has shown that the restrictions on accessing public and social welfare services institutionalized by the long-standing residence certificate registration system creates significant socioeconomic costs for migrant workers from which people and families with permanent residency are generally exempt. As a result, there are clear inequalities in opportunities between citizens with permanent registration and those without (World Bank and Ministry of Planning and Investment 2016). Basic services such as education, health care, legal, housing, and public utilities are difficult to access for those without permanent residence status. Migrants are therefore frequently forced to absorb travel and opportunity costs to return to their home areas to access the basic services they are unable to access in their places of migration because of strict enforcement of residency restrictions, especially by the largest cities.

Limited access to educational facilities and health care services

School enrollment is a major issue for migrants, who cite their residence status as the main cause of discrimination (Oxfam 2015). Data from the World Bank's 2015 Household Registration Survey³⁹ reveal that many public schools give permanent registrants higher priority in admissions (figure 3.1), which is mainly due to the lack of infrastructure capacity and financial and human resources. Consequently, children with temporary registration are much less likely to be enrolled in schools at the lower and upper secondary levels.⁴⁰ Even as the percentage of migrant youth ages 11–18 who never attended school declined between the 2004–09 and 2009–14 censuses, 78 percent of nonmigrant children ages 11–18 were attending school in 2014, whereas the comparable rate for children of interprovincial migrants was just 46.8 percent (GSO 2016a). At lower levels, the overall enrollment rates are similar, but temporary registrants are much more likely to be enrolled in more expensive private schools, creating a significant financial burden for migrant families.

Figure 3.1 School enrollment rates of permanent and temporary registrants: Vietnam, 2015



Source: Demombynes and Vu 2016.

Despite a national policy of free health insurance, migrants are often unable to access benefits under the health insurance system in their place of migration. Only 19 percent of temporary residents have a designated health facility (Oxfam 2015). Furthermore, a higher proportion of female migrants than male migrants (69.8 percent compared to 64.8 percent) have health insurance despite the fact that women tend to use health insurance more than men (52.2 percent compared to 46.9 percent) (UNFPA 2016). Thus despite the government's universal coverage policy, many migrants who are unregistered or have obtained only temporary residency status have no choice but to go back to the location of their permanent registration to access health facilities. As a result, temporary registrants often face higher overall costs for health care because of limited access to public health facilities in their place of migration.

The reduced access of migrants to the educational and health systems is a significant disincentive for family migration because of its particularly severe impacts on children. The consequences of these inequities are illustrated by the difference in the basic household structure of families of permanent residents, who average 4.1 persons per household, and the families of temporary residents, who average just 2.7 persons per household. Children are present in just 24 percent of temporary residency households, compared with 61 percent of permanent residency households.⁴¹

Limited access to other administrative and public services

Permanent residency status is required to access many basic administrative procedures such as birth, death, marriage, and motorbike registration and access to authorized financial services. The lack of access to these services limits the livelihood and business opportunities for many migrants and forces them to seek solutions through unofficial channels, which may incur additional costs such as bribes and informal fees. Temporary residents may also encounter difficulties when cities resettle them for urban projects because they may not be entitled to the full package of compensation. The risk of losing land use rights in the place of origin when changing their status from temporary to permanent registration in the cities discourages migrants from pursuing a change in their registration status. Furthermore, before the central government implemented a new multidimensional poverty measurement in 2016 for the period 2016–20 to provide a more complete accounting of migrant workers, temporary residents were typically not counted in the surveys and thus excluded from government poverty reduction programs and vaccination and disease campaigns (Oxfam 2015).

Limited employment opportunities

Although permanent residency is not a requirement for employment in the private sector, public employment is commonly restricted for temporary residents, especially in Hanoi and Da Nang. Only 6 percent of temporary residents work in the public sector versus 18 percent of permanent residents. Apart from the access to public employment, migrants with temporary residency status face disadvantages in the labor market in terms of quality of job (the majority are employed in the informal sector) and working conditions such as wages, working contracts, social protection, and labor rights. As a result, controlling for education, the income of migrants is 21 percent lower than that of nonmigrants (World Bank and Ministry of Planning and Investment 2016).

The uncertainty among migrants about obtaining permanent residency status is a factor contributing to the informality, instability, and precariousness of employment (Oxfam 2015). During economic shocks, migrants become more vulnerable to the loss of employment or underemployment.⁴² Workers

who are unable to find employment in urban areas frequently return to the countryside or move to other urban areas to seek employment opportunities. Some migrants stop sending remittances or return to their households, which can have severe implications for income flows for poor and economically vulnerable families (Nguyen, Raabe, and Grote 2015).

Precarious living conditions

Because of their residential status, most migrants seek accommodation in low-quality housing in neighborhoods with poor physical infrastructure and services. Housing conditions are frequently degraded because of lack of investment in infrastructure, leading to polluted environments and poor access to affordable clean water, electricity, and sewerage systems. As a result, according to the 2015 National Internal Migration Survey, nearly 30 percent of migrants feel they have “worse” or “far worse” housing conditions than those they had before migrating.⁴³ Furthermore, 42.6 percent of migrants report they have “housing problems,” ranking ahead of other issues such as “no income” and “access to job.” In particular, female migrants are found to be more likely to face such difficulties in their new places of residence compared to male migrants (UNFPA 2016).

Recent surveys indicate that housing types and conditions reflect the precariousness of temporary residents (GSO 2016a). Most migrants (67.5 percent) live in semipermanent houses,⁴⁴ compared with just 43 percent of nonmigrants. In the major metropolitan and urban areas, the supply of housing for migrants falls far short of the very high demand. As a result, the cost of purchasing or renting is very high, leading migrants to live in small, crowded (or shared) houses, apartments, and living spaces. Although only 14.3 percent of nonmigrants live in spaces smaller than 10 square meters, over 43 percent of intraprovincial migrants live in such cramped spaces, with the shares even higher in Hanoi and HCMC and in areas with developed industrial zones such as the Southeast region. Finally, migrants often have to pay higher costs for utilities than nonmigrants (up to three times higher for water and twice as much for electricity) because they cannot apply for the progressive rate structures that are available to permanent residents (Oxfam 2015).

Institutional and structural constraints on labor mobility

The socioeconomic costs that migrant workers must bear significantly discourage them (and particularly their families) from moving long distances to cities that strictly enforce the residence certificate registration system. As a result, the flow of labor to the major metropolitan and urban areas is constricted, even though those areas urgently need to broaden and improve the productivity of their labor pools. Policy makers should therefore consider several fundamental institutional and structural challenges as Vietnam seeks to facilitate greater labor mobility to support a fast-growing and more efficient economy.

Restrictiveness of the *ho khau* residence certificate registration system

Numerous reports (GSO 2011, 2016b; World Bank and Vietnam Academy of Social Sciences 2016⁴⁵) and studies (Giang et al. 2011; Gubry, Thieng, and Morand 2011; Oxfam 2015⁴⁶) have found the *ho khau* residence certificate registration system to be a major factor in social discrimination and to have a direct or indirect impact on migration patterns. Although it is difficult to estimate precisely the effects of the prevailing system on the overall levels of and recent trends in migration, it is clear that the system provides potential migrants, and especially migrant families, with a wide range of disincentives that counteract the strong incentives to migrate to urban areas for economic reasons. In particular, the current system discourages migration over longer distances (interprovincial and interregional migration) because migrants are more likely to move to closer destinations in order to reduce the travel and opportunity costs of returning to their home areas to access public services that are not accessible in their places of migration.

As discussed in annex 3A, the various reforms of the *ho khau* residence certificate registration system over the past decades should have, in theory, increased the flexibility of the system. However, the evidence suggests that the largest cities in Vietnam continue to strictly enforce the system's restrictions. The decisions of local governments to maintain the restrictions that prevent or limit the access of migrants to local services is linked to the fiscal constraints of local governments in expanding

urban services and infrastructure to accommodate the needs of migrant workers and their families.

Inadequate housing development and financing policies

Migrant workers face significant limitations in accessing affordable and quality housing, especially rental units. In the third quarter of 2014, of the 15.8 million people employed in urban areas, 3.1 million were in the manufacturing sector and, of those, 2.3 million were working in 295 industrial parks and 15 economic zones across the country. Among the industrial workers, approximately 78 percent or 1.8 million people rented their dwellings. It is estimated that the official supply of housing is only sufficient to respond to 10 percent of the demand for rental housing, indicating that most people end up renting via informal avenues (World Bank 2015). It is widely acknowledged that there is a substantial unmet need in industrial zones for adequate rental and starter home options. The negative impacts of the housing gap on the quality of the living conditions of migrants are substantial.

In the 1990s, the central government largely disengaged from the production of housing, leaving the field to self-building solutions dominated by small-scale developers and individual households, which represent 75–80 percent of the current supply of the market.⁴⁷ This policy shift by the government did not address the problems in housing supply, particularly affordable housing. The private sector commonly encounters difficulties in acquiring land and accessing financial resources and generally has low technical skills. The following recent national and local regulations have attempted to address the housing supply issue:

- The Housing Law of 2015 initiated by the Ministry of Construction (MOC) sought to reduce the gap between housing demand and supply by promoting self-built housing, encouraging affordable housing rental, and renovating old public housing blocks.
- Decree 188/2013 stipulated that 20 percent of the land in new urban areas should be allocated to social housing. In addition, some urban and infrastructure programs have facilitated the development of basic infrastructure and improved housing conditions in low-income areas in an effort to formalize and expand the housing stock.

- Other programs have been developed to engage the private sector, which has largely focused on residential projects for high- and middle-income segments. For example, the 30 Trillion Stimulus Package developed in 2013 by the MOC and State Bank of Vietnam sought to reorient private developers to the affordable middle-income housing sector by maintaining inventories of the oversupply of high-end projects.

However, the recent attempts to implement housing regulations and initiatives, such as Decree 188/2013 and the social housing program for workers, have not been effective (see box 3.1). As land prices have

risen in the major urban areas, the financial viability of low-income projects has been compromised, and the dynamics of the land market has pushed private developers to invest in more profitable luxury and upper-class residential projects. Furthermore, inadequate land planning and ineffective coordination among various government sectoral plans (industrial, urban, and housing) have discouraged the construction of housing. Finally, public housing projects have struggled to respond to the demonstrated needs of workers in industrial areas because these projects are poorly located and insufficiently connected to productive centers, with limited social services and substandard infrastructure.

Box 3.1 Social housing program for workers

A program for social housing for workers in industrial zones was launched in 2009, pursuant to Decree 66. This decree required investors in industrial zones to plan areas for social services and housing for their workers. The goal initially was to provide some 50 percent of the 2.2 million industrial park workers with accommodations by 2015. Investors could opt to build units themselves or transfer land with infrastructure to developers to build houses for lease to workers. Land was to be allocated in industrial zones and through the 20 percent social housing requirement for commercial or new urban development projects, as specified in Decree 188/2013. Local budget allocations would be made available by the Provincial People's Committees (PPCs) for compensation of landowners, site clearance, and construction of infrastructure for industrial workers' housing. The minimum living area for industrial workers was set at 5 square meters per person. Rent levels had to be approved by the PPCs, adhering to the principles that state expenses are not included, that the investor profit does not exceed 10 percent, and that the capital recovery period is set at a minimum of 20 years. Investors received additional incentives regarding land use fees and taxes.

The results of the program fell far short of expectations. Over 6 million square meters of social housing for 960,000 workers in industrial zones was set as the target. But as of 2014 only 123 projects had been approved, totaling less than 500,00 square meters. Of these, 64 were completed (20,277 units), and 59 projects were still being implemented (66,753 units). The effectiveness of the program was diminished for several reasons. Many of the units provided for industrial workers consisted of shared rooms with up to 10 tenants, which is not the preferred option for those workers with families or others who opt to rent rooms from households in the surrounding areas and commute. Furthermore, investors generally do not have much interest in managing housing units. Finally, the process and requirements for negotiating local government support were not transparent and were usually carried out on an ad hoc basis, which made it difficult for investors to plan.

Source: World Bank (2015).

Lack of consideration of migrants in planning and fiscal resource allocation

Inadequacies in central government planning because of underreporting of migrants

The lack of reliable data on migration, which Resolution 112 of 2017 seeks to address, is an important limitation to efficient strategic planning and policy making at the central government level.⁴⁸ Central government censuses and household surveys have filtered out migrants and underestimated the number of short-term and seasonal migrants (Abella and Ducanes 2011; Gubry, Thieng, and Morand 2011). In addition, currently no comprehensive data and surveys integrate the different dimensions of migration, such as demography, labor, spatial patterns, and urbanization. For long-term policy development, the exclusion or underestimation of migrants limits the validity and effectiveness of sectoral plans and policies prepared and implemented by ministries such as the socioeconomic development plans (Ministry of Planning and Investment), social protection and internal migration policies (Ministry of Labor, Invalids and Social Affairs), educational and vocational policies (Ministry of Education and Training), and housing policies (MOC).

At the local level, the high percentage of unregistered migrants contributes to underestimation of the infrastructure needs and development policies in the major metropolitan areas of Hanoi and HCMC. In line with this, the lack of a full accounting of unregistered migrants in official government surveys and administrative data has probably led to an underestimation of the actual official urbanization rates of cities.

Lack of fiscal support for cities to compensate for migrant inflows

The structure of intergovernmental fiscal relations in Vietnam is complex, with a high degree of expenditure decentralization in areas such as education, infrastructure, and health care. The formula for balancing transfers from the central government is highly contingent on population counts for both estimation of expenditures and revenue capacity. The largest cities, which attract the highest percentages of temporary residents, are considered “net contributors” that do not receive balancing transfers from the central government because of their relatively large tax bases. As a result, these cities are largely responsible for dealing with the challenges of financing public infrastructure and services for their populations, which are boosted by inflows of migrants. For example, according to the World Bank’s 2015 Household Registration Survey, temporary residents comprise 72 percent of the residents of Binh Duong; 36 percent, HCMC; 18 percent, Hanoi; and 12 percent, Da Nang.⁴⁹ These numbers are likely to be considerably deflated by the undercounting of unregistered migrant workers.

The lack of fiscal support from the central government to compensate the largest cities for the fiscal impacts of migrant inflows is a strong incentive for local governments to strictly enforce the restrictions of the residence certificate registration system in order to reduce the burden on urban service delivery (box 3.2 summarizes the broad challenges in education and health services delivery). Furthermore, the poor design and implementation of national housing programs have also forced cities, which face financial and technical capacity constraints, to deal with the shortages of affordable and quality housing with insufficient support from the central government.

Box 3.2 Education and health care delivery challenges in cities

Education. Overall enrollment rates in Vietnam are slightly higher in its urban areas than in its rural areas. According to the preliminary results from the 2019 Vietnam Population and Housing Census (GSO 2019), net enrollment rates at the primary and lower secondary levels are slightly higher in urban areas (98.3 percent and 91.6 percent, respectively) than in rural areas (97.9 percent and 88.1 percent, respectively). The rate at the upper secondary level is significantly higher in urban areas (76.4 percent) than in rural areas (64.4 percent). Literacy rates (ages 15 and older) are consequently higher for urban than for rural residents (98.3 percent versus 94.3 percent).

However, the data for major urban areas do not adequately capture households that are not registered in that locality, which include many migrant workers and those residing in informal settlements. Based on data from the 2015 Household Registration Survey (World Bank and Vietnam Academy of Social Sciences 2016), registered temporary residents have considerably lower net enrollment rates than permanent residents (table B3.2.1). The low enrollment rates of migrant children are a long-term concern (see figure 3.1), both for a child's own chances of success in the labor market and for the wider economy because of the importance of human capital to long-run development success.

Table B3.2.1 Net education enrollment rates: Vietnam, 2015

percent

	Permanent residents	Temporary residents ^a		
		All	Long term	Short term
Primary	98	95	96	94
Lower Secondary	99	88	93	74
Upper Secondary	89	30	39	8

Source: World Bank and Vietnam Academy of Social Sciences 2016.

a. Long-term temporary residents are those classified as KT3 under the *ho khau* system—that is, they do not have permanent registration at the place of current residence but have temporary registration for 6–12 months with the possibility of extension. Short-term temporary migrants are those classified as KT4—that is, they do not have permanent registration at the place of current residence but have temporary registration for 1–6 months. For more details, see annex 3A.

Another pressing issue is the overcrowding of schools, which is symptomatic of the congestion of basic education services. According to data from the General Statistics Office of Vietnam, the average number of pupils per class (across primary and secondary levels) increased from 30.5 in school year 2014–15 to 33.2 in school year 2018–19. Similarly, the average number of pupils per teacher increased from 17.6 to 20.6 over the same period. Particularly in Hanoi and HCMC, the problem continues to worsen because the average number of pupils per class is typically 50–60. The number of schools, classrooms, and teachers has not kept up with the growing demand for education. Large class sizes impede any innovation in teaching and learning, which is critical to furnish students with 21st-century skills. Moreover, instead of moving toward student-centered active learning, schools have no choice but to focus on lecture-based teaching. Consistent with this finding, whereas overall Vietnamese children can expect to complete 12.3 years of schooling by age 18, those years of schooling fall to 10.2 once the years are adjusted for the quality of schooling based on harmonized international test scores.^a This finding suggests that school overcrowding may be contributing to a significant learning gap in Vietnam's cities.

Health care. Data from the 2016 Vietnam Household and Living Standards Survey indicate that patients in urban areas are more likely to access both out- and in-patient treatment in government hospitals than are rural patients. The fact that rural patients tend to be more reliant on commune health centers than urban patients (table B3.2.2) is broadly indicative of the better access of urban residents to higher-quality health care in cities, particularly higher-level, more technical hospital services.

	National	Urban areas	Rural areas
Out-patient treatment			
Government hospital	46.0	58.3	38.9
Commune health center	17.7	6.7	23.9
Private health facility	31.2	30.4	31.6
Other	5.2	4.6	5.6
In-patient treatment			
Government hospital	85.1	88.2	84.0
Commune health center	5.2	2.0	6.4
Private health facility	6.3	7.7	5.8

However, overcrowding of hospitals is a major problem across the country. According to a 2019 PricewaterhouseCoopers report, average occupancy rates for public hospitals at both the national and the provincial level exceeded 100 percent from 2007 to 2011, which compares unfavorably to the 80 percent threshold occupancy recommended by the World Health Organization. It is also reported that the perceived quality of medical equipment or staff in the provincial-level hospitals is lower than in the national-level hospitals. As a result, patients commonly travel to already overcrowded national-level hospitals to try to access treatment rather than going to their local district or provincial hospital. This in turn exacerbates the congestion of health services in major cities, including Hanoi and HCMC.

In terms of health insurance coverage, urban residents have a higher average coverage rate (86.1 percent) than their rural counterparts (83.1 percent).^b However, according to the 2015 Household Registration Survey (World Bank and Vietnam Academy of Social Sciences 2016), migrants and their children suffer from poorer access to health insurance. Health care insurance coverage for adults with permanent residency stood at 68 percent in 2015, whereas the comparable coverage rate was 64 percent for adults with temporary residency. For children of temporary residents ages 0–5, the health insurance coverage rate was just 74 percent, compared with 87 percent for children of permanent residents. For children of temporary residents ages 6–14, the health insurance coverage rate was 88 percent, compared with 96 percent for children of permanent residents.

a. https://databank.worldbank.org/data/download/hci/HCI_2pager_VNM.pdf.

b. Based on data from the 2016 Vietnam Household and Living Standards Survey.

Lack of clarity on the fiscal impacts of migrants on local governments

The provision of basic social services is critical to making urbanization inclusive, but the cost of extending education and health services places local governments under a considerable strain. Few studies have examined the financial impacts of higher migration and the integration of temporary migrants. A cross-provincial statistical analysis estimated that each additional person is associated with an increase of VND 388,000–456,000 a year in health care and education expenditures (Demombynes and Vu 2016). The net fiscal impact of each additional migrant is somewhat uncertain, but it is more positive than a focus on expenditures alone would imply, ranging from VND –697,000 to VND +3,346,000 a year. All in all, the empirical analyses are inconclusive about the impact of migrants on local public revenues and expenditures. Consequently, local officials maintain the prevailing view that migrants represent a significant fiscal burden on local governments.

Enhancing agglomeration economies through improving labor mobility

Implications of constrained labor mobility for labor productivity

From the perspective of the central government, migrants have generally been considered a source of labor for the industrial sector in the country's major urban centers. Although intermittent efforts have been made in recent decades to increase the flexibility of the residence certificate registration system, the system continues to maintain the restrictions on the access of nonpermanent residents to the public and social welfare services accessible to permanent residents. This reflects the prevailing view at both the central and local government level that migrant workers are temporary residents who are not expected to settle in the cities where they moved to seek employment. A primary motivation for maintaining the status quo of a restrictive *ho khau* system is to control migration to major urban areas. Although difficult to quantify precisely, the policy has undoubtedly helped Vietnam's large metropolitan areas avoid urban problems commonly experienced by major cities in developing countries, such as urban segregation and the prevalence of slums. Thus there is an understandable reluctance to enact wide-ranging changes to the residence certificate registration system.

However, the broader and longer-term implications of constraining labor mobility in Vietnam should convince policy makers to reconsider this conventional wisdom and consider measured steps to improve the flexibility of the system. Policy makers must recognize that the present situation is very different from that of 20 or even 10 years ago. Urbanization has spread throughout the country, and rural industrialization strategies have helped create more diverse employment opportunities for rural residents within a narrower geographical proximity. Yet as discussed in chapter 2, the weak agglomeration economies in the country's major metropolitan and urban areas point to the inefficiencies of the country's urbanization and industrial structure. In general, labor productivity has been found to generally increase as the size of the labor pool increases in Vietnam's two metropolitan areas. The fact that the overall productivity of the labor pool declines in those areas when the labor pool expands beyond the 10-kilometer buffer boundaries of Hanoi and HCMC suggests that labor mobility constraints have dampened the productivity of the labor pools in these areas. If the current trend of declining migration to the major urban areas, particularly the Hanoi and HCMC metropolitan areas, continues, then it is very possible that the productivity of the labor pools in these areas may be unable to improve in line with urban spatial and population growth to support the needs of higher-value industrial growth.

Promoting family migration to enhance agglomeration economies

The positive effects of the migration of families to urban areas with high labor demands should be carefully assessed by policy makers and balanced against the costs, both real and perceived. Providing a more stable and supportive situation for the families of migrant workers in which they are given equitable access to public and social welfare services is a critical part of facilitating agglomeration economies in the major metropolitan and urban centers. In the short term, the size and quality of the labor pool could be enhanced by increasing the incentives for migrant workers to pursue skills development and by increasing the number of members of migrant families available to join the labor force. In the long term, the major metropolitan and urban areas will benefit from a better-educated labor pool in which all children receive the same educational opportunities regardless of whether they are from the families of permanent residents or the families of migrants.

The importance of promoting labor mobility by loosening the constraints on migration is particularly heightened by the diminishing demographic dividend in the country—the declining birth rate is leading to the progressively slower organic growth of urban populations⁵⁰. Because of these circumstances, Hanoi and HCMC, along with other large cities, will inevitably need to leverage migrant inflows to supply the urban labor force needed to sustain efficient growth over the long term.

Meanwhile, services that promote opportunities for both men and women to benefit from and contribute to local economies are important for cities in stimulating economic growth. Vietnam has made considerable progress in closing the key gender gaps in access to paid jobs and equal pay as well in access to education for girls and boys but more efforts are needed to improve the legislation and policy in general and related services relating to childcare and personal safety in urban space in particular (see box 3.3)

Box 3.3: Gender dimensions in urban development

Time use: Women's household and care responsibilities constrain their ability to work on equal terms as men. There is a gender gap in the share of urban women engaging in paid work compared to men. The current 'ho khau' system has strong gender dimensions in urban areas, especially in Hanoi and Ho Chi Minh City, through increasing women's time spent on unpaid household responsibilities. The Bank's qualitative research indicates that women typically take primary responsibilities for navigating the hurdles of health and education success for their children. Women largely bear the burden of dealing with limited access to health insurance for children. Women who are working in particular can face the challenge of taking time off from work to negotiate the rules to obtain coverage and care for their children. The gap⁵¹ in lower secondary enrollment for temporary vs permanent registrants is much larger for girls, which⁵² may indicate that temporary registrant parents are willing to make greater efforts to overcome 'ho khau' barriers for male children. These empirical findings reflect a necessity to promote an urban environment that facilitates equal opportunities for men and women to access paid work.

Wage gaps: The Bank's survey in few⁵³ selected cities indicates that women received lower wages than men, and these differences are similar regardless of registration status. The wage gap persists due to occupational segregation, the burden of unpaid family care, discrimination against women in the workplace, and labor laws that limit women's career options. These⁵⁴ findings could inform discussions on fostering gender-neutral industry in cities where the rise of knowledge economies, a growing service economy, and a greater reliance on automation will favor more educated workers. Since women already have higher education levels than men, these jobs should naturally benefit women. Notably, *what* a country exports matters for gender equality in labor markets. Thus, policymakers should put a gender lens on their strategies for negotiating foreign-investment or supporting export strategies.

Policy reforms to facilitate labor mobility

Improving labor mobility requires addressing the institutional and structural constraints that discourage migration, particularly of families. Because of the wide-ranging nature of the constraints that inhibit labor mobility, a multipronged approach is required to (1) eliminate the inequities caused by the residence certificate registration system; (2) reform ineffective policies for affordable housing finance and development; and (3) improve planning and fiscal allocation practices at the central and local government level to respond to the demands of migrants on public services, infrastructure, and skills development.

Reduce the socioeconomic costs to migrants posed by the residence certificate registration system

Recent efforts to reform the *ho khau* residence certificate registration system have mainly centered on bureaucratic simplification. This is a major step, but it overlooks the implications in terms of registration status and migrants' rights to access basic public services. As internal migration becomes a more important factor in facilitating labor mobility to fulfill the demands for labor in the key economic growth engines of Vietnam, the social and equity dimensions of migration, particularly with respect to families, require the urgent attention of the central government.

Several reform options would help address the outstanding issues and reduce the disincentives for family migration. These reforms would significantly reduce the vulnerability of migrants to the loss of employment or underemployment during economic shocks. Meanwhile, the progressive elimination of restrictions on access to public services based on residence registration status would contribute to increasing the social participation of migrants in local communities, advancing knowledge about their rights, reducing their vulnerability, and promoting social inclusion.

Reduce obstacles to obtaining permanent registration

If permanent status could be obtained by migrants in an efficient, timely, and low-cost manner, the barriers they face to accessing public services would be mitigated. Migrants' access to services would be facilitated by shortening the time before residents can apply for permanent status as well as simplifying the set of requirements that city governments can impose on

permanent status applicants (World Bank and Vietnam Academy of Social Sciences 2016). This issue remains problematic in the largest cities—Hanoi, HCMC, Hai Phong, Da Nang, and Can Tho—which have managed to avoid implementing the simplified procedures espoused by recent national policies, particularly Resolution 112. As noted, these cities generally apply stricter requirements to filter migrants in an effort to avoid becoming welfare magnets (World Bank 2014). A modern residence registration system should be implemented nationally in an integrated way so that all local governments conform to standard regulations and processes. If local policies currently do not align with national policies (such as in Hanoi and Da Nang), the central government should work with local governments to define the steps needed to eventually eliminate policy gaps.

