FDI in Detroit:
An analysis of jobs in foreign-owned establishments

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The city of Detroit and its metropolitan area were among the places hardest hit by the recession. There are good reasons for Detroit to focus on FDI.

Findings

This report analyzes the recent trends and seeks to advance understanding of foreign direct investment (FDI)—i.e., operations in the United States by foreign companies—in the city of Detroit. Presenting new data on jobs in foreign-owned establishments (FOEs) between 1991 and 2011, the analysis compares Detroit city to its metro area and its peer cities. It concludes with a discussion of what metro-area policymakers can do to maximize FDI's contribution to economic development goals for the city and the region.

The key findings are:

- FDI supports a relatively small and declining jobs base in Detroit city. Foreign-owned U.S. affiliates employed only 15,102 workers in 2011, accounting for 5.4 percent of private-sector employment. Between 1991 and 2011, the total number of jobs in FOEs declined by nearly 50 percent.
- FDI in Detroit city and the metro area concentrates heavily in the auto industry. In 2011, the auto industry alone accounted for 70.5 percent of all jobs in FOEs in Detroit city, with Chrysler-Fiat being the largest employer. Regionwide, 41.8 percent of all jobs in FOEs are in the auto industry. Although FDI in both the city and the metro remains heavily manufacturing focused, services account for a growing share of jobs in FOEs.
- A majority of FDI-supported jobs in Detroit city originated from mergers and acquisitions (M&As), and come from a small group of investor countries and global city-regions. Compared to its peer cities, Detroit has seen more of its jobs in FOEs originate through M&As (52.2 percent) and fewer created through "greenfield" investments (12.6 percent). Compared to many of its peer cities, FDI in Detroit city is less diversified, with the top two investor countries (Italy and Germany) accounting for 82.3% of the city's jobs in FOEs.

Introduction

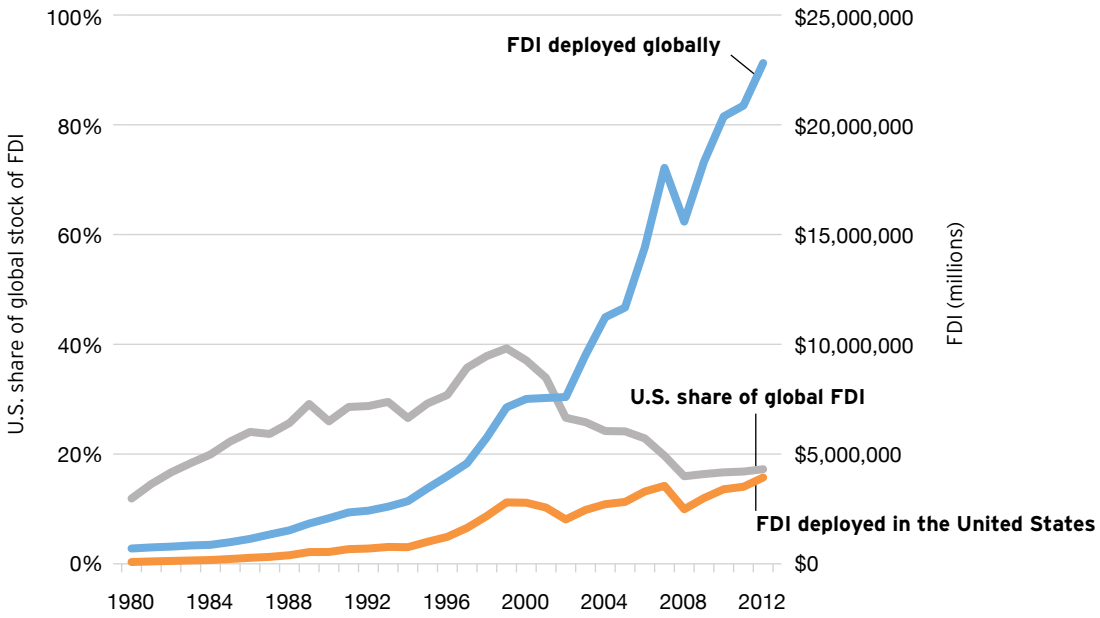
More than five years after the U.S. economy emerged from the Great Recession, U.S. cities are still recovering and learning to adapt to a new hypercompetitive, knowledge-driven global economy characterized by rapid structural and technological change. While many of its problems predate the recession, the city of Detroit and its metropolitan area—which have long been centers of the global automobile industry—were nonetheless among the places hardest hit. Amid rapid population loss and urban flight over the past few decades, and more recently the largest municipal bankruptcy in U.S. history, Detroit has been grappling with

several challenges. Between 2000 and 2013 the city's population fell to 688,740 from 945,297, a loss of more than a quarter of a million people, and its share of the total metro population fell from 21.25 percent to 16 percent. Median household income in Detroit stands at $24,820 annually, compared to $51,857 in the metro area. Two-fifths (40.7 percent) of Detroit's residents live below the poverty line, more than double the metro rate of 16.9 percent.[1] In 2013, Detroit's unemployment rate was 16.9 percent, compared to 8 percent in the metro.[2]

As Detroit begins the arduous task of rebuilding its identity and reconstructing its economy, local policymakers are exploring new opportunities to bolster economic growth. As part of that process, they are examining the potential of foreign direct investment (FDI) to contribute to their development efforts.

