

Metro*Trade*

Cities Return to their Roots in the Global Economy



Metropolitan Policy Program
at BROOKINGS

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ALAN BERUBE AND JOSEPH PARILLA

EXECUTIVE SUMMARY

Economic theory, world history, and contemporary experience show that metropolitan areas (i.e., city-regional economies) and trade are inextricably linked. Trade is essential to metro areas—it is how they grow their economies. And metro areas are essential to trade—they provide the specialization and market access that facilitates exchange among producers and consumers. This report examines how the intersection between metro areas and trade is motivating a new—yet old—approach to economic growth in an age of increasing international exchange and rapid urbanization.

- **Cities, not nations, were the original global commercial nodes.** From the first urban civilizations in Mesopotamia, to the Silk Road connecting cities from the Mediterranean to central China, to the Crusades-era city-republics of modern day Italy, to the medieval network of maritime trading cities that formed Northern Europe's Hanseatic League, cities were the indispensable actors of global trade before the rise of the nation-state. They enhanced trade by providing the physical space, constant interaction, and economic specialization needed to facilitate exchange between previously isolated actors.
- **Two centuries of economic theory reveal how metro areas both facilitate trade, and are themselves an outcome of trade.** Adam Smith observed that large markets give rise to the *division of labor* upon which specialization and trade depend. This eventually led to Ricardo's theory of *comparative advantage* and the Heckscher-Ohlin model of *factor endowments* that helped explain trade patterns among cities and nations. Marshall, meanwhile, explained how metro areas exhibit *agglomeration economies* that enhance their productivity and capacity for trade. And Krugman observed that in a world of mobile capital and labor, metro areas remain critical nodes for trade because their exporting firms can benefit from both scale economies and access to large local markets.
- **Metro areas depend on trade for their own prosperity.** The goods and services produced by a metro area's firms that are consumed elsewhere—its exports—inject income from outside the region into the local economy. In turn, that income supports the purchase of local goods and services, creating a "multiplier effect" that increases regional employment and income. Moreover, exporting—especially to international markets—entails high fixed costs and demands high firm productivity. As a result, exporting metro economies are overall more productive and wealthier.

- **Trade is becoming increasingly important to global and national economies, thanks in part to the growth of metro areas.** The rapid advancement of technology, the growth of multinational corporations, and the concomitant rise of Latin America and Asia have helped to triple trade's share of global output since 1950. Metro areas, meanwhile, increased their share of world population from just 30 percent in 1950 to more than 50 percent today. Urbanization enhances the productivity and export potential of countries, while upgrading jobs and incomes for their populations that can ultimately translate into demand for higher-value imported goods and services. In 2012, the world's 300 largest metro economies contain approximately 19 percent of global population but account for 48 percent of world GDP.
 - **Trade defines a metro economy's global economic character.** Not all cities are "global cities" in the way that researchers have defined the term, but all cities are touched by the process of globalization by virtue of their distinctive specializations and positions in complex global supply chains. Not only New York, London, and Tokyo, but also São Paulo, Buenos Aires, and Seoul lead in the production of advanced services. Madrid, Hong Kong, and Dubai are centers of media and information. Nagoya, Hannover, and Milwaukee are globally significant manufacturing hubs. And U.S. metro areas such as Wichita, Greenville, and Portland rank among the nation's most trade-oriented economies by virtue of their world-class local industry clusters.
 - **Metro areas are critical actors for helping boost national and global trade.** Beyond national platform-setting activities like trade agreements, currency policy, and investment in research and development, forward-thinking metro leaders—in some cases together with state and national partners—are increasingly adopting strategies to enhance their global trade position. At one level, they are **investing in the key assets that drive trade:** building an innovation ecosystem in Shenzhen; improving human capital for the aerospace industry in Wichita; and using inherited land and infrastructure to build a world-class inland port in San Antonio. At another level, they are **organizing for trade:** conducting a detailed market assessment to inform new export strategies in Portland; coordinating regionally and with higher-level governments to drive inward investment in Rio; and financially supporting the global trade ambitions of small/medium-sized enterprises in Hong Kong and Singapore. Finally, they are boosting trade by **building structured relationships with trading partners,** including cultivating sustained, market-oriented linkages with Beijing and Shanghai in the San Francisco Bay Area.
- The Global Cities Initiative is highlighting three key opportunities for metro areas to recognize and bolster their capacity for trade and global exchange: understanding their starting point through research and analysis; learning about and applying innovative practices from cities around the world; and networking actively with global city leaders to identify new trade opportunities and to identify barriers that investment or reform can help tackle. Metro areas are the hubs of an increasingly interconnected global economy, its centers for global trade, and thus its ultimate sources of growth and shared prosperity. ■

Metro areas are the hubs of an increasingly interconnected global economy...

INTRODUCTION

Chicago is America's third-largest city, and anchors its third-largest metropolitan area, which today houses more than 9 million people and 4 million jobs across three states. It is widely viewed as an important hub for global exchange, largely by virtue of its strengths in areas such as management consulting, commodities and derivatives exchanges, legal services, telecommunications, and transportation. The goods, services, and technologies that Chicago's leading firms produce are consumed around the nation, and around the world.

But in the 1970s, Chicago's future in the global economy was uncertain at best. Despite a heritage rich in global trade—from its founding as a fur trading post in the late 1700s, to its emergence as the world's meat packing capital in the 1800s, to the establishment of the Chicago Mercantile Exchange and hosting of the World Expo at the turn of the twentieth century—the city and region had steadily lost much of their manufacturing and natural resource job base following World War II. Chicago served primarily as the economic capital of a Midwest region severely hobbled by fierce new industrial competition from the American South and from abroad.

Fortunately in succeeding decades public and private leadership helped Chicago to re-emerge in the global arena. Business services and information industry headquarters grew rapidly in Chicago as these firms expanded their footprints globally. The region enhanced its strengths in manufacturing sectors such as food processing and transportation equipment. The construction and expansion of O'Hare Airport in the latter half of the 20th century established Chicago as a key destination for international business travelers, and the passage of the

North American Free Trade Agreement (NAFTA) amplified the importance of Chicago's longstanding rail assets for trade with Canada and Mexico. Population dynamics through the 1980s and 1990s re-invigorated the city and region's immigrant hub status, with waves of Latin American, Asian, and European-born residents helping to establish inroads into new foreign markets. And investments in the revitalization of the city, many carried out under Mayor Richard M. Daley's tenure in the 1990s and 2000s, were critical for attracting iconic global firms like Boeing.¹

As sociologist Saskia Sassen writes, cities are where the world's business is done. Regional leaders recognize that continuous efforts to retain and build upon Chicago's historical identity as a global marketplace remain critical to its future prosperity. New infrastructure plans will modernize and expand capacity at O'Hare and in Chicago's extensive rail network. The city's new Plan for Economic Growth and Jobs advances several strategies to capitalize on new trade opportunities, including boosting advanced manufacturing, accelerating exports among small and medium-sized businesses, and positioning the city as a preferred location for the

North American headquarters of foreign companies. Chicago still faces enormous competitive pressures in the global economy, but as much as any American city, its transformation over the past few decades exemplifies the embrace of enhanced global exchange at the city level as the route to broader economic growth.

This report shows that, as in Chicago, the deep intersection between cities and trade stretches back hundreds—if not thousands—of years of economic history. It has animated economic theories dating to the dawn of the American republic, and is now motivating a new approach to growth in an age of increasing international trade and urbanization. The report proceeds in four basic parts:

- It describes several periods in ancient and medieval history in which networks of cities emerged to facilitate global trade and exchange, before the rise of the nation-state; and reviews how economists have come to understand what drives trade, how metro areas are important to trade, and how trade helps metro economies to grow and prosper.
- It explains why and how, amid increasing trade and urbanization worldwide, metro areas are today becoming even more critical hubs in the global economy and expanding the notion of what it means to be a “global city.”
- It provides a framework for, and leading examples of, strategies at the metro level for enhancing regional economic growth through trade.
- It concludes by calling for metro areas to rediscover their historical roots as the centers for global trade, and assert new leadership on trade issues to achieve growth and prosperity in the next economy.

Metro leaders, with support from state and national actors, have an opportunity and an obligation to engage more actively on the global level. This report provides the rationale for and the start of a roadmap for that engagement. ■

KEY TERMS USED IN THIS REPORT

This report uses the terms **city**, **metropolitan (metro) area**, and **region** interchangeably, to refer to interconnected local economies that represent the hubs of larger state and national economies. A metropolitan area is typically a collection of municipalities that together form a unified labor market, and is often defined statistically by the commuting patterns of its residents between home and work. For instance, the Chicago metro area consists of hundreds of municipalities and 14 counties that stretch across the U.S. states of Illinois, Indiana, and Wisconsin; the city of Chicago accounts for less than one-third the metro population. The São Paulo metropolitan area includes not only the city of São Paulo, but also 38 surrounding municipalities within the Brazilian state of São Paulo. The geographic extent of these broader regions takes in economic activities such as manufacturing, logistics, and agriculture that are not often found in cities themselves. Economists sometimes use the word “city” to mean metropolitan area, even though the administrative borders of cities generally do not coincide with the larger regional economies they anchor.

The report also uses the term **trade** to refer to the exchange of goods and services between two or more market actors. From the standpoint of a metropolitan area, trade thus indicates anything that is made inside its borders that is consumed outside its borders; or vice versa. In large and diverse nations like the United States, a good deal of metro trade thus occurs domestically. While many of the concepts explaining trade and its benefits apply equally to such domestic flows, this report emphasizes the increasingly global, international character of trade and the importance of metro economies to those exchanges.

I. METRO AREAS AND TRADE IN HISTORY AND ECONOMIC THEORY

Cities and Trade Throughout History

Present-day discussions of trade typically occur at the national scale: the International Monetary Fund evaluates country-level trade balances; the World Trade Organization litigates conflicts between nation-states; and key levers of trade policy—from exchange rates to tariffs to intellectual property protection—are the responsibility of central governments.

Yet, global trade predates the formation of the modern nation-state. History reveals that cities, not nations, were the original global commercial nodes.