Eliminate restrictions on access to public services based on residence registration status

An alternative, and more aggressive, policy option would be to abolish the fulfillment of permanent registration requirements as a precondition for access to local public and social welfare services. At present, regulations attach access to public services to household residential registration status and prevent migrants from gaining access to hospitals, health centers, and public schools located where migrants are not registered. One possible approach would be to delink service access from registration status and provide an option for migrants who do not have permanent residence status to avail themselves of public services. This proposal should be associated with adjustments to public investment and fiscal policies, as elaborated later in this chapter.

The majority of migrant workers are employed in the private sector, but the elimination of permanent registration requirements for public employment would expand the opportunities for them to seek public jobs. Eliminating these restrictions would also facilitate their access to employment information centers, job placement services, and vocational training classes. In particular, female migrants are less likely than male migrants to have professional or technical qualifications (UNFPA 2016).⁵⁵ Eliminating restrictions would help migrants to access formal employment, credit, insurance, and other social protection initiatives provided by employers. It would also allow them to take advantage of the government's social welfare, such as poverty reduction programs, progressive rate structures for electricity and water, social insurance, and microcredit programs.

Adopt specific reforms to accommodate the needs of migrant families

Specific efforts are needed to integrate current temporary residents in cities and facilitate future family migration, especially for skilled laborers. An important area of reform is to expand access to basic education for the children of temporary residents. The central government should consider providing fiscal incentives to local governments that perform well and subsidize efforts by local governments to improve school facilities and buildings, improve student-teacher ratios, and provide financial assistance such as for enrollment fees, school materials, and tutoring. Because of the capacity constraints of the current public school system, local governments may consider extending support to private schools, subject to regulation and oversight.⁵⁶ Children of temporary residents should also have equal access to basic health services, such as vaccinations and basic medical consultations. Progressive options for expanding basic social services could be adopted to adjust the modality of service provision with adequate funding. These reforms would minimize the intergenerational transmission of inequality and address the problem of left-behind children.

Expand the supply of affordable housing

The 2013 Land Law and the 2015 Housing Law recommit the government to ensuring that low-income people, including migrants, are not excluded from the market and to supporting their access to affordable and adequate housing. The Housing Law has reoriented housing policy toward urban areas, particularly self-built housing and affordable rentals. The policy framework to support robust development of affordable housing is already established, but the central government must commit to implementing existing policies in partnership with local governments and the private sector. To supplement these policies, concurrent efforts to promote urban redevelopment and expand housing incentives should be supported.

Expanding affordable housing supply in cities depends critically on obtaining accessible and affordable land for use in developing housing. Such a step would entail better regulation of land markets, supported by integrated spatial and sectoral planning. Chapter 4 discusses the key institutional issues and policy reforms affecting land and planning that are critical to ensuring the provision of an adequate supply of land for affordable housing development.

Support urban redevelopment in cities

Incremental approaches, such as in situ upgrading and redevelopment of in situ resettlements (akin to “vertical land pooling”), should be supported in the largest cities to increase the supply of affordable housing stock—an important source of rental housing for migrants. Urban upgrading programs should be scaled up to provide underserved neighborhoods with basic infrastructure. Microfinance instruments integrated with technical assistance would allow households to carry out home improvements and incremental expansion.

A framework for community participation in neighborhood development that allows fair and effective negotiation between stakeholders could facilitate open discussions about planning neighborhood upgrading, resettlement, and in situ rebuilding alternatives. Additional reforms include streamlined legal and administrative processes that provide more flexibility, such as inclusive construction permits, and revised development standards that better reflect market demand. Box 3.4 describes a pilot project in Vinh city that succeeded in redeveloping an old neighborhood through a participatory approach.

Box 3.4 Community housing redevelopment program in Vinh city

In the medium-size city of Vinh, 99 collective housing developments (both one-story row house developments and low-rise blocks of flats) were built for factory workers at the end of the war in the 1970s, when the city was earmarked to become a new industrial center. With support from the Asian Coalition for Community Action (ACCA), 29 families in Cua Nam ward living in these now crowded and dilapidated row houses were able to plan and reconstruct their own housing on the same site. ACCA provided housing loans, community training for housing planning and construction, and liaison between the community and local government authorities. The ACCA-supported Community Development Fund also underwrote housing loans of VND 150,000 a month at 0 percent interest over 10 years. The pilot yielded two-story row houses on 45-square meter plots with widened lanes and drainage. Upon project completion, the city made plans to apply the same self-upgrading model to 135 communities across the city. Throughout the process, the city created the environment needed for the community to connect with architects and financing by easing administrative procedures associated with land use rights and providing zoning and construction guidelines.

Source: World Bank and Australian Aid (2014).

Expand housing financing incentives for private sector development

Innovative approaches to financing housing are also needed to stimulate the supply of affordable housing, especially rental housing. The restructuring of existing programs such as the 30 Trillion Stimulus Package and the customization of financial products to better meet the needs of the market should be encouraged. If providing subsidies for low-income tenants is not realistic, subsidies and financing for private landlords supplying low-income rental housing should be provided, including credit facilities or subsidies for poor landlords who wish to extend or improve their accommodations.

To attract investors and ensure that affordability can be maintained, subsidy programs should be scaled and calibrated to target priority groups and four categories of landlords: (1) small-scale landlords (the most common); (2) commercial landlords; (3) public sector landlords; and (4) employers' landlords. In addition, the Ministry of Construction and local authorities should encourage the diversification of building forms, taking into consideration minimum standards of living (such as materials, design and implementation, and quality control) and geographic conditions, especially climate change. Other steps might be providing technical assistance to build capacity for different stakeholders and improving the information offered on the rental sector. Mechanisms for written contracts, conciliation, and arbitration should be promoted to reduce vulnerability. Box 3.5 describes how the private sector in Binh Duong actively participated in the provision of affordable housing tailored to the needs of migrant workers.

Box 3.5 Affordable housing in Binh Duong city

Since 1993, Binh Duong has developed 32 industrial zones with an occupancy rate of 70 percent. With its urban population rate reaching 78.7 percent in 2014 (up from 4.7 percent in 1989), it became the third-highest urbanized province in Vietnam. Rural areas have been converted into industrial areas, and new urban administrative units were created in 2011–13 to integrate the massive flows of rural migrants. As a result of the spatial growth, industries and residential areas are juxtaposed, but they are mainly expanding without adequate infrastructure such as water and sewerage networks, roads, electricity, and waste collection and treatment.

In Binh Duong, the private sector is playing a growing role in land use and urban planning mechanisms. One example is Becamex IDC, the master developer of several industrial parks in Binh Duong and other provinces. In addition to commercial residential projects, Becamex invests in social housing—37 projects from 2011 to 2015. Built in convenient locations, they are designed to meet the economic and social needs of their residents (apartments consist of five-floor blocks, 30–60 square meters in size). Meanwhile, the private sector (including joint ventures such as Becamex-Tokyu and Setia Becamex) have become the main actor in the production of affordable housing in the city, filling in for public authorities.

Source: World Bank team.

Improve planning and fiscal allocation

Adopt fiscal reforms to support cities in meeting the demands for urban service delivery, infrastructure investment, and skills development

The central government must recognize that it has a critical role to play in supporting efforts by cities to expand the access of migrants and their families to public and social welfare services. Historically, fiscal constraints have been among the most prominent factors driving the largest cities to strictly enforce the restrictions of the *ho khau* residence certificate registration system on temporary residents. Local governments have been extremely concerned about overburdened urban infrastructure and public services, and they have not received the support they need from the central government to respond to the demands of migrant inflows. In China, the reform of the *Hukou* residence registration system was accompanied by a change in intergovernmental fiscal responsibilities that promoted fiscal sharing arrangements for providing all residents with social services (World Bank 2014). In that change, a financial framework was established for each type of service (such as

compulsory education, basic public health care, social security, social assistance, and welfare housing), and it served as the basis for fiscal sharing arrangements between the central and local governments.

Similar financial analyses should be undertaken in Vietnam's major cities to assess labor demand, estimate the economic benefits to be gained from formalizing the status of migrants, and calculate the additional costs of extending infrastructure and social welfare services, including vocational training and skills development for laborers, within the current fiscal capacity of each city. This empirical analysis should be the basis for assessing the fiscal and investment gaps of those cities, which the central government should seek to compensate. Compensation mechanisms could include (1) adjustments to increase local taxes (such as piloting the property tax, as discussed in chapter 5); (2) fiscal allocation mechanisms to provide the major cities with additional resources and tools (also discussed in chapter 5); and (3) fiscal incentives that correspond to cities' performance in equitably providing migrants with basic services. Public-private partnerships could also be considered, particularly in the education and health sectors.

Critically, the availability of vocational training and skills development programs must be expanded to enable workers to adequately meet the needs of the local labor markets. Increased labor mobility through reforms of the household registration system must be accompanied by the expansion of vocational training programs for migrants to equip them with the skills they need to readily meet the demands of firms and urban residents. Local governments must invest in the expansion of vocational training programs in partnership with employers (UNDP 2016). Engaging the private sector is key to ensuring that the programs are responsive to market needs and adopt new technologies. Within the Asia-Pacific region, Vietnam has one of the lowest rates of training provided within enterprises (ADB 2014). Local governments should consider tax and other incentives for firms to provide on-the-job training and to develop the curriculum of technical and vocational training institutions.

Improve the collection and utilization of migration data

The methodologies used for the national census should be improved to fully account for migrants, regardless of their registration status. Regular surveys targeting migrants should be conducted to understand their magnitude, flow, and characteristics, including their needs in terms of employment, social interaction, service provision, and living conditions, especially for the largest cities that attract large flows of migrant labor. Survey data should be disaggregated by sex in order to clearly understand the distinct variations between male and female migrants. For example, the

Vietnam Household Living Standards Survey should include a module on migration as part of the regular survey. Questionnaires should be designed to target different types of migrants, paying particular attention to migrant workers in industrial zones. Such a step would ensure the gradual development of a consistent and comparable database on migration over the years, building on the 2015 Household Registration Survey.

Most important, the central government should ensure that comprehensive and accurate migration data are used to design national poverty reduction and social welfare programs and to determine fiscal sharing arrangements with local governments. Local governments should utilize this data and conduct additional in-depth surveys and monitoring activities as needed to fully incorporate migrants, regardless of their residence status, in the development of integrated socioeconomic, spatial, and infrastructure plans, as discussed in chapter 4. The utilization of sex-disaggregated data is also crucial to integrate different needs and priorities of men and women in municipal budgeting and planning. For example, a key lesson learned from the World Bank-financed Dynamic Cities Integrated Development Project in Thai Nguyen City is the collection and use of strong evidence on demand and supply in early childhood education and care (ECEC) to strategically advocate for prioritizing ECEC in the city's planning and budgeting to be included in the City's Socio-Economic Resolution for 2016-2020. The city's leaders used evidence on actual demand and successful experiences to secure the necessary funds for needed ECED investments.

Annex 3A Ho khau residence certificate registration system

Early history of the ho khau system

The origins of the *ho khau* residence certificate registration system date back to independence and the agrarian reform of Vietnam in 1956. Population movements were restricted, and residence was regulated to reduce migration toward Hanoi and Hai Phong and to prevent unemployment issues in both rural and urban areas.⁵⁷ In 1964 the *ho khau* system was officially established and modeled after a similar system in China (*Hukou*) in order to respond to the needs of the centrally planned economy.⁵⁸ The specific goals of the system were to control population mobility for security reasons and to reduce the flows of the rural population to urban centers. From 1956 to 1986, the Vietnamese government attempted to reshape the configuration and distribution of the country's population via the *ho khau* system and planned migrations to New Development Zones (Desbarats 1987; Hardy 2000).⁵⁹

By the 1990s, each household had been given a household registration booklet for recording the names, sex, date of birth, marital status, occupation, and relationship to household head of all household members. The *ho khau* certification of a person is intended to tie the individual to his or her place of residence (table 3A.1). The system was initially divided into four categories: (1) local residents originally from their current place of residence (KT = *thường trú* /resident) known as KT1; (2) people registered in the same province who are now living in a different district (KT2); (3) people registered in one province but who have permission to reside permanently in another (KT3); and (4) seasonal workers and students residing temporarily in a province different from the one in which they are registered (KT4). Before the Đổi Mới reforms in 1986, the *ho khau* booklet was a requirement to access basic public services (such as housing, education, health care, and employment) and all subsidized fields of social welfare.

Evolution of the ho khau system in the post-Đổi Mới period

The original principles and parameters of the *ho khau* system were subsequently refined in 1988 and 1997 following adoption of the Đổi Mới reforms.⁶⁰ The post-Đổi Mới period was marked by an increase in spontaneous migration in both rural–urban and rural–rural directions. Institutional changes surrounding decollectivization, land tenure, and household registration regulations were particularly significant for the shifting patterns of population mobility starting in the 1990s (Zhang et al. 2006). The growing labor surplus in rural areas began to interact with the then-emerging nonstate market and respond to market-driven opportunities outside of home villages, initiating spontaneous migration flows toward the large cities.

Because of the scale of internal rural–urban migration, the *ho khau* system was simplified through enactment of the Law on Residence (No. 81/2006/QH11, No. 29/11/2006), which introduced major changes. The four statuses were officially simplified into two categories: permanent and temporary. Residents can be distinguished by three main categories: (1) permanent residents (KT1 and KT2), who have full rights to the public services where they live; (2) temporary residents (KT3 and KT4), who have limited access; and (3) unregistered migrants who have no official rights to public services. Unregistered migrants remain on the household list in their home communes and wards, but they actually live in another district or province without official permission. According to the law, anyone living in a location other than their permanent residence for 30 days or more must register and obtain temporary status with the police. The law shortened the duration of stay as a minimum condition for applying for permanent residence (especially in centrally administrated cities) from three consecutive years of residence to one year before the application process.⁶¹ In theory, the law also facilitated the easier transfer of *ho khau* when the previous certificate was removed. Requirements to demonstrate employment or school enrollment at the destination were also eliminated.

Table 3A.1 Categorization of citizens by status, rights, obstacles, and legal restrictions, Vietnam

Category	Status	Rights	Obstacles and legal restrictions
KT1	Residents (including both nonmigrants and migrants) with permanent household registration at place of current residence	<p>Purchase and sell land and housing and possess land and housing ownership certificates</p> <p>Access to public facilities and social services at current place of residence</p> <p>Access to authorized financial loans</p> <p>Access to public employment</p>	Access to public social services, including education and health care, available only within district of residence
KT2	Intradistrict migrants who have permanent household registration in the province or city of current residence	Same as KT1	<p>Access to education and health care only within district where registered</p> <p>Lack of access to financial loans and formal financial services</p>
KT3	Migrants who do not have permanent registration at the place of current residence but have temporary registration for 6–12 months with the possibility of extension	Access to public facilities and social services	<p>Lack of legal access to housing</p> <p>Children can go to public schools only when they are not at full capacity (by KT1 and KT2 children). If the schools are overcrowded, children have to go to private schools where they must pay higher school fees</p> <p>Lack of access to public social services and financial loans</p>
KT4	Migrants who do not have permanent registration at the place of current residence but have temporary registration for 1–6 months	Do not have the right to purchase land and to access public social services and financial loans	
Nonregistered residents	Do not belong in the above categories	No rights	

Source: Giang et al. 2011.

Recent changes in migration policies and practices

More recent amendments to the Law on Residence in 2014 pivoted toward strengthening the restrictions of the *ho khau* system. At the local level, Da Nang (Resolution No. 23/2011, revised in 2014 through Decree 31/2014/ND-CP) and Hanoi (Capital City Law in 2012) introduced stricter requirements for *ho khau* registration. Official requirements, such as the number of years of stay before application, minimum amount of livable space, employment situation, or criminal record, have become stricter. Under the amendments, applicants for permanent residence in the five largest cities—Hanoi, Ho Chi Minh City (HCMC), Hai Phong, Da Nang, and Can Tho—must have lived there for at least two years without interruption (versus one year under the previous law). In addition, applicants for permanent residence, particularly in Hanoi, must own or rent a house under a long-term contract and also must have lived there continuously for at least three years. In Da Nang, criminal record and proof of employment are required. The 2015 National Internal Migration Survey conducted by the General Statistics Office of Vietnam provides evidence of the difficulty that both in-migrants and return migrants in most regions face in meeting the administrative requirements for obtaining permanent household registration.

Resolution 112/NQ-CP (30/10/2017) was introduced by the Ministry of Public Security in 2017 to simplify administrative procedures and documents on residence management. This simplification is an initial step by the central government toward an alternative system that could ultimately supplant *ho khau*. A digitized national population database and a citizen identification card with an identification number linked to the database are expected to replace the *ho khau* booklet by 2020. This system would facilitate identification for the purpose of different types of government programs. Although it is not a reform of the household registration system per se, the new system could, in tandem with other reforms, help reduce the administrative burden and financial costs of household registration for both the government and citizens (World Bank and Vietnam Academy of Social Sciences 2016). With the abolishment of the household registration book, some time-consuming administrative procedures, such as procedures to change people listed in a booklet, obtain a new booklet when moving, or void permanent residency, will be abandoned. Previously observed informal payments will also be eliminated. However, even though Resolution 112, once fully implemented, represents a major step toward administrative simplification, it does not address concerns about policies that tie migrants' government-subsidized schooling and health care options to their permanent address.

Annex 3B Profile of migrants in Vietnam

Most migrants are young (85 percent are ages 15–39, with an average age of 29.2) and educated individuals who move alone, mainly for economic reasons.⁶² Migrants generally have socioeconomic characteristics and employment profiles very different from those of permanent residents. The socioeconomic profiles are diverse, and they include students and workers employed in the formal and informal sectors. In 2014 both male and female migrants considered employment-related purposes the main reason for migration (34.7 percent), followed by family-related reasons (25.5 percent) and education (23.4 percent). Among migrants, the main reasons for permanent migration are essentially for marriage or family reunification (60 percent), while for temporary migrants they are work or looking for work (47 percent) and education (44 percent). Getting married is a common reason for the migration of women so it is no surprise that female in-migrants have a higher percent than male in-migrants with permanent household registration, with 26 percent of female in-migrants having permanent household registration compared to only 16.3 percent of male migrants (UNFPA 2016).

Migrants are more likely to be working in the industrial and construction sector (40.2 percent) than nonmigrants (26.4 percent). Temporary residents are employed in the private sector and the foreign direct investment sector at a substantially higher rate (70 percent) compared with permanent residents (36 percent). Firms in the Foreign Direct Investment sector employ 24.2 percent of migrant women, which is much higher compared to the 13.9 percent rate among migrant men. In particular, the percent of women with KT3 and KT4 registration working in the “Foreign Direct Investment sector” is 42.5 percent and 41.7 percent, respectively.

The percentage of females among all migrants aged 15–59 is 52.4 percent (UNFPA 2016).⁶³ Men tend to migrate on their own or with friends, while women are more likely than men to migrate with family members. For example, 64.7 percent men migrate on their own, 27.7 percent migrate with family members and 7.1 percent with a combination of persons. The percentages among women are 59.3 percent, 34.4 percent and 5.6 percent, respectively (UNFPA 2016).

Migrants have different motives for moving to metropolitan areas as opposed to nonmetropolitan areas (table 3B.1). The main motivations driving migration to the Southeast and Red River Delta regions are job-related. The predominant reason migrants travel to the Southeast region is to search for jobs, which is revealed in the growth of labor in the region. For example, the largest proportion of migrants move to Bac Ninh, which borders Hanoi, to search for jobs, although 33 percent do so for other reasons. Similarly, Binh Duong is an industrial province within the Ho Chi Minh City (HCMC) metro region that attracts a large number of migrants. Although the purposes compelling migrants to move to these two provinces are similar, there is one significant difference. More than 90 percent of job-related migrants in Bac Ninh state their purpose is to find a new job. However, nearly 40 percent of job-related migrants to Binh Duong are seeking better working conditions, including convenience. In addition, 18 percent of migrants to Binh Duong move to improve their living conditions. This suggests that Binh Duong attracts migrants by implementing improvements to both working and living conditions, possibly as a function of its proximity to HCMC.

In contrast to migration to major metropolitan areas, the largest share of migrants to medium-size cities are students. Migration to the Mekong River Delta, North Central Coast and Central Coast, and Central Highlands regions is undertaken for reasons such as job, study, marriage, family, and living environment. In general, a large proportion of migration flows from metropolitan provinces to nonmetropolitan provinces stems from individuals moving back home or joining relatives after finishing their studies. In Dak Lak province, population growth has been very high despite relatively low labor growth. This is explained in part by the fact that the province has recorded the highest number of migrants intending to marry.

Table 3B.1 Reasons for decisions to migrate to regions and provinces, Vietnam

percent

Region	Province	Job-related	Finished schooling	Studying	Marriage	Relatives	Health	Better living environment	End of labor contract	Resettle	Having land for production	Domestic violence in old place	Other	Total
Red River Delta	Hanoi	46	0	38	5	3	0	2	1	0	0	0	5	100
	Bac Ninh	67	5	5	7	8	0	3	1	0	0	0	4	100
	Hai Duong	22	8	38	7	19	0	3	2	0	0	0	2	100
	Ninh Binh	15	17	9	12	38	0	5	1	0	0	1	1	100
Southeast	HCMC	45	0	27	4	12	0	5	0	0	0	0	7	100
	Binh Duong	39	0	5	1	3	0	18	0	0	0	0	33	100
	Tay Ninh	31	6	0	6	24	0	25	6	0	0	0	3	100
	Ba Rai-Vung Tau	41	7	1	19	19	0	9	1	0	0	0	3	100
Second-tier cities	Can Tho	21	0	51	7	10	0	8	0	0	0	0	2	100
	Da Nang	23	2	29	10	12	0	4	1	0	0	0	18	100
Northeast	Lao Cai	33	29	3	12	13	0	9	0	0	0	0	1	100
	Thai Nguyen	32	2	38	9	13	0	2	1	0	1	0	2	100
	Ha Giang	47	29	3	3	14	0	3	0	1	0	0	1	100
Central Highlands	Lam Dong	29	8	15	5	10	1	17	1	0	1	0	13	100
	Dak Nong	10	6	1	10	25	0	30	4	0	10	0	5	100
	Dak Lak	17	17	4	24	16	0	5	0	0	15	0	3	100
Mekong River Delta	Vinh Long	29	4	38	2	16	0	6	3	0	0	1	2	100
	Ca Mau	28	9	1	16	19	3	9	0	0	4	0	11	100
Central Coast	Quang Binh	13	34	1	4	42	1	3	0	0	1	0	2	100
	Binh Dinh	16	6	34	11	19	0	2	7	0	0.00	0.00	4	100

Endnotes

39. <https://microdata.worldbank.org/index.php/catalog/2729>.
40. Even controlling for household and individual characteristics (including per capita income), children ages 11–18 are 40 percent less likely to be in school if they do not have permanent registration (World Bank and Ministry of Planning and Investment 2016).
41. World Bank, 2015 Household Registration Survey, <https://microdata.worldbank.org/index.php/catalog/2729>.
42. Underemployment became more of an issue after the 2008 global financial crisis. The underemployment rate rose from 3.5 percent in 2007 to 5.5 percent in 2009 (Pierre 2012).
43. This survey was conducted by the General Statistics Office of Vietnam and the United Nations Population Fund in 20 provinces and selected cities in December 2015 and January 2016 and included quantitative and qualitative components (GSO 2016b).
44. According to the national classification from the General Statistics Office of Vietnam, houses are divided into four categories: permanent, semipermanent, less permanent, and simple dwelling. Tube house, alley house, apartment block, and villa are representative of permanent construction. Semipermanent construction refers to alley house (located deeper within an alley with average plot of 3 × 20 meters, poor construction quality, typically G +1, old, and upgrade needed) and small single-story houses (average size of 3 × 20 meters, new impromptu buildings with single rooms, typically for rent, and located in the urban fringe)—see World Bank (2015).
45. Because of a lack of data on temporary residents and the impacts of the ho khau system, a survey was conducted in 2015 by and in five provinces (Hanoi, HCMC, Da Nang, Binh Duong, and Dak Nong) with a sample size of 5,000. In addition, a ho khau qualitative study was conducted by the Vietnam Institute of Sociology (69 in-depth interviews and 25 focus group discussions in the three major cities)—see World Bank and Vietnam Academy of Social Sciences (2016) for the results.
46. The Oxfam study, conducted in four provinces (Hanoi, HCMC, Bac Ninh, and Dong Nai), focused on four industries or occupations that attracted the most migrant workers (garment, electronics, construction, and hawkers) in both the formal and the informal sector. The study included 808 quantitative interviews, 36 group discussions, and 48 in-depth interviews with migrants, local authorities, lawyers, social organizations, and landlords (Oxfam 2015).
47. The Housing Ordinance of 1991 and Decree 60 of 1994 removed housing subsidies and allowed for private housing ownership.
48. Censuses, including the United Nations Population Fund's last Intercensal Population and Housing Survey (2014), have collected information on places of residence for five years prior to the time of the survey and the current place of residence in order to compile data comparable to that from the previous census and identify cases of migration within the census dates. Many types of migration, such as short term, temporary, and circular movements, are not included in the census. If the census does not collect data about the registration status of people, the fact that some people are unregistered may affect the results. In the case of inaccurate registration, according to the ho khau registration system the head of household may have to pay penalties and endure bureaucratic difficulties. Therefore, some categories of migrants called “the floating population” declare themselves to be visitors and are not registered in the census. They may include people who migrate with their families who have ho khau, workers who sleep on the construction sites, or employees who live in a hotel and declare themselves visitors. People who sleep on the street, those who live on their boats, and foreign residents are also missing from census (Gubry, Thieng, and Morand 2011). This floating population, although difficult to estimate, could represent 10–15 percent of the urban population. The data also do not include children under 5 who migrate with their father or mother.

49. <https://microdata.worldbank.org/index.php/catalog/2729>.
50. On April 28, 2020, the Prime Minister issued Decision 558/QĐ-TTg to approve a programme to adjust birth rates across the country. Under this decision, measures will be taken to increase birth rates in 21 cities and provinces, including HCMC, Da Nang and Binh Duong.
51. World Bank, 2016. Vietnam's Household Registration System.
52. World Bank, 2016. Vietnam's Household Registration System.
53. This survey was conducted in 2015 to inform the report 'Vietnam's Household Registration System'.
54. World Bank, 2019. Vietnam's Future Jobs: Gender Dimensions.
55. Among regions, the Southeast has the lowest percent of migrants having professional or technical qualifications (13.4 percent). Ha Noi has the highest percent of migrants with professional or technical qualifications (46.7 percent).
56. Some lessons for a more cost-effective solution to providing migrant children with access to education could be drawn from the Shanghai model in which the government has provided financial and technical support for the effort. During the 11th Five-Year Plan period, the municipal government launched a large program to build hundreds of public schools. It also undertook a program to selectively purchase places in private schools to accommodate migrant children. Although Shanghai is not alone in relying on private schools to absorb migrant children, what distinguishes it as a model is that the government has taken an active role in helping to upgrade the quality of private schools with financial and technical support (World Bank 2014).
57. Circular 495-TTg (10/23/1957).
58. The period of temporary stay in a city or town is three months at most. At the end of that period, if a person needs to stay longer, he or she must apply for an extension at the local household management agency.
59. Beginning in the mid-1970s, three objectives of the postreunification migration policy were identified: (1) reduce the long-standing population pressure in the Red River Delta—a place with excessively high population densities—and the coastal plains of central Vietnam; (2) restrain the rate of population growth in urban areas, especially in the two largest cities, Hanoi and Ho Chi Minh City; and (3) correct the population distribution within provinces and between regions while allocating labor for development and establishing frontier regions to serve the interests of national security and defense (Anh 2006).
60. Decree 4-HĐBT (07/01/1988), Decree 51-CP (10/05/1997), and Circular 6-TT/BVN (C13) (20/06/1997).
61. Until 2005, the required period was five years (Decree 108/2005/ND-CP and Circular No. 11/2005/TT-BCA-C11).
62. This annex is based on the General Statistics Office of Vietnam and United Nations Population Fund, National Internal Migration Survey 2015.
63. Female migrants make up 17.7 percent of the female population aged 15-59 while the comparable figure for male migrants is 16.8 percent.