There are good reasons for Detroit to focus on FDI. The United States, despite losing its share of global FDI over the years, remains the world's number one destination for FDI. In 2013, multinational enterprises invested $1.46 trillion in locations outside their home countries, and $193.4 billion of that came to the United States; of the total global stock of FDI—more than $25 trillion in 2013—the U.S. accounted for approximately 20 percent.[3] In 2011 majority-owned U.S. affiliates of foreign companies employed 5.6 million American workers, including over 2 million workers in the manufacturing sector and 1.4 million in the advanced industries sector, where research and development (R&D) activity and the nation's science and technology workforce concentrate.[4]

Figure 1. Global Stock of FDI Deployed Across Borders, 1980-2012



Source: United Nations Conference on Trade and Development

The potential contributions of FDI, however, reach far beyond the number of jobs FDI supports:

- **U.S. affiliates of foreign companies pay well-above-average wages**. The average worker employed by a foreign-owned firm earned more than $77,000 in compensation in 2011, compared to $60,000 for the average U.S. worker.[5]

- **FDI increases the country's capital stock and boosts productivity through spillovers.** Spillovers from FDI are estimated to have accounted for 12 percent of U.S. productivity growth from 1987 to 2007.[6]

- **FDI bolsters the country's manufacturing base.** In 2012, 48 percent of all FDI dollars coming into the United States flowed into manufacturing, supporting the continued production of goods in the country.[7]

- **FDI increases trade and exports.**[8] Foreign affiliates produced more than one-fifth of all U.S. goods exports in 2011 and accounted for 28 percent of all goods imports, highlighting the sector's complex integration into global production networks.[9]

- **U.S. affiliates of foreign companies conduct a large amount of R&D.** In 2011, U.S. affiliates of foreign companies accounted for 15.4 percent of business R&D conducted in the United States, substantially outweighing their share of U.S. private employment or value-added.[10]

- **FDI transmits knowledge and best practices between clusters.** Companies with footprints in multiple clusters worldwide serve as conduits carrying knowledge and technology from one setting to another.[11]

Despite the importance of FDI to national and regional economic development, large information gaps persist around the concept of FDI and its geography at the sub-national level.

To address those gaps, the Brookings Metropolitan Policy Program last year published "FDI in U.S. Metro Areas," which provided the first-of-its-kind data on the number of jobs in majority foreign-owned establishments (FOEs) located across the country, with a focus on the 100 largest metropolitan areas by population.[12]

This report uses data from the national report to take a deeper look at jobs in FOEs in Detroit city and compares trends there to those in the wider metro area and other cities similar to Detroit. The report thus provides a status update of the geography of majority-owned U.S. affiliates of foreign companies and their workers in Detroit city and the region. As such, it equips local policymakers with essential information as they consider how best to leverage FDI for future economic development.

Methods

This report relies on establishment-level data to provide estimates of employment in majority-owned U.S. affiliates of foreign companies in the city of Detroit and the metro area over the latest two decades (1991-2011). The report and its analysis also compare Detroit to a group of 20 "peer cities" that are most similar to Detroit on a number of economic indicators.[13]

The data underlying this analysis were compiled from two different datasets: the National Establishment Time Series (NETS), which compiles records from Dun & Bradstreet's (D&B) annual survey of business establishments in the United States into a time series; and the Bureau of Economic Analysis' Financial and Operating Data of Majority-Owned U.S. Affiliates of Foreign Companies, which provides national, state, and industry benchmark data on total employment in the majority-owned affiliates of foreign companies in the United States.[14]

In this report, FDI is defined as investment in a business enterprise in a host country by an entity based in another country (the home country), where the investment gives the latter a controlling interest (i.e. majority stake) in the management and operations of the former.[15] Firms engaging in FDI can enter the host country market in two ways: by opening a new establishment (a store or a production facility) through a so-called "greenfield" investment, or by purchasing an existing company's assets through a merger or acquisition (M&A).

Findings

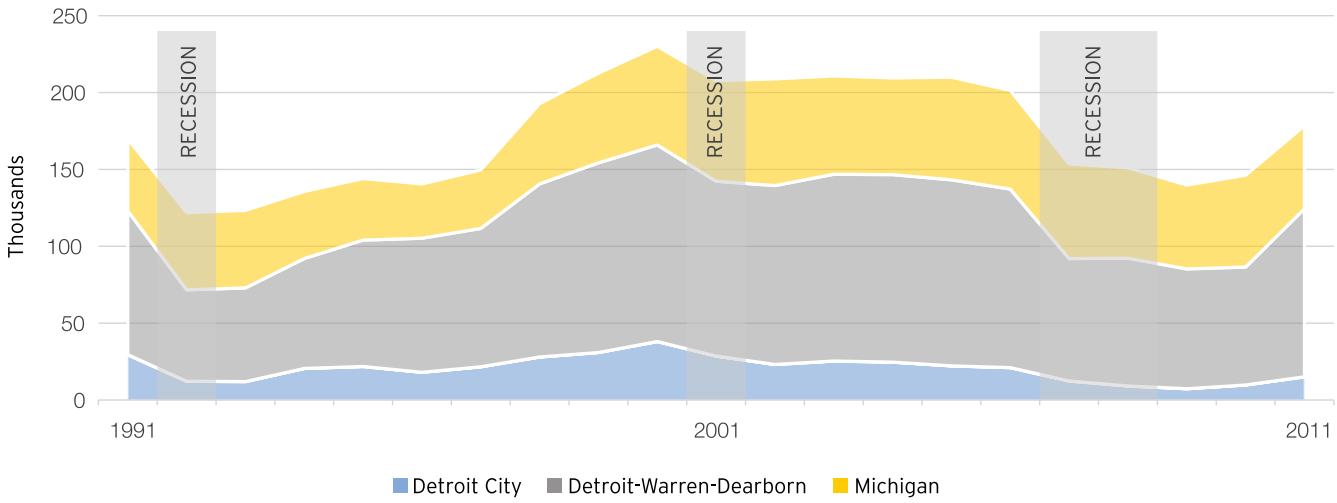
This analysis reveals several important trends in the number and share of jobs in FOEs, the industries in which those jobs are focused, and the global sources of those jobs in the city of Detroit and its wider region. These findings can inform local leaders' emerging efforts to incorporate FDI into broader economic development strategies.

Trends in FOE jobs

Detroit city has seen a significant decline in the number of jobs in FOEs, from 29,496 in 1991 to 15,102 in 2011, the latest year for which data are available (Figure 2). Over the course of the recent economic recovery (2009 to 2011), however, the city has more than doubled the number of jobs in FOEs, which can largely be attributed to the acquisition of Chrysler by Fiat.

