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#### Foreword

This region has developed organically over many years into a Corridor of Commerce in the country's heartland, with world-class resources in transportation, logistics, manufacturing, marketing, distribution, finance, and payment. The region's geographic location, within a day's drive of half of the population of the U.S., is partly to credit for this development. So too is its business environment, talent, work ethic, and culture of innovation.

Because of these high-value assets, this Corridor of Commerce is uniquely positioned to capitalize on the exponential growth occurring in the transformation of the digital supply chain and e-commerce.

But a catalyst is needed to fully realize this generational opportunity. A regional strategy to deploy capital oriented to this growth is necessary to develop and promote new technologies that will stimulate and sustain this expansion. We believe this is an urgent imperative needed to fully leverage these assets and to capture the growth that will develop in the near-term.

This whitepaper will provide a detailed outline of the major value chain assets in the corridor of Cincinnati/Northern Kentucky, Louisville, Columbus (Ohio), and Indianapolis. It will take a closer look at noteworthy examples of leaders in digital transformation and will close with a series of recommendations we believe are needed to ignite growth. It is intended to be a living document that will evolve with the market.

This research is presented by eGateway Capital, a growth equity and M&A advisory firm headquartered in Greater Cincinnati. The firm invests in tech-enabled businesses that are driving digital commerce and is committed to filling the gap of growth stage capital needed to bring startups from early-stage development into scale. eGateway has a portfolio of high-growth enterprises that are revolutionizing how things are produced, marketed, transacted, and distributed.

Its team of investors and M&A advisors is committed to enabling entrepreneurs to shape the future of digital commerce. The firm is led by Managing Partner Chad Summe, who co-founded eGateway in 2021 after serving in the C-suite at Quotient Technology, a Silicon Valley data and performance marketing company, and by co-founder Mike Veith, whose experience includes co-founding Constellation Wealth Advisors in Cincinnati.

#### A Corridor of Commerce in the Heartland



The nation's economy is in the midst of a major transition, a fundamental shift whose momentum was greatly accelerated by the onset of the global COVID-19 pandemic in early 2020. This shift has been driven, and will continue to be propelled, by the growth in digital commerce and the vast ecosystem that supports and enables the flow of goods throughout the country.

As the transition evolves and accelerates, businesses that can adapt and capitalize on the realignment will be positioned to succeed in this new economy. Regions with connected assets, collaborative networks, and clustered, interdependent industries will enjoy the advantages that come from such natural alliances: the attraction and retention of industry, the growth of capital capacity, and the expansion of talent pipelines.

In the nation's heartland, one region has organically emerged as a leading Corridor of Commerce, with a collection of assets that have positioned the industries there for continued growth as the commerce economy evolves. It is centered in the Greater Cincinnati metropolitan region, stretches north to Columbus, Ohio, south to Louisville, Ky., and west to Indianapolis, Ind., and is a compact corridor of commerce, containing the entire value chain, driven by high-tech logistics, all within less than a half-day's drive.

The geographic concentration of assets within this region - bolstered by their proximity, size, and potential for growth - make this perhaps the nation's most promising corridor for the creation, investment, innovation, and expansion of the entire supply chain of goods. The digital transformation of the supply chain represents the biggest organic growth opportunity in decades. Entities in this corridor are poised to reap the benefits of innovation and evolution in logistics, which is already a key strength of the region. The rapid development of digital commerce and logistics goes well beyond warehousing and transportation and includes the digital enablement of how things are made, marketed, transacted and distributed. This region already possesses major assets and growth drivers in all four of these pillars of the new economy.

https://www.morganstanley.com/ideas/global-ecommerce-growth-forecast-2022

#### A Corridor of Commerce in the Heartland



## A Regional Capital Strategy is Needed

As such, the region is uniquely positioned to capitalize on the rebalancing of the economy. In the decade-and-a-half before the pandemic, high-tech industries came to be concentrated on the coasts, particularly the San Francisco Bay area and the Boston-New York-Washington, D.C. corridor. But the shift to remote work has accelerated a move toward smaller regions that can offer better affordability, lower taxes, developable land, and higher quality of life. <sup>2</sup>

However, this generational opportunity won't develop on its own. To fully realize and unlock the potential of this economic transformation, a mindset and orientation to growth must be adopted. The region needs a coordinated strategy to deploy its private capital to support and grow the businesses that will lead this revolution. That will demand a shift in attitude, away from a mindset of scarcity and capital preservation, and toward one of abundance, growth, and opportunity.