Beginning around 12,000 years ago, the first sedentary settlements arose in the aftermath of the First Agricultural Revolution. These first villages and small towns eventually grew into world's first urban civilizations in Mesopotamia, the Indus River Valley, and Central and South America between 7000 B.P. and 5000 B.P.² These ancient cities were the product of dispersed individuals and groups seeking out common spaces to exchange goods, services and information. Humans' tendency to trade, in many ways, created the world's first cities.

As transportation technologies improved over the coming millennia, traders were able to travel farther distances, linking previously unconnected cities in new networks by road, river, and sea. Beginning over 2,000 years ago, one of the earliest and largest of these networks connected cities in Asia, Europe, and North and East Africa along what came to be known as the Silk Road. Hundreds of cities, outposts and markets lined the 12,000 kilometers

of complex, interlocking trade routes that stretched from the city of Xi'an in central China to the shores of the Mediterranean.

Just like cities today, each node on the Silk Road had distinctive economic specialties: Chinese cities sold silk, teas and porcelain; Indian cities traded spices, ivory, and textiles; and Roman cities exchanged gold, silver, glassware, wine, carpets, and jewels. Nomads served as the vehicle for trade between different cities. As the market for their goods expanded beyond their city walls, Silk Road hubs like Baghdad, Istanbul, and Samarkand grew in economic and cultural importance.³

Further west, a similar network of trading cities sprouted along the Mediterranean Sea between the 10th and 13th centuries. Historian Wolfgang Michalski labels this period an era of "new globalization" brought about by the rise of Italian city-states like Venice, Pisa, Genoa, and Amalfi. As with the Greek and Roman empires before them, sea trade on and around the Mediterranean was the lifeblood of these cities' economies.

In the case of Venice, trade was a product of necessity. Venetians had ample supplies of salt and fish, but their livelihood depended on exchanging those products for corn, wine, and meat with their continental neighbors.⁴ By the early 13th century, the city's world-class navy and a series of shrewd military decisions by its leadership during the Fourth Crusade had expanded the Venetian republic, opening new trade routes further east in modern-day Croatia and Greece. With this larger market,

Venice became the world's wealthiest city by some accounts.⁵ Centuries before Shakespeare wrote of them, Venetian merchants gained affluence, not necessarily by trading local goods, but rather spices and silks that had been imported from the Far East through intermediaries in the Middle East and North Africa. Italian traders dominated regional trade fairs held in regions like Champagne, France, where they were highly regarded not only for their valuable goods, but also for their intimate knowledge in the little understood industries of commercial services, finance, and accounting.⁶

During this same period, a similar network of maritime trading cities dominated Northern Europe: the Hanseatic League. The League's origins lay in a 1241 trading agreement between Lubeck and Hamburg. The cities were natural allies, united by strategic location, mercantilist orientation, and complementary economies - Lubeck exported herring and Hamburg traded salt (a key fish preservative).

From this partnership, the Hanseatic League grew to include 170 "Hansa" cities that virtually monopolized trade in Northern Europe between the 13th and 15th centuries.⁷ Radiating out from the Baltic, ships from the Hanseatic League traveled as far north as Norway, as far south as Italy, and from Russia in the east to Portugal in the west, trading herring, salt, timber, cloth, flax, and furs.⁸ Increased commerce yielded new infrastructure investment (e.g. the opening of new canals)⁹ and technological innovation (e.g. a larger, faster ship called the Hanseatic cog)¹⁰. Trade also led to regional security. Initially, Hansa merchants organized into convoys to better protect themselves against pirates, but the League's expansion eventually brought peace

to the trading routes, providing a stark contrast to the constant warring between the Mediterranean maritime powers.¹¹

The rise of competing empires and nation-states eventually overtook the Hansa in the 16th century, yet the Hanseatic League, along with other historic networks of trading cities, are significant reminders of the origins of trade and globalization. Well before the first nation-state, advances in agriculture plus humans' natural proclivity to barter goods brought remote groups together to form villages, and eventually larger towns and cities. In turn, cities served as the ideal trade-enhancing environments by providing the physical space, constant interaction, and economic specialization needed to facilitate exchange between previously isolated actors.

Indeed, historic examples of trading city networks reveal important insights applicable to today. First, cities generate wealth, prosper, and grow when their goods and services reach new markets. Second, metropolitan economies have distinct specializations, which networks of trading cities collectively leverage to the benefit of all involved. Finally, disruptive events—the rise of external powers, technological advances, and the discovery of new and better transportation routes—can usher in new eras of globalization, changing the world's economic geography to the advantage of certain regions and the detriment of others. Together, these insights reveal that cities are the hubs of commerce and trade, and that trade is central to the economic health of cities.

"Cities, not nations, were the original global commercial nodes."

Trade, Growth, and Prosperity

Any discussion of how trade contributes to the growth of a regional economy must begin with the broader question: How does a regional economy grow?

An economy—be it national, regional, or local—can expand its total output in one of two basic ways. First, it can increase the amount of inputs it uses. Economists typically classify inputs into three broad categories: land, labor, and capital. Putting more of a region's existing inputs into productive use is thus one pathway to growth. For instance, land lying fallow could be used to grow crops, machinery lying idle could be used to produce new goods, or non-working people could enter the labor market. It could also attract new labor or capital from outside its borders—through migration or foreign direct investment—that in turn serves to boost its total economic output.

A second way to grow an economy is to increase the amount of output that can be generated for a given level of input; in other words, to boost productivity. Innovation—broadly defined by Weissbourd and his colleagues as the development of new ideas, products, services, technologies, processes, systems, organizational structures and business—looms particularly large because productivity gains occur through the interaction of technology and human capital.¹² For instance, upgrading a plant with new equipment, or an office with new computers, can increase the amount of goods and services produced per hour. Giving workers new skills, or upgrading the infrastructure that links them to jobs, or using information to better match employers to employees, are also potential productivity-enhancing activities.

Of course, creating more outputs does not in itself increase a region's prosperity. As Weissbourd and his colleagues point out, there must be external *demand* for those outputs.¹³ Someone must purchase those goods and services, so that the proceeds flow back to the region and increase its material well-being.

Those flows of goods and services among regions are, in a word, trade. And trade is a key contributor to regional growth. Over the last 200 years, economists have theorized as to why and how trade happens, and what policies governments should enact to expand or inhibit trade. Their work provides an important foundation for understanding the role of cities and regions as hubs of trade, and how trade ultimately enhances their collective prosperity.

In 17th and 18th century Europe, most economists believed that, above all else, countries should enact policies to maintain a favorable trade balance—where exports exceed imports.¹⁴ This “mercantilism” was the prevailing trade policy when Adam Smith published *An Inquiry Into the Nature and Causes of the Wealth of Nations* in 1776. In his seminal treatise, Smith argues that productivity, and therefore economic prosperity, results from the division and specialization of labor. He offers the example of the pin-making trade. Smith posits that one workman alone could perhaps make one pin in a day; but that dividing the tasks among different specialized workers—drawing out the wire, straightening it, cutting it, pointing it, grinding it, whitening it—allowed a manufacturer to produce thousands of pins in one day.¹⁵

Smith further observed that larger markets allowed for deeper labor specialization, “so the extent of this division must always be limited...by the extent of the market.” In the sparsely populated Highlands of his native Scotland, “every farmer must be butcher, baker and brewer for his own family.” Trade, however, allows specialized workers to exchange the surplus part of their labor—say, hundreds of thousands of pins—for the products of other specialized workers' labor—say, food or cloth. As Smith argues, “Every man thus lives by exchanging, or becomes in some ways a merchant, and the society itself grows to be what is properly a commercial society.”¹⁶

Not long thereafter, in the early 1800s, English economist David Ricardo advanced a theory that explained in greater detail how two parties benefit from trade. The principle of what he termed “comparative advantage” holds that countries

devote their capital and labor to activities that are most beneficial to each; thus, “wine shall be made in France and Portugal...corn shall be grown in America and Poland, and...hardware and other goods shall be manufactured in England.”

Ricardo’s key insight was that those parties would trade even if one of them were better at producing *everything* than the other. In his example, even if it took 80 Portuguese workers to make a unit of wine and 90 to make a unit of cloth; and it took 100 English workers to make a unit of cloth and 120 to make a unit of wine; it would still be advantageous for Portugal to export wine to England and import English cloth. Focusing its capital and labor on the industry in which it holds comparative advantage allows it to purchase *more* imported cloth than if it diverted some of those resources toward manufacturing cloth.¹⁷ By each exporting goods it can produce relatively cheaply and efficiently, both Portugal and England end up richer and more productive.

About 100 years later, Swedish economists Eli Heckscher and Bertil Ohlin extended Ricardo’s theory to help explain *what* countries would trade with one another. Taking Ricardo’s example, they asked: what makes wine relatively cheaper for Portugal to produce, and cloth relatively cheaper for England to produce? Their model explained comparative advantage in terms of “factor endowments,” or the quantity and character of land, labor, and capital available within a market (extending Ricardo’s focus on labor alone). If a country has a lot of capital and land but little labor, it will export goods in which labor makes up a relatively small share of the input costs—like wine. Conversely, if it has a lot of capital and labor but little land, it will export goods that require little land to produce—say, pins.

One important implication of the Heckscher-Ohlin model is that the more distinct countries are in their factor endowments, the more they would be expected to trade—and the more they would stand to benefit from liberalization of trade. Yet across the twentieth century, trade patterns flourished in

direct contradiction to that model. The European Common Market, in particular, greatly expanded trade among industrialized countries with very similar factor endowments. The United States began to engage in massive two-way trade in products like automobiles with Europe and Japan. Moreover, the Heckscher-Ohlin model itself could not account for the increasing mobility of people and capital across borders, which changes the local availability of factors themselves.

Why Metro Areas Matter for Trade

Beginning in the 1970s, in response to the shortcomings of previous trade theory, economists—most notably Paul Krugman—began to revisit what really determined comparative advantage, particularly in a global economy characterized by technological innovation and mobile labor and capital. How, for instance, did Seattle gain and retain an advantage in manufacturing commercial airplanes, Bavaria in making automobiles, London in providing financial services, and Taipei in developing consumer electronics? It was then that cities began to assume a prominent role in economists’ understanding of trade.