In comparison, foreign-owned U.S. affiliates employed 124,420 workers in the Detroit metro area in 2011, the 10th-highest total among the 100 largest metro areas. That compares with 122,996 workers in 1991, when the metro area ranked fourth in the nation. In other words, even as Detroit city has seen the number of jobs in FOEs fall by half over the study period, FOE jobs have remained relatively unchanged in the broader metro region. Detroit city hosted only 12.1 percent of the metro area's total jobs in FOEs in 2011, down from nearly 24 percent in 1991.

Figure 2. Jobs in FOEs in Detroit City, Detroit Metro, and Michigan, 1991-2011



Source: Brookings analysis of the National Establishment Time Series, Dun & Bradstreet, and Bureau of Economic Analysis

In comparing Detroit city to its peer cities (Figure 3), two findings are worth noting. First, Detroit city lags behind many of its peer cities in the number of jobs in FOEs. Houston tops the list with 144,554 jobs, followed by Chicago, Atlanta, Dallas, and Minneapolis. Second, Detroit had the smallest city share of total metro jobs in FOEs (at 12.1 percent in 2011). In comparison, all the other peer cities, except Philadelphia, contained more than 30 percent of their metro areas' jobs in FOEs.

Figure 3. Share of Peer Cities' Private Employment in FOEs, 2011

Rank	City, state	City share of metro jobs in FOEs, 2011	Change in city share of metro jobs in FOEs, 1991-2011
1	Tulsa, Oklahoma	83.4%	-4.0%
2	Houston, Texas	81.2%	6.0%
3	Louisville, Kentucky	75.1%	1.0%
4	Memphis, Tennessee	60.4%	-20.0%
5	Indianapolis, Indiana	57.2%	-21.0%
6	Toledo, Ohio	53.8%	-10.0%
7	Cleveland, Ohio	48.4%	-24.0%
8	Milwaukee, Wisconsin	42.9%	-23.0%
9	Atlanta, Georgia	42.3%	-9.0%
10	Baltimore, Maryland	41.4%	-17.0%
11	Cincinnati, Ohio	39.7%	-14.0%
12	Minneapolis, Minnesota	39.6%	-21.0%
13	Buffalo, New York	39.5%	-13.0%
14	San Jose, California	38.1%	11.0%
15	Saint Paul, Minnesota	35.5%	14.0%
16	Dallas, Texas	33.2%	-9.0%
17	Pittsburgh, Pennsylvania	31.5%	-23.0%
18	Chicago, Illinois	30.7%	-5.0%
19	Philadelphia, Pennsylvania	13.9%	-10.0%
20	**Detroit, Michigan**	**12.1%**	**-12.0%**

Source: Brookings analysis of the National Establishment Time Series, Dun & Bradstreet, and Bureau of Economic Analysis

Share of jobs in FOEs

FDI intensity—the share of private employment in FOEs—is quite low in Detroit city, at 5.4 percent in 2011. In comparison, FDI intensity in the Detroit metro region was 7.8 percent, higher than the 100-metro average of 5.5 percent and making FDI a more significant economic force in the metro area. Other metro areas specializing in motor vehicle manufacturing such as Charleston, S.C.; El Paso, Texas; and Greensboro, N.C. also exhibited well-above-average FDI intensities.

Over the recent economic recovery, the auto industry proved the biggest driver of changes in FDI intensity. From 2009 to 2011, the share of employment in firms under foreign ownership in the Detroit metro area rose by more than 2 percentage points, thanks in large part to the acquisition of Chrysler by Fiat.

The majority of Detroit's peer cities exhibit higher FDI intensity (Figure 4). Shares of private-sector jobs in FOEs range from a high of 33.8 percent in Atlanta to a low of 3.3 percent in Philadelphia. Detroit is also one among only three of these 20 cities (along with San Jose, Calif. and Philadelphia) where the core city exhibits lower FDI intensity than the surrounding metro area.

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Figure 4. Detroit City Compared to Its Peer Cities on Jobs in FOEs and City Share of Metro Jobs in FOEs, 2011

Rank	City, state	Jobs in FOEs	Share of city employment in FOEs, 2011
1	Atlanta, Georgia	56,955	33.8%
2	Minneapolis, Minnesota	29,948	22.0%
3	Cincinnati, Ohio	20,066	15.5%
4	Houston, Texas	144,554	15.5%
5	Saint Paul, Minnesota	26,872	13.4%
6	Pittsburgh, Pennsylvania	16,327	11.6%
7	Cleveland, Ohio	16,455	11.3%
8	Buffalo, New York	11,212	10.8%
9	Dallas, Texas	44,460	8.4%
10	Baltimore, Maryland	19,906	8.1%
11	Toledo, Ohio	9,285	7.9%
12	Indianapolis, Indiana	28,533	7.4%
13	Tulsa, Oklahoma	12,433	7.1%
14	Chicago, Illinois	68,685	6.1%
15	Memphis, Tennessee	15,214	5.9%
16	Louisville, Kentucky	17,996	5.5%
17	**Detroit, Michigan**	**15,102**	**5.4%**
18	San Jose, California	21,966	5.3%
19	Milwaukee, Wisconsin	11,715	4.8%
20	Philadelphia, Pennsylvania	18,988	3.3%

Source: Brookings analysis of the National Establishment Time Series, Dun & Bradstreet, Bureau of Economic Analysis, and Bureau of Labor Statistic Local Area Unemployment Statistics

Mode of entry for FOE jobs

Establishments that were merged with or acquired by a foreign parent company account for the majority of jobs in FOEs in Detroit city. Of the total jobs in FOEs in Detroit in 2011, 52.2 percent originated as M&As during the study period, 35.2 percent were in establishments that already existed in 1991 for which the original mode of entry is unknown, and a much smaller 12.6 percent originated as greenfield investments. In addition, most of Detroit's jobs originating from M&As arose from the recent Fiat merger; those jobs now constitute over 40 percent of all jobs in FOEs in the city. Prior to the Fiat merger, greenfield investments accounted for a much larger share, rising to 39.7 percent of all jobs in FOEs in 2010.