This paper lays out in detail some of the assets for economic transformation that are already present in the region. The missing ingredient is a regional strategy to expand growth capital and deploy it in a sophisticated, intentional way to realize this historic opportunity.

"We can become a catalytic engine for commerce," said Marianne Lewis, dean of the Carl H. Lindner College of Business at the University of Cincinnati, in an interview. "The question is: how do we sharpen our focus and make sure we go to the next level?"

We believe a step increase in capital investment is necessary to take advantage of this opportunity. A recent analysis found that capital remains concentrated on the coasts, particularly in the Bay Area and New York City. Those regions raised \$330.8 billion in venture capital since 2019, while the rest of the U.S. raised less than half that.<sup>3</sup>

The success of capital formation for growth and innovation in the Heartland Corridor of Commerce will be critical. Access to capital is essential across the entire continuum in order to scale businesses and drive growth in this innovation economy. High-growth and mature companies usually require significantly more capital than startups, but opportunities often taper off at the high growth and mature growth stages. Private equity engagement is critical for these companies with high growth potential. It's an opportunity to support larger job growth in local companies that have validated both their products and their commercial markets, and exercise influence on future site location decisions.

<sup>&</sup>lt;sup>2</sup> https://www.city-journal.org/americas-post-pandemic-geography

PitchBook, Feb. 2023, "Capital Concentration and its Effect on the VC Ecosystem," Kyle Stanford, Susan Hu, Collin Andersen

#### A Corridor of Commerce in the Heartland



This is a step that needs to be taken with a sense of urgency. The e-commerce market alone has plenty of room to grow, and in just three short years it is expected to increase from \$3.3 trillion today to \$5.4 trillion in 2026. In addition, the digital transformation now under way is creating opportunities in sectors such as additive manufacturing, materials science, sensors, robotics, artificial intelligence (AI), and software as America's vast number of small and medium-sized industrial firms move further into digitalization.

Also fueling that growth will be what has been called the New Deal of the 21st Century: the historic government investments in transportation, technology, power systems, advanced manufacturing, airports, public infrastructure, research, broadband, and more. Leveraging those opportunities with local capital will be vital to the region's growth.

This paper examines in detail the metro regions that comprise this Corridor of Commerce, focusing most deeply on Greater Cincinnati, its hub, with plans to expand the document over time. That is followed by recommendations to realize its potential for future growth. Here are its key bullet points:

## Five Key Takeaways and a Call to Action

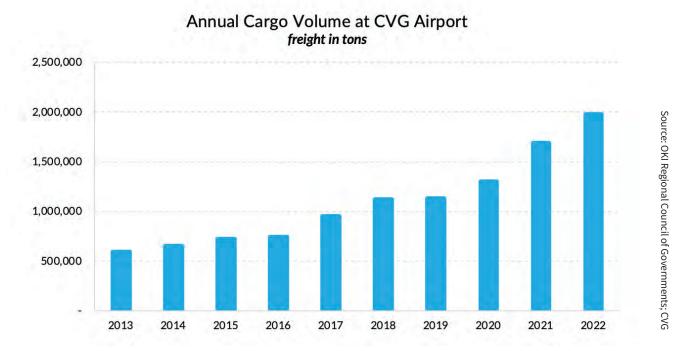
- The Corridor of Commerce is a collection of high-quality assets within 100 miles of Cincinnati invested in the four pillars of the digital commerce value chain: Production, marketing, distribution, and transaction are strengths of this region that give it a right to lead the nation's economic transformation and begin thinking with leading-edge innovation.
- This compact region is home to Fortune 500 companies engaged in manufacturing, marketing, distribution and finance, as well as tech-focused startups, and robust ecosystems that support entrepreneurship.
- Innovation in technology is occurring at all levels, from 150-year-old big companies to seed-stage startups.
- The region is uniquely poised to capitalize on the continued growth in digital commerce and supply chain transformation.
- It is urgent that growth be catalyzed with capital investment to match and exceed its peer cities and compete with regional economies on the coasts. Gaps in early-stage and growth capital should be filled for the region to capitalize on its existing strengths.