Specializations, as Krugman and economist Masahisa Fujita observed, reflect in part economies of scale. As a firm like Boeing—which has its major plants in Seattle—produces more planes, the cost of producing each plane falls. The value of those economies of scale gave the Seattle area an advantage in the production of commercial aircraft. Why Boeing was in Seattle in the first place (William Boeing worked in the timber industry, and used local spruce wood to manufacture his first sea-planes in 1916) didn’t really matter to trade patterns in the end. Rather, countries with similar endowments could trade a lot, due to the existence of these scale economies and the local specializations they yielded.

It is nonetheless remarkable that Seattle remains today a major global hub for the commercial aerospace industry. The region has relatively high labor costs. Land is expensive. Timber is no longer a key input for aircraft manufacturing. And while proxim-

ity to the Port of Seattle is important for getting the industry's goods to market, it is not nearly as important as it used to be. Boeing has opened plants in other parts of the United States and many other parts of the world. Why does it still have a presence in Seattle?

The answer lies not only in the scale economies that individual firms like Boeing enjoy, but also in the *agglomeration economies* from which an entire region like Seattle benefits. Economist Alfred Marshall developed the idea in the late 1800s to describe geographically clustered economic activity. Marshall—and later economists Kenneth Arrow and Paul Romer—described the benefits that accrue to firms, workers, and local economies from clustering, by way of three categories of “externalities”:

- A geographic concentration of producers in a given industry provides incentives for input suppliers to locate nearby. As a consequence, producers can share specialized services, share public goods like infrastructure, save on transportation costs, or purchase inputs more efficiently. **Input externalities** thus help improve the local availability of inputs for growth. For instance, the film industry in Los Angeles has spawned a wide-ranging cluster of supporting industries, including sound recording, animation, visual effects, photographic equipment, and talent agencies. Their proximity reduces studios' costs for accessing the inputs they need.
- Industrial clusters also favor the creation of pools of specialized workers, who acquire specific skills valuable to local firms. These **labor market externalities** also lead more workers with a particular specialization to locate in the region, creating “thick” labor markets and increasing the availability of labor and likelihood of a satisfactory match between firms and workers. In addition, these pools of specialized workers interact in ways that improve their own skills, enhancing regional productivity. Mark Zuckerberg left Boston and went to Silicon Valley not (only) because the weather was nicer, but because it gave him access to the

workers with the specific skill sets he needed to build Facebook.

- Finally, the geographic concentration of related economic activity leads to local exchange of information and knowledge, or “spillovers.” As Marshall put it, “The mysteries of the trade become no mystery, but are, as it were, in the air.” These **knowledge externalities** promote growth by enhancing worker productivity and the diffusion of technology. A two square mile section of Cambridge, Massachusetts houses a massive cluster of biotechnology companies whose personnel benefit from the knowledge they exchange through daily interactions, both deliberate and casual.¹⁸

Metropolitan areas themselves constitute overlapping agglomeration economies. The commercial aerospace cluster accounts for a significant portion of the Seattle area's size and continued growth, but so, too, do its clusters in software development, maritime services, and outdoor sporting goods.

The power of agglomeration is evident not only in the existence of metropolitan areas, but also in their outsized contribution to economic growth. In the United States, the 100 largest metropolitan areas constitute two-thirds of national population, and account for fully three-quarters of U.S. GDP.¹⁹ And worldwide, the 300 largest metropolitan economies house a little under one-fifth of global population, but generate 48 percent of its total output.²⁰ Their high levels of productivity reflect that by virtue of agglomeration, metropolitan areas tend to concentrate the assets that drive growth, including innovative firms and institutions, skilled workers, and critical infrastructure.²¹

In the early 1990s, Krugman began to advance a theory for the location of trade that accounted for the existence and value of agglomeration economies. He observed that when firms and workers can move freely, and when firms exhibit scale economies that lead to a clustering of production, metropolitan areas will tend to attract that production,

MIGRATION, INVESTMENT, AND TRADE

Globalization's effects are evident not only in the production of goods and services, but also in International migration. As of 2011, more than 200 million people, or 3 percent of the world's population, lived outside their country of birth. In a review of dozens of studies, Peter Nijkamp and his colleagues find that migration affects international trade relationships in four ways. First, global labor markets are incredibly efficient at matching worker skill levels with jobs, from which there are widespread trade-enhancing productivity gains. Second, when faced with language and cultural barriers, immigrants start their own businesses ("the stranger is the trader") that often fill important niche markets (e.g. ethnic products). Third, migrants may facilitate trade ties through social connections with their home countries. Finally, transaction costs to trade can be lowered if immigrants are more familiar with the rules, regulations and risks associated with their home market.²² Indeed, a study across all OECD countries found that a 10 percent increase in immigration from one country to another boosts two-way trade by 4.5 percent.²³ While research has not yet tested these relationships on a sub-national basis, it seems likely that some of these same dynamics between migration and trade would exist at the metropolitan level.

Globalization has also spread capital investment around the world in new ways. Foreign direct investment (FDI) flows reached \$1.5 trillion worldwide in 2011, over twice as much as in 2002.²⁴ As with international migration, the subject of FDI and trade has been debated by economists. Theoretically, FDI could either substitute for, or complement trade. Firms may invest directly in foreign markets instead of exporting to them if protective tariffs are in place, also known as "barrier hopping" FDI.²⁵ While these cases exist, recent research reveals that FDI and exports may be complements.²⁶ A study of the economic transition of Eastern Europe found that FDI played an instrumental role in those countries' transition from unskilled, labor intensive production to more capital intensive, high-skill exports. Countries that experienced the largest FDI inflows also experienced the largest growth in exports.²⁷ Further, FDI's effects may radiate beyond individual plants or firms. An analysis of Lithuanian firms suggests that, for projects in which there is joint domestic and foreign ownership, foreign direct investment induces positive productivity spillovers to proximate firms and sectors.²⁸ Thus, while FDI does not seem to stimulate exports directly, it can have positive effects on growing metropolitan economies, enhancing their longer-run capacity for trade. ■

because they provide those firms with access to a large local market. As Krugman writes:

Think of Henry Ford and his Model T. He could have established many factories, spread across the country, to be close to his customers. Instead, however, he found that it was worth incurring extra shipping costs to achieve the economies of scale of one big factory in Michigan.

Metro areas like Detroit attracted more and more production thanks to the power of agglomeration, and for decades the broader Great Lakes region concentrated the great bulk of U.S. manufacturing. A similar cumulative process explains why a narrow corridor of the Northeast United States continues to generate such a large share of the nation's financial services output. Other flows of capital and labor, such as foreign direct investment and immigration, may also serve to strengthen agglomeration economies (see sidebar). ■

II. THE GROWING ROLE OF METRO AREAS IN TRADE TODAY

Why Trade Matters to Metro Areas

Metro areas not only facilitate trade, but also are themselves an outcome of trade. The division of labor, specialization, economies of scale, and resulting comparative advantage contribute to the clustering of related economic activities in place. These become the export activities of a metro area—the products and services produced there that are consumed elsewhere.

Those metro export activities shape the overall well-being of a metro area in a few key ways. First, and most importantly, they generate regional income. Economists have historically regarded a region's economic activities as being divided into two categories: the “export base” of products and services that satisfy demands outside the region, and the “nonbase” activities that supply to local residents. The region's export activities inject income from outside the region into the local economy, which in turn supports the purchase of nonbase goods and services.

For example, when Boeing sells a 737 manufactured in the Seattle region to an airline company in Chicago, its workers spend the resulting earnings on things like food, housing, and health care that are supplied by firms in the local economy. Workers at those grocery stores, builders, and doctor's offices in turn spend the income generated from those purchases on additional locally produced goods and services, and so on. This yields a “multiplier” effect that represents the total regional economic impact of a change in the export base. As Fujita, Krugman, and Venables explain the main idea of base-multiplier analysis, “...export activities are, in effect, a region's economic *raison d'être*....”²⁹

Second, exports make a metro area more productive and wealthier. Only a relatively small share of firms typically engage in export activities. Nationally, only 1 percent of U.S. firms export, and just half of them export to more than one country.³⁰ But even at the metropolitan level in the United States, only about 25 percent of what a metro area's firms produce is actually consumed outside the metro area. Economist Marc Melitz in particular observes that because exporting entails high fixed costs, only highly productive firms that make sufficient profits can engage in it. Trade thus acts as a “natural selection” mechanism that allows high-productivity firms to thrive, and forces low-productivity firms to withdraw from the market.³¹ The benefits of higher firm-level productivity in turn accrue to the entire metro area, raising average incomes.

Third, exporting can help firms and their wider metropolitan economies weather declines in domestic demand. Before and during the Great Recession from 2005 to 2009, the U.S. International Trade Commission found that revenues for American small and medium-sized manufacturing exporters grew by 37 percent, but declined 7 percent among non-exporting manufacturers.³² In this way, trade can be viewed as a form of economic portfolio diversification, boosting the sources of global demand and supply and cushioning against shocks that may occur at home and abroad.

Trade Expansion and Metro Areas' Growing Role

Contemporary trends show that trade is becoming increasingly important to global and national economies, and that the growth of metro areas lies behind much of that continued shift.

As a share of global output, trade among nations is now at almost three times the level it was in the early 1950s. According to the IMF, this growth has been driven in large part by the integration of rapidly growing emerging market economies in Asia and Latin America, as well as higher trade within Asia and Europe. Indeed, in the early 1970s, trade was largely confined to a handful of developed countries like Germany, the United States, and Japan. By the end of the 2000s, Korea, Mexico, and particularly China had emerged as key players in global exchange.