This pattern also holds for the Detroit metro region. Establishments that transferred into foreign ownership through M&As since 1991 accounted for 50.8 percent of jobs in FOEs in 2011. Across the metro area, greenfield investments accounted for 20.8 percent of jobs in FOEs, somewhat higher than in Detroit city.

Compared to its peers (Figure 5), Detroit has the second-largest share of its FOE jobs arising through M&As and the second-lowest share originating through greenfield investments.[16] Only Toledo, Ohio, which like Detroit saw many of its motor vehicle manufacturing jobs affected by Fiat's acquisition of Chrysler, ranked higher and lower, respectively, than Detroit in these categories.

Figure 5. Jobs in FOEs by Mode of Entry in Detroit and Peer Cities, 2011

City, state	Share of jobs originating as greenfield, 2011 (rank)	Share of jobs originating as M&A, 2011 (rank)	Share of jobs originating before 1991, 2011 (rank)
Atlanta, Georgia	20.9 (13)	41.7 (4)	37.5 (15)
Baltimore, Maryland	18.5 (15)	28.1 (13)	53.4 (5)
Buffalo, New York	24.1 (7)	14.7 (20)	61.2 (2)
Chicago, Illinois	16.3 (16)	29.7 (10)	54 (4)
Cincinnati, Ohio	30.4 (4)	35.5 (8)	34.2 (17)
Cleveland, Ohio	25 (5)	29.1 (11)	45.9 (9)
Dallas, Texas	23 (10)	51.1 (3)	25.9 (18)
Detroit, Michigan	**12.6 (19)**	**52.2 (2)**	**35.2 (16)**
Houston, Texas	23.6 (8)	27.3 (14)	49.1 (8)
Indianapolis, Indiana	24.8 (6)	22.7 (18)	52.4 (6)
Louisville, Kentucky	22.3 (11)	39.7 (6)	38 (14)
Memphis, Tennessee	31.1 (2)	28.1 (12)	40.8 (12)
Milwaukee, Wisconsin	18.9 (14)	40.5 (5)	40.7 (13)
Minneapolis, Minnesota	15.9 (17)	24.7 (16)	59.4 (3)
Philadelphia, Pennsylvania	20.9 (12)	36.4 (7)	42.7 (10)
Pittsburgh, Pennsylvania	30.5 (3)	26.9 (15)	42.7 (11)
Saint Paul, Minnesota	15.1 (18)	22.4 (19)	62.5 (1)
San Jose, California	40.6 (1)	33.9 (9)	25.6 (19)
Toledo, Ohio	12.1 (20)	71.2 (1)	16.8 (20)
Tulsa, Oklahoma	23.6 (9)	24.4 (17)	52 (7)

Source: Brookings analysis of the National Establishment Time Series, Dun & Bradstreet, and Bureau of Economic Analysis data

FOE jobs by industry

Jobs in FOEs are relatively concentrated in manufacturing and advanced industries (Figure 6), though Detroit city is becoming more services oriented over time. In 2011 jobs in FOEs were spread across 113 different establishments in nearly every industry, but four industry sectors accounted for 46 of the establishments and 91 percent of the jobs. Nearly 65 percent of the city's total jobs in FOEs could be found across 17 establishments in manufacturing. After manufacturing, FOEs employed the largest number of workers across six establishments in accommodation and food services, 10 establishments in professional, scientific, and technical services; and 13 establishments in transportation.

Most jobs in these sectors concentrate in large firms. Despite accounting for only 12 percent of foreign establishments in the manufacturing sector, large firms with more than 500 employees accounted for 85 percent of manufacturing jobs in FOEs. The same holds true for accommodation and food services, in which large firms accounted for 87 percent of jobs in FOEs, and professional, scientific, and technical services, where 69 percent of jobs were in large firms (Figure 7).

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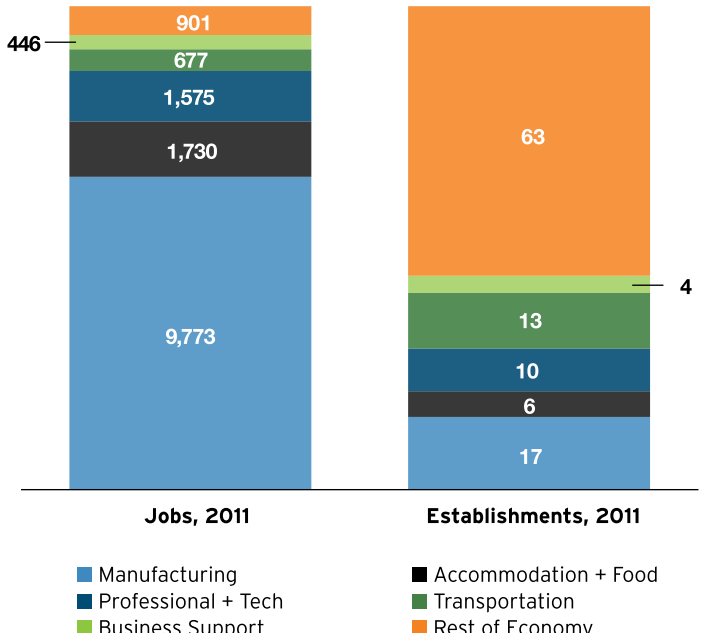
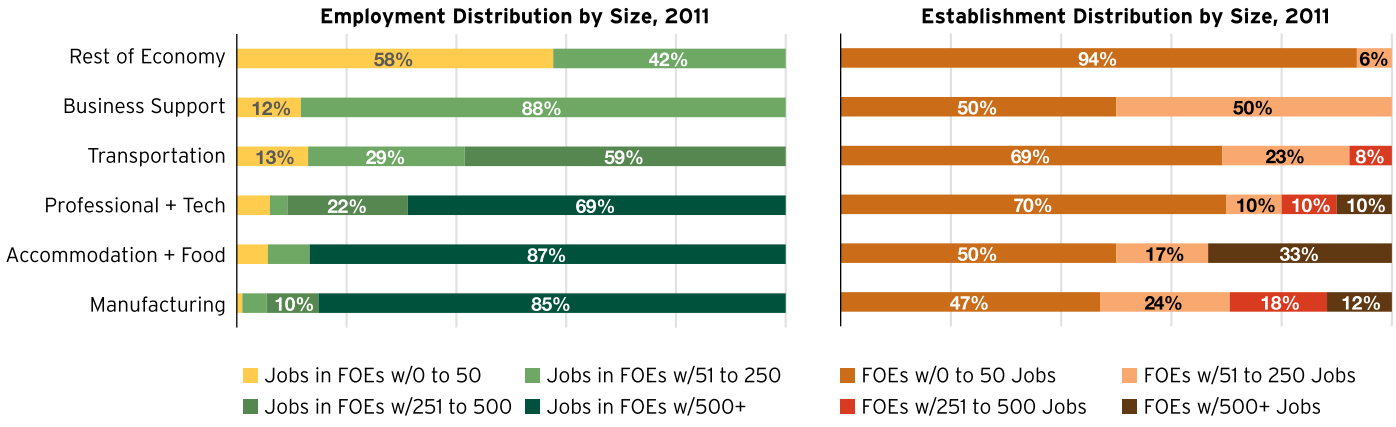
Figure 6. Total Number of Jobs and Establishments in FOEs in Detroit City by Industry Sectors, 2011