Migration Policy.” International Labour Organization, Geneva.

- ~~ADB (Asian Development Bank). 2014. *Technical and Vocational Education and Training in the Socialist Republic of Viet Nam: An Assessment*. Manila: ADB.~~
- Anh, Dang Nguyen. 2006. “Forced Migration in Vietnam: Historical and Contemporary Perspectives.” *Asia and Pacific Migration Journal* 14 (March).
- Coxhead, Ian, Nguyen Viet Cuong, and Linh Hoang Vu. 2015. “Migration in Vietnam: New Evidence from Recent Surveys.” World Bank, Washington DC.
- Demombynes, Gabriel, and Linh Hoang Vu. 2016. “Vietnam’s Household Registration System.” World Bank, Washington DC.
- Desbarats, Jacqueline. 1987. “Population Redistribution in the Socialist Republic of Vietnam.” *Population and Development Review* 13 (March).
- Giang, Nguyen, Le Duong, Le Bach, Tran Giang Linh, and Nguyen Thi Phuong Thao. 2011. “Social Protection for Rural-Urban Migrants in Vietnam: Current Situation, Challenges, and Opportunities.” CSP Research Report 08, Institute for Social Development Studies, Hanoi.
- GSO (General Statistics Office of Vietnam). 2011. *The 2009 Vietnam Population and Housing Census: Migration and Urbanization in Vietnam: Patterns, Trends and Differentials*. Hanoi: Statistical Publishing House.
- _____. 2016a. “The 2014 Vietnam Intercensal Population and Housing Survey: Migration and Urbanization in Vietnam.” Hanoi.
- _____. 2016b. “Vietnam Internal Migration Survey 2015: Major Findings.” Hanoi.
- _____. 2016c. “Vietnam Household and Living Standards Survey 2016.” Hanoi.
- _____. 2018. *Statistical Yearbook 2017*. Hanoi: General Statistics Office.
- _____. 2019. *Vietnam Population and Housing Census: Implementation Organisation and Preliminary Results*. Hanoi: Statistical Publishing House.
- Gubry, Patrick, Nguyen Thi Thieng, and Pierre Morand. 2011. “Migration, Poverty and Urban Environment in Hanoi and Ho Chi Minh City.” Conference, Chaire Quételet.
- Hardy, Andrew. 2000. “Strategies of Migration to Upland Areas in Contemporary Vietnam.” *Asia Pacific Viewpoint* 41 (April).
- Nguyen, Loc Duc, Katharina Raabe, and Ulrike Grote. 2015. “Rural–Urban Migration, Household Vulnerability, and Welfare in Vietnam.” *World Development* 71 (C).
- Oxfam. 2015. “Legal and Practice Barriers for Migrant Workers in the Access to Social Protection.” Labor Rights Program of Oxfam in Vietnam, Hanoi.
- Pierre, Gaelle. 2012. “Recent Labor Market Performance in Vietnam through a Gender Lens.” Policy Research Working Paper, World Bank, Washington, DC.
- PwC (PricewaterhouseCoopers). 2019. “The Vietnamese Healthcare Industry: Moving to Next Level.” PwC Vietnam, Ho Chi Minh City.
- UNFPA (United Nations Population Fund). 2016. 2015 National Internal Migration Survey: Major Findings. New York: United Nations.
- UNDP (United Nations Development Program). 2016. *Growth that Works for All: Viet Nam Human*

Development Report 2015 on Inclusive Growth. New York: United Nations.

- World Bank. 2014. *East Asia Pacific at Work: Employment, Enterprise, and Well-Being*. Washington, DC: World Bank.
- _____. 2015. *Vietnam Affordable Housing: A Way Forward*. Washington, DC: World Bank.
- _____. 2016. *Vietnam's Household Registration System*. Washington, DC: World Bank.
- World Bank and Australian Aid. 2014. "The Asian Coalition for Community Action's Approach to Slum Upgrading." World Bank, Washington, DC.
- World Bank and Ministry of Planning and Investment. 2016. *Vietnam 2035: Toward Prosperity, Creativity, Equity, and Democracy*. Washington, DC: World Bank.
- World Bank and Vietnam Academy of Social Sciences. 2016. *Vietnam's Household Registration System*. Washington, DC: World Bank.
- Zhang, Heather Xiaoquan, P. Kelly, P. Mick, Catherine Locke, Alexandra Winkels, and W. Neil Adger. 2006. "Structure and Implications of Migration in a Transitional Economy: Beyond the Planned and Spontaneous Dichotomy in Vietnam." *Geoforum* 37 (6).

Chapter 4

Recasting land management and urban planning

Key findings

- Rural to urban land conversion, observed on a massive scale in recent decades, is intended to generate local revenue and excessive developable land. It is reinforced by the central government's incentives related to the allocation of fiscal resources and the granting of planning authorities (notably, the urban classification system).
- There are no clear frameworks or effective mechanisms for spatial regulation in land use and urban planning, resulting in weak protection of land and other natural resources.
- Insufficient infrastructure, especially high-capacity public transport, and lack of market or planning mechanisms to facilitate intensification of land uses have resulted in low efficiency in the cores of large cities.
- Land valuation and land allocation are often based on artificially deflated values set by the government and contingent on mechanisms of project-based land acquisition. They are applied for selected investors without adhering to transparent, market-based mechanisms.
- Lack of effective mechanisms for interprovincial or intercity and district coordination results in overcompetition for resources and duplication of infrastructure such as ports, airports, and industrial parks. The new Planning Law presents an opportunity to recast the planning system so it moves in a more integrated and strategic direction.

Key policy actions

- Introduce regulations for development zones in land use plans and more stringent control of development in periurban and rural areas in construction plans.
- Reform the urban classification system so it becomes a more practical action-oriented monitoring system that emphasizes performance and dynamic growth instead of the present focus largely on inputs and static size.
- Introduce mechanisms for the densification and redevelopment of city centers, including policies to support small-scale joint redevelopment by land users; land pooling or land readjustment based on a consensus of land users; relocation or redevelopment of industrial or other low value-added activities; and better approaches to land taxation.
- Improve the process and methodology of land valuation to bring government-assessed prices closer to market prices.
- Enforce transparent mechanisms for land allocation via auction or competitive bidding and strengthen public scrutiny and monitoring of unfair land allocation practices.
- Better integrate land use plans and construction plans so they can serve as a basis for coordinating and arranging spatially the projects proposed in socioeconomic development plans and various sectoral plans.
- Explore more effective mechanisms for regional or metropolitan-wide coordination with the required functions, authority, and resources and with the flexibility to cater to the specific needs of different types of metropolitan and urban areas.

Introduction: Why talk about land and planning?

Legal and regulatory framework for land and planning

The constitution of Vietnam states that land is a special and important resource of national development. Article 53 identifies land as a “public property” under the ownership of the “entire people,” “represented and uniformly managed” by the central government. Since introduction of the comprehensive Đổi Mới economic reforms in 1986, Vietnam has made a remarkable transition toward a market-based land regime by recognizing the rights of organizations and individuals to (1) exchange, transfer, lease, sublease, inherit, and donate land use rights (or land-attached assets) and (2) mortgage and contribute land use rights (or land-attached assets) as capital. The constitution also empowers the central government to recover the land used by organizations and individuals in imperative cases provided by the law for the purposes of national defense, national security, and socioeconomic development in the national and public interest. As per the Land Law of 2013, the central government is responsible for determining the revenue collection and spending on land. It is also responsible for prescribing the added value from land (that does not originate from investments by the land user) through tax policies, land use levies, and land rentals. The evolution of the legal and regulatory framework on land—in particular, the commoditization of land use rights and recognition of market pricing of land and real estate—has resulted in the emergence of a vibrant real estate market and a rapidly rising demand for land.

Under Vietnam's current planning systems, there are two types of planning with the explicit objective of regulating the use of land and spatial development: (1) land use planning under the Land Law managed by the Ministry of Natural Resources and Environment (MONRE) and (2) urban planning under the Urban Planning and Construction Planning Law managed by the Ministry of Construction (MOC). *Land use planning* is defined as the allocation and zoning of land according to the space used for the purposes of socioeconomic development, security, national defense, environmental protection, and climate change adaptation. It is based on land potential

and the land use needs of different sectors of each socioeconomic region and administrative unit within a certain planning period (such as 10 years for the land use master plan). *Urban construction planning* focuses on the spatial arrangement and built form of the different functional areas within a city. It also contains a component on land use by determining the locations of the planned transportation networks and different land use categories and by setting key indicators such as population, land use coefficients, heights, and construction densities for different areas as the basis for control of development. These two kinds of planning, developed by different authorities under different time frames, do not always align. More important, these plans are often strongly influenced by private interests because they are directly or indirectly made or adjusted by private investors.

Broad impacts of land use planning and regulation on urban development

The legal and regulatory frameworks related to land and spatial planning have tremendous impacts on how decisions on land conversion and allocation are made and how urban areas are expanded and developed. Many of the issues observed in previous chapters—in particular, the rapid expansion of lower-tier urban areas and industrialized rural areas and the low utilization and efficiency of urban cores in Hanoi and Ho Chi Minh City (HCMC)—are a direct result of a lack of effective land management, spatial planning, and coordination mechanisms to control excessive land conversion, development of industrial parks, and interjurisdictional competition. Featuring low-density development with weak regional connections, Vietnam's urban centers are fragmented oases that do not function as economically and physically integrated metropolitan areas, all of which greatly impedes agglomeration economies and regional integration. Since the Đổi Mới reforms, land in Vietnam has become not only a critical natural resource and factor in production, but also a commodity for generating wealth for the private sector and an important source of revenue for local authorities. Spatial planning in the form of land use planning and urban construction planning has become a tool for primarily maximizing values for the authorities and private developers and stimulating economic growth, as opposed to a tool for regulating the competitive demands for land use and development rights to safeguard the public interest.

In this context, land and planning have become important levers for local authorities to drive economic development, in particular to attract investment, including foreign direct investment (FDI) for real estate and industrial development, at the expense of achieving other social and environmental objectives. Urban expansion has been prioritized over urban redevelopment or densification because of the larger revenue potential from land conversion. This priority has not only resulted in issues related to efficiency, equity, and sustainability, but also led to fierce competition among localities, which has been reinforced by the incentive schemes related to the allocation of fiscal resources and granting of planning authorities put in place by the central government. This chapter explains how the current mechanisms and process of land conversion, land allocation, and spatial planning have led to the efficiency and sustainability issues described in previous chapters, and how these issues could be addressed.

Key issues

Unregulated and uncoordinated spatial growth stemming from excessive rural to urban land conversion

In Vietnam, the conversion of land from rural to urban purposes or agricultural to nonagricultural purposes has been observed on a massive scale in recent decades, as confirmed by the speed and pattern of urban expansion. According to data from the

General Statistics Office of Vietnam (GSO), the land area devoted to rice production fell from 6.7 million hectares in 1995 to 4.08 million hectares in 2009, while nonagricultural land uses increased from 1.7 million hectares in 1990 to 3.5 million hectares in 2009 (Ty, Phuc, and van Westen 2014).⁶⁴ Because of the rapid expansion of urban land, between 2000 and 2015 the urban population density remained stagnant at 18.9 residents per hectare (World Bank 2016). This massive reallocation of land use rights and the undervaluation of compensation prices resulted in many farmers losing their livelihood, and so it became an increasingly contested issue. According to the Vietnam Farmers' Union, between 2003 and 2008 alone the livelihoods of 2.5 million people were affected by land conversion, with over 53 percent of these households experiencing a reduction in income after land conversion (Mai Thành 2009).

The main mechanism for supplying residential land has been through the private sector-led development of large-scale Khu Do Thi Moi (New Urban Areas, NUAs), with the government actively facilitating land acquisition to convert agricultural land in rural districts to urban uses (see box 4.1). This approach has resulted in spatial fragmentation of the NUAs and weak connections with the main infrastructure. Another consequence has been the production of an oversupply of upscale housing, as illustrated by the “ghost” cities in Hanoi or “sleeping” cities similar to that in Binh Duong’s new town.

Box 4.1 New Urban Areas

New Urban Areas appeared in the late 1990s as a new type of large-scale urban development following the disengagement of the government from the housing supply and the emergence of a real estate market. This new concept encouraged investors to build high-rise apartment buildings and houses for sale in order to address the housing shortage and to avoid unplanned development. Providing synchronized infrastructure and public facilities, the NUAs were regarded, at the beginning, as a promising model to improve housing conditions and decongest overcrowded old quarters. The NUAs, initially carried out by a government-owned organization in close collaboration with local authorities, were widely implemented during the 2000s, with 252 NUA projects undertaken in Hanoi between 1994 and 2015.

At the outset of the 2010s, however, in the context of a very lucrative real estate market and lack of regulations, this new model began to have major spatial, socioeconomic, and environmental shortcomings. First, the NUAs were not targeting affordable housing for low-income segments and were generating a risk of oversupply for high-income segments. Lack of scrutiny of investors produced suspended projects or projects with poor design and low-quality construction, service delivery, and maintenance. According to Jacques, Labbé, and Musil (2017), in 2015 fewer than 15 percent of NUAs were completed in Hanoi. Second, to maximize returns, the NUAs were essentially located in the peripheral rural districts of municipalities and provincial cities. There, agricultural land was acquired at a low price and converted to residential use, generating discontent from the expropriated farmers.

Overall, with their spatial fragmentation and weak connections with main infrastructure, especially transportation and social amenities, NUAs do not contribute to the efficiency of agglomeration economies.

Source: World Bank.

By contrast, land available for affordable housing is very limited or not accessible, whether formal social housing, commercial affordable housing, land plot projects, or self-built housing. According to the World Bank's 2015 report *Vietnam Affordable Housing: A Way Forward*, access to land for the commercial production of affordable housing is a significant challenge among major cities. Because of the high density and high number of small plots in city centers, urban land, particularly in large cities, is scarce, expensive, and difficult to assemble. Policy efforts to introduce inclusionary zoning and allocate land for social housing development have not been effective. Those pursuing self-built housing, which is considered the most affordable and accessible housing for middle-income and low-income segments, are also finding it difficult to access affordable formal land. Land makes up to 60 percent of the total cost of a modest core unit. As discussed in chapter 3, self-built housing is an important source of rental stock for migrants. Therefore ensuring access to land is an important means of increasing the supply of affordable rental housing for migrants as well.

Another common feature of periurban or rural areas is industrial parks. Although these are an important part of Vietnam's successful economic growth, their spatial footprint and lack of integration with surrounding areas illustrate well the many issues affecting spatial efficiency and sustainability. The country currently

has 325 registered industrial parks covering nearly 100,000 hectares—that is, 40 percent of nonagricultural production land. These parks are located mostly in periurban or rural areas, where it is common practice to artificially undervalue land and relax environmental regulations to attract investors. Most of these areas have not been planned and provided with basic urban infrastructure services; they have insufficient wastewater and solid waste treatment facilities, leading to environmental issues; and they do not have strong economic and spatial linkages with urban areas. These problems limit the capacity of industrial parks to integrate with other residential and commercial activities to support agglomeration economies. Decisions about establishing industrial parks are based purely on administrative directives rather than objective assessment of demand, resulting in high vacancy rates in many parks. According to the World Bank's *Vietnam 2035* report, the massive construction of industrial zones that have high vacancy rates has major fiscal implications and resource allocation trade-offs (World Bank 2016). Assuming that all industrial zones are equipped with roads and infrastructure, the 70,810 hectares of vacant industrial land in Hanoi, HCMC, and Da Nang represent a capital investment of more than \$20 billion, which could have been invested in public services in other areas. This misallocation is expected to continue if proper policies are not in place (see box 4.2).

Box 4.2 Efficiency and environmental issues in industrial parks

Vietnam positioned itself to be an industrialized country by 2020 by adopting many supporting policies for industrial development as early as 1990 when the first industrial park (Tan Thuan in HCMC) was established. According to the Ministry of Planning and Investment, as of December 2016, 325 industrial parks were registered in Vietnam, with an overall footprint of 95,000 hectares, much of which used to be agricultural land. Currently, 220 industrial parks are operating on 61,000 hectares of natural land and another 105 industrial parks are in the site clearance and construction phase. The occupancy rate of all industrial parks is about 51 percent and that of active industrial parks is about 73 percent. In the Hanoi and HCMC metropolitan areas, industrial zones farther from the city center have lower occupancy rates, and many peripheral zones have occupancy rates of less than 10 percent. Many industrial parks are located along rivers, in coastal areas, and close to national highways for connection and transport purposes.

An issue related to industrial parks is untreated industrial wastewater, which presents two problems: the low percentage of centralized effluent treatment plants (CETPs) and noncompliance. In some provinces, only 15–20 percent industrial parks have CETPs. Even if CETPs are installed, they often are not put into operation to save money. CETPs reportedly have a limited treatment capacity, and those that are in operation must struggle to meet the demands of enterprises in industrial parks. In Hanoi, for example, 10 industrial parks and 43 industrial clusters (smaller size) generate about 75,000 cubic meters of industrial wastewater each day and night. Of these facilities, just 21 industrial clusters are equipped with a wastewater treatment plant, but only 13 plants are in operation.

Industrial parks also generate 8,000 tons of solid waste a day, which is equivalent to 3 million tons a year. However, the collection and treatment capacity of the utilities granted licenses by MONRE is about only 1,300 tons a day, leaving large amounts of industrial waste (with hazardous pollutants) dumped in a landfill or in an open environment.

Sources: CEM and MONRE (2018); Hanoi DONRE, Tai Nguyen, and Moi Truong (2017); MPI (2017).

The unregulated and uncoordinated spatial development pattern in Vietnam not only impedes agglomeration economies, but also contributes to increased vulnerability to climate risks. Vietnam has been identified as one of the world's most vulnerable countries to the impact of climate change (World Bank and ADB 2018), with annual economic losses from natural disasters estimated to be almost 1.5 percent of its GDP.⁶⁵ Low-density urban expansion and rural industrialization are supplanting natural areas and farmlands, destroying natural habitats and wetlands, stressing the ecological system, and exposing more people and assets to disaster risks. Some common but unregulated practices, such as sand mining for land leveling for urban expansion and infilling of canals and other waterways, have disrupted water ecosystems and increased the risk of flooding and erosion.

In the development of both NUAs and industrial parks, site planning and infrastructure development are largely led by private or semiprivate developers. The government facilitates land acquisition and shares the cost of compensation and resettlement, with limited oversight of the quality of planning and the development process.

Generally, planning lacks spatial control and development regulations. Land use and urban construction plans are based on detailed quantitative projections of the demand for land within 20 land use categories, and the demand in turn is based on a set of minimum land use standards per capita defined by the central government (such as the Building Code for Urban Planning by the MOC). However, those standards are often disconnected from the real land market and socioeconomic needs of localities. There are no clear frameworks or effective mechanisms for spatial regulation in the plans, resulting in weak protection of open spaces, agricultural land, and other natural resources. Nor there are effective tools for monitoring and sanctioning spontaneous urbanization and industrialization in periurban and rural areas. In particular, conversion of periurban land is not guided by a clear spatial planning structure. As a result, any classified agricultural land, even far from the consolidated urban areas, can be converted and developed by local authorities to meet the requests of investors. In this way, local authorities gain as much developable land as they are authorized, which generates substantial revenues, either through a onetime land use levy or taxes from industrial development. On the

other hand, those whose land is subject to acquisition or conversion may find their development rights restricted immediately after the announcement of the land conversion decision (and often long before the actual acquisition takes place), and so they stand to lose because of the below-market compensation price.

These issues are rooted in the incentive structure put in place by the MOC through its urban classification system, which was established in 2001 and amended in 2009. In this hierarchical system, six classes of urban centers are defined by different levels of economic activities, physical development, population, population density, and infrastructure provision, guided by a set of indicators. These indicators are based on an idealized situation and do not distinguish between the roles, characteristics, and development potentials of cities. In reality, the city classes designated by the classification system do not align with spatial, demographic, and economic growth patterns, which are more spatially scattered because many rural districts outperform urban districts economically. More important, the classification system serves as the basis for the central government's determination of administrative functions, tax collection authorities, and state funding allocations for urban areas. The critical linkage of the city classes to budget allocations and authorities over land management has given cities the incentive to rapidly convert agricultural land and excessively expand their development boundaries in order to move up the ranking, regardless of their actual demand and growth potential. This has often resulted in artificial urbanization and overdesigned cities.

Low utilization and efficiency of the city cores in two metropolitan areas

As described in previous chapters, population growth within the metropolitan areas of Hanoi and HCMC has mostly occurred in suburban districts. Meanwhile, significant spatial growth in the form of FDI-led industrial parks has been under way in rural districts and neighboring provinces, where population density is low and the supporting infrastructure is limited. By contrast, the core districts of urban areas have undergone slower population and spatial growth and stagnant population density. This is often the result of insufficient infrastructure to support higher-intensity land use (especially high-capacity public transport such as metro rail or bus rapid transit systems) and a lack of market or planning mechanisms to facilitate

changes of land uses and replacement of lower value-added activities with higher value-added activities.

Meanwhile, the development of road infrastructure networks in the Hanoi and HCMC metro regions is weak. Map 1.6 in chapter 1 benchmarks road network density within a 50-kilometer radius of the center of Vietnam's two largest cities and three other major metropolitan areas in Asia: Bangkok, Shanghai, and Seoul. The maximum road density value is approximately 41 kilometers per square kilometer, which is about twice as dense as the 23 and 25 kilometers per square kilometer in the Hanoi and HCMC metro areas, respectively. Because of the lack of regional infrastructure connectivity and low-density land use patterns, the metropolitan cores of Hanoi and HCMC exhibit signs of saturation in attaining and organizing high value-added activities through agglomeration.

Another issue in city cores is the inefficient occupation of excessive land by government agencies or state-owned companies. No institutions are in charge of conducting inventory and defining strategies for better utilization and management of these underdeveloped assets. At times, pockets of vacant land sit idle for a long time because of land hoarding and speculation. The public sector lacks an effective land taxation framework and enforcement to prohibit the ongoing nondevelopment of publicly assigned land.

Lack of transparent market mechanisms for land allocation

The Land Law of 2013 empowered the government to prescribe the principles and methods for land valuation. It also tasked the government with promulgating land price brackets and tables every five years and deciding on specific land prices for a specific land parcel at a specific time. Moreover, the 2013 law introduced improvements in the regime governing land price management and land valuation by (1) limiting application of the land price list issued by Provincial People's Committees (PPCs) to the calculation of taxes and fees related to land and financial obligations eligible for preferential treatment and (2) mandating a land valuation in each specific case in nonpreferential treatment cases to align with the market price. However, in reality a dual price land market still exists, with the government's set price (including land price tables and specific prices) 30–70

percent lower than the market price in general. Land pricing mechanisms are controlled by the provincial land management authorities, which are incentivized to keep prices low to attract investors and facilitate land acquisition. This arrangement not only encourages the development of speculative practices that lead to excessive land conversion and result in large forgone land revenues for public administration, but also becomes a source of social discontent. It has been reported that approximately half of administrative complaints in Vietnam are related to land prices set below the market price (World Bank 2019).

In addition to land allocation based on artificially deflated values set by the government, land allocations are contingent on project-based land acquisition mechanisms and are applied for selected investors without following transparent and market-based mechanisms. In many cases, the prices negotiated are substantially lower than market prices. The government, and eventually the public, has to bear the high risks of substandard or suspended projects due to the selection of incompetent developers (see box 4.1).

The governance issue related to land valuation and allocation has become more prominent in connection with the mechanisms used for land capitalization, such as the build-transfer (BT) projects that exchange land for infrastructure. For example, an investor builds infrastructure, such as a highway or stadium, to be transferred to the government, and the government repays the investor with land—often “golden land.” Violations have been found in all BT projects that have been inspected or audited—neither the completed infrastructure nor the exchanged land was valued appropriately. The value of the exchange is based solely on the BT project estimates, which serve as the foundation for BT contracts between the state agency and the private investor. The undervaluation of land for land capitalization results in major losses for the government, while potentially offering the investor big profits, which increases the likelihood of abuse of the land management system (see box 4.3).

Box 4.3 Build-transfer projects in Vietnam

The BT model has been implemented extensively in Da Nang and Ho Chi Minh City. In HCMC, the Pham Van Dong Road project linking the airport to Ring Road No. 2 is considered a significant project for HCMC’s further regional expansion. In 2004, after the withdrawal of the original investor, the HCMC municipality invited GS E&C, a conglomerate in the Republic of Korea, to bid on the project. After three years of negotiations, the contractor signed in 2007 a BT contract for \$340 million. This cost included the civil engineering works (a 13.7-kilometer road section plus a bridge over the Saigon River), a short period of maintenance of the infrastructure, as well as a \$120 million package to support the land clearing process (more than 500 hectares had to be acquired) and compensate the nearly 4,000 affected households. In exchange, GS E&C obtained from the city 102 hectares of land to develop. The land consisted of five plots located in different parts of the city, and the plot size ranged from 1.7 to 91 hectares.

When the city began to acquire the land for this project, the BT model and the valuation of the exchanged land came under scrutiny of the central government. After the government conducted a second land appraisal, the value of the land was almost \$100 million more than the value anticipated in the contract.

In 2017 a government audit of 17 BT projects in different provinces and cities pointed out major shortcomings and loopholes that would cause considerable losses of government budget funds. As a result, the Ministry of Finance issued Document No. 3515/BTC-QLCS on March 28, 2018, indicating that municipalities would have to wait for issuance of a decree guiding the use of a public asset as an exchange for infrastructure investors. Therefore, all BT projects are currently on hold.

Source: World Bank (2019).

Lack of integration and coordination across different plans and jurisdictions

According to the 2009 Law on Urban Planning, Vietnam has five planning levels: national, regional, city/province, zone (areas within city), and project. Socioeconomic

planning includes the principal documents that lay out the strategy and main directions of development at the national, regional, and provincial/city level. They are followed by spatial plans: land use plans, construction plans, and sectoral plans at the regional, provincial/city, and zone/district level (see table 4.1).