The center of this corridor, both in terms of its geographic location and its wealth of economic assets, is the Greater Cincinnati/Northern Kentucky metropolitan region. The region includes 18 counties in Ohio, Kentucky, and Indiana, with a population of 2.3 million, and a GDP of \$172 billion.<sup>4</sup>

Chief among the region's economic assets is its international airport. Cincinnati/Northern Kentucky International Airport, located in Boone County, Ky., has evolved into an epicenter of commerce. In the decade from 2008 to 2018, the airport was the nation's fastest growing in terms of cargo traffic. Growth has continued since then and accelerated with the onset of the COVID-19 pandemic and the massive increase in digital commerce.

Today, CVG is the seventh-largest cargo airport in North America, and the 18th largest in the world by volume. <sup>5</sup> Cargo volume at CVG more than doubled between 2015 and 2021. That growth continued in 2022, as total cargo tonnage grew by 17% year over year. Cargo operations are expected to continue growing steadily, as two of the world's biggest shippers, DHL and Amazon, have built major hubs there (see below).



<sup>&</sup>lt;sup>4</sup> https://fred.stlouisfed.org/series/NGMP17140

<sup>&</sup>lt;sup>5</sup> https://freight.oki.org/existing-freight-system-performance/runway/runway-economic-competitiveness/

#### The Hub: Greater Cincinnati and Northern Kentucky



Beyond its status as one of the continent's major players in air cargo, CVG is home to a lesser known, but equally significant asset. With more than 14,000 employees and 7,700 acres of land, CVG has positioned itself as a center of innovation, able to test solutions to scale and apply in airports as well as other locations.

Since 2018, the airport has employed a chief innovation officer whose role is to lead collaboration with potential suppliers, further research and development, and oversee advancements in information technology, cybersecurity, and other areas. This effort has resulted in several startups relocating their base of operations to the airport or nearby. Among them:

- ThorDrive is testing autonomous vehicles and equipment in the airport's live operating environment. ThorDrive began in Seoul, South Korea, and entered the U.S. market in Silicon Valley. In 2019, it established its North American headquarters in Northern Kentucky.
- Photoneo Brightpick, started at a university in Slovakia in 2014, has developed warehouse automation solutions for ecommerce and grocery order fulfillment. It moved its headquarters from Europe to Northern Kentucky in 2023.
- Beltways was founded in Silicon Valley in 2020 to develop mobility systems. It relocated to airport property in 2022 as it builds an accelerating walkway for eventual deployment at the airport.

With its approach to innovation, CVG is redefining the role of the airport, bringing together big companies, startups, universities, and governments to test technology and improve processes.<sup>6</sup>

#### The Amazon Factor

CVG's status as the fastest-growing cargo airport in North America was cemented with the 2019 announcement that Amazon will build its primary North American air hub at the airport. The hub is a linchpin of Amazon's goal of achieving one-day delivery for its customers in North America. Amazon has made an estimated \$1.5 billion investment to support a fleet of more than 100 of its Prime Air cargo planes; leased more than 1,100 acres of CVG land; constructed 3 million square feet of buildings; added more than 2,000 jobs to CVG's existing base.

Since its founding in 1994, Amazon has grown by quantum leaps. It is the second-largest overall retailer in North America<sup>8</sup> and, by far, the largest e-commerce retailer on the continent <sup>9</sup> and plans to continue its growth. Amazon's stated mission is "to be Earth's most customer-centric company" and it has continued to rapidly and significantly expand its global operations, increasing its product and service offerings, and scale its infrastructure to support its retail and services businesses. 10

<sup>&</sup>lt;sup>6</sup> https://www.cvgairport.com/innovation

https://www.cvgairport.com/about/next/amazon-and-cvg

<sup>\*</sup> https://www.deloitte.com/global/en/Industries/consumer/analysis/global-powers-of-retailing.html

https://www.insiderintelligence.com/insights/biggest-retail-companies-united-states/

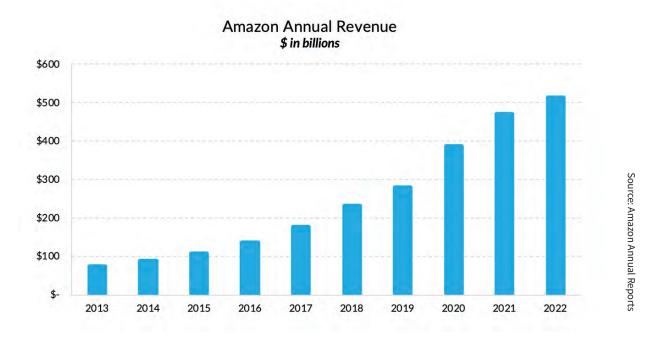
Amazon annual report, https://ir.aboutamazon.com/sec-filings/sec-filings-details