Source: Brookings analysis of National Establishment Time Series, Dun & Bradstreet, and Bureau of Economic Analysis

Figure 7. Employment and Establishment Distribution by Size in Detroit City's FOEs, 2011



Source: Brookings analysis of National Establishment Time Series, Dun & Bradstreet, and Bureau of Economic Analysis

FDI also plays an important role in Detroit city's advanced industries (AI) sector, which encompasses a mix of extractive, manufacturing, and services industries important to technology development and diffusion.[17] In 2011, 71.6 percent of Detroit city's jobs in FOEs were in the AI sector.

Even though goods-producing industries remain the dominant sector for FDI in Detroit city, the share of jobs in FOEs in the services sector has risen over time—a trend influenced by the steady shift in the composition of the U.S. economy toward services. Between 1991 and 2011, service-sector jobs rose from 27.4 percent to 35.2 percent of Detroit's total jobs in FOEs.

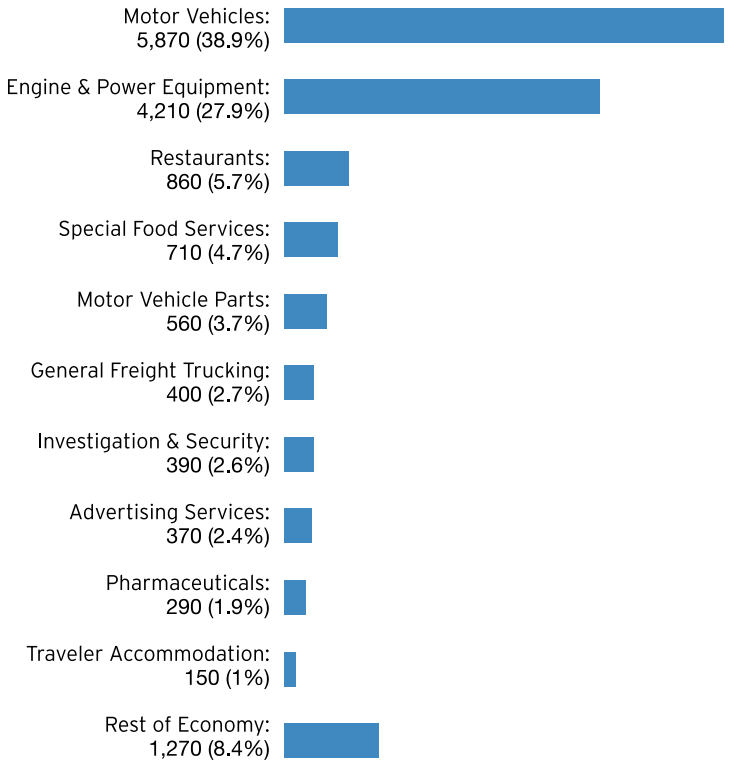
As in the city of Detroit, the wider metro area's jobs in FOEs are also concentrated in the manufacturing sector. In 2011, 60.3 percent of the metro area's total jobs in FOEs were in manufacturing. Wholesale trade accounted for a much smaller 10.2 percent of FOE jobs, followed by professional, scientific, and technical services at 7.3 percent. However, these shares may represent a short-term reversal of a long-term trend toward services. As recently as 2008, 53.9 percent of all jobs in FOEs were located in the services sector, an all-time high after consistent increases since 1991.[18] Finally, AIs accounted for 52.9 percent of all jobs in FOEs in the metro area (largely on account of FDI coming into the auto industry), a much lower share than in Detroit city but still significant.

FDI in Detroit is much more tilted toward advanced industries, especially manufacturing, than in comparable cities. In most cities, AI sectors account for less than 20 percent of all jobs in FOEs. The exceptions include Toledo (64 percent); San Jose, Calif. (58 percent); Pittsburgh (39 percent); Indianapolis (37 percent); and Cincinnati (32 percent). Conversely, in all but one of Detroit's peer cities (the exception is Toledo), jobs in FOEs are more services oriented than in Detroit city. The services sector accounted for three out of five jobs in FOEs in at least 10 highly services-oriented peer cities such as Philadelphia; Saint Paul, Minn.; and Chicago.

FDI in the auto industry

FDI contributes inordinately to Detroit city's (and the metro area's) automotive industry. Detroit remains the center of the North American auto industry, and the concentrations of activity within its auto cluster attract both foreign and domestic investments that further reinforce the industry's strengths. In 2011, the auto industry accounted for 70.5 percent of all jobs in FOEs, employing 10,647 workers (depicted in the first, second, and fifth bars of Figure 8) in Detroit city.[19] Chrysler-Fiat alone accounted for 43.3 percent of all jobs in FOEs. The other two large foreign employers in Detroit city's auto industry are German Daimler AG and Canadian auto supplier Magna International.