Table 4.1 Planning system in Vietnam (prior to 2017 Planning Law)

Planning level	Plan	Content	Elaboration and approval authorities
National planning	Socioeconomic development plan (SEDP), five years	General direction in key fields: set economic, social, and environmental goals and detailed production and investment targets.	MPI—approved by prime minister
	Land use master plan, 10 years	Determine land use targets for agricultural land, nonagricultural land, and unused land (19 land use categories).	MONRE—approved by prime minister
	Sectoral plan	Sectoral plans (land use, education, transport, industry, health, tourism, and so forth) are devised separately.	Different ministries—approved by prime minister
Regional planning, 1/25,000 or 1/100,000 scale (interprovincial)	Socioeconomic development plan (SEDP)	General direction in key fields: set economic, social, and environmental goals and detailed production and investment targets.	MPI/DPI—approved by prime minister
	Regional master plan	Define objectives of development, main spatial orientations, and functional zoning for residential areas, industrial zones, natural areas, socioeconomic facilities, and technical infrastructure .	MOC—approved by prime minister
Provincial/city planning (centrally run cities, provincial cities, towns, townships, and new urban centers)	Socioeconomic development plan (SEDP)	General direction in key fields: set economic, social, and environmental goals and detailed production and investment targets.	MPI/DPI—approved by prime minister/Provincial People's Committee
	Land use master plan	Determine the areas of the land types already allocated in the national master plan on land use and the areas of the land types in accordance with provincial land use demands; determine land use zones by land use function.	DONRE—approved by prime minister/Provincial People's Committee

Provincial/city planning (centrally run cities, provincial cities, towns, townships, and new urban centers)	Construction master plan at 1/25,000 or 1/50,000 scale	Determine the nature and role of urban centers and analysis of development potential, driving force and orientations, urban expansion, arrangement of the systems of urban social and technical infrastructure facilities in inner areas and suburbs, and requirements on strategic environmental assessment.	DPA or DOC—approved by prime minister/Provincial People's Committee
	1/25,000 or 1/50,000 scale sectoral plans	Technical infrastructure (urban transport; urban ground levels and surface water drainage; urban water supply; urban wastewater drainage; energy supply and urban lighting; information and communications; cemeteries and solid waste treatment) constitutes parts of general planning, zoning planning, or detailed planning, particularly for centrally run cities. Technical infrastructure planning is designed separately. Sectoral plan (land use, education, transport, industry, health, tourism, and so forth) is outlined separately.	Technical departments—approved by prime minister/Provincial People's Committee
Zone/district planning	1/2,000 or 1/5,000 scale zoning plan (areas within cities, towns, and new urban centers)	A zoning plan must indicate the use functions for each lot of land; principles of spatial organization, architecture, and landscape for the entire planning area; regulations on population, land use, and technical infrastructure for each street block; arrangement of social infrastructure facilities in response to their usage needs; arrangement of the network of technical infrastructure facilities in each street that is suitable for each development phase of the urban center; and strategic environmental assessment.	People's Committee of district or DPA/DOC—approved by Provincial People's Committee
	Land use master plan	Determine the areas of the land types already allocated in the provincial master plan on land use and the areas of land types in accordance with land use demands of the district and communes; determine land use zones by land use function for each commune-level administrative unit.	People's Committee of district or DONRE—approved by Provincial People's Committee
Project	1/500 scale detailed plan (areas to meet urban development and management requirements or construction investment needs)	Must indicate the criteria on population, social, and technical infrastructure and requirements of spatial organization and architecture for the entire planning area; arrangement of social infrastructure facilities in response to their usage needs; regulations on land use and requirements on architecture work for each lot of land; arrangement of the network of technical infrastructure facilities up to the boundary of each lot of land; and strategic environmental assessment.	Investor—approved by Provincial People's Committee

Note: DOC = Department of Construction; DONRE = Department of Natural Resources and Environment; DPA = Department of Planning and Architecture; DPI = Department of Planning and Investment; MOC = Ministry of Construction; MONRE = Ministry of Natural Resources and Environment; MPI = Ministry of Planning and Investment.

The planning system in Vietnam is institutionally complex. Some 20,000 types of plans, guided by 58 laws/ordinances and 55 decrees, are prepared by different ministries and departments, often based on different schedules, and they rely on inconsistent data and projections. There are virtually no effective mechanisms for interprovincial or intercity/district coordination, resulting in overcompetition for resources and duplication of infrastructure such as ports, airports, and industrial parks.

The Planning Law (21/2017/QH14) approved in November 2017 and in effect in January 2019 aims to improve the efficiency and the quality of the planning system. The new law seeks to unify regulations at the national level and ensure better coordination between the different types of existing plans, including socioeconomic plans, construction plans, and sectoral plans. Those plans have become limited in efficiently and effectively managing national assets such as land resources and in responding to the country's socioeconomic transformation.

Under the new Planning Law, the national planning system has five levels: national, regional, provincial, special administrative-economic units, and urban and rural areas. National plans are divided into four categories: national comprehensive plans, national marine spatial plans, national land use plans, and national sectoral plans. A notable change is that at the provincial level only one plan integrates the previously separate socioeconomic development plans (SEDPs), land use plans, construction plans, and sectoral plans.

The new Planning Law is an essential step toward reshaping policies to form a more integrated and strategic planning approach. However, concern remains that priority was given to developing the new law and revising 48 other planning-related laws without sufficient knowledge about how the law would work in practice. This concern raises in turn capacity and institutional issues. In addition to the technical requirements and procedures that will require a period of transition, the mindset of government officials across the different levels of government will remain a major challenge after decades of centralized planning. At this early stage of implementation, technical questions still arise at the central and decentralized level about how the law will affect practices and planning products, especially in the field of urban planning and, more specifically, for centrally run cities.

Another issue is the lack of interjurisdictional coordination, particularly within urban areas and metropolitan regions. Although a region is not part of the four levels of the government administrative system, there have been efforts to recognize and promote regional coordination, such as developing socioeconomic plans and transport plans for the four key economic regions (KERs): Northern, Central, Southern, and Mekong River Delta. Despite the fact that there are legal documents on the establishment of a steering committee and coordination bodies for KERs, these committees are not given financial and human resources and the substantial political authority needed to effectively implement regionwide development. Within each region, provinces, cities, and districts often do not follow the planning and directions at the regional level and continue to compete in attracting investment and infrastructure. For example, by 2020 Vietnam will have 23 airports—13 domestic and 10 international—which are disproportionate to the country's needs. Some airports and seaports are operated at a fraction of their designed capacity. In addition, the connectivity between these transportation hubs and the road systems has been found to be low.⁶⁶

Policy recommendations

As discussed earlier, low and stagnant urban densities as a result of unplanned and uncontrolled conversion of agricultural land, coupled with limited connecting infrastructure, impede agglomeration economies and regional integration. Reversal of this situation will require changing the underlying policies, regulations, and processes related to land conversion, land allocation, and spatial planning, as described in the sections that follow.

Strengthen mechanisms to control rural to urban land conversion

Restrict use of the government's compulsory land acquisition for "socioeconomic developments for national and public interests" and define clearly the criteria and types of projects to be considered as "in the national and public interests." More stringent scrutiny should be given to private and commercial activities such as NUAs and industrial zones that claim to serve the public interest. A more careful process of social impact assessment and public consultation should be conducted to determine the public purpose of projects before approving them.

Introduce regulations for development zones in land use plans and more stringent development control of periurban and rural areas in construction plans.

More clearly defined criteria are needed for delineating development zones, the rights and responsibilities related to development, and the protection of different areas. Criteria and steps for proposing any changes to these zones should be identified and strictly enforced. Regulations of development zones should be consistent in land use plans and urban construction plans as a basis for defining development boundaries, spatial expansion directions, and land use and development controls within these zones. Any land use conversion outside of the current construction areas should require cost-benefit analyses of alternative scenarios (such as urban expansion versus infill redevelopment based on assessment of environmental and land suitability, demographic and economic trends, cost of infrastructure servicing, and regional connectivity and linkages). Because of the similarities of the land-related legal frameworks of Vietnam and China, China's experience with land use planning could shed light on how such spatial regulations might work in Vietnam (see box 4.4).

Clarify the rules of the game for private developers.

Private developers should be identified through a transparent and competitive mechanism that takes into account the track records and technical and financial capacities of private firms. Clear development conditions should be articulated based on cities' overall spatial plans and consultations with local communities, including on-site and off-site infrastructure and environmental protection requirements. Due attention to a fair process of compensation and resettlement should be ensured. The required provision of affordable housing as part of commercial housing projects in New Urban Areas as per Decree 188/2013/ND-CP on Development and Management for Social Housing⁶⁷ should be enforced.

Provide clear guidance and coordination at the national level for the planning, development, and monitoring of industrial parks.

The overall planning of industrial parks should be based on the national socioeconomic development plan and on region-specific economic development strategies. Planning at the regional level should analyze the competitive advantages of each province and propose differentiated strategies for industrial development. In particular, national ministries should put in place clear directives that consider location, economic potential, and infrastructure service levels to guide the provinces in the consolidation of existing industrial parks and the prudent approval of new industrial parks.

Reform the urban classification system so it is a more practical, action-oriented monitoring system that emphasizes performance and dynamic growth instead of inputs and static size like the present one.

The indicators of the urban classification system should be revised to consider key areas, such as those covering land use change, migration, spatial distribution of jobs and population, commuting time, job accessibility, land and housing prices and rents, housing price/income ratio, land and housing supply (including public land inventory), environment quality, and climate and disaster risks. An updated and more modern system should serve as the basis for identifying spatially the demand and supply gaps for infrastructure services and investment priorities, as well as defining detailed spatial regulations for development management. Ministries, with support from planning institutes, should be tasked with identifying key indicators and developing methodologies and tools for data collection and monitoring, while leaving the making of plans and the detailing of planning parameters in the hands of local authorities. Funding should be made available to local authorities for conducting surveys related to socioeconomic issues, traffic, and the environment and for adopting tools to collect disaggregated primary data. The fiscal transfer system should consider factors that are not purely linked to the size of urban areas but are based on overall consideration of the supply and demand gaps, investment efficiency, and characteristics and performance of the various urban areas (as discussed in chapter 5).

Box 4.4 Spatial regulations in land use plans in China

Since 1996, to ensure national food security and protection of its ecological system, the Chinese government has adhered to a rigorous land administration system, focusing on protection of cultivated land and regulation of construction land. The land use master plan delineates “three boundaries and four zones” and defines clear spatial regulations for different zones.

The “prohibited boundary” delineates the boundary between developable areas and nondevelopable areas. The “prohibited construction zone” identifies the core areas such as nature reserves, forests, and wildlife habitats subject to protection and the high-risk areas for geological disasters. Land uses permitted within this zone are for ecological construction, environmental protection, and natural and cultural heritage preservation only. Construction inconsistent with the permitted land uses is strictly prohibited. The prohibited boundary is not to be adjusted during the 15-year planning period.

Within the developable areas, three zones are identified:

- “Construction zone” is the current urban construction land, plus the incremental areas foreseen within the planning period up to the regulated maximum amount. Within the planning period, the total amount of construction land must stay the same, although the spatial layout can be slightly adjusted through legal procedures.
- “Conditional construction zone” refers to areas that are adjacent to the construction zone and may be suitable for construction. Within such a zone, approval can be obtained for construction on the condition that the corresponding amount of new construction land is subtracted from the construction zone. Together, the construction zone and conditional construction zone form the expansion boundary, which in principle cannot be adjusted during the planning period.
- Areas outside the construction zone, conditional construction zone, and prohibited construction zone are considered the “restrictive construction zone.” The dominant land use is land reclamation and preservation of basic farmland. City, town, and village construction is strictly controlled within this zone.

Source: World Bank, based on presentation by Jian Lin and Zuoji Dong, “Introduction to Regulation of Land Use Purpose and Land Use Planning in China,” in videoconference with Vietnam Ministry of Natural Resources and Environment, November 2018.

Introduce mechanisms for inner-city redevelopment

Introduce mechanisms for the densification and redevelopment of city centers. Such a step will not only unlock well-located land for higher-intensity use to accommodate higher value-added activities, but also reduce the need and incentives for physical urban expansion. Such mechanisms include policies to

support small-scale joint redevelopment by land users, land pooling, land readjustment based on a consensus of land users, and the relocation or redevelopment of industrial or other low value-added activities. Cities also need to prioritize the development of public transport, as well as realign and intensify its land uses along the transit corridors. Box 4.5 describes experiences in the Republic of Korea with the land readjustment and redevelopment of residential areas.

Develop detailed guidelines to clarify the implementation procedure for land pooling.

Provisions on land pooling and readjustment were included in Decree 01/2017/ND-CP of 2017 guiding implementation of the Land Law, as well as in the draft Law on Management of Urban Development by the Ministry of Construction (yet to be approved). However, detailed mechanisms and guidelines need to be further developed. Since 2015, the World Bank has provided technical assistance to the People's Committee of Tra Vinh (in Tra Vinh province) to implement a pilot project on applying a land pooling and readjustment mechanism to upgrade an area within its Ward 7. In early 2018, urban planning associated with the plan of land readjustment (replotting plan) was agreed on by more than 90 percent of landholders. speculation, thereby lowering land prices.

However, lack of clarity on the appropriate legal procedures and guidelines at the national level has made the implementation of projects at the local level very difficult.

Implement property tax reforms. Reforms of the property tax are under consideration, and the Ministry of Finance prepared a draft Law on Property Tax in 2018. The draft law proposes a new tax on improvements, higher rates for land (such as an increase from 0.03 percent to 0.4 percent for residential land), and an even higher rate for land and houses not in use (1 percent). Once enacted, this law is expected to significantly increase the supply of land and improve affordability by reducing incentives for investors to hold vacant or underdeveloped land for

Box 4.5 Land Readjustment and Joint Redevelopment Program in the Republic of Korea

Land pooling or readjustment (LP/R) is a means of assembling land for urban expansion or redevelopment that builds a consensus among landholders and ensures that the original landholders retain their ownership/use rights. It allows project-affected households to contribute some portion of their land to make space for urban infrastructure; in return, their remaining land will have a much higher value after the project is completed because of the infrastructure investment and rezoning. This approach is widely considered more efficient and inclusive than land acquisition with compensation and off-site resettlement. LP/R has proven to be efficient in many countries in leveraging land values for development in an inclusive, efficient, and transparent way. In Korea, almost a quarter of the nation's entire urban area has been developed through land readjustment. From the 1950s through the 1980s, the Seoul city government developed 11,478 hectares, or approximately 40 percent of the urban area of Seoul, through 41 large-scale LP/R projects.

Land readjustment was the only urban development method in Korea prior to the 1970s. In the 1980s, the Joint Redevelopment Program (Hapdong) was introduced. In this program, the owners of houses or land in redevelopment sites form cooperatives and conduct projects in partnership with private construction companies. The cooperatives provide land and either receive or pay out money, depending on the size of the distributed houses after redevelopment. Private construction companies establish redevelopment plans together with the cooperatives, construct buildings, and finance the resources needed for a project.

Meanwhile, the cooperatives with private developers are to make up a certain percentage of small houses (85 square meters or smaller) in redeveloped buildings for low-income cooperative members and tenants, and there is an obligation to construct public rental housing for tenants. As of mid-2013, 402 (about 85 percent) of 486 redevelopment districts (excluding new towns) in Seoul had been redeveloped through the Joint Redevelopment Program. They provided approximately 358,000 housing units, including roughly 65,000 public rental housing units.

Sources: Land Readjustment e-Learning Course at World Bank Open Learning Campus; World Bank (2015a).

Improve market-based mechanisms for land valuation and allocation

Improve the process and methodology of land valuation to bring government-assessed prices closer to market prices. The methods of land valuation in Vietnam should be aligned with international standards, such as increasing the frequency of land price appraisals (from every five years to every year) and gradually introducing a mass appraisal method based on reliable sources of transaction data and statistical modeling techniques. The transparency of land pricing should be increased by establishing mechanisms to regularly publicize land values obtained in auctions and individual land sales and monitor market trends, such as by collecting information on transactions from developers and real estate agents and checking them against the land price tables. Meanwhile, the government should expedite the formation of an independent valuation profession and strengthen the role of independent evaluators in the provincial land appraisal committees. To address the issue of underreporting and build an accurate land price database of actual land transaction records, income taxes on the transfer of land use rights by individuals should be determined by using the land price table promulgated by the Provincial People's Committees, not the land prices stated in the land use right transfer contracts. Communication campaigns should be conducted to raise public awareness of the actual values in land use right transfer contracts and the legal and financial risks associated with underreporting.

Enforce transparent mechanisms for land allocation via auction or competitive bidding and strengthen public scrutiny and monitoring of unfair land allocation practices. For BT projects, it would be better to decouple the land transaction and infrastructure development. Although BT transactions run the inherent risk of undervaluation of land in the transaction because of governance challenges, there is also a genuine concern about the greater business risk associated with the bundling of real estate and infrastructure projects. BT transactions compensate the private company involved by granting land use rights against the cost of the infrastructure being created by the private company. However, this arrangement puts both the real estate risks (such as the risk of real estate market fluctuations, demand risk, and construction risk) and the infrastructure project risk on the private company, which can lead to overestimation of the infrastructure cost by that

company. It would be ideal to separate the project risk from the real estate risk. Instead of packaging the infrastructure project with land development, the government could generate revenues from the sale of land use rights separately and use those funds to create infrastructure through a separate transaction.

Pursuing reforms to improve the transparency and market orientation of land valuation will not only increase one-off land revenues, but also lay the foundation for introducing recurrent land-based fiscal tools such as property taxes or development charges. This will reduce the overreliance on a land use levy as the main source of local revenue, which incentivizes excessive land conversion and land lease.

Emphasize integrated spatial planning and introduce mechanisms for interjurisdictional coordination

Strengthen the role of spatial planning. The new Planning Law does not specify the concept of “spatial planning, whereas the “urban and rural system plan” is considered one type of sectoral plan at the national level and the “construction plan” is considered another type of technical and specialized plan. Land use plans and construction plans, with the enhanced spatial and development controls described earlier to strengthen mechanisms to control rural to urban land conversion, should be better integrated and serve as a foundation to coordinate and arrange spatially the key projects as proposed in the socioeconomic development plans and the various sectoral plans.

At the national level, the spatial planning system should introduce the concept of a portfolio of places based on their social, economic, geographical, and environmental characteristics, and guide the formulation of differentiated strategies for different places. At the provincial level, the provincial integrated plan should enhance the strategic vision and coordination function and serve as a basis for guiding the planning and development of cities and districts. At the provincial and district levels, different types of localities (that is, large metropolitan regions such as Hanoi and HCMC and small localities in environmentally sensitive areas) should be empowered to try and test different approaches to integrated planning and share lessons and experiences. On that basis, legal and institutional frameworks and guidelines would be formulated for adoption at the national level.

An important tool for facilitating evidence-based planning and multidepartmental coordination is an integrated geospatial data platform. In many cities in Vietnam, plans and maps held by different departments are paper-based, and access to integrated information is a problem. This approach slows the planning process, makes enforcement of development control less transparent and effective, and hinders the efficient sharing of information across departments. Setting up a spatial data infrastructure (SDI) platform to house all geospatial data relevant to each city, coupled with efforts and funding for data collection and digitalization, institutional strengthening, and capacity building, would be extremely beneficial. A SDI, such as the one being developed in Can Tho under the World Bank–financed Can Tho Urban Development and Resilience Project, could assist local authorities in their decision making about spatial planning and infrastructure development. To enable climate sensitive planning, the SDI should include maps and data on natural hazards to improve monitoring of climate parameters and assessment of climate risks.

Strengthen development control through zoning regulations. The Urban Planning Law of 2009 introduced a zoning plan (at 1/2,000 and 1/5,000 scale), which is an intermediate spatial plan between general plans and detailed plans (1/500). The zoning plan is intended to strengthen development control by local authorities and guide the development of project-specific detailed plans (such as by specifying land use, building height, building coverage ratio, floor area ratio, location of infrastructure facilities, and urban design) for certain areas within cities. However, in reality local authorities lack the capacity and resources to develop zoning plans, and such plans are still largely adopted with a view toward attracting investors and private interests.

Explore mechanisms for regional and metropolitan-wide coordination. The lack of interjurisdictional coordination in Vietnam's urban areas and metropolitan regions presents an opportunity to explore different regional and metropolitan-wide coordination mechanisms. Such mechanisms would help to support agglomeration economies and improve the efficiency of infrastructure investment and public service delivery. Although there has been some limited success in regional coordination building on the KER approach (see box 4.6), more expansive and effective approaches that provide the needed resources and political and administrative authority to implement metropolitan-wide solutions should be considered, particularly in the expanding metropolitan regions of Hanoi and HCMC. An important step will be providing the various regional coordination committees, which are commonly advisory bodies, with authority over regional and metropolitan planning, along with the proper functions, budgets, and human resources. Other funding mechanisms could be explored to facilitate interprovincial and interregional collaboration, such as providing special matching grants for regional infrastructure development (as discussed in chapter 5).

Box 4.6 Regional coordination in Central Coast and Mekong River Delta regions of Vietnam

Central Coast region

The Central Coast region includes five provinces and cities in the central key economic region (Thua Thien Hue, Da Nang, Quang Nam, Quang Ngai, and Binh Dinh) and two provinces in the southern coastal area (Phu Yen and Khanh Hoa). The region is experiencing high economic growth of 12.5 percent a year. It is strategically located in the middle of the country, benefiting from six airports (four of which are international), eight deep seaports, one high-tech industrial park, and connections to nine national highways and railways.

The regional agreements among the seven provinces were adopted under the leadership of Da Nang in 2011. The provinces agreed to work on nine areas of members' interest such as labor SEDP planning, labor division, transport connectivity, capacity building, promotion of trade and investment, improvement of business-enabling environmental and regional competitiveness, environmental protection, and climate change adaptation. To implement this agreement, the region established (1) a regional coordination body; (2) a regional development advisory board headed by a National Assembly member and composed of members of academic and research institutions; and (3) a Central Region Research Development Fund, which pools the support of commercial banks and the private sector. A standing committee, the Central Region Development Research Center, provides the regional coordination body and the advisory board with support.

The results are encouraging. Many joint events have been organized to address regional issues and needs, and a web portal of the region is up and running, consolidating and reporting socioeconomic data of the member provinces and the region.

Mekong River Delta

Resolution 120 on Sustainable and Climate-Resilient Development of the Mekong River Delta was adopted after the Mekong Delta Forum in 2017 to address the critical issues of sustainable development and climate resilience in the 13 provinces in the Delta. The objectives of this special policy are to develop green industries with low emissions without destroying natural ecosystems and renewable energy in association with forest and coastal protection. In addition, the policy promulgates breakthrough mechanisms and policies to attract nonbudget capital resources, especially from the private sector, and create favorable conditions for investments by the private sector. The policy will be implemented by line ministries—Ministry of Planning and Investment (MPI), Ministry of Agriculture and Rural Development (MARD), and Ministry of Industry and Trade (MOIT)—and local provinces. Decision 417/QĐ-TTg issued by the prime minister in April 2019 outlines a master action plan to implement Resolution 120. This action plan provides a list of actions and projects to be implemented in line with Resolution 120. One proposed action is an assessment of the pilot coordination mechanism for the Mekong River Delta region as pursuant to Decision 593.

According to Decision 593 issued by the prime minister in 2016, the Mekong River Delta is the only one of six economic regions that will pilot a regional coordination mechanism for its regional socioeconomic development plan for the period 2016–20. Three key regional linkages under this decision are (1) production, processing, and consumption of value chains for key commodities such as rice, fruit, and fish; (2) upgrading and construction of transport infrastructure; and (3) investment in and rehabilitation of irrigation systems, flood control, water resources management, environmental protection, and climate change adaptation. The MPI is currently assessing lessons from the pilot and will propose a new regional coordination mechanism, including a coordination council to be approved by the prime minister and implemented after 2020.

Sources: Central Coast region: Minh and Duy (no date); Mekong River Delta region: MPI (2019); An Giang (2018).

Although there is a wide range of experience globally in dealing with the challenges of metropolitan fragmentation, there is no consensus on a single “best” approach to governing metropolitan areas. The main lesson from international experience is that the appropriate metropolitan governance model depends on the national and local context (Slack 2007), including the strength of the desire for local autonomy versus more efficiency in service delivery. In the context of Vietnam, where there is a strong, long-standing culture of planning at the central level that is underpinned by silo-based approaches (both functionally and subnationally), the potential

mechanisms for regional and metropolitan-wide coordination should be sensible and should not be expected to immediately overhaul the existing jurisdictional boundaries and subnational planning processes. The central government must pursue a flexible approach that caters to the specific needs of different types of metropolitan and urban areas (such as the large-scale metropolitan areas of Hanoi and HCMC) versus expanding secondary cities (such as Hai Phong, Da Nang, and Can Tho) and can adapt to urban growth and evolve with the changing needs of citizens.

Endnotes

64. General Statistics Office of Vietnam, <http://www.gso.gov.vn/default.aspx?tabid=426andidmid=3>.
65. United Nations Office for Disaster Risk Reduction (UNDRR), PreventionWeb, <https://www.preventionweb.net/countries>.
66. <http://vneconomy.vn/dia-oc/lam-ro-khuyen-cao-viet-nam-se-boi-thuc-ve-san-bay-cang-bien-2017101208096732.htm>.
67. According to Article 6 of Decree 188/2013/ND-CP, allocation of land for social housing in commercial housing projects in a New Urban Area for class 3 cities and above may be carried out as follows. First, if the project for commercial housing or New Urban Area is larger than 10 hectares, 20 percent of the land area or floor area must be put aside for social housing. If the investor does not wish to develop social housing, the 20 percent land area shall be handed over to the People's Committee. Second, if the project for commercial housing or New Urban Area is less than 10 hectares, the investor may transfer a number of houses whose value is equivalent to 20 percent of the land according to the prevalent land price table, or pay the People's Committee an equivalent amount that shall be used to build up the social housing fund.