Two key developments have spurred the growth of international trade and the integration of emerging markets. First, the rapid advancement and diffusion of technology worldwide means a rising share of global trade is occurring in services, as opposed to commodities and manufactured goods. According to the World Trade Organization, commercial services industries accounted for nearly 20 percent of world trade in 2010, and services exports grew at 8.0 percent per year from 2005 to 2010, versus 3.5 percent for merchandise exports.³³

Second, the growth of multi-national corporations (MNCs) has increased global capacity for trade by giving strong exporters footholds to expand their market share internationally. Rather than merely off-shoring production to export cheaply back to their home country, U.S. multinationals rely on overseas expansion to increase their access to nearby

foreign markets. Indeed, only 7.9 percent of U.S. foreign affiliate sales were exported back into the U.S. market; almost one-third are exported to other foreign countries.³⁴ Those goods that do return to the U.S. market are frequently the products of global supply chains that maximize the value-added process, using the competitive advantages of each link in the chain to boost global productivity. The proliferation of these supply chains increases the velocity of international trade, the efficiency of global production, and the importance of the regional hubs of MNC activity.

The gains from trade that David Ricardo described 200 years ago provide the underlying economic motivation for this expansion in recent decades. One recent study finds that between 1950 and 1998, countries that liberalized their trade regimes experienced average annual growth rates about 1.5 percentage points higher than before liberalization.³⁵ In the United States alone, the increase in trade over the postwar period boosted annual U.S. GDP by an estimated \$1 trillion.³⁶ In 2005, the World Bank estimated that fully liberalizing world merchandise trade would increase global income in 2015 by \$290 billion to \$460 billion.³⁷ Of course, gains from trade are not distributed equally across places and people, and routinely impose costs that are critical for policy makers to acknowledge and address (see sidebar).

“Metro areas not only facilitate trade, but also are themselves an outcome of trade.”

THE COSTS OF TRADE

Across time and across the globe, gains from trade have increased choices and lowered prices for consumers, lifted millions out of poverty, and boosted economic growth. Yet any discussion of trade, especially from the perspective of metro areas, must also acknowledge the costs it can exact on certain people and places.

As described earlier, gains from trade occur through a “natural selection” mechanism that allows high-productivity firms to thrive and forces low-productivity firms to withdraw from the market. Because agglomeration clusters firms and sectors together in space, when trade causes an industry to decline, the adjustment costs tend to be imposed on particular places and people in the short and medium term.

In the U.S. context, global trade over the past several decades has shifted the economy from one focused primarily on goods production to one focused on innovation, knowledge, and services. Technological advances and rising labor productivity in emerging economies meant that physical goods could be produced more cheaply abroad, and reductions in transportation costs allowed them to be shipped economically around the world. Economist Enrico Moretti argues that this transition has resulted in a “Great Divergence” among American regions. Metropolitan areas with high levels of human capital (e.g., Silicon Valley, Boston, Washington, D.C.), the most important input in the new American economy, benefited from this shift, those focused more on manufacturing (e.g., Birmingham, Buffalo, Detroit) did not.³⁸

While the United States remains the world’s third largest industrial exporter and its manufacturing firms have experienced large productivity gains, some regions have taken a hit. In a study of regional labor markets, David Autor and his colleagues find that regions with manufacturers more exposed to competition from Chinese imports saw higher over-all unemployment, lower labor force participation, and reduced wages.³⁹

When job losses are concentrated in particular places, the consequences can be severe for communities and their residents. As sociologist William Julius Wilson documents in *When Work Disappears*, the job losses accompanying the decline of manufacturing permanently altered the economic and social sustainability of some inner-city predominantly minority neighborhoods.⁴⁰

The OECD finds that adjustment costs are higher for trade-displaced workers in the U.S. and Europe than other job losers.⁴¹ In response, policies like the United States’ Trade Adjustment Assistance Program and the EU’s European Globalization Adjustment Fund aim to ease these transitions by helping workers obtain new skills and find new jobs, but they are small programs relative to the trade-related shifts buffeting many American and European communities.⁴²

The growth of multi-national corporations (MNCs) and the practice of an international internal division of labor have increased anxiety that U.S. firms creating jobs abroad are also removing jobs from the U.S. market. While U.S. MNCs continue to produce jobs in developing markets, evidence does not suggest that this has come at the expense of domestic jobs. Rather, employment in foreign affiliates tends to rise and fall in similar patterns to employment at parent companies.⁴³

Others argue that off-shoring has touched high-skill jobs as well. Harvard Business School professors Gary Pisano and Willy Shih contend that “decades of outsourcing manufacturing has left U.S. industry without the means to invent the next generation of high-tech products that are key to rebuilding its economy.” They argue that outsourcing began with only the low-cost, low value-add portions of manufacturing like assembly, but eventually the higher value-add engineering capabilities followed as well, eroding the “industrial commons” to the detriment of American innovation.⁴⁴

Beyond job losses, economists have also fiercely debated the extent to which global trade (and outsourcing) has led to increased income inequality. Economists struggle to answer this question because global trade (globalization) is inextricably linked with technological changes that have, irrespective of trade, increased inequality by favoring high-skill workers over low-skill workers. In the mid-1990s, there was broad consensus among top trade economists like Robert Lawrence and Paul Krugman that global trade in and of itself had little to no impact on wage inequality. At the time, exporters like Singapore, Taiwan, and South Korea had lower wages, but not low enough to significantly depress wages in the United States.⁴⁵ While Lawrence still maintains this viewpoint, Krugman has since acknowledged that dynamics may have changed in the last decade, as America now imports not just low-value goods, but also higher value technologies, from extremely low-cost countries like China and Mexico.⁴⁶ Now that low-wage competition has become so pervasive, it may have depressed wages domestically, although Krugman acknowledges that data limitations make it difficult to quantify these effects.⁴⁷ When both Europe and the United States are included, OECD researchers find that “neither rising trade integration nor financial openness had a significant impact on either wage inequality or employment trends within the OECD countries.”⁴⁸

Most literature on the costs of trade focuses on advanced countries, but the costs to developing economies must also be considered. Globalization has reduced the income gap between rich and poor nations, but within nations, inequality has increased. Skill-biased technological changes heighten inequality in all emerging markets, but research has also shown a direct link between trade reforms and rising inequality in countries like Mexico and India.⁴⁹ However, a broader review of emerging markets by the World Bank notes that trade can only explain a small fraction of the general increase in wage inequality.⁵⁰ ■

Forecasters predict continued expansion in global trade, fueled by the modern industrial sectors now coming online in emerging markets, and the growth of their middle-class consumers (see sidebar). Uri Dadush and William Shaw of the Carnegie Endowment project that emerging markets—among them China, India, Brazil, and Indonesia—will come to dominate the world trade system, with their share of trade rising from less than one-third today to nearly 70 percent by 2050.⁵¹

Metro areas are a critical part of this evolving trade picture. Accelerating global trade, particularly with and among less developed nations, is both a cause and consequence of increasing global urbanization. Metro areas possess a growing share of the world’s population—from just 30 percent in 1950, to 50 percent today, to a projected 60 percent in 2050. The share of China’s population living in urban areas skyrocketed from less than 20 percent in 1980 to 51 percent by 2011.⁵² Indonesia followed a similar urbanization trajectory. And in Brazil, already a majority-urban country by the mid-1960s, 84 percent of the population today lives in metro areas.⁵³ Urbanization enhances the productivity and export potential of these countries, while upgrading jobs and incomes for their populations that can ultimately translate into demand for higher-value imported goods and services.

Along with their growing human footprint, metro areas are flexing even greater economic muscle on the world stage. In 2012, the world’s 300 largest metropolitan economies account for approximately 19 percent of global population, but generate 48 percent of world GDP. Similarly, the McKinsey Global Institute estimates that the urban areas that now make up half the world’s population generate roughly 80 percent of its total economic output. Collectively, metro areas around the globe are thus “punching above their weight” economically, and increasingly driving macro-level trade patterns.

HAS GLOBAL TRADE GONE “GLOCAL?”

Is the globalization of trade yesterday's news? In a recent *Time* article, Rana Foroohar profiles Caterpillar's preference for localizing the production of construction equipment near consumer markets. Foroohar argues that, in an effort to hedge against changes in energy prices, currency levels, and customer preferences, Caterpillar had “gone glocal”, exemplifying a shift in the way global firms are responding to the forces of globalization.⁵⁴

Yet, it is not clear that Caterpillar is doing anything all that new. While Caterpillar's executive decisions may be producing a different outcome today—including locating new manufacturing jobs in the United States as opposed to lower-cost countries like China—its process for selecting where to invest echoes how multinational firms have always weighed dynamic shifts in national environments, global supply chains, and labor, energy, and transportation costs.

The rise of globalization has certainly made these investment decisions much more complex. Two centuries ago, firms simply located their operations equidistant from consumer markets and sites where they extracted natural resources to make their products. Over the past three decades, cheap and plentiful energy, freight transportation improvements, secure supply chains, and seemingly endless supplies of low-cost labor in newly emerging economies nudged firms towards off-shoring operations from North America and Western Europe to places like China and India. One classic example is Apple, which offshored the assembly of the iPhone to China for export back into the U.S. for sale.

Globalization has also spurred a complementary model: foreign firms expanding overseas operations to serve large consumer markets. Nowhere is this trend more apparent than in the American South, where beginning in the 1980s foreign auto manufacturers like Toyota, Nissan, BMW, and Mercedes-Benz built plants to serve the North American market. Today, rather than ship parts from Japan, Nissan has crafted a completely localized supply chain relying on hundreds of suppliers in and around Tennessee.⁵⁵ Indeed, the examples of Apple and Nissan reveal opposite sides of the same global coin. Both firms' footprints are sufficiently global that they have the choice of either exporting into a market or locating production there to serve the market. So what informs the choice? The economist Michael Spence offers an explanation:

The system is complex and constantly evolving, but the operatives in the system adapt to the shifting sands of comparative advantage and market size, and move economic activity (think of parts of the value-added or global supply chains) to the places where it can be performed at high efficiency and low cost.⁵⁶

In the long run, continuous advances in information technology and management expertise ensure that the only constant in global trade and investment will be change. ■

From Global to Globalizing Cities

The increasing engagement and influence of cities in global trade has not gone unnoticed. As Greg Clark has observed, the last few years have yielded over 100 reports advancing indices of cities' global "power," economic performance, business environment, quality of life, innovation and technology, sustainability, affordability, culture, and a host of other presumed success factors.⁵⁷ Increasingly, every city aspires to be a "global city." In that regard, it is instructive to chart the evolution of the global city concept, and its relationship to trade.