Figure 8. Top 10 Industries Accounting for the Largest Number of Jobs in FOEs in City of Detroit, 2011



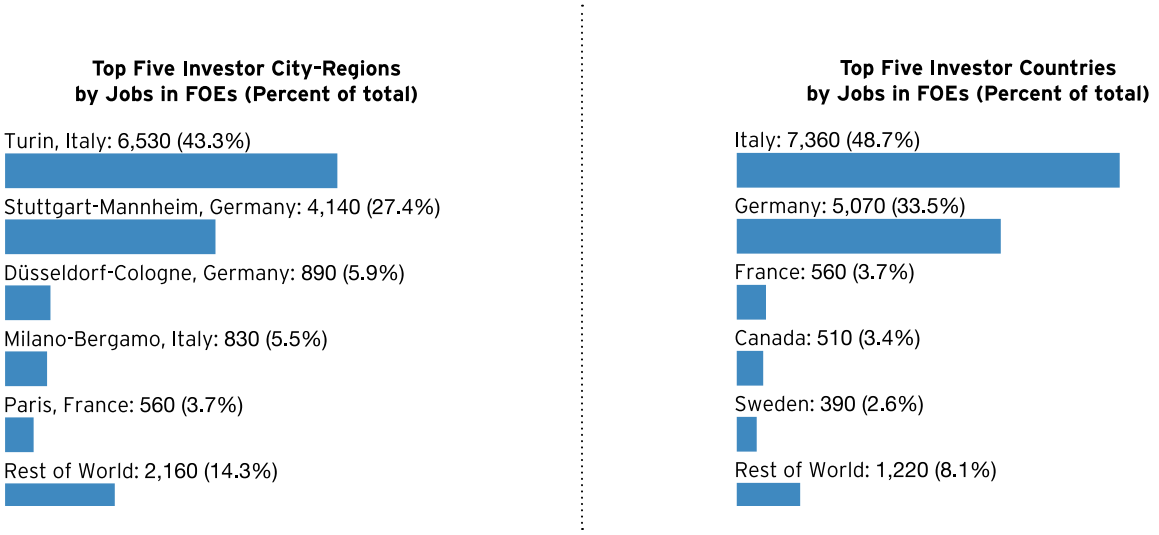
Source: Brookings analysis of National Establishment Time Series, Dun & Bradstreet. and Bureau of Economic Analysis

Foreign companies also play an outsized role in the Detroit metro area's auto industry, strengthening its unique specialization. The foreign share of jobs in the Detroit region's motor vehicle industry stood at 57.5 percent in 2011, far higher than the 7.8 percent foreign share of all jobs in the Detroit metro area. The Detroit metro area's motor vehicle industry alone accounts for a significant 41.8 percent of all the region's jobs in FOEs.

Global sources of FOE jobs

Detroit city attracts FDI from 15 different countries and 27 different city-regions worldwide, but two global city-regions account for the vast majority of the investment: 70.6 percent of the city's jobs in FOEs could be found in just 14 establishments whose parent companies were based in Turin, Italy and Stuttgart, Germany (Figure 9). Not surprisingly, Turin, home to Fiat, and Stuttgart, home to Daimler AG, also dominated FDI in Detroit city's auto industry. Rounding out the top-five countries are France, led by advertising and public relations company Publicis Groupe; Canada, led by automotive supplier Magna International; and Sweden, led by security services company Securitas AB. India's Sun Pharmaceuticals provided the only jobs in FOEs from the developing world in Detroit city in 2011.

Figure 9. Top Five Countries and Global City-Regions in Detroit City, 2011



Source: Brookings analysis of National Establishment Time Series, Dun & Bradstreet. and Bureau of Economic Analysis

In comparison, the Detroit metro area hosted FDI from 41 different countries and 142 different global city-regions in 2011. However, nearly three-quarters of jobs in FOEs in metro Detroit came from only five countries: Italy with 41,100 workers (33.1 percent of all FOE jobs), Germany with 21,500 (17.3 percent), Japan with 12,300 (9.8 percent), Canada with 8,500 (6.8 percent), and England with 7,700 (6.2 percent). Turin, Stuttgart, Tokyo, Toronto, and Paris were the top five foreign city-regions, together accounting for nearly 60 percent of the Detroit metro's total jobs in FOEs.

Detroit is significantly less diversified in terms of attracting FDI from around the globe than its peer cities. The top five investor countries accounted for 92.0 percent of Detroit city's jobs in FOEs in 2011. By contrast, the top five investor countries employed only 51.8 percent of FOE workers in Louisville, Ky.; 51.9 percent in Chicago; 59.1 percent in Philadelphia; 60.2 percent in Cleveland; 66.6 percent in Pittsburgh; and 68.1 percent in Milwaukee. In other words, all of Detroit's closest peer cities had investments from a significantly larger number of investor countries.

An agenda for maximizing the potential of FDI

As competition among regions to attract FDI intensifies, Detroit city must carefully evaluate the costs and benefits of various strategies to attract, retain, and make the most of FDI in the region. The "FDI in U.S. Metro Areas" report enumerates a number of specific strategies that local, regional, and state leaders can adopt to best take advantage of the opportunities presented by FDI.[20]

However, even before local policymakers get to the stage of debating and engaging in a limited set of specific activities around FDI, they should first understand the potential and limitations of FDI as an economic development strategy. In this regard, a refocusing of perspective from merely attracting more and more FDI to the better harnessing of FDI to achieve economic development goals will help maximize the quantity, quality, and impact of inward investment.

To begin with, **the cornerstone of a smart FDI strategy is a robust economic development strategy that places strong industry clusters at its core.** While some foreign companies are relatively agnostic about where they invest, more often than not investment is drawn to a distinct set of assets in a particular place. Regardless, the challenge for cities and regions looking to attract FDI is to make locating in that region a strategic advantage for any firm competing in the region's target industries. It is important, therefore, that cities and regions integrate FDI into their broader economic agenda and that FDI be considered one arm of a multipronged, comprehensive economic development agenda.