References

- An Giang. 2018. “Consultation Workshop on the Mekong Delta Region’s Coordination Mechanism.” November 20.
- CEM and MONRE (Ministry of Natural Resources and Environment). 2018. Báo cáo Môi trường Quốc gia 2018 [National Environmental Status Report 2018]. Hanoi.
- Hanoi DONRE (Department of Natural Resources and Environment), Tai Nguyen, and Moi Truong. 2017. “Xử lý nước thải tại cụm công nghiệp ở Hà Nội: Sớm hiện thực hóa mục tiêu cam kết” [Wastewater Treatment in an Industrial Cluster in Hanoi: Early Realizing the Committed Goal.] <https://baotainguyenmoitruong.vn/moi-truong/som-hien-thuc-hoa-muc-tieu-cam-ket-1263102.html>.
- Jacques, O., D. Labbé, and C. Musil. 2017. “Shortcomings of an Idealized Urbanity: Ghost Urban Areas and the Asynchronous Territorial Development of Hanoi.” *Kasarinlan: Philippine Journal of Third World Studies* 32 (1–2): 81–108.
- Mai Thành. 2009. “Về chuyển dịch cơ cấu lao động nông thôn sau thu hồi đất” [Regarding Restructuring of Rural Labor after Land Acquisition]. *Tạp chí Cộng Sản* 15 (183).
- Minh, Ho Ky, and Le Minh Nhat Duy. No date. “Regional Coordination: From Theory to Practice.” Conference on Regional Development, London School of Economics.
- MPI (Ministry of Planning and Investment). 2017. “Báo cáo tổng kết hoạt động các mô hình khu công nghiệp, khu kinh tế” [Summary Report on Operation Models of Industrial Parks and Economic Zones]. <http://www.mpi.gov.vn/Pages/tinbai.aspx?idTin=35899&idcm=207>.
- _____. 2019. “Development of the Mekong Delta Region’s Integrated Planning.” <http://www.mpi.gov.vn/Pages/tinbai.aspx?idTin=42703&idcm=188>.
- Slack, Enid. 2007. “Managing the Coordination of Service Delivery in Metropolitan Cities: The Role of Metropolitan Governance.” Policy Research Working Paper 4317, World Bank, Washington, DC.
- Ty, Pham Huu, Nguyen Quang Phuc, and Guus van Westen. 2014. “Vietnam in the Debate on Land Grabbing: Conversion of Agricultural Land for Urban Expansion and Hydropower Development.” In *The Global Land Grab: Beyond the Hype*, edited by Mayke Kaag and Annelies Zoomers. London: Zed Books.
- World Bank. 2015a. “Incremental and Affordable Housing Policy Toolkit.” Washington, DC.
- _____. 2015b. *Vietnam Affordable Housing: A Way Forward*. Washington, DC: World Bank.
- _____. 2016. *Vietnam 2035: Towards Prosperity, Creativity, Equity and Democracy*. Washington, DC: World Bank and Ministry of Planning and Investment (Vietnam).
- _____. 2019. *Report on Land Value Capture Tools Applicability in Can Tho, Vietnam*. Washington, DC: World Bank.
- World Bank and ADB (Asian Development Bank). 2018. *Vietnam: Climate Risk Country Profile*. Washington, DC: World Bank.

Chapter 5

Strengthening fiscal and financing policies for more efficient urbanization

Key findings

- Fiscal resources suffer from poor spatial targeting. The current system of fiscal transfers from the central to local governments strongly favors equality between regions (spatial equity) over spatial efficiency. As a result, the leading urban areas are starved of the resources they need to meet the infrastructure needs of their growing populations.
- Vietnam's two growth engines are characterized by insufficient fiscal resources and investments. Although revenue growth in Hanoi and Ho Chi Minh City (HCMC) has kept up with national revenue growth, their expenditure and investment growth rates are significantly lower. Inadequate levels of infrastructure investment in Hanoi and HCMC have likely constrained the growth of agglomeration economies in the two cities and thus the growth of national economy.
- Vietnam's provinces are facing limited investment financing options. The enabling environment in Vietnam for provincial governments seeking to access private sector funding for urban infrastructure is weak. Furthermore, the build-transfer (BT) approach used by most provinces to generate revenue for investment financing has raised serious concerns about transparency and efficiency.
- The fiscal and financing mechanisms needed to support regional integration and development are lacking. Vietnam's legal and institutional framework does not provide a fiscal and financing mechanism to support regional integration and development. Moreover, there is currently no incentive mechanism for coinvestment by provinces in regional infrastructure. Such a mechanism is critically required because of lack of an institutional framework for regional government.

Key policy actions

- Fine-tune fiscal allocations to meet the needs of fast-growing areas and to reward higher-efficiency performance. As the central government prepares a new revenue-sharing formula, it should consider providing (1) an additional fiscal allocation for investment in the Central Highlands region; (2) higher retained revenues for Hanoi and HCMC; and (3) higher retained revenues for provinces in the first-tier Southeast and Red River Delta regions.
- Employ more buoyant and more innovative fiscal instruments to support the country's growth engines and its provinces with high-growth potential. The central government should give priority to initiatives that include piloting the property tax in Hanoi and HCMC to promote local fiscal autonomy and piloting commercial lending for creditworthy provinces to expand their financing options. Strengthening the local fiscal autonomy of major cities will strengthen agglomeration economies by ensuring that public service delivery and municipal infrastructure investments keep up with the demands of transforming local economies and growing populations.
- Adopt new financing mechanisms to facilitate interprovincial and interregional linkages. The central government should provide financial incentives through matching grants to reduce the financing obligations of provinces. Financial incentives could take the form of a matching allocation from earmarked central-level budgets or an allocation for certain items covered by an investment. These mechanisms are critical to supporting regional integration in the major metropolitan areas.
- Increase the potential of land-related resources. As an alternative to the predominant BT model, cities should first invest in trunk infrastructure before transferring the use of land to private sector partners. Furthermore, cities should proactively ensure that their investments comply with approved urban spatial plans.

Introduction

Fiscal and financing policies are fundamental and closely related institutional elements that shape the outcome of urbanization and industrialization processes. In Vietnam, the fiscal transfer system has for decades shaped the country's system of cities and regions. The underlying policy principle of the fiscal transfer system has been to promote spatial equity—that is, revenues are redistributed from higher-revenue provinces to lower-revenue provinces. This system has largely kept regional disparities in check, leading to a relatively balanced growth and development pattern. However, the country's fiscal policy, in conjunction with its policies governing migration, land management, and planning (as discussed in chapters 3 and 4), has also contributed to the development of a spatially dispersed urbanization pattern that has implications for the growth of both higher-urbanized and lower-urbanized regions.

As discussed in chapters 1 and 2, inherent challenges in the current urbanization pathway have implications for Vietnam's long-term growth. To reform its urbanization model moving forward, Vietnam must optimize and recalibrate its intergovernmental fiscal system. This requires assessing fiscal allocations among provinces and public investment policies to determine how to effectively maintain a balance between promoting growth for weaker socioeconomic areas, as stipulated in the constitution, and supporting the public service delivery and infrastructure demands of the urban growth engines.

Fiscal policy reform is also crucial to addressing two overall policy directions for Vietnam's future urbanization process: boosting agglomeration economies and strengthening regional integration. This issue is more relevant now because the overall fiscal environment has tightened and provinces and cities are exploring new ways of financing urban infrastructure.

This chapter analyzes the fiscal and financing aspects of Vietnam's urbanization process and recommends ways to improve efficiency, inclusiveness, and sustainability. It also describes mechanisms and instruments for appropriately and efficiently utilizing public resources for and private sector investments in cities and metropolitan areas. The reforms should adopt a comprehensive, differentiated, and tiered approach to ensure that issues are addressed at their location and are specific to their origination and scope.

Fiscal policy framework and equalization effects

Fiscal policy framework

The State Budget Management Law of 2015 provides the overall fiscal framework for Vietnam, following equity-based principles set forth in the constitution—see annex A for a summary of the fiscal framework and the World Bank report *Making the Whole Greater than the Sum of the Parts: A Review of Fiscal Decentralization in Vietnam* for details (World Bank 2015a). Over the last several decades, Vietnam has gradually decentralized, sending more fiscal responsibilities to the provincial level. As a result, the provinces are the most important subnational government unit within the country's fiscal framework, especially because there is no formal decision-making mechanism at the regional level.

The annual state budget adopted by the national legislature consolidates both central and subnational budgeted revenues and expenditures. Every five years, the National Assembly approves revenue-sharing formulas and intergovernmental fiscal transfer norms governing both recurrent and capital expenditures for all provinces. The law does not provide an institutional or policy framework corresponding to the system of six socioeconomic regions.

To date, there has been little empirical analysis of the effects of the intergovernmental fiscal arrangement on the overall effectiveness and efficiency of national-level growth, taking into account development objectives and potentials and regional and spatial opportunities and challenges. Furthermore, there has been limited analysis of the extent to which the fiscal arrangement has or has not enabled local governments to efficiently and accountably finance infrastructure investments and fund public services. Because local authorities have little to no autonomy over revenue policy and administration, questions arise about how the redistributive policies have or have not supported efforts by provinces that demonstrate high economic potential to invest in growth-enhancing initiatives.

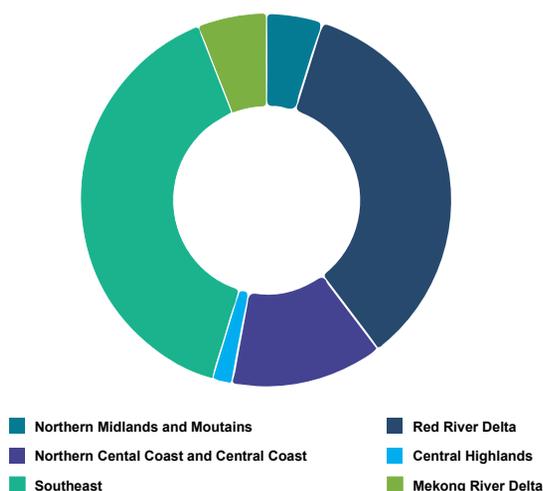
Overall fiscal allocation patterns

In Vietnam, the two fiscally strongest subnational governments are Hanoi and Ho Chi Minh City (HCMC). According to Ministry of Finance (MoF) estimates, they account, respectively, for 16 percent and 23 percent of national GDP and 16 percent and 26 percent of national revenue (see annex A for details on provincial fiscal performance). Among the six regions, the first-tier Red River Delta and Southeast regions are the most urbanized and are a source of a disproportional share of national revenue (35 percent and 39 percent, respectively). The Central Highlands region is the least urbanized and generates the least revenue, accounting for only 2 percent of national revenue, and it has the lowest revenue growth rate (figure 5.1).

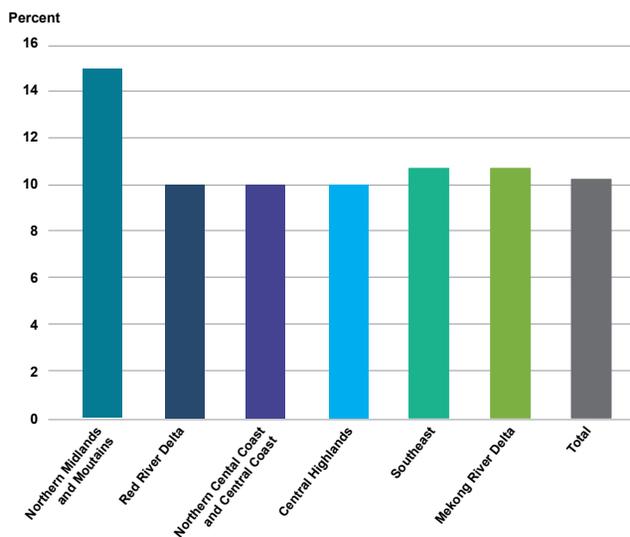
The central government uses the fiscal allocation system to distribute revenue from both local governments and the central government to meet local expenditure needs based on approved norms and revenue-sharing formulas (see annex A for details on the transfers to provinces). About 60 percent of revenue collected by Hanoi and 75 percent of revenue collected by HCMC are transferred to the national budget for redistribution in accordance with the State Budget Management Law. More than a third of all provinces rely on central government transfers to finance more than half of their expenditures. Of the 63 provinces, only 13 (including Hanoi and HCMC, which are treated as provinces) are able to generate sufficient revenue to fully cover their budgeted expenditures. At the regional level, the Red River Delta and Southeast are the only two regions in which the average revenue per capita exceeds the average expenditure per capita, as shown in figure 5.2.

Figure 5.1 Revenue performance and growth rate by region, Vietnam

a. Share of revenue, 2015

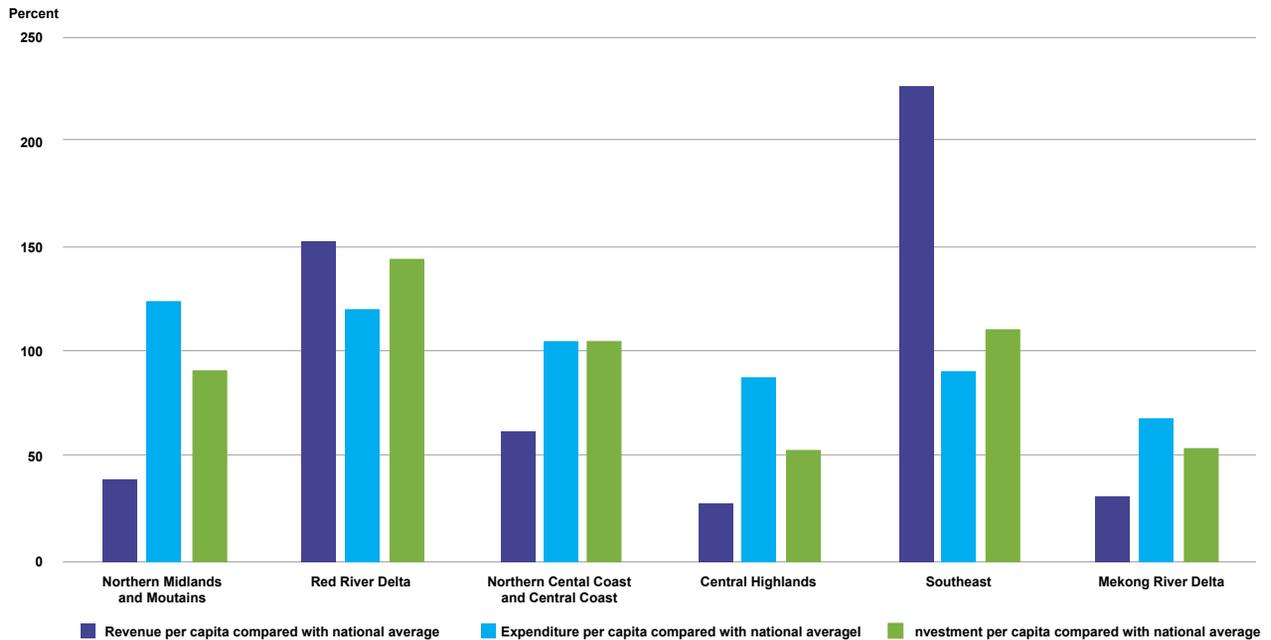


b. Annual revenue growth rate, 2010–15



Source: World Bank team's analysis based on data from Ministry of Finance (<http://mof.gov.vn/>).

Figure 5.2 Regional fiscal performance and relocation patterns: Vietnam, 2015



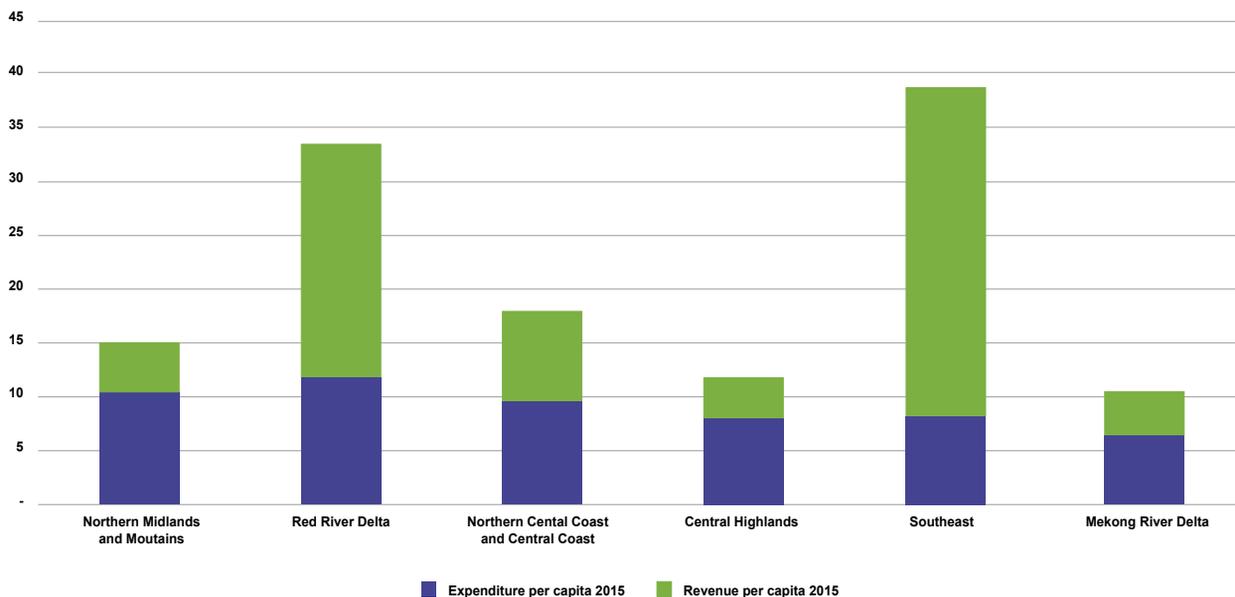
Source: World Bank team's analysis based on data from Ministry of Finance (<http://mof.gov.vn/>).

Equalization effects of the current fiscal system

Although revenue per capita varies from region to region, the current equity-based policy results in expenditure per capita are very much equalized across regions (figure 5.3). Revenue per capita in the Red River Delta and Southeast regions are, respectively,

about five and seven times higher than those in the Northern Midlands and Mountains, Central Highlands, and Mekong River Delta regions. By contrast, the expenditures per capita in the fiscally strongest Southeast region and the fiscally weakest Central Highlands and Mekong River Delta regions are slightly lower than the national average.

Figure 5.3 Expenditure versus revenue per capita: Vietnam, 2015

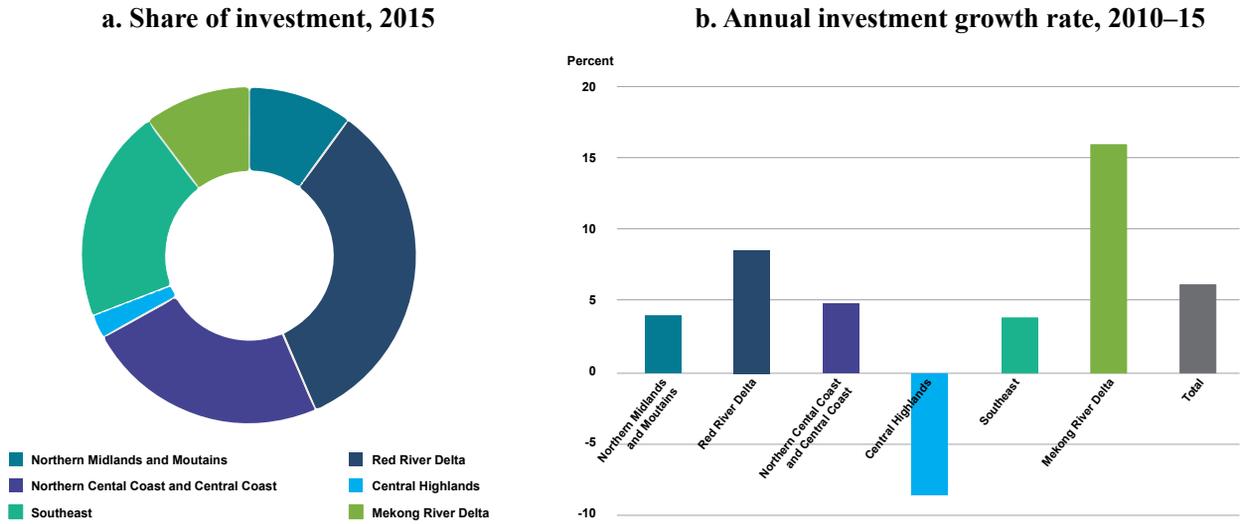


Source: World Bank team's analysis based on data from Ministry of Finance (<http://mof.gov.vn/>).

The effects of the current fiscal system on investment are more dispersed (figure 5.4). Aggregate investments in the Red River Delta and Southeast regions account for 53 percent of the total local investment, even though these regions collect 74 percent of total revenue. The two slower urbanizing and fiscally weaker Central Highlands and Mekong River Delta regions exhibit an unusual pattern—the Central Highlands has a negative growth investment rate, whereas the Mekong River Delta actually has the highest investment growth rate. Investments per capita in the Central Highlands and Mekong River Delta regions are about half those

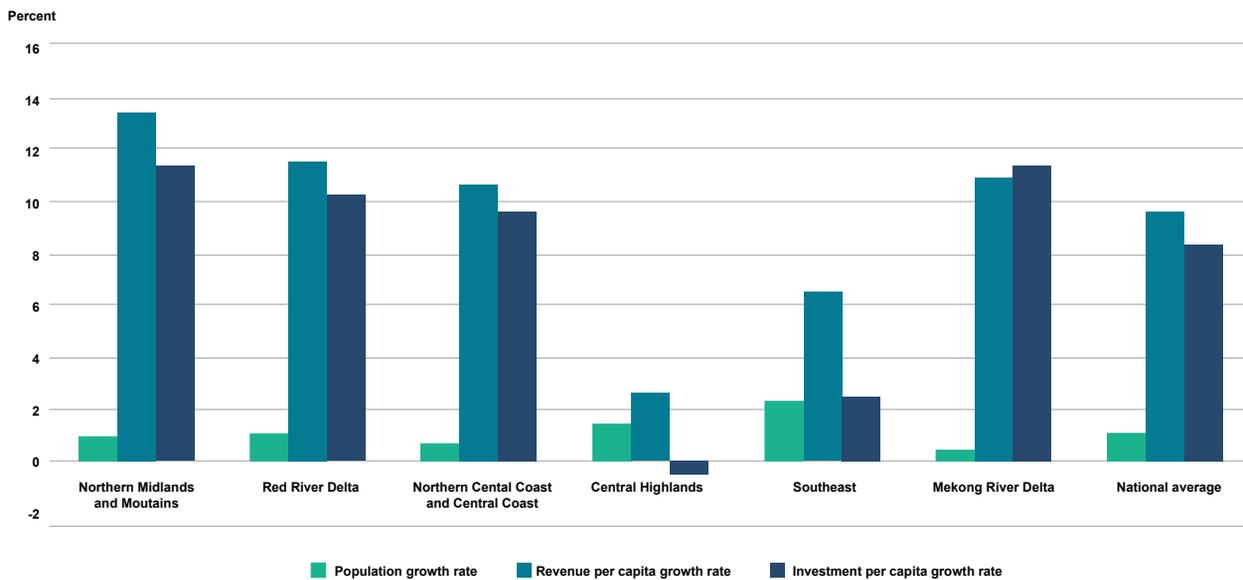
of the remaining regions. However, investments per capita for the first-tier Red River Delta and Southeast regions are comparable to the levels found in the less developed Northern Midlands and Mountains and North Central Coast and Central Coast regions. A worrisome finding revealed in figure 5.5 is that the growth rate for the revenue per capita and investment per capita of the Southeast region, which fiscally is the strongest region with the highest growth potential, is lower than the national average and is below the growth rates of all the other regions except the Central Highlands.

Figure 5.4 Dispersed investment patterns by region, Vietnam



Source: World Bank team's analysis based on data from Ministry of Finance (<http://mof.gov.vn/>).

Figure 5.5 Population and fiscal growth patterns: Vietnam, 2010–15



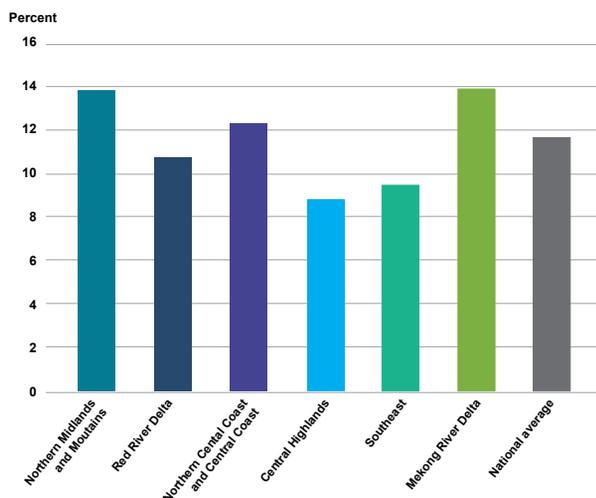
Source: World Bank team's analysis based on data from Ministry of Finance (<http://mof.gov.vn/>).

The equalization effects resulting from the fiscal allocation system are manifested in the balancing of budget expenditures across regions. As shown in figure 5.6, the expenditure per capita growth rates for all regions are within the relatively narrow range of 9–14

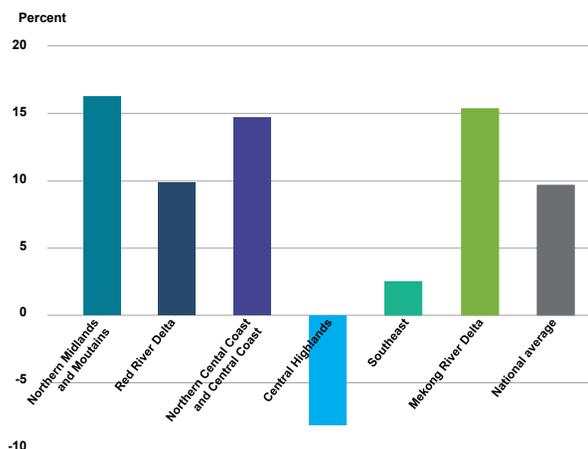
percent. However, the investment per capita growth rates reveal a very inconsistent pattern in which public investments are not flowing adequately to regions with high investment demands and growth potential such as the Southeast region.

Figure 5.6 Expenditure and investment patterns: Vietnam, 2011–15

a. Expenditure per capita annual growth rate



b. Investment per capita annual growth rate



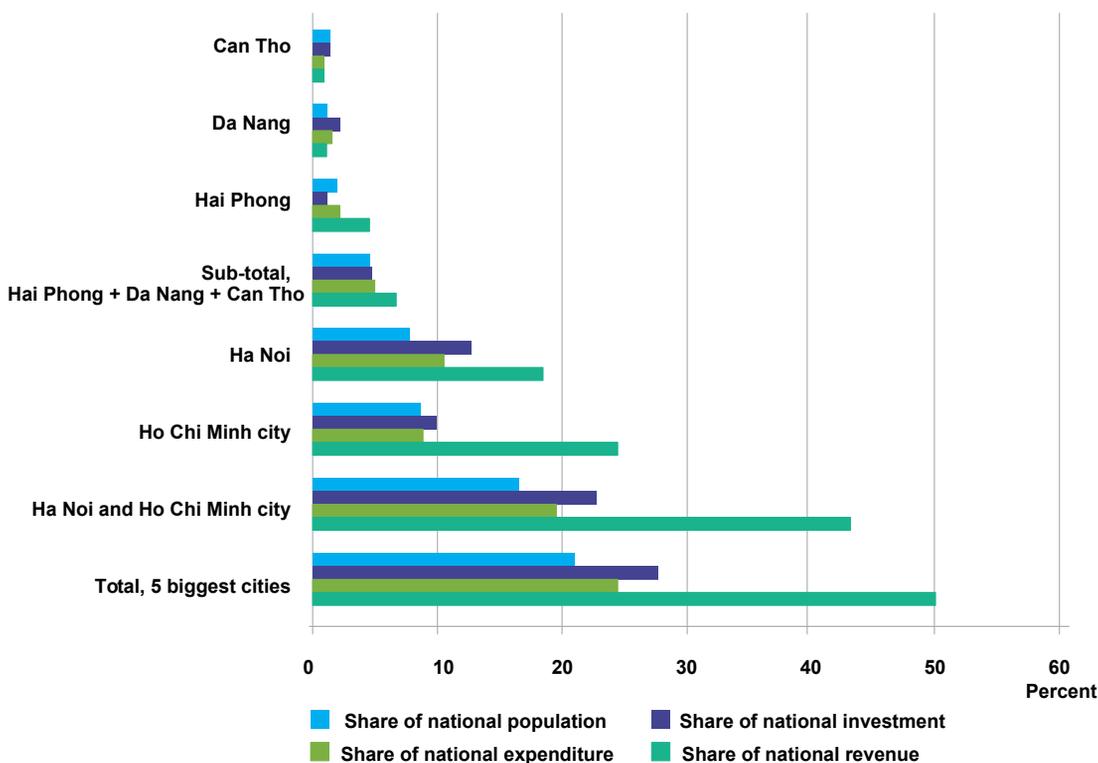
Source: World Bank team's analysis based on data from Ministry of Finance (<http://mof.gov.vn/>).