When Peter Hall published *The World City* in 1966, he focused his attention on the likes of London and New York, what John Friedmann went on to call the "command and control centers" of the global economy.⁵⁸ Sociologist Saskia Sassen extended this concept in 1991 in her seminal book *The Global City*, arguing that a new pattern of production had made those two cities plus Tokyo the essential hubs of global exchange. That pattern involved greater dispersal of economic activity within multinational firms (e.g., manufacturing outsourcing, back-office operations, retail locations in new markets). In turn, dispersal created the need for greater central management of advanced services such as finance, law, accounting, and advertising, which concentrated in a small number of global capitals.⁵⁹

Subsequent thinking and research argue for a more expansive view of "global cities," however. Sassen herself recently revisited the global city concept, and extended the definition to a larger group of cities involved in the production of advanced services due to the rapid global expansion of multinational firms over the past two decades. She finds that her three iconic global cities of 1991 multiplied into 75 similarly-defined global cities by 2012, including new hubs such as São Paulo, Buenos Aires, Seoul, and Taipei. Sassen distinguishes these cities from those that serve a more limited set of global functions, asserting that truly global cities operate on a number of different global "circuits" defined by their specializations. While New York and London dominate the world financial system, Chicago is the leading center for more specialized futures trad-

ing.⁶⁰ Her work signals a shift in thinking toward a "multi-polar" view of global cities:

Global firms and markets, but also cultural enterprise, want many global cities because each of these cities expands the global platform for operations, and because each is a bridge between the global and the particularities of national economies and societies.⁶¹

Along similar lines, Greg Clark observes that an increasing number of metro areas can be classified as trading in "decision-making," beyond those with the most multinational firms. For instance, The Hague sets the platform for centers of international law worldwide; Brussels, Washington, New York, Geneva, and Nairobi ground a circuit of supranational actors such as multilateral institutions and the European Commission; centers of global media such as Madrid, Hong Kong, Sydney, and Dubai help shape the flow of information worldwide; and Boston, Cambridge, and Nanjing anchor an increasingly integrated global academic community.

Building on Sassen's work, geographer Peter Taylor and his colleagues have examined the global character of *networks* of cities, also defined primarily by the location of advanced services firms. Tracking 175 multinational finance, law, advertising, accounting, and management consulting firms across 525 cities, they measure the connectivity of cities, finding that Hong Kong, Singapore, Shanghai, and Beijing all rank among the 10 most connected cities globally. They stress that these cities do not necessarily compete with one another, but operate in complementary city networks characterized by their specializations and respective roles within their national economies. For instance, the political capital Beijing connects strongly with New York (home to United Nations headquarters), other Pacific Rim cities like Seoul, Sydney, and Los Angeles, and "neighboring" capital Moscow. Shanghai connects more strongly with other world financial capitals, such as Zurich, Milan, Toronto, and London.⁶²

While Sassen's and Taylor's work clearly points to a growing number of cities participating at the highest levels of a global trade network, other researchers question the notion of "global" status as a yes-or-no proposition, and the location of advanced services as the defining characteristic. Peter Marcuse and Ronald Van Kempen, for instance, argue that the global cities focus "is something of a red herring" and choose the term *globalizing cities* to reflect that:

...(almost) all cities are touched by the process of globalization and ... involvement in that process is not a matter of being either at the top or the bottom of it, but rather of the nature and extent of influence of the process.⁶³

Others have approached the identification or classification of globally influential cities using a different lens than the location of advanced services firms alone. Arthur Alderson and his colleagues analyze links among more than 6,000 cities based on the footprint of the 500 largest multinational firms and their subsidiaries across all sectors. Because they house multinational headquarters of non-services firms, metro areas such as St. Louis, Detroit, and Cologne exhibit greater global connectivity than in previous analyses.⁶⁴ Similarly, Stefan Krätke focuses on the role of manufacturing in connecting cities globally, particularly in three key subsectors: automotive, IT hardware, and pharmaceuticals. He identifies cities such as Nagoya, Hannover, Milwaukee,

San Jose, Osaka, and Austin as globally significant automotive or IT hardware manufacturing hubs that were overlooked in prior analyses focused on advanced services firms.⁶⁵ And Wouter Jacobs and his colleagues explore the global circuit that links port cities such as Houston, Rotterdam, Singapore, and Antwerp via advanced maritime services such as merchant banking, and maritime law and insurance.⁶⁶

Indeed, the globalization of trade is such a pervasive trend that even relatively small markets can be highly integrated into the world system of cities. Witness, for instance, the U.S. metro areas that export overseas the largest share of their economic output—Wichita, Kansas; Baton Rouge, Louisiana; Greensboro, North Carolina; and Portland, Oregon.⁶⁷ None of these regions would likely appear on anyone's list of top "global cities." Yet their distinctive agglomeration economies—in aircraft manufacturing, petrochemicals, and IT hardware/software—indicate that, in at least one critical aspect, they are more globally oriented than many significantly larger markets.

An even more pronounced version of this dynamic infuses Germany, the world's leading advanced nation in exports. As economist Dieter Läpple explains, while Frankfurt's role as one of Europe's financial capitals might place it on some lists of top global cities, other German metropolises such as Berlin, Hamburg, Munich, and Düsseldorf rarely

"Trade plays a central role in defining a city's global character, be it Tokyo or Turin or Tampa."

merit a mention. Yet they and other German cities have established themselves in the upper niches of world export markets by retaining diversified, high-quality manufacturing and linking it to knowledge-intensive industrial activities.⁶⁸ The Bavarian state government, for instance, has supported a series of initiatives in the Munich region that have enhanced its “service-manufacturing nexus,” and helped more than double its transportation equipment output from 1990 to 2010.⁶⁹

The increasing tradability of services also opens up new global integration opportunities for more metropolitan areas. Expanded international air connectivity increases trade possibilities through tourism. International visitors to the United States generated \$47 billion in output in 2011, up 58 percent from 2003, boosting exports in travel destinations like Las Vegas and Orlando.⁷⁰ Technological advancements, declining travel costs, and a rising middle class in emerging markets have also pushed previously non-tradable sectors like healthcare and education into the international marketplace, advancing the global relevance of medical hubs like Cleveland and centers for higher learning like Oxford.

Academic debate over the best way to identify and classify global cities will surely continue, and others will fuel popular interest with lists of the “top” global cities on a regular basis. But if the direction of the research and recent experience reveals anything, it is that trade plays a central role in defining a city’s global character, be it Tokyo or Turin or Tampa. Being a financial hub is not the only way to be a global city. As long as the twin patterns of increasing international trade and global urbanization persist, metro areas that understand and exploit their distinctive comparative advantages will benefit from the strongest opportunities to “go global.” ■

III. STRATEGIES FOR BOOSTING METRO TRADE

History, theory, and contemporary experience all point toward trade as a critical lever for boosting prosperity, and metropolitan regions as the key centers of global trade.

The reasons why trade matters for metro growth and success also hint at the increased urgency of the trade imperative today. Metro economies must trade in order to generate income and grow jobs locally. They must trade *globally* to gain the benefits of increasing productivity and risk mitigation that come from participation in international markets. And especially in developed markets that will experience slower growth in years ahead, metro leaders must increasingly look to cities abroad with expanding populations and wealth for new sources of demand. Brookings' Homi Kharas and Geoffrey Gertz project that China and India, which account for only 5 percent of global middle class consumption today, could together account for nearly half of that consumption by 2050, with most of it occurring in their cities.⁷¹ Even emerging markets like Brazil, whose largest trading partner is no longer the United States but now China, are benefiting from these dynamics. Public and private leaders at the metro level should have no illusions that "going global" will be easy, and most have already witnessed the sorts of dislocations that can accompany greater global engagement. But the opportunity costs to inaction are too great to ignore.

In the wake of the Great Recession, metro areas are experiencing added motivation to rediscover their trade DNA. Although they account for only about 13 percent of U.S. GDP, exports have accounted for roughly 40 percent of post-recession U.S. GDP growth.⁷² In developing nations where the effects of the global downturn were much milder, trade is helping growing economies to capitalize on momentum, demonstrate their productive capacity on the world stage, and import goods demanded by a rising consumer class.

Moreover, now is an opportune for metro areas themselves to find their global economic voice. As Greg Clark writes:

...cities have—for economic, cultural and mobility reasons—become further untethered from national systems and associated urban hierarchies, and are increasingly thrust onto an international scale of both competition and collaboration.⁷³

In nearly every major world region, large metro areas accounted for disproportionate shares of GDP and employment growth from 2010 to 2011.⁷⁴ In the wake of the Great Recession, metro areas are driving even more of what is happening economically around the globe.