As a corollary, cities and regions should **focus on strengthening their regional industry clusters through FDI.** Not only does clustering confer a number of economic and strategic advantages on existing firms in the region, it also serves as an important signal to other companies—both domestic and foreign—in the same industry that a particular location is a strong one.[21] What is more, FDI itself further strengthens industry clusters by injecting new knowledge and work practices into the region and multiplying business relationships.[22] Given the importance of strong regional industry clusters to attracting and retaining FDI, local policymakers should focus first and foremost on building the basics of strong clusters characterized by a dynamic innovation ecosystem, a skilled workforce, robust supply chains, and quality multimodal infrastructure.

At the same time, policymakers in Detroit especially should **use FDI to support clusters that promote economic diversification.** As this report finds, FDI in Detroit concentrates in a few big companies belonging to a few key industries like motor vehicle manufacturing, and comes from relatively few countries. While automotive will always be important to the city and metro area's economy, local policymakers should identify and cultivate their strengths and assets in adjacent clusters, including aerospace, solar, and advanced battery technology for electric vehicles, that potentially share common technologies, skills, and supply chains. Such a strategy would facilitate agglomeration across complementary and related industries.[23]

Finally, given that FDI is attracted to regions with strong core assets, such as education and infrastructure, local policymakers must **seek alignment and collaboration both vertically across multiple layers of government and horizontally across the public, private, and civic sectors.** This will ensure the smooth flow of information and the seamless stewardship of investors while at the same time avoiding wasteful duplication of effort. Most importantly, the city of Detroit should work together with the broader metro area to present a unified message that precludes individual cities within the region from competing against one another for the same investment.[24] Investor confidence can be shaken if local leaders do not present a unified front about the benefits of a region.

While it is not a panacea for all the region's troubles, FDI nonetheless holds out considerable promise for giving the city of Detroit's economy a shot in the arm after years of slow recovery and drift. Apart from supporting good quality jobs, FDI also confers a host of ancillary benefits that can boost the region's competitiveness. A full assessment of the potential presented by FDI should, therefore, extend beyond employment to a careful evaluation of FDI's impact on broader wealth creation in Detroit.

Endnotes

1. Data obtained from Census Bureau, American Community Survey 2013 one-year as reported by CensusReporter.org and Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics.

2. Data obtained from BLS, Local Area Unemployment Statistics.

3. For global annual flows, "Global Investment Trends Monitor No. 15" (New York: United Nations Conference on Trade and Development (UNCTAD), 2014); annual U.S. amount: "International Transactions Accounts, Table 1: U.S. International Transactions" (Bureau of Economic Analysis (BEA), 2013); for FDI stock: Brookings analysis of UNCTAD ("Inward and outward foreign direct investment stock, annual, 1980-2013") data.

4. See Devashree Saha, Kenan Fikri, and Nick Marchio, "FDI in U.S. Metro Areas: The Geography of Jobs in Foreign-Owned Establishments" (Washington: Brookings Institution, 2014).

5. Brookings analysis of BEA, "Foreign Direct Investment in the U.S., Preliminary 2011 Tables, Employment and Compensation of Employees" and BEA, "Personal Income and Employment Summary, Table SA06N: Average Compensation per Job" data. Total compensation includes benefits and pension contributions, in addition to wages and salaries.

6. Theodore Moran and Lindsay Oldenski, "FDI in the United States: Benefits, Suspicions, and Risks With Special Attention to FDI From China" (Washington: Peterson Institute for International Economics, 2013). The authors calculate that FDI alone increased total factor productivity in the U.S. by 3 percent over the period. They find that the impact of FDI on domestic firms in the same industry is even higher than that found by Keller and Yeaple in a widely cited paper covering the period 1987 to 1996, suggesting that the productivity dividends from FDI may be increasing over time. See also Wolfgang Keller and Stephen Yeaple, "Multinational Enterprises, International Trade, and Productivity Growth: Firm-Level Evidence From the United States," *Review of Economics and Statistics* 91 (4) (2009).

7. Based on preliminary data from the BEA's International Transactions Account.

8. Foreign-owned firms import at a rate five times more per worker than the private-sector average, resulting in a $331 billion contribution to the trade deficit in 2011.

9. U.S. Census Bureau Foreign Trade Statistics, "U.S. Trade in Goods and Services-Balance of Payments Basis" (March 2014), and BEA, "U.S. Affiliates of Foreign Companies: Operations in 2011" (August 2013).

10. The foreign affiliate share of U.S. private employment is 5 percent and of value-added 5.9 percent. R&D figures include business R&D from public funds; Brookings analysis of BEA, "Foreign Direct Investment in the U.S., Majority-Owned Bank and Nonbank U.S. Affiliates (data for 2007 and forward), Research and Development Expenditures" data. Total business R&D data obtained from National Science Foundation; see Raymond Wolfe, "Business R&D Performance in the United States Increased in 2011," Working Paper 13-335 (National Science Foundation, 2013).

11. Lee Branstetter, "Is Foreign Direct Investment a Channel of Knowledge Spillovers? Evidence From Japan's FDI in the United States," *Journal of International Economics* 68 (2) (2006). See also, for example, Ram Mudambi, "Knowledge Management in Multinational Firms," *Journal of International Management* 8 (2002).

12. For more information see Saha, Fikri, and Marchio, "FDI in U.S. Metro Areas." The time-series dataset contains unprecedented geographic detail with analyses by industry, mode of entry, country of origin, and foreign city-region of origin as well as change over time from 1991 to 2011. In addition, the report identifies recent global trends in investment and outlines a federalist agenda for maximizing FDI's economic development potential.