#### The Hub: Greater Cincinnati and Northern Kentucky



Amazon's growth is dependent on its advancements in technology and its culture of innovation. It is a far-flung, cross-functional enterprise that provides web services, physical, e-commerce, and omnichannel retail, cloud services, technology, fulfillment, computing, digital storage, and other services around the world. It utilizes numerous suppliers and licensors, and it expects to increase its spending in technology over time as it continually works to improve its customers experiences and improve its own process efficiencies.<sup>11</sup>

Amazon's choice of Greater Cincinnati/Northern Kentucky for this long-term investment is a critical factor in its growth plans and appears to present a once-in-a generation-opportunity for that region. Amazon has signed a 50-year lease on 650 acres of the airport land and has an option to lease another 450 acres. With this expected growth will come opportunities for suppliers, vendors, and aligned businesses, particularly those that can provide innovative advancements in technologies that support advanced logistics.



11 ibid.





## A Closer Look: Amazon's Ripple Effect

Amazon's commitment has already resulted in significant associated expansions. In November 2022, F&E Aircraft Maintenance LLC (FEAM), a Miami-based provider of aircraft maintenance and engineering services, broke ground on a three-bay hangar that can house Boeing 767 aircraft. It was the start of a \$40.2 million investment that will create 250 full-time jobs for aircraft mechanics and technicians, ground support equipment mechanics, administrative personnel, and management.<sup>12</sup> It's the company's second major expansion related to the airport's growing commerce operations. In 2020, FEAM completed a \$19 million expansion for the maintenance, repair, and overhaul of 747-800 aircraft.<sup>13</sup>

In 2019, Satco Inc., an advanced manufacturer based in El Segundo, Calif., announced it would invest \$7.5 million to create a maintenance and assembly operation for air cargo equipment in a northeastern suburb of Cincinnati. Satco is an industry leader in the design, engineering, manufacture, and repair of unit load devices, pallets, nets, and other equipment for commercial aircraft used by shippers such as Amazon. The company cited the location's close proximity to CVG, as well as to airports in Wilmington, Dayton, and Columbus, Ohio as among the reasons for its decision to locate there. Its latest innovation is providing fire-containment solutions to contain fires that may ignite in its containers. In March 2022, Satco announced a \$10 million investment to create the first manufacturer-owned Air Cargo Safety Research Center at the Greater Cincinnati facility to test unit load devices and their components for fire resistance and safety.<sup>14</sup>

#### DHL Americas Hub Grows at CVG

CVG's growth as a hub of commerce began with DHL, the world's third-largest air cargo carrier.<sup>15</sup>

DHL moved its U.S. hub operations to CVG in 2009 and has steadily expanded operations there since then. Between 2009 and 2018, DHL invested \$339 million in its CVG operation to expand capacity and improve efficiency. CVG is now DHL's main international hub in the U.S., with 80% of all its shipments from North America transiting via CVG, and 90% of its U.S. volume coming into and out of the airport. Its U.S. Quality Control Center is located there, acting as "traffic control," monitoring world events and weather patterns to prevent shipment delays. DHL has steadily invested in technology to improve reliability and efficiency, such as a state-of-the-art autosort system for letters and small parcels that handles an average of 95,000 pieces per night and GPS dispatch systems to track aircraft containers.

https://feam.aero/feam-aero-celebrates-the-groundbreaking-of-their-new-hangar-at-cincinnati-northern-kentucky-international-airport/

https://feam.aero/feam-aero-breaks-ground-on-103000-sq-ft-hanger-at-cvg-creates-100-jobs-invests-19-million/