Fiscal impact on large cities

The five municipalities with provincial status—HCMC, Hanoi, Hai Phong, Da Nang, and Can Tho—collect half of total national revenue. Half of the aggregate revenue of the five cities is transferred to the central government. The aggregate investment of the

five cities accounts for about 27 percent of the total investment at the local level (figure 5.7). Hanoi and HCMC together account for 17 percent of the national population but collect 43 percent of national revenue. After redistribution of revenue, the total expenditure in the two largest cities ultimately accounts for just 19 percent of the total local expenditure.

Figure 5.7 Fiscal highlights of the five Vietnamese cities with provincial status, 2015

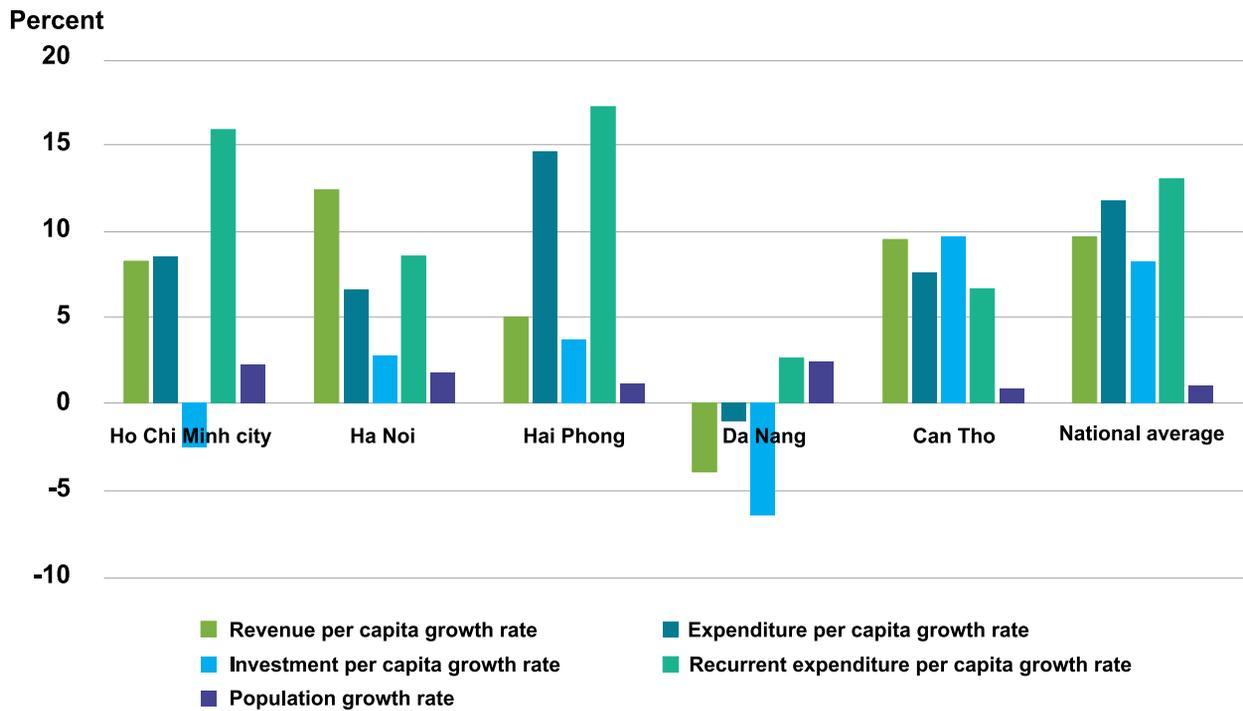


Source: World Bank team's analysis based on data from Ministry of Finance (<http://mof.gov.vn/>).

A closer look at the fiscal patterns of the five biggest cities (figure 5.8) indicates that (1) after redistribution, investment per capita in HCMC is actually decreasing; (2) with the exception of Can Tho, the investment per capita growth rates of the remaining four cities are lower than the national average; and (3) the expenditure per capita growth

rates in Hanoi and HCMC are lower than the national average, despite the fact that their absolute expenditure per capita is in line with the national average. Investment per capita declined in Da Nang and HCMC, which likely contributed to the trend of declining revenues in Da Nang and slower revenue growth in HCMC.

Figure 5.8 Fiscal growth patterns of the five biggest cities: Vietnam, 2011–15



Source: World Bank team’s analysis based on data from Ministry of Finance (<http://mof.gov.vn/>).

As a result, as analyzed in chapter 1, fiscal redistribution away from more urbanized areas has made it difficult for them to provide the infrastructure and services that sustain economic growth demands. Consequently, congestion forces have overwhelmed agglomeration economies in some parts of the HCMC and Hanoi metropolitan areas, which have not been able to play their full role as Vietnam's engines of growth despite their dominance in attracting inflows of foreign direct investment (FDI). These congestion forces, including traffic and public transport, environment and air quality, and social services such as education and health care, have significantly affected the efficiency gains of the urbanization process in Vietnam and in particular the country's two engines of growth.

General observations on development impacts

Overall, it is not clear whether the fiscal allocation system has supported equalized development outcomes across regions, as intended by the system. For example, the investment per capita in the Central Highlands region has been declining, even though the region has the highest poverty rate. By contrast,

the Mekong River Delta region has experienced a slowdown in urbanization and a declining population growth rate, but its investment per capita growth is higher than the national average.

The Southeast region presents a different efficiency issue. Its extremely low investment per capita growth (26 percent of the national average) will certainly not meet the demands of fast urbanization and its highest population growth (more than double the national growth rate). This finding has likely already contributed to a slowdown of revenue per capita growth, which is a serious concern for a region that contributes about 35 percent of national GDP and more than 50 percent of national budget revenue. The first-tier Red River Delta and Southeast regions, which are urbanizing at the fastest rate and have the highest growth potential, are unable to meet their investment demand after fiscal redistribution (table 5.1). At the same time, the poorest region, the Central Highlands, does not receive sufficient fiscal support, as evidenced by its lower than average expenditure growth and declining investment rate.

Table 5.1 Regional population, revenue, expenditure, and investment rates by region, Vietnam

	Population growth rate (%)	Annual revenue per capita growth rate (%)	Annual expenditure per capita growth rate (%)	Annual investment per capita growth rate (%)	Urbanization pace	Growth potential/investment demand
National average	1.1	9.7	11.7	9.5	Average	Average
Northern Midlands and Mountains	1.0	13.4	13.9	11.4	Average	Medium
Red River Delta	1.1	11.5	10.8	10.3	Accelerating	High
North Central Coast and Central Coastal	0.7	10.6	12.4	9.6	Average	Medium to high
Central Highlands	1.5	2.7	8.9	-0.5	Slowdown	Low
Southeast	2.3	6.5	9.5	2.5	Accelerating	High
Mekong River Delta	0.4	10.9	13.9	11.4	Slowdown	Low

Source: World Bank team's analysis based on data from Ministry of Finance (<http://mof.gov.vn/>) and censuses.

Infrastructure investment demands and financing constraints

Subnational financing framework

Economic growth, rapid urbanization, and steady decentralization of responsibilities to provincial governments have posed significant financial challenges for all provinces in Vietnam. In many countries, urban infrastructure cannot be fully funded by local governments on a pay-as-you-go basis because of public budget constraints. Provincial governments are therefore pushed and incentivized to leverage their balance sheets and use debt financing to fund their infrastructure investment needs. Annex B summarizes urban infrastructure investment gaps and subnational financing sources. The World Bank (2013, 2018) has published detailed analyses of the financing framework and the recommended instruments.

Vietnam's government has made gradual progress toward improving the access of provincial governments to credit financing. In the early 2000s, the central government established a Local Development Investment Fund (LDIF) financing framework so that provinces could raise capital and invest in cost recovery infrastructure projects. Meanwhile, the central government has also passed many measures authorizing provincial government borrowing, including municipal bonds and loans from credit institutions. The State Budget Management Law of 2015 reflects the shift toward a more enabling framework by including a substantial increase in the statutory debt limit for provinces. However, further regulatory policy reforms are needed to effectively stimulate provincial borrowing and create more efficient financing instruments.

Urban infrastructure demands and investment gaps

Vietnam's growing urban population and its high rate of economic growth have increased pressure on municipal services. The demand for investment in infrastructure among local authorities is large and rapidly growing as Vietnam continues its transition toward becoming an industrialized, modern, market-based economy. The central government recognizes the various challenges that need to be addressed. Vietnam's socioeconomic development plan (SEDP) for 2011–20 set as priorities infrastructure development, development of a skilled labor force, and establishment of market-based institutions. As in many other countries, Vietnam's public resources are able to fulfill only about half of the investment needs estimated in the SEDP, and a shortfall of at least \$9 billion is left unfunded each year (World Bank 2013, 2018). The investment financing challenges are not new, but they have become more pressing over time.

A 2018 World Bank study looked at effective demand for a subset of 11 provincial governments (table 5.2) that are fiscal net contributors (that is, they generate surplus revenue that the central government reallocates to other provinces), other than Hanoi and HCMC (World Bank 2018).⁶⁸ Under a conservative base case scenario and relying on lower past growth trends of revenue and expenditures, the aggregate investment capacity of the 11 provinces was found to be around VND 656 trillion (\$29.2 billion) for a five-year period. This means the provinces have an average annual investment capacity of about \$5.8 billion, or a collective borrowing capacity of approximately \$19.34 billion over five years (net of current investments from public sources). This amount is equivalent to an average of \$3.87 billion a year, which is twice the estimated investment shortfall for the entire country. The fiscal capacity of either Hanoi or HCMC is larger than the total capacity of the remaining 11 net contributors. Thus the effective demand of all net contributors in the base case scenario could exceed \$100 billion for a five-year period.

Table 5.2 Investment and borrowing capacity of 11 net contributors to the Vietnamese economy*US\$, billions*

Province	Investment capacity	Borrowing capacity
Bac Ninh	3.94	3.15
Hai Phong	3.3	2.64
Khanh Hoa	1.99	1.59
Quang Ninh	2.55	2.04
Binh Duong	2.04	1.63
Da Nang	1.42	1.14
Ba Ria-Vung Tau	1.64	1.31
Quang Ngai	1.17	0.94
Dong Nai	3.35	2.68
Vinh Phuc	6.62	1.3
Can Tho	1.16	0.93
Total	29.17	19.34

Source: World Bank 2018.

Current financing sources and constraints

Limited revenue. The State Budget Management Law provides provincial governments with little to no autonomy in revenue policy. In recognition of the development needs of the two biggest cities in Vietnam, the National Assembly passed the Capital Law for Hanoi and a resolution on a special mechanism for HCMC. However, these legislative actions do not provide any substantial increase in revenue autonomy for the two cities. Currently, no local taxes are available to the cities, and all tax rates are set by the central government. Vietnam is one of a few countries that does not assign a property tax to subnational governments (as discussed in annex A).

Current debt financing sources. Provincial governments can supplement their ability to undertake capital projects by borrowing, and they have authority to borrow for projects contained in the state budget. As detailed in annex B, provinces can tap the following sources to borrow: (1) the State Treasury for short-term loans not exceeding one year; (2) on-lending from the central government of official development assistance (ODA) funding; (3) the Vietnam Development Bank (VDB); (4) state-owned and commercial banks; and (5) bond issues to tap the capital markets. The total provincial debt is estimated to be 1.3 percent of GDP, which is low by international standards (World Bank 2018). Most provincial debt is incurred by the five largest cities, and the bulk of provincial borrowing (approximately 73 percent) is sourced from the VDB, State Treasury, and on-lending by the central government. Only around 27 percent of debt is incurred through the issuance of municipal bonds and other instruments. Commercial bank lending is practically nonexistent in the current environment.

Lack of access to commercial credit. The enabling environment in Vietnam for provincial governments to access private sector funding for urban infrastructure is weak. Fundamental issues identified in earlier World Bank studies include (1) the absence of clear stipulations on recourse mechanisms in the case of a provincial government's default and (2) the absence of specific regulations on the assessment of credit risks for loans provided by lenders to the provincial governments. A new legal framework is needed to govern what happens after provincial debt is issued.

Poor functioning of public-private financing arrangements. Because of the institutional constraints on debt financing, the transfer of land use rights for real estate development projects (the so-called land-for-infrastructure arrangement) has been widely used in all provinces, usually on a negotiated basis in the form of a build-transfer (BT) contract. However, this approach has raised serious concerns about (1) the transparency and efficiency of the negotiation process; (2) the appraisal of studies and designs prepared by the private sector investor; (3) the evaluation of investor qualifications; and (4) the transparency and accuracy of the land valuation process. Consequently, the central government recently decided to reject noncompete processes used in both infrastructure investment and transfer of land use rights. Concurrently, a law on public-private partnerships (PPPs) was recently passed by National Assembly. However, the prospect of PPPs serving as a reliable source of financing for local infrastructure is likely to be limited in the medium term.

Implications of current fiscal and financing policies

Poor spatial targeting of fiscal resources

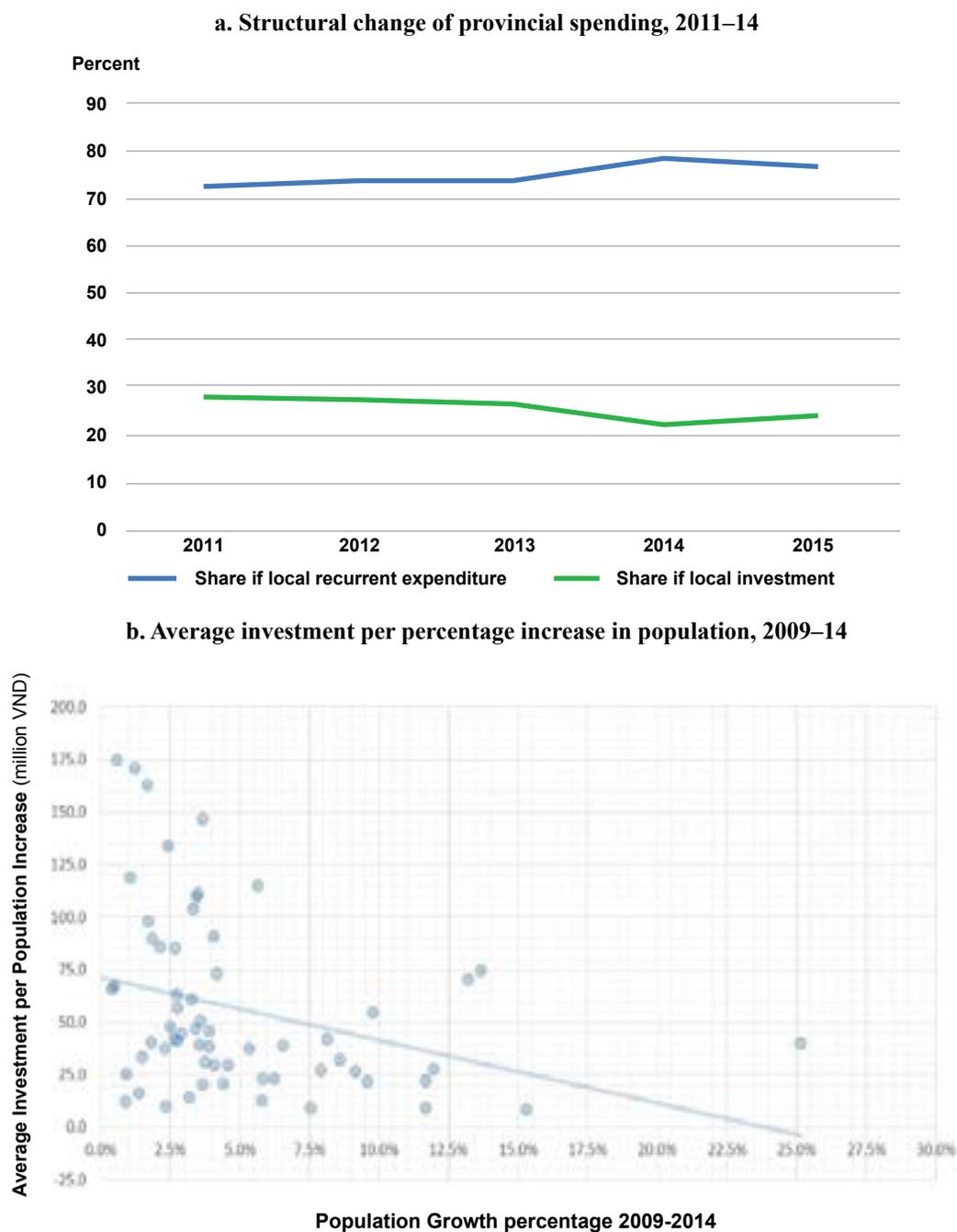
Although fiscal transfer systems and rules commonly contain a redistributive element, Vietnam's system takes this element to the extreme. The system adheres to the principle of "equalization and regional balance," heavily redistributing revenues collected from the country's first-tier provinces, particularly HCMC and the surrounding provinces, to its less developed second-tier provinces, including the Central Highlands region and, even more, the Northern Midlands and

Mountains region and the Mekong River Delta region. Although this redistribution has arguably contributed to the low spatial inequality among Vietnam's regions, it also deprives areas with fast population growth of the resources to meet their infrastructure and basic service requirements, which in turn exacerbates congestion forces and undermines agglomeration economies. Vietnam exhibits a negative relationship between a region's rate of population growth and the increase in average resources it receives through transfers. The cores (municipalities) of Hanoi and HCMC have especially suffered. Their expenditure and investment budgets are lower than the national average, both total and per capita. HCMC's public investment growth, both total and per capita, was negative over 2011–15.

By failing to provide HCMC, Hanoi, and centers of fast population growth with the resources they need to meet their growing infrastructure needs, the fiscal transfer system contributes to both local labor markets' lack of spatial integration and firms' lack of strong linkages. These in turn contribute to the general weakness of agglomeration economies in Vietnam. This inability to adequately respond to growing infrastructure needs also exacerbates congestion forces.

Two structural issues stem from the equalization effects of the current fiscal relocation policy: (1) the budgetary distribution between recurrent and capital spending and (2) the spatial targeting of investment. As shown in figure 5.9, panel a, the share of recurrent expenditure in provincial budgets had been increasing at a rate of 1.5 percent a year, from 72 percent in 2011 to 76 percent in 2015, whereas the share of investment has been declining at the alarming rate of 4 percent a year. Furthermore, overall investment is allocated to small provinces with slow population growth, lower productivity, and low development potential as shown in figure 5.9.b. In other words, more fiscal resources are not invested in areas that are growing faster and have a greater need for infrastructure development.

Figure 5.9 Implications of equity-based policy for use of fiscal resources, Vietnam

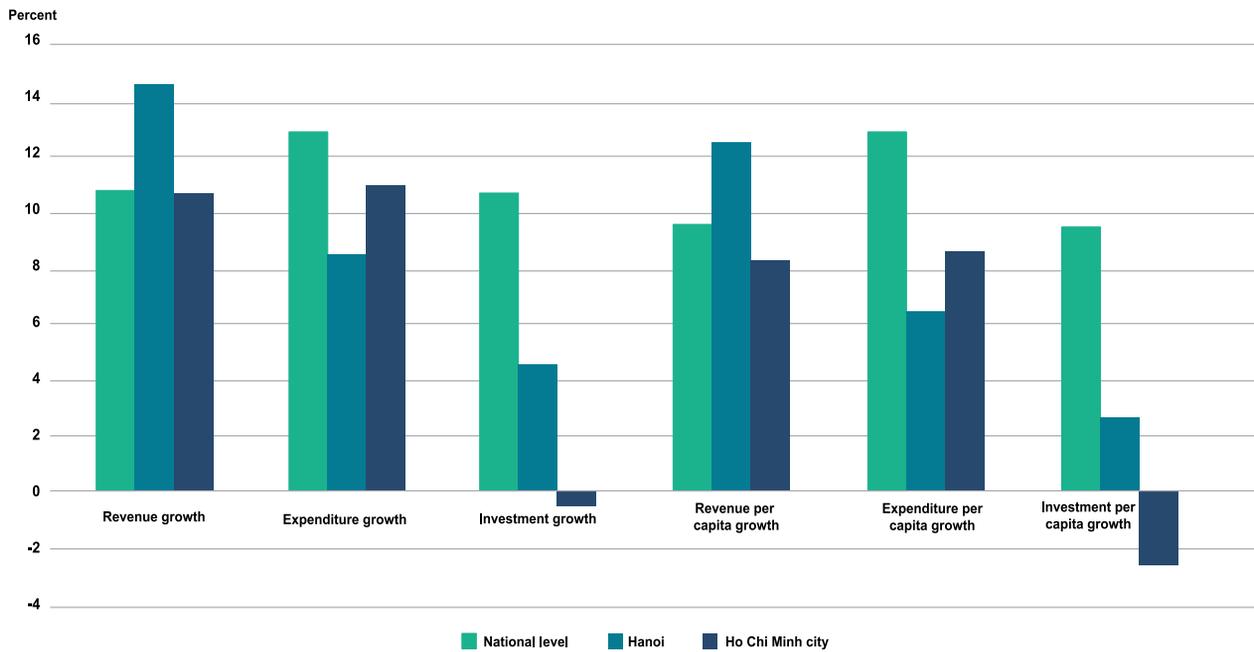


Source: World Bank team's analysis based on data from Ministry of Finance (<http://mof.gov.vn/>).

These issues apply to the two biggest cities, Hanoi and HCMC, which are supposed to be the primary engines supporting national growth. As shown in figure 5.10, revenue growth in Hanoi and HCMC has kept up with national revenue growth, but their expenditure and investment growth rates are significantly lower than those of the country as a whole. The rate of growth in investment per capita in Hanoi is less than 3 percent, or only one-third of the national average. The situation for HCMC is even worse because investment

per capita actually declined by 2.5 percent a year for the period 2011–15. These trends have likely helped to depress revenue growth in the two cities, as shown in figure 5.10. More important, the inadequate levels of infrastructure investment in Hanoi and HCMC have likely constrained the growth of agglomeration economies in the two cities, which will limit the long-term economic transition of Vietnam to higher value-added industries and services that increase the productivity of the overall economy.

Figure 5.10 Annual fiscal growth of core urban sector: Vietnam, 2011–15



Source: World Bank team's analysis based on data from Ministry of Finance (<http://mof.gov.vn/>).

Absence of fiscal and financing mechanism to support regional integration and development

The State Budget Management Law and Public Investment Management Law do not provide a fiscal and financing mechanism to support regional integration and development, even though the need has been widely acknowledged at all levels of government. The central government realizes that this is a major barrier to reducing logistics costs, improving productivity, and supporting economic growth in all regions. Furthermore, there are currently no incentives for provinces to coinvest in regional infrastructure, which is critical because of the absence of an institutional framework for regional government. Fiscal incentives might include additional transfers or fewer fiscal obligations for provinces that invest in regional infrastructure from their own budgets. Finally, there is no mechanism for joint investment by the central government and provincial governments.

Policy recommendations

A renewed differentiated approach could address Vietnam's urbanization challenges and infrastructure investment demands with the objective of improving "the responsiveness of fiscal allocation and investment financing policies for fast-growing and higher-efficiency urban areas." In particular, the Hanoi and HCMC economic engines need to increase infrastructure investments that contribute

to boosting agglomeration economies, ameliorating congestion forces, and improving integration with the surrounding metropolitan regions. The varied needs and fiscal capacities of the regions and provinces require differentiated policies and mechanisms to support faster and more efficient growth.

Because of Vietnam's unitary budget system and the absence of a regional fiscal allocation mechanism, the central government, to achieve regional integration for efficient growth, must develop a new financing policy or mechanism. A comprehensive approach that simultaneously addresses governance and execution should be piloted first in a region such as the Southeast that has high demand for regional integration and improved agglomeration.

Realigning fiscal policies to foster agglomeration economies and promote regional integration does not have to be a zero-sum game, nor does it need to lead to a trade-off between equity and growth. Interpersonal welfare is expected to improve as a result of stronger and more sustained growth, which would be better accessed through improved mobility of labor. Better access to social and basic services of residents and migrants in key urban centers will also enhance the inclusiveness aspects of urbanization.

The policy actions recommended in this section fall into three categories: fiscal allocation and planning, resource utilization, and financing policies.

Fiscal allocation and planning

Fine-tune the fiscal allocation mechanism to respond to the greater needs of fast-growing areas and to reward higher-efficiency performance

The current equity-based revenue sharing formula does not work well across provinces and regions, as analyzed in previous sections. The central government is preparing a new formula for the next five-year (2021–25) period for National Assembly review and approval. To maintain the equity principles of the constitution while supporting sustainable growth for all provinces and regions and more efficient growth in fast-developing cities, it is recommended that the new formula provide

- Additional fiscal allocation to increase investment in the Central Highlands, which is the only region in which investment per capita has declined over the past few years
- Higher retained revenue for Hanoi and HCMC so that the growth of investment per capita in the two major cities can at least be maintained at the national average
- Higher retained revenues for provinces in the Southeast and Red River Delta regions where the growth of investment per capita is lower than the national average. They can then increase their investment growth in pace with their high potential and population growth.

Integrate budgeting and capital planning at the provincial level to maximize revenue potentials

Overall budgeting by a provincial Department of Finance is based primarily on the capital spending estimated by the provincial Department of Planning and Investment. Under the current system, there is little guidance on and regulation of revenue maximization and little financial analysis of capital investments. The effectiveness and efficiency of capital investments would be significantly improved if they are planned in a way that accounts for revenue that will be produced by infrastructure benefiting from the investment and the associated serviced land that becomes available for auction. The central government could consider issuing regulations and policy guidance on integrated medium-term and annual provincial capital and revenue planning directed at maximizing local future revenue generated by investment in infrastructure. A system of integrated planning, instead of the current

disjointed dual budgeting and capital planning processes, could be piloted in the five largest cities, given their higher capacity, before rolling the system out to all provinces. If the system is implemented successfully, the long-term financial prospects and creditworthiness of provincial governments will improve.

Resource utilization

Pilot the property tax to support stronger local fiscal autonomy

Over the long term, Vietnam has an opportunity to empower provinces to leverage local revenue from property and land use taxes—an important source of local government revenue in many fiscally decentralized countries. Because of the previous failed attempts to introduce a property tax in Vietnam, it is recommended that the central government introduce the property tax as a local tax in Hanoi and HCMC—two metropolitan areas that receive special development mechanisms from the National Assembly and have more developed real estate markets and functional cadastral management systems. The property tax should be designed to apply in its first phase only to house and land values for which information is already available for tax accounting and management purposes. Expansion of taxation to commercial properties could be considered for a second phase in view of the ongoing state-owned enterprise (SOE) reform and equitization in Vietnam.