13. To identify Detroit's peer cities, Brookings started with a list of cities in the largest 100 metro areas that have more than 100,000 residents (by population in 2010). These cities were then ranked by a number of relevant economic indicators including 2010 population, population change between 2000 and 2010, employment in foreign-owned establishments in 2011, and employment in the auto industry and its supply chain in 2012. The normalized ranks were used in a Euclidean distance formula to create a similarity index, and 20 closest cities to Detroit formed the peer cities universe. Those include Cleveland; Dallas; Chicago; Milwaukee; Memphis, Tenn.; Minneapolis; Pittsburgh; Cincinnati; Indianapolis; Toledo, Ohio; St. Paul, Minn.; Philadelphia; Buffalo, N.Y.; Tulsa, Okla.; Baltimore; Atlanta; San Jose, Calif.; Houston; and Louisville, Ky.

14. For a more in-depth discussion of the methodology employed to generate employment estimates in majority-owned U.S. affiliates of foreign companies at the metropolitan area level, see www.brookings.edu/metroFDI.

15. In adopting this definition Brookings followed the precedent set up by BEA, which adopts the majority-stake criterion for designating an enterprise as "foreign owned," i.e., a single entity based in a foreign country must hold a controlling interest of more than 50 percent of the voting shares in the business enterprise operating in the United States.

16. Even without the Chrysler-Fiat acquisition, Detroit remains second to last in the absolute level of jobs originating from greenfields when compared to its peer cities.

17. Advanced industries are identifiable at the four-digit industry level by their R&D intensities—meaning expenditures on R&D in an industry divided by total employment in that industry—and by the technological capacity of their workforces—meaning the percentage of workers in an industry in occupations that require a high degree of STEM knowledge. To learn more about advanced industries and why they matter, see Mark Muro et al., "America's Advanced Industries: What They Are, Where They Are, and Why They Matter" (Washington: Brookings Institution, 2015).

18. In 2011, the share had fallen to 39.0 percent, which was also the same in 1991.

19. The auto industry is an aggregate of four industries: NAICS 3361 motor vehicle manufacturing; NAICS 3362 motor vehicle body and trailer manufacturing; NAICS 3363 motor vehicle parts manufacturing; and NAICS 3336 engine, turbine, and power transmission equipment manufacturing.

20. See Saha, Fikri, and Marchio, "FDI in U.S. Metro Areas."

21. For a discussion of how clusters stimulate regional economies, see Mark Muro and Bruce Katz, "The New 'Cluster Moment': How Regional Innovation Clusters Can Foster the Next Economy" (Washington: Brookings Institution, 2010). See also Mark Muro and Kenan Fikri, "Job Creation on a Budget: How Regional Industry Clusters Can Add Jobs, Bolster Entrepreneurship, and Spark Innovation" (Washington: Brookings Institution, 2011).

22. Clustering is an important factor in facilitating positive spillovers from foreign to domestic firms. See Alfie Meek et al., "Best Practices in Foreign Direct Investment and Exporting Based on Regional Industry Clusters" (Atlanta: Georgia Tech, 2013). See also Etienne Yehoue, "Clusters as a Driving Engine for FDI" (Washington: International Monetary Fund, 2005).

23. See Mercedes Delgado, Michael Porter, and Scott Stern, "Clusters, Convergence, and Economic Performance," *Research Policy* 43 (10) (2014).

24. Christiana McFarland and J. Katie McConnell, "Strategies for Globally Competitive Cities: Local Roles in Foreign Direct Investment and International Trade" (Washington: National League of Cities, 2011).

About the Global Cities Initiative

The Global Cities Initiative equips city and metropolitan area leaders with the practical knowledge, policy ideas, and connections they need to become more globally connected and competitive.

Combining Brookings' deep expertise in fact-based, metropolitan-focused research and JPMorgan Chase's market expertise and longstanding commitment to investing in cities, this initiative:

- Helps city and metropolitan leaders better leverage their global assets by unveiling their economic starting points on such key indicators as advanced manufacturing, exports, foreign direct investment, freight flow, and immigration.
- Provides metropolitan area leaders with proven, actionable ideas for how to expand the global reach of their economies, building on best practices and policy innovations from across the nation and around the world.
- Creates a network of U.S. and international cities interested in partnering together to advance global trade and commerce.

The Global Cities Initiative is chaired by Richard M. Daley, former mayor of Chicago and senior advisor to JPMorgan Chase, and directed by Bruce Katz, Brookings vice president and co-director of the Metropolitan Policy Program, which aims to provide decision makers in the public, corporate, and civic sectors with policy ideas for improving the health and prosperity of cities and metropolitan areas.

Launched in 2012, the Global Cities Initiative will catalyze a shift in economic development priorities and practices resulting in more globally connected metropolitan areas, which will support better jobs for more workers.

Core activities include:

Independent Research: Through research, the Global Cities Initiative will make the case that cities and metropolitan areas are the centers of global trade and commerce. Brookings will provide each of the largest 100 U.S. metropolitan areas with baseline data on its current global economic position so that metropolitan leaders can develop and implement more targeted strategies for global engagement and economic development.

Catalytic Convenings: Each year, the Global Cities Initiative will convene business, civic and government leaders in select U.S. metropolitan areas to help them understand the position of their metropolitan economies in the changing global marketplace and identify opportunities for strengthening competitiveness and expanding trade and investment. In addition, GCI will bring together metropolitan area leaders from the U.S. and around the world in at least one international city to explore best practices and policy innovations for strengthening global engagement, and facilitate trade relationships.

Global Engagement Strategies: In order to convert knowledge into concrete action, Brookings and JPMorgan Chase launched the Global Cities Exchange in 2013. Through a competitive application process, economic development practitioners in both U.S. and international cities are selected to receive hands-on guidance on the development and implementation of actionable strategies to enhance global trade and commerce and strengthen regional economies.

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About the Metropolitan Policy Program at Brookings

Created in 1996, the Brookings Institution's Metropolitan Policy Program provides decisionmakers with cutting-edge research and policy ideas for improving the health and prosperity of cities and metropolitan areas, including their component cities, suburbs, and rural areas. To learn more visit **www.brookings.edu/metro**.

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