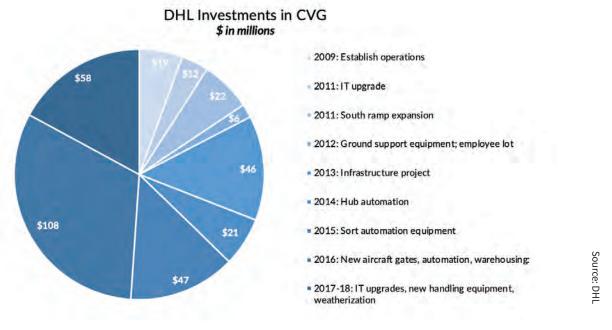
<sup>14</sup> https://www.satco-inc.com/latest-news/

https://supplychaindigital.com/top10/fedex-express-ups-dhl-qatar-air-top-air-freight-list





Growth opportunities at DHL include its initiative to become a "greener" company. The company is introducing fully electric, hybrid electric, compressed natural gas and clean diesel vehicles into its fleet, installing more efficient material handling equipment, upgrading energy efficiency at its facilities.<sup>16</sup>



## The Big Co's

The Greater Cincinnati/Northern Kentucky region's status as the corridor's hub is anchored by the presence of major corporations engaged in the manufacturing, marketing, transacting, and distributing of goods. The region is home to the headquarters of seven Fortune 500 companies.

These companies are especially notable for their activities in this space:

**Procter & Gamble:** P&G has been based in Cincinnati for 186 years. The company is a world leader in the manufacturing, marketing, and distribution of consumer products, with \$80.2 billion in revenue in FY 2022. Its products are sold in 180 countries through multiple channels, including direct to consumer. In addition to its headquarters, P&G also maintains significant research and development and manufacturing facilities in Greater Cincinnati.<sup>17</sup>

**Kroger:** With \$137.9 billion in revenue and 2,726 stores, Kroger is the largest supermarket chain in the country and is engaged in manufacturing, marketing, and distribution. Headquartered in Cincinnati for 140 years, Kroger has rapidly evolved into a leader in online sales and delivery<sup>18</sup> (see below).

https://dhlpro.com/media/37004/dhl-express-usa-overview\_en.pdf

<sup>&</sup>lt;sup>17</sup> P&G annual report https://s1.q4cdn.com/695946674/files/doc\_financials/2022/ar/1a1b8ef0-7de1-4b8e-be29-46b22c2dd110.pdf

 $<sup>^{18}</sup> Kroger\ annual\ report\ https://d18rn0p25nwr6d.cloudfront.net/CIK-0000056873/107badbb-3656-4d1e-8e88-bede8ee11566.pdf$ 

#### The Hub: Greater Cincinnati and Northern Kentucky



**GE Aerospace:** When the breakup of General Electric becomes final, GE will be an aircraft engine and associated aviation business called GE Aerospace. That company, historically based in the Cincinnati suburb of Evendale, will remain headquartered there. GE holds a commanding position in the global business for aircraft engines, with an installed base of more than 39,000 commercial aircraft engines and more than 26,000 on military aircraft. The company powers the air delivery services of Amazon, DHL, FedEx, and others. In the Cincinnati region, GE Aerospace employs 9,000 at its headquarters, an engine testing center, an engineering site, a manufacturing operations center in Dayton, Ohio, and a maintenance facility at the Cincinnati/Northern Kentucky International Airport.<sup>19</sup>

**Fifth Third Bancorp:** Founded in Cincinnati in 1858, Fifth Third has grown to become one of the top 15 banks, by assets, in the country. <sup>20</sup> The company operates in 11 states throughout the Midwest and Southeast. Fifth Third is a pioneer in payment processing solutions. Its payment processing division, Fifth Third Processing Solutions, was spun off in 2011 in a \$2.35 billion joint venture. The new entity was called Vantiv, and went public in 2012. <sup>21</sup>

**Worldpay:** Cincinnati-based Vantiv acquired British-based Worldpay in 2017; kept the name Worldpay and based the new fintech giant in Cincinnati. Worldpay is the largest global merchant acquirer by transactions, with \$2 trillion in payments volume in 2022. It provides integrated payment technology for ecommerce, enterprise, and small and medium-sized businesses. It is a global leader in cross-border ecommerce, with \$4.8 billion in revenue in 2022.<sup>22</sup>