Of course, while metro areas play a significant role in facilitating global trade, they do not, and cannot, act alone. Metro regions in the United States and around the world simply lack the geographic scale or political capacity to influence debates on all international trade-related issues. State, national, and supranational governments significantly influence several key framework conditions that together comprise the platform for metro trade:

- National enshrinement and observance of basic international law is a fundamental building block of regional and national growth. Economists and political scientists reference both “thick” and “thin” definitions when discussing **rule of law**. Upholding democracy, morality and human rights constitute the “thick” definition, while the stable enforcement of property rights, anti-corruption efforts, and laws governing business, investment and immigration are “thinner” concepts.⁷⁵ Crippling poverty in Pyongyang, and the rapid economic growth that followed Shenzhen’s economic liberalization, provide clear examples of how both thick and thin rule of law matter for the economic well-being of metro areas.
- National and supranational actors implement monetary policies that set interest rates, inflation targets, and growth expectations. These decisions, in turn, partly determine a country’s **currency exchange rate**—a critical determinant of what prices firms can charge for goods and services in the global marketplace. Therefore, the competitiveness of firms, and of clusters of firms that make up regional economies, partly depends on decisions made by the world’s central banks. This phenomenon explains why manufacturers in Columbus care greatly about the strength of China’s *renminbi*, or the reason São Paulo industrialists, wary that too weak a dollar will hurt exports, closely monitor quantitative easing decisions by the U.S. Federal Reserve.
- Reducing barriers to trade and investment between nations facilitates the exchange of goods and services across borders. National governments set the **rules for trade** by establishing tariffs and negotiating bilateral or multilateral trade agreements. These rules are then adjudicated by the World Trade Organization, the primary global body dealing with trade between nations. The steady growth in trade and investment among the U.S., Canada, and Mexico after the 1994 passage of the North American Free Trade Agreement (NAFTA) exemplifies how easing trade barriers can significantly bolster global exchange.
- A firm’s decision to export its product depends on its ability to find new markets, understand those market dynamics, and finance its expansion abroad. When the private sector is unable to provide these export support services, state and national governments step in with their own **trade promotion** efforts. Both small firms and giants like Boeing rely on the U.S. Export-Import Bank to be “lender of last resort” when they are unable to find trade financing in the private sector.⁷⁶ Similarly, exporters in Pittsburgh and Miami benefit from state-level trade promotion efforts by the Pennsylvania Center for Trade Development and Enterprise Florida, respectively. The dynamic export growth of South Korea over the past half century can be partly attributed to the aggressive efforts of its national trade promotion agency KOTRA.
- Finally, state and national actors influence a wide array of policies salient to the **broader economic competitiveness** of metropolitan areas. U.S. cities are connected nationally and globally by transformative federal **infrastructure** investments like the U.S. interstate highway system. The federal creation of and state-level investments in “land-grant” universities both afforded millions of Americans the chance to obtain productivity-enhancing investments in **education** and spawned advanced regional economies in places like

“While metro areas play a significant role in facilitating global trade, they do not, and cannot, act alone.”

Madison and Raleigh. Three decades of continued investment in Finland’s national **innovation** agency TEKES have buoyed the export prowess of Helsinki’s Nokia Corporation. And the federal *Bolsa Familia* **anti-poverty** program has lifted a staggering 30 million Brazilians out of deep poverty and into the burgeoning lower-middle class.

Notwithstanding the important platform that national and state actors establish for international trade activities, forward-thinking metro leaders are increasingly adopting intentional strategies to enhance the position of their cities in global trade. They recognize that they possess important levers and tools at their disposal that can enhance the ability of their firms to compete in world markets, and thus generate greater wealth and prosperity for their places.

Those leaders, meanwhile, cut across a variety of sectors. In most nations, the “metro” extends well beyond the borders of the administrative city at its heart, and the region itself has no elected leadership despite its economic prowess. Thus, different types of actors are emerging within metro areas to help strengthen how these places are positioned for global trade: high-profile elected officials like big-city mayors; choruses of regional business officials; university presidents; heads of prominent public/private agencies; or philanthropic and non-profit executives. Often, leaders from multiple sectors come together to help set a collective vision and strategy for global engagement. And they are working to align support from higher-level state and national governments behind the implementation of those strategies. Metropolitan leaders are adopting three kinds of strategies along these lines: *investing in the metropolitan assets that drive trade; organizing for trade; and building relationships with trading partners.*

Investing in the Metropolitan Assets that Drive Trade

One set of strategies focuses on investing in the key metropolitan assets that drive trade—**innovation**, **human capital**, and **infrastructure**—in ways that intentionally bolster a region's trade potential:

- While national and state governments are frequently the key investors in core innovation assets

such as research labs and universities, metro leaders often work to connect these institutions to the wider regional economy so their ideas can translate into economic value. Municipal leaders in **Shenzhen, China**, bolstered the region's innovative capacity by merging leading Chinese universities and local industry to enhance the global competitiveness of its emerging export clusters.

SHENZHEN'S "UNIVERSITY TOWN": INNOVATING TO COMPETE

In 1980, Chinese Communist Party vice chairman Deng Xiaoping designated Shenzhen, located in Guangdong province just a few miles from Hong Kong, as a special economic zone.⁷⁷ Thirty years later the statistics tell a remarkable story of economic transformation. Shenzhen grew from a small fishing village to a metropolitan area with over 11 million people and a GDP of \$123 billion. Between 1993 and 2007, the region experienced the 2nd fastest economic growth among the top 200 global metropolitan areas, mainly through quickly and cost effectively producing the world's clothing, shoes, toys, and electronic goods.⁷⁸

As Shenzhen grew, labor and infrastructure costs inexorably rose. The municipal government recognized that Shenzhen could not remain successful as a center for low-cost assembly—it had to develop a system of innovative workers and companies that would drive long-term prosperity and growth. In 1985, the municipal government and Chinese Academy of Sciences jointly established the Shenzhen Science and Technology Industrial Park, followed by the 1996 opening of the Shenzhen High-Tech Industrial Park (SHIP). A series of investments in research institutes rounded out an explicit strategy to compete globally in the production of higher value goods and services: integrated circuits, software, photoelectronics, and biological engineering.⁷⁹

Yet world-beating innovation economies do not magically arise out of technological parks. They require daily interaction between highly skilled knowledge workers that breed new industry-advancing ideas. Understanding this, initiatives like "University Town," a partnership between Shenzhen municipal government and the elite Chinese universities Peking University, Tsinghua University, and Haerbin Institute of Technology, are tailored to springboard Shenzhen from merely a business center to a cultural and intellectual hotspot. Initiated in 2000, the municipal government gave incentives to the universities such as free land and building construction.⁸⁰ Since its inception, the initiative has established over 120 high-tech enterprises and transferred more than 100 research projects to industry.⁸¹ Professors and Party members involved in the plans for University Town see it as part of a larger strategy to create a Chinese Silicon Valley, bringing the best and brightest youth from around the country to a place where they can advance their studies, network with industry leaders, and, in the process, transform Shenzhen's regional economy to a global innovation hub. ■

- Higher-level governments also typically provide significant investment for developing human capital, in the form of primary, secondary, and often tertiary education. Metro leaders, however, can work to align workforce skills development programs to the unique demands of industries that

comprise their key export sectors. Facing looming workforce challenges, **Wichita, Kansas** leaders acted to improve the local human capital pipeline and keep the region at the forefront of aerospace trade.

WICHITA'S AEROSPACE CLUSTER: DEVELOPING HUMAN CAPITAL FOR THE EXPORT ECONOMY

In 1920, the United States' first commercially produced aircraft was built in Wichita, Kansas. A decade later, aviation entrepreneurs named Cessna, Beech, and Lear founded firms that gave Wichita the moniker "Air Capital of the World." With over 200 mainly small and medium-sized companies anchored by larger manufacturers like Bombardier, Cessna, Hawker Beechcraft, Spirit Aerosystems, and Airbus, the Wichita aerospace cluster is an export powerhouse, supplying 47 percent of all global general aviation deliveries.⁸² Aviation manufacturing drives a regional export base that accounts for nearly 20 percent of gross metropolitan product, making Wichita the most export intensive metropolitan area in America.⁸³

As with any regional cluster, a large stock of industry-specific workers is paramount, but it is particularly important for the highly complex, technologically dynamic work demanded by aerospace production. Despite one of the highest concentrations of aerospace manufacturing employment in the country, a 2001 Monitor Group study revealed that the region still faced a shortage of labor that hampered its competitiveness.⁸⁴ A 2011 panel of Wichita aerospace executives declared replacing an aging workforce as the top challenge facing the industry.⁸⁵

Understanding the regional labor supply challenge, a group of government, private sector, university, and civic leaders made significant investments in worker training to retain Wichita's perch as a global aerospace leader. In 2008, Sedgwick County Technical Education and Training Authority (SCTETA) broke ground on a \$52 million National Center for Aviation Training (NCAT). Opened in 2010 and managed by Wichita Area Technical College, NCAT provides capacity to train 1,800 students learning to become the next generation of specialists and technicians demanded by the region's aerospace firms.⁸⁶ The 224,000 square-foot complex includes a composite materials lab and shared space with the National Institute for Aviation Research (NIAR) at Wichita State University. Under one roof new products and materials can be developed by NIAR, tested and learned by students at NCAT, and then quickly sent to local factory floors allowing world-beating "lab to the line" speed and efficiency.⁸⁷ Private sector input was garnered early by establishing ties with Spirit AeroSystems, Boeing, Cessna, Bombardier Learjet, Hawker Beechcraft and, most recently, Airbus.⁸⁸ With global aviation competition increasing, collaborative institutions, world-class facilities, and intentional leadership help ensure Wichita has the skilled workforce to maintain its coveted position in global aerospace trade. ■

- Local leaders in the United States and elsewhere typically have purview over how land in their jurisdictions can be used, whether for residential, commercial, or other activities. They then frequently deploy combinations of public and private infrastructure dollars necessary to con-

nect those places to other parts of the region or nation through transportation or utilities. In **San Antonio, Texas**, leaders built on the economic assets of a former Air Force base to strengthen the metro area's position along a key trade corridor.

PORT SAN ANTONIO: COMBINING LAND AND INFRASTRUCTURE TO BOOST TRADE

Millions travel to the Alamo each year to relive 19th century frontier history, but the military's impact on San Antonio is much more extensive. In the first half of the 20th century the Air Force built multiple bases in San Antonio that, along with the Army's Fort Sam Houston, comprised the cluster of facilities that earned San Antonio the title "Military City, USA."