Increase the potential of land-related fiscal resources

Currently under the BT model city governments rely on a single BT contract for both infrastructure investment and land transfer. The advantage is that the public sector need not invest its scarce resources, but such an arrangement limits the capacity of local governments to benefit from land value uplift. The financial benefits of increases in land value could be significantly higher if cities invest themselves, or use special-purpose vehicles, before transferring the use of land. This approach would be even more effective if, on an annual basis, city governments assess their land stocks and investment needs to ensure that their general budget revenue and annual land auction plan meet infrastructure demands. Furthermore, cities would be able to more proactively ensure that the investments comply with approved urban spatial plans.

Financing policies

Develop financing mechanisms to facilitate interprovincial and interregional linkages

So that provinces within a region can invest jointly in regional infrastructure, it is recommended that the central government provide financial incentives through matching grants to reduce the financing obligations of the provinces. For such investments, the central government could consider setting up a mechanism that includes institutional arrangements, led by the Ministry of Planning and Investment, and specific financial support norms, as well as monitoring and evaluation requirements. The financial incentives could take the form of a matching allocation from earmarked central-level budgets or allocation for certain investment items. The provinces involved should be required to allot matching funds in their local budgets.

Pilot commercial lending for creditworthy provinces to expand investment financing options

The central government should improve the financing regulatory framework so that provinces can borrow from commercial banks for infrastructure development as per the assessment undertaken by the World Bank (2018). A prudent approach would be to use pilot projects in several of the 13 net contributor provinces (including Hanoi and HCMC)—they are supposedly creditworthy and have significant infrastructure financing gaps—to demonstrate new ways of permitting the provinces to effectively access commercial bank financing before committing to scaling up reforms. The government could adopt amendments for *ex ante* and *ex post* regulatory reforms to deal with the following fundamental issues:

- *Borrowing powers of subnational governments.* The legal framework should clearly set forth the authority of provincial governments to incur debt, including commercial bank loans. On the supply side, banking regulations should include clear and comprehensive guidance for commercial banks lending to subnational governments, including prudential requirements.
- *Terms of debt.* The provisions of the State Bank of Vietnam on the maximum loan term of 24 months should be reviewed and revised so that commercial banks could lend to subnational governments based on terms to be decided by the lenders and borrowers.
- *Liabilities.* Legislation should clearly confirm and clarify that the central government will not guarantee provincial debts even though it approved the debt issuance of subnational governments. When the central government wishes to guarantee such debts, then legislation should expressly do so.
- *Debt security.* Subnational governments should be allowed to use specified revenue to secure the repayment of debts to lenders. Appropriate technical measures could be considered to effectively implement a “first priority” secured position for lenders and creditors (such as opening escrow accounts in commercial banks).
- *Debt management and disclosure.* The legal framework should stipulate the responsibilities of provincial governments for managing their debt. Provincial governments should provide regular reports to the central government and the public on debt issuance, utilization of debt, and, when such cases arise, default on the payment of debt.
- *Default and insolvency.* The legal framework should provide a remedial mechanism for a default by and insolvency of provincial governments.

Annex 5A Background on fiscal environment

Constitutional framework for fiscal policy

The critical overarching factors of urbanization in general and its fiscal and financing aspects (including the equity-based system) in particular originated in Vietnam's constitution. Before Đổi Mới, Vietnam was a centrally planned economy with no private sector. The revised constitution of 1992 introduced private ownership (in Articles 15 and 16) and the private sector, and it adopted "consistent policies on development of a socialist-oriented market economy." The latter was reconfirmed in Article 51 of the current constitution as revised in 2013. It states: "the Vietnamese economy is a socialist-oriented market economy with various forms of ownership and economic sectors; the state economy plays the dominant role." The central government's role is emphasized in Article 55: "the State budget, national reserve, state financial funds and other public financial resources must be uniformly managed by the State and shall be used in an efficient, fair, public, transparent and lawful manner." This is the constitutional requirement for the unitary budget system in Vietnam. The constitution also emphasizes equitability in Article 58: "the State and society shall make investments to further the protection and care for the People's health, implement the universal health insurance, and adopt policies to prioritize health care for ethnic minority people and people living in mountainous areas, on islands and in areas that have extremely difficult socio-economic conditions." A similar equitability policy for education is governed by Article 61. Land continues to belong to all the people, with the central government acting as the representative of land ownership and uniformly managing the land.

Overall intergovernmental fiscal framework

The provinces (including the five provincial-level cities) are the most important level of subnational government in Vietnam for local infrastructure and services. The National Assembly approves an integrated state budget every year, including revenue and expenditure aggregates, and intergovernmental fiscal transfers. At the subnational level, the Provincial People's Councils (the legislative branch at this level) review and approve budget proposals prepared by the respective Provincial

People's Committees (the executive branch), including for the lower tiers of subnational government that fall under their jurisdiction. In principle, provincial budgets must be balanced.

Under the constitution of Vietnam and the Budget Management Law, subnational authorities do not have any policy autonomy over local revenue. Tax bases and rates are determined centrally. The three types of revenue are 100 percent central, 100 percent local, and shared. The shared revenue helps to narrow the fiscal gap between the 100 percent local revenue and local spending needs. The remaining horizontal fiscal gap is filled by a system of balancing fiscal transfers to provincial authorities, which are calculated on the basis of a formula and are approved by the National Assembly on an annual basis. In principle, the fiscal transfer system is equity-based, with poorer provinces receiving higher per capita transfers. Local authorities also have access to extrabudgetary financing, including limited borrowing that is also approved by the National Assembly.

The last three decades have seen a clear trend toward greater autonomy for subnational governments with the delegation of significant decision-making powers on public finances and infrastructure development. On the revenue side, the system of intergovernmental transfers and revenue sharing has resulted in most provinces being net recipients of general government revenue. On the expenditure side, provinces are managing an increasing share of government expenditure, with capital investment and recurrent operating expenditures broadly defined. The proportion of government expenditure executed at the subnational level has grown from 36 percent in 1996 to about 65 percent in recent years, according to official Ministry of Finance (MOF) statistics.⁶⁹ Provinces have the authority to assign expenditure responsibilities to their district and commune governments, leading to differences in the way provinces manage expenditures. According to the law, capital expenditures include investments in the construction of socioeconomic infrastructure projects and investments in state-owned enterprises, economic organizations, and financial institutions.

An earlier assessment of fiscal decentralization by the World Bank (2015a) revealed that, on average, higher-capacity local authorities have higher levels of spending responsibilities. International experience also indicates that decentralizing too quickly can have adverse impacts when local capacities are low. The legal system has provided significant clarity on spending and revenue assignments for provincial, district, and commune authorities. However, in many cases both provincial and district authorities are assigned responsibility for delivering the same service. Fiscal rules and norms affect local autonomy over budget decisions in selected areas and may distort resource allocation. For example, minimum allocations are set for education without due consideration of the actual needs or the level or quality of service provision.

Vietnam is one of a few countries that does not have a property tax. In 2018 the government put on hold a draft law proposed by MOF for imposing tax on nonagricultural land, houses with a construction value of more than VND 700 million (\$30,000), and personal vehicles. The proposed annual tax rate is 0.3 or 0.4 percent, with only the surplus house value above the threshold to be taxed.⁷⁰ This is the third attempt to institute a property tax in Vietnam.⁷¹ The proposed law received public support for its intended objectives of taxing rich people and mitigating land speculation. However, it was strongly criticized for its overlap with existing laws on personal income tax and land tax, as well as for its lack of effectiveness and fairness, mostly in taxing the homes of low-income owners. In the absence of a property tax, it will be extremely difficult to facilitate urban redevelopment (which is becoming an obvious need in big cities) or utilize a nonland-based financing mechanism for transit-oriented development.

Fiscal planning

Vietnam has a dual budgeting system, whereby MOF leads preparation of the recurrent and overall budget, and the Ministry of Planning and Investment (MPI) leads preparation of the capital budget. This system, however, raises concerns about how investment planning is integrated into the overall budget. The annual process usually begins in May with a Prime Ministerial Directive to central-level agencies and local authorities providing guidance and principles

for budget formulation. Based on the directive, MOF and MPI issue guiding circulars with indicative budget estimates for recurrent and capital spending for all budgetary units. The capital spending must align with the Medium-Term Investment Plan approved by the government and the National Assembly. The negotiated budgets are then reviewed by the government before submission in November to the National Assembly (via the Committee for Budgetary and Finance Affairs). The National Assembly approves the budget for central authorities and budget aggregates for local authorities so that the latter can make their detailed allocations, and it reports to MOF before the end of the calendar year.

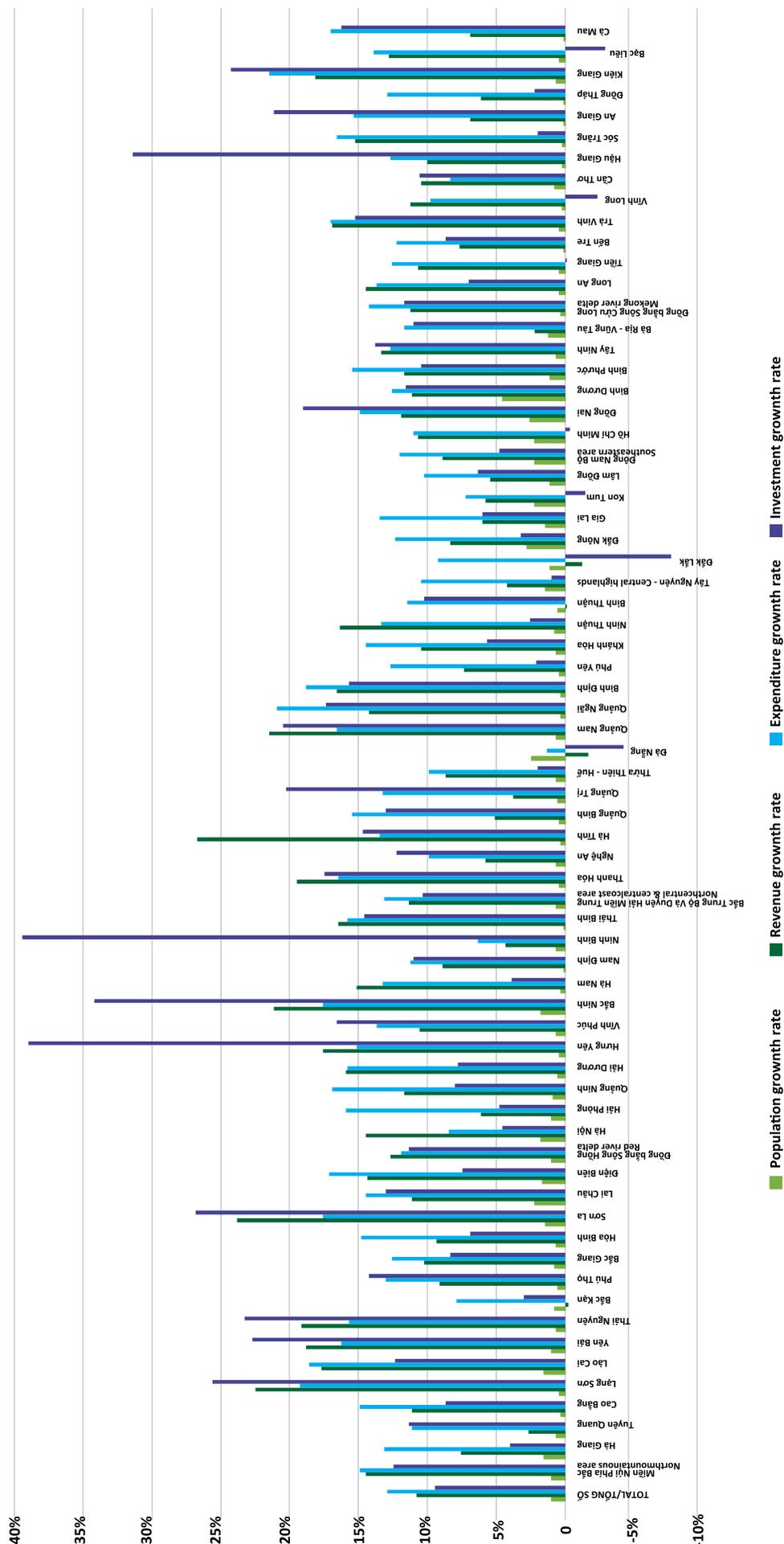
Earlier World Bank assessments pointed out that local capital spending plans lack credibility, which reduces its transparency and its impacts on efficiency (World Bank 2015a). Such spending is often more than 50 percent of what was budgeted, or well above the accepted standard of maintaining spending under 5 percent more than budgeted. This pattern stems from uncoordinated and poorly guided investment decision making in an environment in which provincial governments may unreasonably overinvest in industrial zones in order to compete for FDI. This situation has resulted in a low occupancy rate and low investment efficiency as analyzed in chapter 3.

Overall fiscal performance at the provincial level

Fast-urbanizing provinces typically have fiscally stronger governments, as shown in figures 5A.1 (in nominal terms) and 5A.2 (in per capita terms). Across regions and provinces, there is no single fiscal and financing pattern. Why investment grows much higher in some provinces while declining even in absolute terms in others provinces is difficult to explain. The Red River Delta and Southeast regions, followed by the North Central Coast and Central Coast region are faster-urbanizing regions, as shown in chapters 1 and 2, and also have relatively higher revenue and investment per capita. Provinces experiencing high growth in public investment are also FDI-strong localities. Provincial disparities in both revenue and investment growth follow the regional pattern analyzed in this chapter.

Figure 5A.1 Nominal growth patterns of all provinces and regions: Vietnam, 2011–15

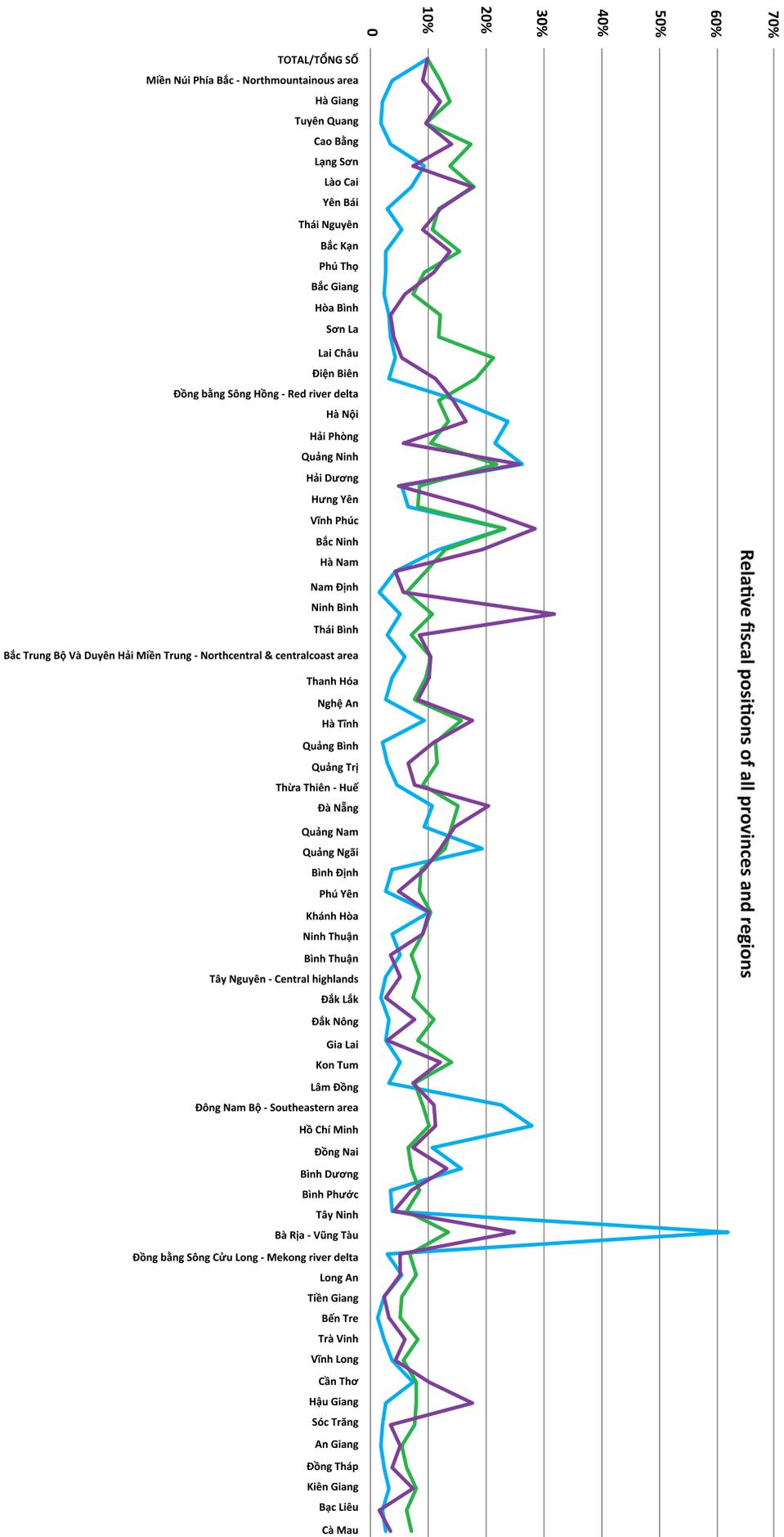
Nominal growth patterns of all provinces and regions



Source: World Bank team's analysis based on data from Ministry of Finance (<http://mof.gov.vn/>).

Currently, the fiscal system of Vietnam does not require a relative balance between the recurrent expenditure and capital spending supporting future growth. As shown in figure 5A.2, about one-third of provinces from all regions have an expenditure per capita and investment per capita lower than the respective national averages.⁷² Twenty-one provinces had investment per capita in 2015 below or equal to half of national average for investment per capita.⁷³ Such a finding points to the need for improved and enhanced integration in the dual budgeting process to ensure efficient allocation for investment within the overall budget allocation.

Figure 5A.2 Comparison of provincial fiscal position with national average: Vietnam, 2015



— Revenue per capita 2015 compared with national average — Expenditure per capita 2015 compared with national average — Investment per capita compared with national average

Source: World Bank team's analysis based on data from Ministry of Finance (<http://mof.gov.vn/>).

The Red River Delta and Southeast regions collect 74 percent of total revenue and contribute to the national budget, whereas the remaining regions receive transfers from the central government. Because of the equity-based system, after transfers the structure of the budget is very similar to the structure of population, as shown in table

5A.1. As a result, the Red River Delta and Southeast regional budgets together account for only 43 percent of total local budget allocations after transfers. By comparison, transfers account for more than half of the budget of the Northern Midlands and Mountain and Central Highlands regions.

Table 5A.1 Regional fiscal structure by region: Vietnam, 2015

percent

Region	Transfer from government in final budget	Share of total revenue	Share of total local budget	Share of total population
Northern Midlands and Mountains	54	5	16	14
Red River Delta	-86 ^a	35	27	21
North Central Coast and Central Coast	13	13	23	22
Central Highlands	53	2	5	6
Southeast	-267 ^a	39	16	17
Mekong River Delta	33	6	13	19

Source: World Bank team's analysis based on data from Ministry of Finance (<http://mof.gov.vn/>).

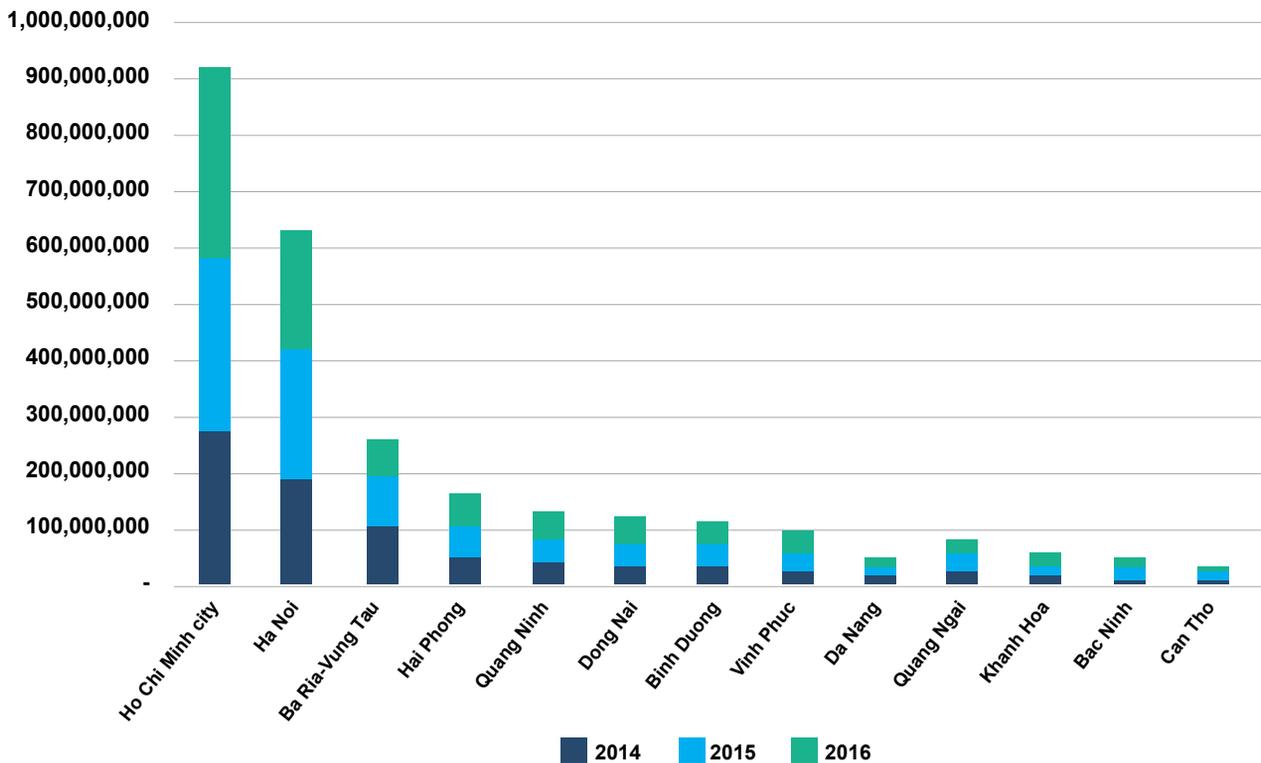
a. Contribution to national budget.

Performance of fiscally strong provinces and big cities

An assessment of the efficiency of urbanization and industrialization requires a further look at fiscally strong provinces. The agglomeration economies of Hanoi and HCMC show their strength in the national budget as revealed in figure 5A.3. Hanoi and HCMC together account for more than 40 percent of the national revenue and close to 20 percent of spending.

The 13 fiscal net contributor provinces⁷⁴ together account for about 75 percent of national revenue and 40 percent of expenditure. Those provinces are either fast-urbanizing or FDI-strong localities. They are mostly located in the Red River Delta, Southeast, and North Central Coast and Central Coast regions, with the exception of Can Tho in the Mekong River Delta. The North Midlands and Mountains and Central Highlands regions do not have any net budget contributors.

Figure 5A.3 Strongest fiscal provinces: Vietnam, 2014–16



Source: World Bank team's analysis based on data from Ministry of Finance (<http://mof.gov.vn/>).

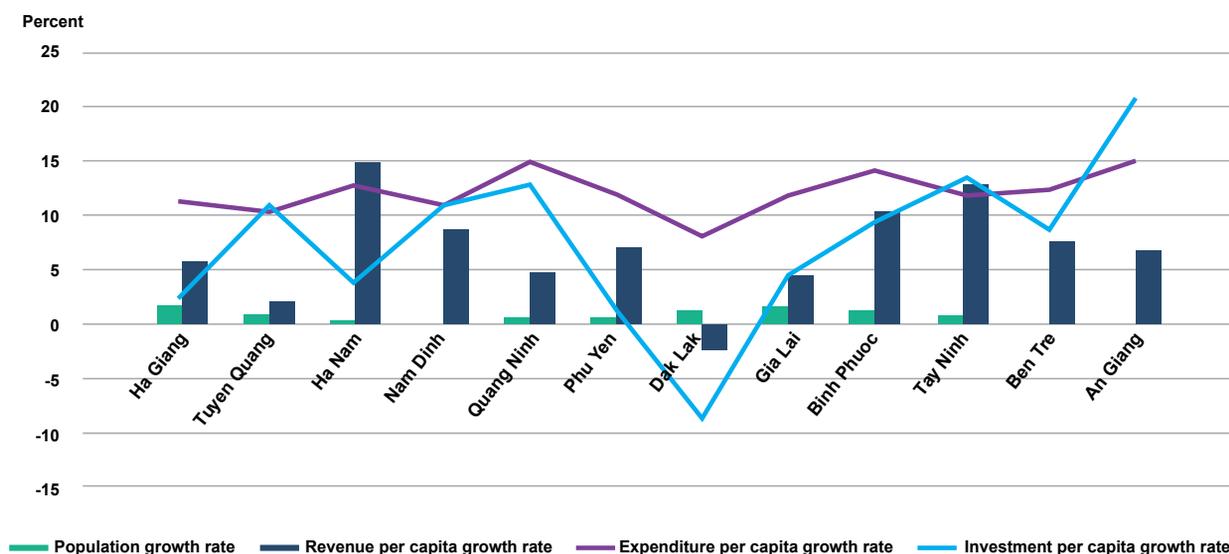
Performance of fiscally weak provinces

The same disparity and fragmentation patterns are found among provinces that are significantly subsidized by the central government, as shown in figure 5A.4. All have revenue per capita that is less than

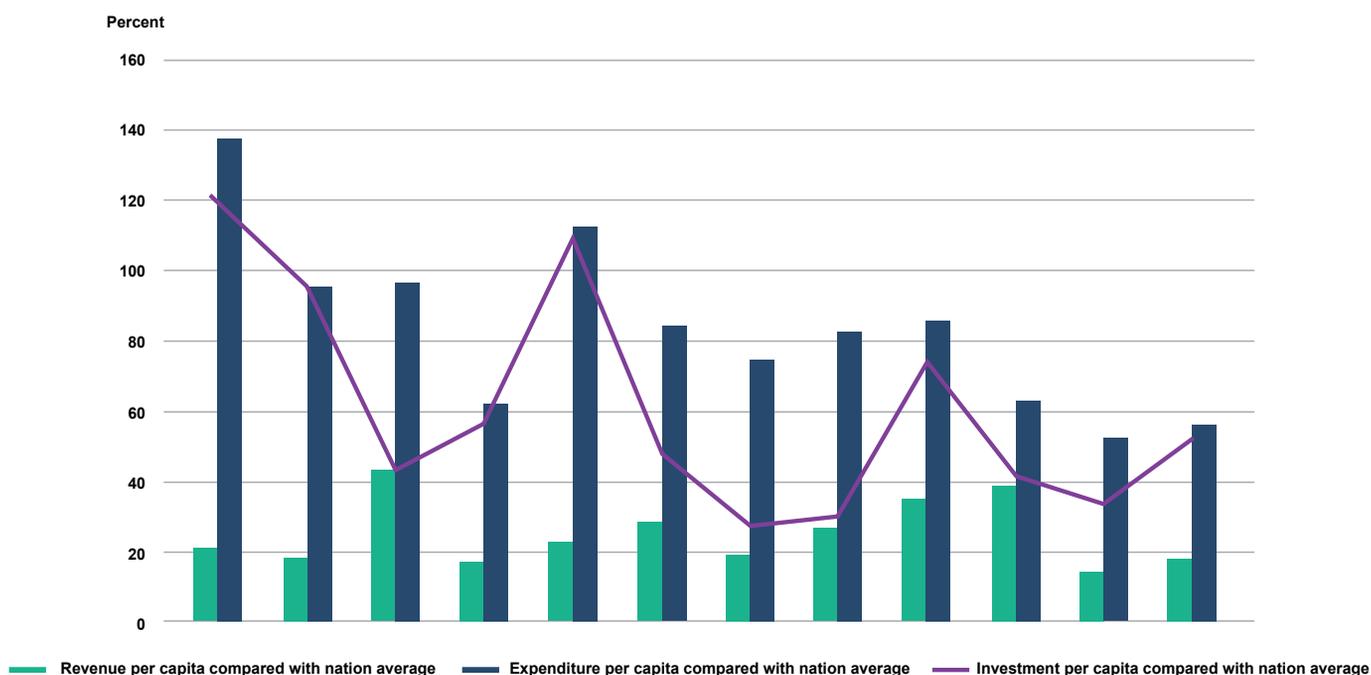
half of the national average, but have expenditure per capita that is not less than half of respective country average. Some of the provinces, which are located in all regions, have expenditure and investment per capita growth rates that are higher than the national average.