**Western & Southern Financial Group:** A diversified family of companies that provides life insurance, investments, and retirement solutions to 6.5 million clients, policy holders, and account owners, the Fortune 500 company reports more than \$9 billion in revenue and \$112 billion in assets owned or under management. A 2023 report by the University of Cincinnati on the company's economic impact in the Greater Cincinnati metropolitan region found that between 2008 and 2022, the company supported 188,715 jobs, \$13.6 billion in earnings, and a total economic output of \$27.4 billion. It is a leader in financial technology, a primary backer of FinTech Frontier, Greater Cincinnati's strategic hub for financial technology companies, and an investor in fintech startups. In 2022, it acquired Fabric Technologies, a New York City-based digital insurance firm.<sup>23</sup>

**American Financial Group:** The \$7 billion holding company was founded in 1959, with its insurance roots dating to 1872 with the founding of Great American Insurance Co. AFG's property and casualty insurance group is comprised of more than 30 diversified businesses offering a range of specialty commercial coverages. The company's in-house team of investment professionals oversees a portfolio of approximately \$14 billion. In 2022, the company acquired Verikai, a Silicon Valley-based insurance technology company founded in 2018 that leverages alternative data and machine learning to provide insurance companies with risk reports to optimize the underwriting process. <sup>24</sup>

<sup>19</sup> https://www.geaerospace.com/

https://www.mx.com/

https://www.adventinternational.com/investments/case-studies/case-study/?case\_study\_id=vantiv

https://www.fisglobal.com/en/merchant-solutions-worldpay

https://www.westernsouthern.com/about/history

https://www.afginc.com/investors





## A Closer Look: Kroger's Digital Transformation

Founded in Cincinnati in 1883, Kroger has evolved into a \$140 billion company that now connects all four pillars of the commerce economy: manufacturing, marketing, distribution, and payment. Kroger Co. is well into a transition from a grocery company to an omni-channel growth company. Kroger's digital sales more than doubled from 2019 to 2021, with a two-year stacked growth of 113%. The company offers online ordering, store pickup, and home delivery at more than 2,000 of its supermarkets, allowing it to offer digital shopping to 98% of its customers.<sup>25</sup>

Kroger partners with innovative companies to accelerate this transformation. Among them is Ocado Group plc, an online grocer based in the UK that also operates automated warehouses and provides software, logistics, and route planning for grocery deliveries. In 2021, the Kroger/Ocado partnership opened its first customer fulfillment center for grocery delivery in Monroe, Ohio, outside of Cincinnati. The \$55 million facility employs artificial intelligence, advanced robotics, automation, and more than 1,000 wirelessly operated bots to assemble customer orders. The Ohio operation has served as a model for five other automated fulfillment centers that have opened around the country. Kroger plans to open at least seven more.<sup>26</sup>

About 96% of purchases at Kroger stores are linked to its loyalty card. For more than 20 years, Kroger has invested in data science to leverage this information to create personalized marketing programs and value for its customers. This data has also enabled it to create a fast-growing alternative revenue stream with its retail media business, Kroger Precision Marketing. Kroger's initial data science partner, UK-based dunnhumby, was eventually spun off into a business called 84.51, a Cincinnati-based retail data analytics and media company. 84.51 now is able to leverage data from nearly 1 of every 2 households in the U.S. to provide consumer intelligence, personalized loyalty marketing programs, and targeted media programs for businesses in the consumer packaged goods and health care sectors, as well as for marketing agencies.<sup>27</sup>

## A Closer Look: 80 Acres to Feed the World

80 Acres is a young, growing Cincinnati-based company that combines manufacturing, marketing, and distribution. Founded in 2015, 80 Acres is at the forefront of hydroponic farming. It operates indoor farms using renewable energy and no pesticides. The company's flagship farm, located in Hamilton, Ohio, 30 miles north of Cincinnati, can grow 10 million servings of produce annually in a controlled-environment, vertical farm, with equipment for harvesting, packaging, and distributing leafy greens, microgreens, berries, and tomatoes. The company has grown to eight farms, producing salad blends, microgreens, tomatoes, basil, and cucumbers, with plans to begin production of strawberries. It supplies more than 300 Kroger stores, as well as other regional grocers.<sup>28</sup>

10

<sup>&</sup>lt;sup>25</sup> ttps://ir.kroger.com/CorporateProfile/financial-performance/sec-filings/sec-filings-details/default.aspx?FilingId=15691267

https://ir.kroger.com/CorporateProfile/press-releases/press-release/2023/Kroger-Delivery-Expands-to-South-Florida/default.aspx

<sup>27</sup> https://www.8451.com/

https://www.80acresfarms.com/



Just over 130 miles downstream from Cincinnati on the Ohio River, the Louisville metropolitan area is composed of 15 counties in Greater Louisville and Southern Indiana, with a population of 1.4 million.