So when the federal Base Closure and Realignment (BRAC) Commission announced the closure of Kelly Air Force Base in 1995, the economic fallout reverberated beyond the 19,500 civilians who worked at the facility. Immediately, then-Mayor Bill Thornton created a committee of business and civic leaders to strategically repurpose the land for maximum economic benefit. As Thornton recounted to the *San Antonio Express-News*, "we needed to show the vision for the future already existed. We saw the Kelly resources that we couldn't replicate: the runway, the hangars and the warehouses."⁸⁹

With this inherited infrastructure, the city established a redevelopment authority that began its work in the late 1990s by repurposing part of the base into a massive aerospace industrial park and logistics hub called Port San Antonio.⁹⁰ The Port hired current head Bruce Miller, the former CEO of Columbus' Rickenbacker Port Authority, where he led an Air Force base transformation that would serve as a model for San Antonio.⁹¹ Today, Port San Antonio provides 7.7 million square feet for customers such as Boeing, Lockheed Martin, and Pratt & Whitney, which have fully utilized the long runways and the stock of skilled aerospace maintenance workers (many of whom were formerly employed by the Air Force) to maintain, repair, and produce

aircraft. In addition to supporting numerous Air Force projects, aerospace firms at the Port have been adding commercial work. Last year, Boeing's Port San Antonio facility completed post-production assembly work on the first of several of the company's new 787 Dreamliners.⁹²

While aerospace remains its core business, Port San Antonio's intermodal connectivity makes it an ideal site for domestic and international trade. The site sits near the intersection of three interstate highways and two Class I railroads. Demand for goods by firms drilling in the Eagle Ford Shale in South Texas boosted rail traffic 75 percent over the previous year at Port San Antonio's East Kelly Railport, spurring investments there.⁹³ The region's position along the NAFTA corridor is also critical: more than 50 percent of the goods flowing between the U.S. and Mexico move through San Antonio.⁹⁴ San Antonio's proximity to the fast-growing Dallas/Houston/Austin triangle and the Mexican maquiladoras that line the border mark room for additional growth in the logistics sector.

Port San Antonio enjoys designation as a Foreign Trade Zone (FTZ #80-10), into which businesses are able to bring goods, assemble them, and then ship them out without paying import duties, as long as the goods never enter the U.S. market. The Free Trade Alliance, a local organization founded after the passage of NAFTA that aims to make San Antonio a center for international trade, helped create the FTZ.⁹⁵ Intentional strategies like these appear to be working, evidenced by the region's rapid export growth post-recession, seventh fastest among U.S. metropolitan areas.⁹⁶ ■

Organizing for Trade

Having successful local firms and clusters is a prerequisite for metro areas looking to capitalize on the possibilities of global trade. A complementary set of metro strategies can further organize for trade by providing **information, coordination, and access to capital.**

- Inadequate information can constitute a barrier to trade that metro leaders are uniquely poised to help address, given their “on-the-ground” market knowledge. In **Portland, Oregon**, regional leaders conducted a detailed assessment to inform new export strategies, and are partnering with leaders in **São Paulo, Brazil**, to jointly advance a key cluster for both metro areas.

GREATER PORTLAND: PLANNING FOR EXPORT GROWTH

When President Obama announced the National Export Initiative (NEI) in 2010, he cited exports as a critical part of a larger strategy to grow jobs and drive economic growth. As one of the most export intensive metropolitan areas in the country, the Greater Portland Region immediately understood the importance of trade to its own regional prosperity. Therefore, in 2011 Portland Mayor Sam Adams and the Portland Development Commission organized a group of regional stakeholders to partner with Brookings to produce a Metro Export Initiative (MEI).

Greater Portland’s export effort involved three steps: a market assessment, an export plan, and a policy memo. The market assessment headlined an effort to better understand Portland’s global comparative advantages by rigorously analyzing Portland’s recent economic performance, export strengths and weaknesses, prominent clusters and industries, and key trade partners. Surveys and interviews with local firms and export service providers revealed further market insights. From the data dive, four export strategies arose that sought to leverage strengths and correct weaknesses:

- 1) Leverage primary exporters in computer and electronics like Intel and TriQuint;
- 2) Catalyze under-exporters in manufacturing;
- 3) Improve the export pipeline for small business; and
- 4) Build on Greater Portland’s global edge in sustainability by launching a “We Build Green Cities” brand.

To ensure region-wide buy-in, the MEI is overseen and coordinated by Greater Portland Inc., a public-private economic development organization, which convenes a Board of Directors made up of representatives across business, academia, government, and civil society. Finally, the MEI has gathered policy recommendations to inform federal, state and local policymakers on a host of export-related policy topics.⁹⁷

Armed with new insights about its key clusters and role in the global economy, Portland leaders then looked abroad for opportunities to advance export strategies like “We Build Green Cities.” Following a June 2011 trip to Brazil, Mayor Sam Adams signed a memorandum of understanding in 2012 with Sustainable Hub, a São Paulo-based clean tech consulting firm, to establish partnerships between clean tech firms in Portland and those in São Paulo.⁹⁸ The Brazil market, while certainly potentially lucrative, is complex enough to require a permanent partner in São Paulo. A local presence will effectively leverage Sustainable Hub’s on-the-ground knowledge and local contacts and better assist Portland firms trying to crack the Brazilian market. In turn, the partnership will also provide Brazilian firms seeking to bring their innovations to the United States access to the Portland market. Finally, the MOU includes an academic exchange between Portland State University and SENAI, Brazil’s national apprenticeship agency, that transfers Portland’s knowledge of sustainable planning and business practices to Brazilian businesses and policy makers.⁹⁹ ■

- Metro leaders must often also play a role in coordinating the trade-related activities of different levels of government, jurisdictions, and public/private agencies to yield a coherent strategy for growing local businesses and jobs through trade. Although focused on inward investment rather

than outward trade, **Rio de Janeiro, Brazil** provides a compelling example of how such coordination can raise a metro area's profile in the global marketplace and drive subsequent growth.

RIO DE JANEIRO: INWARD INVESTMENT BOOM IN THE “MARVELOUS CITY”

Rio de Janeiro (Rio), known as the “Marvelous City” for its beautiful beaches and attractive scenery, has always been one of Brazil’s top destinations for foreign travelers. Rio’s local leadership seeks to make the city the go-to Brazilian destination for the world’s investment as well.

Historically, this has not been the case. Foreign direct investment in Brazil has been concentrated 270 miles south in São Paulo, the country’s most populous metropolitan area and its largest regional economy. Indeed, according to Ernst and Young, São Paulo still accounts for over one-quarter of Brazil’s total FDI projects and attracted three times as many projects as Rio in 2011 (143 vs. 43).¹⁰⁰

However, investors’ decision-making calculus may be shifting between the two cities. Offshore oil discoveries in 2006 and the city’s selection as host of the 2014 World Cup and 2016 Olympics have heightened demand for new transportation and port infrastructure in Rio. By one estimate, the state of Rio de Janeiro will demand over \$100 billion in total public and private investment between 2011 and 2013, making it the largest hub of investment in the world. Petrobras, the energy giant, will contribute

an estimated \$60 billion alone.¹⁰¹ As a result, foreign investment projects grew twice as fast in Rio as in São Paulo between 2010 and 2011.¹⁰²

Rio has intelligently capitalized on its good fortune by developing a comprehensive city-level business promotion strategy. In a country with a famously complex set of rules and regulations governing foreign entrants, and notoriously strained relations between cities and states, Rio Mayor Eduardo Paes established a joint public-private business development agency, Rio Negócios. The agency partners with state-level promotion agencies, markets the city internationally, incentivizes foreign direct investment, and streamlines red tape for incoming firms.¹⁰³ Founded in 2010, Rio Negócios is modeled after the widely-heralded Think London, London’s investment promotion arm, even hiring Think London’s former Chief Executive to head Rio Negócios’ international business development efforts. Rio Negócios claims a role in attracting \$3 billion worth of new investment projects in its first two years, including from multinationals like GE, Siemens, and L’Oreal.¹⁰⁴ ■

- Another possible barrier to trade, especially for small- and medium-sized enterprises (SMEs), is lack of access to capital. In particular, firms entering new export markets often need lines of credit that help bridge the currency and waiting-time issues associated with overseas transactions. In nations like the United States, metro leaders can

help local firms navigate the thicket of federal and state agencies and programs that provide trade-related finance.¹⁰⁴ The cities of **Hong Kong** and **Singapore** provide metro-level versions of such programs to support the global trade ambitions of their enormous SME sectors.

HONG KONG AND SINGAPORE: LINKING LOCAL FIRMS TO TRADE FINANCE

When economists discuss economic miracles they inevitably reference the East Asian economies known as the “Four Tigers”—Hong Kong, Singapore, South Korea, and Taiwan. The Four Tigers experienced per capita output growth rates of well over 6 percent during a 30-year period starting in the 1960s, partially due to a sustained trade boom following their integration with the global economy.¹⁰⁶

Two of the tigers, Hong Kong and Singapore, are also unique in that they are among the world’s most autonomous cities (Hong Kong an autonomous region and Singapore a city-state). Given their small internal markets, exports remain a vital pillar of each city’s economic growth strategy. Both city governments displayed an early commitment to support exporting firms by establishing trade promotion centers—the Hong Kong Trade Development Center (HKTDC) and the Singapore Trade Development Board (now known as International Enterprise (IE) Singapore)—in the 1970s and 1980s.¹⁰⁷

Without some safety net supporting their expansion, small- and medium-sized enterprises (SMEs) face risks to working in unfamiliar settings that can outweigh the rewards of market diversification.¹⁰⁸ Today, both HKTDC and IE Singapore are rare examples of local institutions that facilitate exports by either providing trade financing or connecting firms to other lenders.

IE Singapore partners with SPRING Singapore, the city’s small business support arm, to offer the Loan Insurance Scheme (LIS) program to connect firms with short-term trade financing lines. Financial institutions are more willing to support SMEs’ requirement for credit facilities when the credit risk is insured by commercial insurers under the program.¹⁰⁹

Hong Kong provides similar support to its SME base. The HKTDC has three funding schemes established to support local SMEs: the SME Loan Guarantee Scheme (similar to Singapore’s program), the SME Export Marketing Fund, and the SME Development Fund. Together, these three programs help SMEs secure loans, expand into overseas markets, and enhance overall competitiveness, at a total cost of around \$5 billion.¹¹⁰

As of 2012, there were approximately 300,000 SMEs in Hong Kong¹¹¹ and 150,000 SMEs in Singapore, representing 99 and 98 percent of total businesses, respectively.¹¹² The extension of comprehensive export financing to these firms reveals both cities’ understanding of their unique reliance on exports to drive economic growth. ■

Building Relationships with Trading Partners

Finally, metro leaders have the ability and opportunity to build structured relationships with their trading partners, often more easily and productively than at the national level where non-economic issues (e.g., security) enter into play.