Figure 5A.4 Comparison of lower fiscal capacity and least urbanized provinces, Vietnam

a. Key growth rates of lower fiscal capacity provinces, 2010–15



b. Key comparisons of lower fiscal capacity provinces, 2015



Source: World Bank team's analysis based on data from Ministry of Finance (<http://mof.gov.vn/>).

In summary, Vietnam's provinces, as the most important level of subnational government, have diverse socioeconomic statuses and conditions and are following different growth patterns. At the same time, all provinces are developing under the same legal and institutional mechanisms and national policies

that do not fully account for distinct socioeconomic characteristics and growth potentials. The existing regional disparities, urbanization patterns, and sustainable development goals require the formulation of a balanced growth policy and the appropriate regional development policies and instruments.

Annex 5B Overview of urban infrastructure investment gaps and subnational financing sources

Urban infrastructure investment gaps

Vietnam faces a demand for infrastructure funding that the public and the donor community are unable to provide. The country's socioeconomic development plan (SEDP) for 2011–20 requires an annual investment of approximately \$25–\$30 billion for infrastructure development. To meet that demand, existing public sources—including the state budget, state-owned enterprises, official development assistance (ODA), and government bonds—are able to contribute only an estimated \$16 billion a year. Thus at least \$9 billion is unfunded each year (World Bank 2013, 2018). Meanwhile, the estimated investment need may not fully account for climate mitigation and the adaptation requirements needed for a country having high natural hazard risk levels. The public resources for infrastructure investment are unlikely to increase over the next 10 years.

Transport sector

Urban transport is a major political and economic challenge for Vietnam because rapid urban population growth and expansion of the middle class continue to fuel the rapid proliferation of motorized urban dwellers. In an effort to meet the current unmet demands, the policy approach has been to expand the road system, develop mass transit networks in the metropolises (to achieve an aggressive objective of 35–40 percent of motorized transport ridership by 2025), and extend bus services to 63 provincial capitals (from the baseline of 49). However, at the end of 2018 there was no operational mass transit in Vietnamese cities. The transport master plan for Ho Chi Minh City (HCMC) alone calls for an annual investment of about \$2.2 billion. Two-wheeled motor vehicles are currently still the predominant means of urban transport, but car purchases are increasing rapidly. In the big cities of Vietnam, motorcycle availability equals or exceeds auto availability in London, Paris, and Los Angeles. Recent statistics of Vietnam's National Transport Safety Committee indicate that in big cities car ownership is growing at a rate of 15 percent a year, exceeding the growth rate of motorcycle ownership. In 2017 Vietnam had 3.2 million cars and 49 million motorcycles, compared with 1 million cars and 20

million motorcycles at the end of the last decade. Congestion as well as concerns about safety, noise, local and global emissions, and secure mobility for women and the young, elderly, and disabled are particularly relevant local issues.

Water supply sector

Although Vietnam has made remarkable gains in increasing access to water in urban areas over the last decade, access is still not universal. According to the World Bank,⁷⁵ in 2017 water coverage in Vietnam was lower than in neighboring countries in the region. The water supply is most advanced in the municipal infrastructure sectors, but cost recovery remains an issue, especially in smaller cities. This finding was pointed out in the assessment report *Water Supply and Sanitation in Vietnam: Turning Finance into Services for the Future* issued by the World Bank in December 2014. Low water tariffs lead to low revenue and low quality as well as low commercial and financial viability. As a result, according to the Economic Research Institute for ASEAN and East Asia, two-third of investments in the sector comes from government and ODA sources (ERIA 2014).

Meeting the government's ambitious target of having 86 percent of the urban population able to access piped systems by 2020 will require an estimated 1.7 million urban people to gain access each year to water supply sources that meet government standards. Such an achievement translates into an investment of approximately \$1.5 billion a year in 2014 prices, or 1.5 percent of GDP, compared with the current investment level of less than 0.4 percent of GDP. In other words, the annual anticipated investment would cover less than one-third of the annual requirement, and so the country needs to raise \$0.8–\$1.0 billion a year to meet its target set forth in the SEDP.

Urban wastewater sector

Access to adequate sanitation services is quite low across Vietnam. In 2004 no cities were treating wastewater. By 2010 the five biggest cities were treating less than 380,000 cubic meters a day, or less than 8 percent of the 4.3 million cubic meters produced daily. It is estimated that the operational treatment capacity

of the five biggest cities is less than 600,000 cubic meters. According to the government plan, about 1.6 million people a year will need access to wastewater treatment (World Bank 2014) to achieve coverage of 45 percent by 2020. The government has specified that wastewater tariffs should be, at a minimum, 10 percent of water supply charges, but tariffs are currently not in place in some cities in which the World Bank financed wastewater collection systems and wastewater treatment plants.⁷⁶ The 2014 World Bank report on water supply and sanitation in Vietnam estimated that the country needs to raise an estimated \$771 million a year to meet its 2020 target for urban sanitation. At the same time, investment needs are estimated at \$15 billion over the next decade, but there is no clear strategy for financing the sector. Furthermore, there is no clear plan to gradually increase coverage and treatment of wastewater in the country. Many cities are financing expensive, energy-intensive treatment plants, but they have no plans to connect households, most of which have private septic tanks, to the wastewater collection system. The result has been inefficient public spending.

Housing sector

Despite the ongoing rise in the housing stock, the government's target of 18 square meters per inhabitant by 2020 (from today's 12 square meters per person) would require adding 50 million square meters each year. A recent World Bank study (2015b) found that about 20 percent of Vietnam's 24.2 million households live in poor conditions. An estimated 374,000 additional units are needed annually, mostly in a few major cities and industrial zones. At the same time, most housing programs cannot be accessed by those in the lower categories of income levels, and current housing construction remains inaccessible to 80–90 percent of urban Vietnamese, despite a growing middle class. As noted in chapter 5, rental housing for industrial zones is a major issue. A survey conducted in 2014 under the World Bank study revealed that the formal supply is only sufficient to respond to 10 percent of about 2.5 million workers. Key sector issues include, as identified in the study, (1) limited access to housing finance; (2) a constrained supply of land; and (3) low land tax rates, which are contributing to speculation and elevated land prices.

Social infrastructure

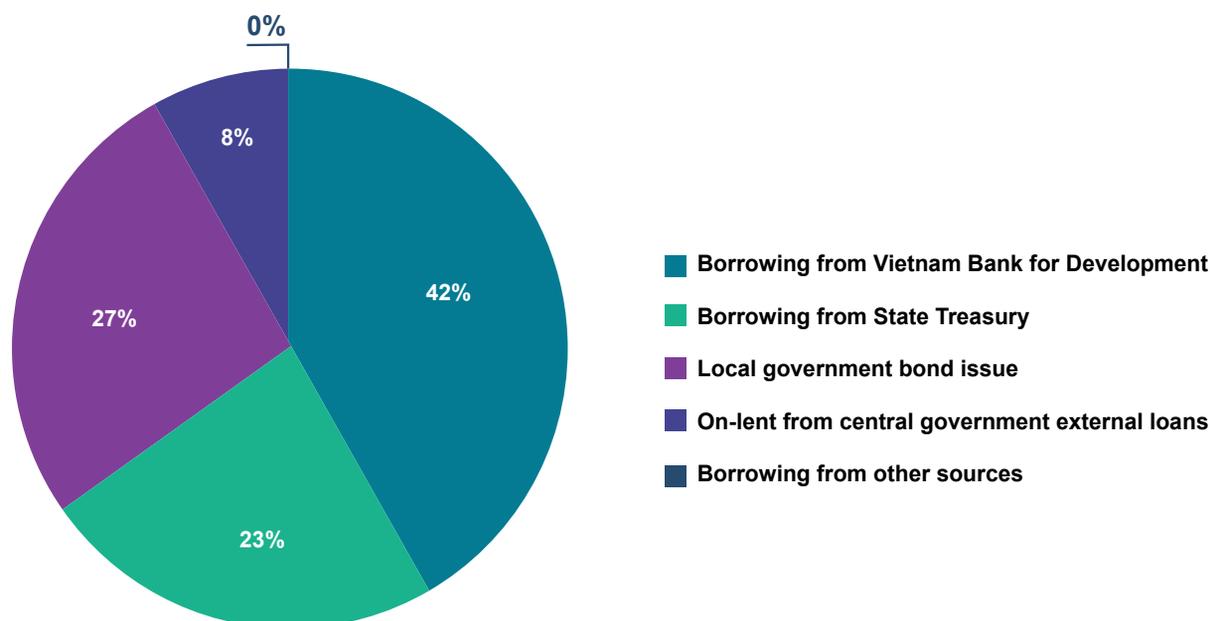
The demand for infrastructure and investment in the traditional sectors is at the core of local infrastructure development in Vietnam. However, there is also a significant and unfulfilled demand in the social sectors, particularly in education and health care. The lack of adequate, publicly funded social sector infrastructure continues to be a reality. Investment in infrastructure in the social sector, particularly in education and health care, has traditionally been dominated by the public sector. In a resource-constrained environment, this has largely resulted in underinvestment in the social sector, low-quality service levels, and inadequate capacity of service providers. In recent years, the government has expressed an interest in attracting private sector involvement in the provision of social services. Indeed, the government views private sector investments in social sector infrastructure as a strategic development goal—specifically, by providing 20 percent of hospital beds by 2020. More ambitiously, the government's Higher Education Reform Agenda (HERA) has set a target of having 40 percent of higher education enrollment provided by private universities and colleges by 2020.

Current sources of subnational investment financing

Debt financing

Currently, debt financing plays a relatively minor role in subnational infrastructure investment. Provincial debt at the end of 2012 amounted to 1.3 percent of GDP (World Bank 2015a)—a very low level compared with the international standard, mostly incurred by the five largest cities: Hanoi (the capital), Ho Chi Minh City, Da Nang, Can Tho, and Hai Phong (figure 5B.1). The situation has not changed much since 2012, and provincial borrowing remains at a relatively insignificant level. Over the long term, sustainable financing would have to rely in large part on domestic capital markets. Although some resources may be available from equity markets, the bulk would depend on debt markets through various types of bonds as well as commercial banks. Significant reforms would be needed for these resources to be adequately tapped.

Figure 5B.1 Sources of provincial debt, Vietnam, year end 2012



Source: World Bank 2015a.

A comprehensive legal and regulatory framework for subnational debt requires two complementary parts. The first part addresses ex ante controls, restrictions, and monitoring of the fiscal positions of subnational governments. The second part deals with ex post procedures in the event of a payment default and subnational debt restructuring in the event that a subnational government becomes insolvent. The existing regulations on these two dimensions are incomplete, inconsistent, and scattered in different legal documents—the State Budget Management Law, Public Debt Management Law, and Law on Public Investment. Some are established on a temporary basis for dealing with specific contexts without regard for the broader and longer-term consequences of the regulations. Fundamental weaknesses in the current legal and regulatory framework include the following:

- *Lack of legal clarity on authority to borrow from commercial banks.* Generally, the regulation on the authority of subnational governments to incur debt must appear in both the law on state budget management and the law on public debt management. However, this regulation has not yet clearly specified the form of bank loan that would act as a source of subnational debt, thereby leading to the interpretation that borrowing by provinces from commercial banks is not fully legally supported.
- *Moral hazard of implicit central government guaranty of debt.* Currently, the requirement that subnational borrowing must be approved by the Ministry of Finance (MOF) on a transactional basis may create the moral hazard of an implied central government guaranty. Furthermore, in the long term when the market for subnational borrowing is more developed, such additional requirements for the approval of debt may potentially create a market distortion due to the “legal favoritism” of one type of debt instrument over others.
- *Unclear restrictions on terms of debt.* Currently, there is no restriction on the maximum term of borrowing instruments such as municipal bonds and borrowing from on-lending of government’s foreign loans. However, the maximum term of a bank loan to subnational governments is interpreted to be restricted to 24 months because of the provision of an official State Bank of Vietnam (SBV) Letter (576/NHNN-CSTT). Although the letter ostensibly requires commercial bank lending to provinces to cover temporarily cash flow shortages, in practice commercial banks strictly interpret the provision as applying to all types of lending in order to avoid any subsequent legal consequences. As a result, commercial lending for long-term infrastructure investments is greatly constrained by the assumption that loans are restricted to terms of 24 months.

- *Debt security not specified.* The presence of a mechanism that ties revenues of subnational entities pledged to creditors in case of debt insolvency is critical. However, the current legal framework has not yet specified any means of debt security that provinces could utilize for their borrowing.
- *Inadequate standards of disclosure.* Currently, formal principles and requirements on reporting and disclosure of subnational debt are not yet sufficiently in place, despite the existing provisions on disclosure of national public debt information. Potential lenders thus (1) do not have adequate information for the purpose of credit evaluation, (2) do not feel confident in making decisions on credit provision, and (3) are not able to monitor and manage the loan uses and repayments by provinces.
- *Inadequate standards for default and insolvency.* At present, there are no provisions in the current legal framework on the mechanisms and procedures available in the event of default or insolvency of local governments.

Municipal bonds

In recent years, the government has encouraged provinces to take advantage of policies permitting borrowing from the local currency bond market. However, only the following subnational governments have accessed financing in the capital markets through bond issues: Hanoi, HCMC, Da Nang, Dong Nai, Quang Ninh, and Bac Ninh.⁷⁷ Although the Ministry of Finance would like to see provinces leverage more bond financing, at present they are constrained because MOF controls the amount of local borrowing and the interest rates for such borrowing. Procedures for issuing municipal bonds are also time-consuming and cumbersome, entailing relatively high fixed costs (such as for documentation, advertisements, and payments to securities companies). As a result, the issuance of municipal bonds has been very limited and is considered worthwhile only for relatively large projects, thereby effectively freezing out the majority of provincial governments, particularly midsize and smaller ones, from accessing private capital on a market-driven basis.

Current land-based financing: The build-transfer model

“Land for infrastructure” is widely used as a financing mechanism in all provinces, especially in larger cities,⁷⁸ and it is usually carried out on a negotiated basis in the form of a build-transfer (BT) contract. In short, the contract specifies that the government will provide the private sector with certain land in exchange for specific infrastructure. This mechanism is often referred to as double sole sources with a single private sector company—the first one for construction of the infrastructure and the second one for land transfer.

The transfer of land use rights for real estate development projects is an important tool for the most dynamic provinces and can be one of the main sources of funds for infrastructure investment. In extreme cases in the past, this source of funding could be up to 30 percent of the local capital expenditure budget in a few fast-developing cities.⁷⁹ However, there is no reliable information on how much Vietnam has actually mobilized through this mechanism, although its success as a financing mechanism is apparent given the amount of infrastructure financed this way.

That said, this approach raises serious concerns about the transparency and efficiency of the negotiation process, the appraisal of the studies and design⁸⁰ prepared by the private sector investor, and the evaluation of an investor’s qualifications as well as the land valuation process. Another critical concern is the level to which cities actually benefit from the increase in land value arising from improved infrastructure. In addition to planning, one of the hurdles is resettlement costs, which have to be assumed by the public sector and add considerably to the cost of mobilizing land resources. Another criticism is that most BT contracts tend to encounter serious delays because in the highly speculative land market and in an environment in which land prices are rising, delays in implementing infrastructure would actually bring more financial return to the private sector because the land valuation was completed when the contract was signed. The government has recognized the lack of transparency, competition, and efficiency associated with the current BT model, and it has been working on a decree over the last two years to improve the payment process.

The land for infrastructure approach is less popular in smaller cities where land is not very attractive to the private sector. The type of infrastructure used under this BT form of contract is another issue because the private sector is often reluctant, or not allowed, to provide public infrastructure and services managed by public utilities such as water or sanitation services. The quality of infrastructure provided by the private sector is another concern, especially for strategic infrastructure because of its large scale, complexity, and significant investment requirements. Private sector investors often find it difficult to raise financing for long-term infrastructure in the local market when the revenue from the sale of land provided under the BT contract has not been realized because the infrastructure needed to service the land is missing. The large amount of investment required for land development constrains the use of this instrument.

The government has been aware of the shortcomings just described, and so it decided in 2017 to put the BT model on hold. MOF has been working on a decree over the last two years to improve the payment process. Alternatives to the BT model are analyzed in the next section.

Public-private partnerships (PPPs)

Because of the high and rapidly increasing demand for infrastructure services and the expectations of lower ODA levels in the near future, private sector investment is needed to fill the financing gap. Compared with that in other East Asia countries, private participation in Vietnam's infrastructure development has been relatively limited. Together with the rapid economic growth in Vietnam, the number of private equity funds has increased in the areas of finance, real estate, information technology, and infrastructure. However, private equity funds specializing in infrastructure investment are not as prevalent. In this sense, PPPs are recognized as one of the most effective ways of financing infrastructure development.

Vietnam has yet to establish sound investment channels for attracting private financing, nor does it have the institutional and regulatory frameworks needed to involve the private sector in infrastructure provision. Public sector agencies have also been slow to undertake the necessary sector policy reforms—including tariff increases and cost recovery—to improve the quality and increase the coverage of infrastructure delivery

and the sustainability of infrastructure services. Key institutional, governance, and financing issues constraining the attraction of private financing for Vietnam's infrastructure development include:

- Lack of a comprehensive market-oriented infrastructure finance system, along with clearly defined roles and responsibilities for government ministries and assigned state agencies and detailed implementation guidelines for each step of the project cycle
- Lack of a clear and transparent system for determining the magnitude of government financial support for infrastructure projects in order to make them financially viable because most projects in Vietnam are not commercially viable based on their own cash flow
- Lack of understanding of the financial obligations and fiscal risks stemming from PPPs
- Inadequate quality of project preparation prior to bidding (with the possible exception of some projects in the power sector), making it difficult for the government to determine whether a project offers better value as a PPP or as a 100 percent publicly financed project
- Dominance of state-owned enterprises (SOEs) in current PPPs, with the appropriate role of SOEs as yet undefined and institutionalized in practice
- Lack of sufficient local currency debt financing, which constrains the ability of domestic private firms chosen for PPPs to arrange for the appropriate financing packages
- Absence of competitive selection of private sector investors
- No government guarantees for revenue and foreign exchange risks
- Noticeable absence of private foreign investors in projects that have been financed or are currently under preparation (with the exception of a few projects in the energy sector)—foreign investors are discouraged by limitations on currency conversion and exchange rate risks.
- Provincial governments' lack of institutional capacity and clear policies to deal with private capital and participation in municipal infrastructure development.

In view of these issues, the government has introduced, at times with World Bank support, important measures to improve the development of PPPs, including regulatory improvement and the development of pilot PPPs first in the expressway sector. More PPP projects are being identified and will be prepared with the assistance of the World Bank and other development donors. However, overall progress has been slow and inconsistent. Because a PPP law is being drafted, and because no PPP transactions at the central government level have reached financial closure since the Phu My 2.2 power project about 20 years ago, the prospects for PPPs to serve as a reliable source of local infrastructure finance are likely to be limited in the medium term.

Local development investment funds (LDIFs)

LDIFs are special subnational finance institutions created at the provincial level to mobilize capital and invest it in the municipal infrastructure projects of each province. LDIFs were first piloted in Ho Chi Minh City in 1997, and the legal framework supporting this municipal financing vehicle has continually been updated, most recently in 2013 (via Decree 37/2013/ND-CP) to clarify the sectors in which LDIFs can invest, to delegate business decision making to the Provincial People's Committees, and to allow cofinancing between LDIFs.

LDIFs are expected to operate as commercial-oriented entities, raising medium- and long-term capital from domestic and foreign sources and investing in municipal infrastructure projects that will generate a sufficient financial return on investment. LDIFs are statutorily restricted to financing revenue-generating municipal infrastructure in their respective provinces. The LDIF model has expanded to 38 of the 63 provinces, mobilizing capital for infrastructure investment. As of February 2015, funding commitments had grown from \$40 million to approximately \$144 million. According to the World Bank (2014, 2017), as of March 2015 each dollar invested from LDIFs had leveraged \$1.73 in investment from the private sector.

LDIFs have proven to be an important financing channel for provinces, but there are limits to their effectiveness as a broad-based vehicle for financing municipal infrastructure. LDIFs are statutorily restricted to financing revenue-generating municipal infrastructure, leaving a major gap for infrastructure investments that do not have explicit revenue streams. Most LDIFs have limited capitalization, which prevents them from investing in relatively large-scale strategic infrastructure. Except for the biggest funds in HCMC and Hanoi, which had assets amounting to \$412 million and \$133 million, respectively, at the end of 2015, the four next largest LDIFs had capital in the range of only \$40–\$50 million each, and the remaining LDIFs had capital of less than \$20 million each. Government regulations, which are based on international standards, limit LDIF investments in a single obligator to less than 20 percent of its capital, effectively constraining the scale of infrastructure projects that can be financed by the vast majority of LDIFs.

Vietnam Development Bank (VDB)

The government-owned Vietnam Development Bank offers favorable terms to local authorities, including longer tenor, but only under a national target program approved by the government. The VDB has only limited funds available at favorable terms, and it is often difficult to get access to such lending. Lending by the VDB is also registered in the balance sheet of the central government and is therefore less attractive to the government relative to lending by state-owned commercial banks. So far, the total outstanding lending of VDB to local governments, as well as total local government borrowing, has been very small compared with the international standard (see figure 5B.1).

Endnotes

68. This annex is based on the General Statistics Office of Vietnam and United Nations Population Fund, National Internal Migration Survey 2015.
69. Female migrants make up 17.7 percent of the female population aged 15-59 while the comparable figure for male migrants is 16.8 percent.
70. General Statistics Office of Vietnam, <http://www.gso.gov.vn/default.aspx?tabid=426&idmid=3>.
71. United Nations Office for Disaster Risk Reduction (UNDRR), PreventionWeb, <https://www.preventionweb.net/countries>.
72. <http://vneconomy.vn/dia-oc/lam-ro-khuyen-cao-viet-nam-se-boi-thuc-ve-san-bay-cang-bien-2017101208096732.htm>.
73. According to Article 6 of Decree 188/2013/ND-CP, allocation of land for social housing in commercial housing projects in a New Urban Area for class 3 cities and above may be carried out as follows. First, if the project for commercial housing or New Urban Area is larger than 10 hectares, 20 percent of the land area or floor area must be put aside for social housing. If the investor does not wish to develop social housing, the 20 percent land area shall be handed over to the People's Committee. Second, if the project for commercial housing or New Urban Area is less than 10 hectares, the investor may transfer a number of houses whose value is equivalent to 20 percent of the land according to the prevalent land price table, or pay the People's Committee an equivalent amount that shall be used to build up the social housing fund.
74. The effective demand for each province was collectively determined by (1) the legal caps set by the law on the amount of debt each province can incur; (2) the overall government debt ceiling of 65 percent of GDP set by the National Assembly for the country; and (3) the fiscal condition of each province.
75. Compared with that of other countries, subnational authorities' share of government spending in Vietnam seems high. However, international comparisons should be treated with caution because of the issues associated with obtaining fully consistent, comparable indicators.
76. The average property tax rate of Organisation for Economic Co-operation and Development (OECD) countries is 2 percent.
77. The last attempt was in 2010.
78. These provinces are Bac Giang in the Northern Midlands and Mountains; Hai Duong, Ha Nam, Nam Dinh, and Thai Binh in the Red River Delta; Nghe An, Phu Yen, and Binh Thuan in the North Central Coast and Central Coast; Dak Lak, Gia Lai and Lam Dong in the Central Highlands; Dong Nai, Binh Phuoc, and Tay Ninh in the Southeast; and all provinces in the Mekong River Delta except Can Tho and Hau Giang.
79. These provinces are Hoa Binh, Son La, and Lai Chau in the Northern Midlands and Mountains; Quang Ninh, Hai Duong, Ha Nam, and Nam Dinh in the Red River Delta; Phu Yen and Binh Thuan in the North Central Coast and Central Coast; Dak Lak and Gia Lai in the Central Highlands; Tay Ninh in the Southeast; Long An, Tien Giang, Ben Tre, Vinh Long, Soc Trang, An Giang, Dong Thap, Bac Lieu, and Ca Mau in the Mekong River Delta.
80. Three more provinces currently contribute to national budget, but their net contributions are relatively small and the sustainability of the contributions is too questionable for them to be fully taken into account in this analysis.
81. <http://data.worldbank.org/>.
82. For example, the cities of Lao Cai and Phu Ly.
83. Totaling approximately VND 18,350 billion (\$853 million).
84. In particular, these transactions have been more prevalent in HCMC and Hanoi, where land markets are relatively more developed and functioning compared with that in the majority of provinces in Vietnam.
85. In HCMC in 2010, land use levies generated VND 6.28 trillion for the provincial government—more than 17 percent of total revenue that year. These levies served as even more prominent sources of local finance for HCMC in earlier years.
86. In 2018 the state auditor of Vietnam issued an audit report for some BT contracts in Hanoi and HCMC. It concluded that the investment estimates for infrastructure projects were much higher than the actual expenditures incurred.

References

- ERIA (Economic Research Institute for ASEAN and East Asia). 2014. "Financing ASEAN Connectivity." Jakarta. <http://www.eria.org/research/financing-asean-connectivity/>.
- World Bank. 2013. *Assessment of the Financing Framework for Municipal Infrastructure in Vietnam*. Washington, DC: World Bank.
- _____. 2014. *Water Supply and Sanitation in Vietnam: Turning Finance into Services for the Future*. Washington, DC: World Bank.
- _____. 2015a. *Making the Whole Greater than the Sum of the Parts: A Review of Fiscal Decentralization in Vietnam*. Washington, DC: World Bank.
- _____. 2015b. *Vietnam Affordable Housing: A Way Forward*. Washington, DC: World Bank.
- _____. 2017. *IEG Review of Results and Performance of the World Bank Group 2017: With a Special Focus on Environmental Sustainability*. Washington, DC: World Bank.
- _____. 2018. *Mobilizing Finance for Local Infrastructure Development in Vietnam*. Washington, DC: World Bank.

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