Louisville is historically an important link in the transportation and shipping industry, due to its location on the Ohio River, and the Port of Louisville is the one of the largest inland ports in the U.S. The region is also located at the crossroads of three major interstate highways. Louisville's position as a center of growth in the Corridor of Commerce today is due to the presence of the UPS Worldport hub at Muhammad Ali International Airport (SDF). The most familiar symbol of UPS may be its international fleet of more than 100,000 delivery trucks, but its growth is dependent on its Louisville-based air operations and the supply chain services it provides.

UPS air operations in Louisville began with a small facility sorting about 2,000 air packages per day in the early 1980s. Today, UPS Worldport is a 5.2 million square-foot global facility where more than 12,000 employees process more than two million packages a day. Worldport is the largest air hub for UPS, the world's biggest courier company by revenue, at \$100 billion. <sup>29</sup> Worldport is the largest automated package-handling facility in the world. More than 300 cargo flights arrive and depart every day, carrying 2 million packages to be sorted and processed inside a facility the size of 90 football fields, using 155 miles of high-speed conveyors and "smart" labels read by overhead cameras. <sup>30</sup>

UPS has consistently invested in the Worldport facility to maintain its position as a high-tech logistics and supply chain hub. Worldport opened at SDF in 2002, with a \$1.1 billion investment by the company. In 2006, UPS announced a \$1 billion expansion to increase sorting capacity, which created more than 5,000 additional jobs. In 2009, the company completed the first phase of a second \$1 billion expansion, which allowed the facility to handle up to 1.1 million packages during its late-night sorting shift. In 2010, the second phase of UPS expansion was completed, adding 1.2 million square feet to the facility, bringing Worldport's total footprint to 5.2 million square feet.

Its growth continues. In late 2022, the company announced it would construct a \$220 million airport hangar; make a \$330 million investment in two high-tech warehouses for its health care unit; and add a \$78 million expansion to its global aviation training center.<sup>31</sup>

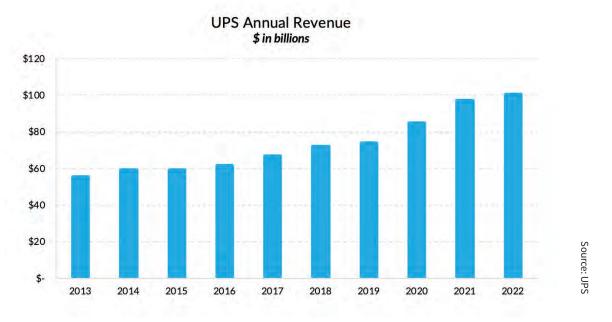
https://about.ups.com/sg/en/our-stories/customer-first/ups-breaks-ground-on-louisville-expansions.html

www.aboutups.com

https://about.ups.com/content/dam/upsstories/assets/fact-sheets/global-logistics-and-distribution/UPS\_GLD\_fact%20sheet\_2021.pdf



UPS also maintains its Centennial ground hub in Louisville, a facility that opened in 2008, and works in sync with the company's air operation. In 2019, UPS completed a \$300 million expansion of the ground hub, tripling the size of the facility to 838,000 square feet, and nearly doubling the sorting capacity to 85,000 packages per hour. The expansion modernized conveyor technology, improved the flow of packages, increased accuracy, and minimized time in transit.<sup>32</sup>



## **UPS Business Expansions**

**UPS Supply Chain Solutions:** The company leveraged its 100-plus years of experience in shipping and fulfillment to create UPS Supply Chain Solutions, which provides freight forwarding services and contract logistics for manufacturers and other businesses. The division operates in more than 175 countries and territories, providing worldwide supply chain design, including air, ocean, rail and ground freight, execution and management, freight forwarding and distribution, end-to-end supply chain visibility, global trade compliance support, supplier management, cash management, customs brokerage, and consulting services.