- Many global metro areas are moving beyond the traditional “sister city” model to forge more strategic partnerships with real economic counterparts on the world stage, that can yield mutual economic benefit. The **San Francisco Bay Area** has been among the leaders in cultivating such relationships with China generally, and **Beijing** and **Shanghai** in particular.

SAN FRANCISCO BAY AREA AND CHINA: CULTIVATING METRO-LEVEL TRADE RELATIONSHIPS

The San Francisco Bay Area (Bay Area) has a long history of regional collaboration. In 1945, a group of business leaders formed the Bay Area Council, a business-sponsored organization for the nine-county region that advocates for policies that maintain a strong economy and high quality of life. Today, the collective clout of the region’s 225 largest employers ensures that elected officials and policy makers take seriously the Bay Area Council’s recommendations on issues from education to infrastructure to energy and climate change.

The Bay Area also has a legacy of responding to global economic trends. Historically serving as America’s gateway to Asia, the region’s role in global trade and investment has recently been bolstered by China’s economic emergence. Twenty-five percent of San Francisco’s population is Chinese or Chinese-American, a legacy of the city’s historic position as the main U.S. entry point for Chinese immigrants.¹¹³ Longstanding concentrations of Chinese-Americans plus the more recent wave of technically-trained Chinese immigrants working at Silicon Valley firms has made the Bay Area a major hub of Chinese diasporic business networks.

Recently, intentional efforts by local actors have built on this history by fostering sub-national economic partnerships with Chinese regions. In 2006, the Bay Area Council Economic Institute published a study on the region’s economic ties to China

detailing the depth of the historical relationship and providing detailed analysis of Bay Area companies’ activity in China, key sectors, and opportunities to grow the relationship. Following this analysis, in 2007, the Bay Area Council and the Yangtze Council, a regional development organization representing the Shanghai region, signed the world’s first region-to-region memorandum of understanding aimed at fostering collaboration to strengthen competitiveness. Understanding that both the Bay Area and Shanghai serve as the innovation hubs of their respective countries, the MOU focused on furthering cooperation in their shared economic clusters: biotechnology and life sciences, low-carbon technology, and information technology.¹¹⁴ Summits co-sponsored by the Bay Area Council and the Yangtze Council on green technology and venture capital brought together business and government leaders from both countries to increase relations.¹¹⁵ The relationship evolved again when the Bay Area Council opened its first overseas trade office in the heart of Shanghai’s Knowledge and Innovation Community (KIC) in the Yangpu District in 2010. In December 2012, the Council opened a second office in Hangzhou, an important technology and entrepreneurial city south of Shanghai. Its forward investment in China has been recognized by the State of California with the designation, in an innovative public-private partnership, of the Council’s Shanghai office as California’s first representative office in China in ten years

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SAN FRANCISCO BAY AREA AND CHINA: CULTIVATING METRO-LEVEL TRADE RELATIONSHIPS (continued)

City-level organizations have also furthered Bay Area-China connections. In 2008, San Francisco Mayor Gavin Newsom launched ChinaSF, a public/private economic development initiative of the city of San Francisco in close partnership with the San Francisco Center for Economic Development. The ChinaSF office in San Francisco provides business services in Chinese for Chinese firms looking to open a North American headquarters in the city. The initiative's Beijing and Shanghai offices focus on attracting and forwarding Chinese firms and investors to the San Francisco office as well as

facilitating the expansion of San Francisco companies into the China market.¹¹⁶ Since its inception, ChinaSF has brought more than 130 jobs to the city by attracting or expanding the operations of fifteen Chinese companies.¹¹⁷

The U.S.-China economic relationship will remain largely a product of national policy. Yet, metro actors in the Bay Area exemplify how cities and regions can drive global sub-national collaboration that leverages one another's distinct niches and strengths to mutual benefit. ■

“Forward-thinking metro leaders are increasingly adopting intentional strategies to enhance the position of their cities in global trade.”

IV. METRO AREAS ARE THE CENTERS OF GLOBAL TRADE

The case for trade as a growth strategy, and metropolitan areas as a critical locus for carrying out that strategy, may now seem obvious. Trade is not only a central reason why metropolitan areas exist, but also what ultimately helps to make them and their residents successful. Moreover, trade depends on the special mix of innovative firms, skilled workers, and critical infrastructure that only metro areas can provide. There is not a finite set of global cities, but rather an economic evolution in which all metro areas, irrespective of size, geography, and starting point, are undergoing their own process of becoming more globally oriented.

Yet somewhere along the way, many metro leaders lost sight of this reality. They tried to achieve economic growth solely by attracting the right kinds of people; or by focusing on cultural amenities; or by building big retail projects; or by landing the one big firm that would turn their economy into something fundamentally different. Brookings' Bruce Katz refers to this as the "Starbucks, stadia, and stealing businesses" model of economic development.¹⁸ These strategies are not always misplaced, but they have little chance of delivering greater metro prosperity absent success in generating the new sources of wealth and productivity that arise from trade. Moreover, the Great Recession may have sounded the death knell for narrower, consumption-based approaches to building city economies.

In a sense, a call for greater focus on metro trade is a retro appeal. Back to a time when the world's great cities were recognized not for their great architectural projects or sports teams, but for what

they made and sold to the rest of the world. Future-oriented because in a highly competitive global economy, increasing trade is a crucial spur to metropolitan innovation and staying at the top of one's economic game.

Metro leaders must heed the call, but actors at other levels of the system—state, national, supra-national—must also put cities more at the center of their strategies to bolster economic growth through innovation, production, and ultimately trade. Trade policy and trade promotion conducted at those higher levels should recognize and support the distinct comparative advantages embodied in metropolitan clusters and advanced by metropolitan leadership.

Fortunately, many metro areas—in some cases together with state and national partners—are exerting stronger leadership on trade issues, whether by investing in key assets that drive trade,

organizing more strategically for trade, or building stronger relationships with trading partners (see sidebar). The Global Cities Initiative, a joint project of Brookings and JP Morgan Chase, is supporting metropolitan efforts to “go global” in three key dimensions, by helping metropolitan leaders:

- Understand their **starting point** on trade and global engagement through analysis of their leading export clusters and trading partners, and related/supporting flows such as foreign direct investment, freight, and high-skilled migration. This information can help metro areas focus on their distinctive contribution and opportunities to strengthen existing assets and reach new markets.
- Learn and apply **innovative practices** from cities around the world that have succeeded in bolstering trade and growing regional economies. While the economic and governance context in which metro leaders operate will differ somewhat

from nation to nation, those leaders can benefit from new ideas on how places have strategized, financed, and executed trade-related growth strategies.

- **Network** actively with leaders from current and potential trading partner metro areas, to identify new export or supply chain opportunities for their key firms and clusters, and to identify barriers to increased trade and exchange that investment or reform can help tackle.

Metro areas are the hubs of an increasingly interconnected global economy, and centers of the trade that defines those connections. Now is the time for these regions to assert themselves on the world stage they already occupy, and forge new and expanded trade relationships that help grow their own economies and the world economy as a result. ■

OTHER RESOURCES: METRO EXPORT PLANS AND THE TRAITS OF GLOBALLY FLUENT METRO AREAS

This paper argues that metropolitan leaders have an opportunity and imperative to more fully engage in the global economy. The previous section offers examples of how cities and regions all over the world are acting to advance their trading positions. Yet, these examples remain the exception. The idea of “fully engaging in the global economy” is a new notion for the vast majority of metropolitan leaders, particularly in the United States.

One nascent U.S. innovation is the creation of metropolitan export plans. Many leaders in states, cities, and metropolitan areas across the country are exploring ways to help their firms tap into expanding markets worldwide to grow jobs at home. Brookings’ “Ten Steps to Delivering a Successful Metro Export Plan,” published in 2012, provides a how-to-guide for private, nonprofit, and government leaders in metro areas who are interested in devel-

oping action-oriented metropolitan export plans and initiatives customized to their region’s unique assets and capacities.

In March 2013 a new Brookings paper will outline for U.S. metropolitan leaders a set of 10 metropolitan characteristics that contribute to “global fluency,” or successful metropolitan engagement in global markets. Case studies of dozens of U.S. and international regions will uncover what makes some metros more globally connected, globally aware, and globally effective than others. The report will distill these characteristics into a roadmap that metro leaders can use to make the most of global economic opportunity. ■

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ACKNOWLEDGMENTS

The authors thank Greg Clark, Emilia Istrate, Bruce Katz, Dieter Läpple, Amy Liu, Brad McDearman, Mark Muro, Pamela Puchalski, Robert Puentes, and Julie Wagner for comments on drafts of the paper. We also thank Allison Courtin and Alexander Jones for research assistance, David Jackson for editorial assistance, and Sese-Paul Design for design and layout. The authors would also like to thank individuals who reviewed and provided input to the case study examples described in the report, including Ellen Campbell, Wen Hai, Tony Kinkel, Keith Lawing, Cheng Kiat Loon, Denerson De Paula Mota, Sean Randolph, Juan Rosales, Noah Siegel, Iris Yau, Xintong Zhang, and Yu Zhou.

This report is made possible by the Global Cities Initiative: A Joint Project of Brookings and JPMorgan Chase. The Global Cities Initiative aims to equip U.S. metropolitan leaders with the data and research, policy ideas, and global connections necessary to make strategic decisions and investments as they work to realize their potential and bolster their metro's position within the global economy.

Finally, the program would also like to thank the John D. and Catherine T. MacArthur Foundation, the Heinz Endowments, the George Gund Foundation, and the F.B. Heron Foundation provide general support for the program's research and policy efforts. Finally, we would like to thank the Metropolitan Leadership Council, a network of individual, corporate, and philanthropic investors that provide us financial support but, more importantly, are true intellectual and strategic partners.

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FOR MORE INFORMATION

Alan Berube
Senior Fellow and Deputy Director
Metropolitan Policy Program at Brookings
202.797.6075
aberube@brookings.edu

Joseph Parilla
Senior Policy/Research Assistant
Metropolitan Policy Program at Brookings
202.797.6212
jparilla@brookings.edu

BROOKINGS

1775 Massachusetts Avenue, NW

Washington D.C. 20036-2188

telephone 202.797.6000

fax 202.797.6004

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