**UPS Healthcare:** One of the lesser-known but rapidly growing segments of the UPS enterprise is UPS Healthcare, which provides supply chain management for health care, biotechnology and medical device companies. UPS built the Louisville Healthcare Campus in 2005, expanding its largest dedicated health care space to provide third-party logistics services. The unit grew organically and through acquisitions, and in 2020, UPS Healthcare launched as a dedicated health care and life sciences vertical. In 2021, UPS Healthcare completed the delivery of more than 1 billion COVID-19 vaccines to more than 110 countries. UPS Healthcare provides temperature-sensitive supply chain solutions to hospitals, pharmacies, wholesalers, surgery centers, as well as to the life sciences industry, and is capable of providing precise visibility of health care shipments worldwide.<sup>33</sup>

 $<sup>^{32} \ \</sup>text{https://www.globenewswire.com/news-release/2016/08/25/866943/0/en/UPS-Breaks-Ground-on-Louisville-Centennial-Hub-Expansion.html} \\$ 

https://www.ups.com/us/en/healthcare/aboutus.page

#### Louisville: A Pioneer in E-commerce



**UPS Ventures:** The company's venture capital arm invests in companies that create technologies that are closely aligned with UPS growth areas, largely in the retail, warehousing, logistics, health care, alternative fuel, wireless and biometric sectors. Its most recent public investment was in Arrival, a London-based manufacturer of electric vehicle platforms and purpose-built vehicles. UPS committed to purchasing 10,000 electric vehicles and will collaborate to develop electric vehicles with advanced driver-assistance systems technology to increase safety and efficiency.<sup>34</sup>

## A Closer Look: European Genomics Firm Expands in Louisville

UPS, Worldport, and the associated expertise in health care supply chain technology has attracted growth companies to Louisville. One of them is Eurofins Scientific, a global biosciences and genomics testing firm based in Luxembourg. In 2016, the company located its central North American genomics facility at Worldport, citing the hub's access to major cities across the continent. Eurofins built an advanced, multi-functional laboratory that focuses on DNA and RNA synthetic gene synthesis and genomics services including DNA sequencing, synthetic biology, and next-generation sequencing. In 2022, Eurofins announced plans to expand in Louisville with a \$35 million manufacturing facility to supply reagents used for virus detection. The facility will produce synthetic DNA used for the detection of viruses such as that used in COVID-19 tests and other diagnostic applications. The company again cited Louisville's geographic location and its access to the UPS hub as mitigating supply chain issues and improving speed and efficiency of research and testing. Eurofins Scientific employs 55,000 people in more than 900 laboratories in 50 countries.<sup>35</sup>

<sup>34</sup> https://about.ups.com/sg/en/newsroom/press-releases/sustainable-services/ups-invests-in-arrival-accelerates-fleet-electrification-with-order-of-10-000-electric-delivery-vehicles.html

<sup>35</sup> https://louisvilleky.gov/news/eurofins-genomics-construct-new-facility-louisville



Situated a hundred miles north of Cincinnati, Columbus, Ohio is a metropolitan region of 2.1 million people buoyed by a diversified economy that includes the state capital and one of the nation's largest research universities.

Columbus is home of the headquarters of five Fortune 500 companies, representing a diverse group of industries. These corporations are joined by some of the nation's most recognizable brands, as well as by fast-growing innovators that have chosen the region for their headquarters and significant back-office operations. The region is a global logistics hub, supporting big retail brands and major logistics providers, making it a critical link in industrial and consumer supply chains.<sup>36</sup>

## The Retail Ecosystem

Columbus is home to some of the world's most recognizable retail and apparel brands. This concentration of headquarters has spawned a thriving sector that supports the retail market, a market that accounts for \$340 billion in sales in the U.S. This includes significant concentrations of businesses in market research, analytics, design, technology, logistics, and omni-channel capabilities, creating an ecosystem that connects retailers with their customers.

Its location and concentration of retail headquarters means Columbus is a renowned test market for retail, as companies regularly test new products and technologies in the region that is considered a microcosm of the national population. Columbus has long been a home of retail innovation. Today, major corporations are navigating the transformation from mall-based, brick-and-mortar merchandising to omni-channel retail, positioning their future expansion on their growing digital sales. These include:

**Bath & Body Works:** This Fortune 500, \$7.6 billion company owns 1,800 company-operated locations in the U.S. and Canada, and more than 425 international franchised locations, as well as a growing online storefront.<sup>37</sup> About a third of its sales come from a growing digital e-commerce platform. The company is leveraging that strength into an expanded buy-online, pick-up in-store program now in 550 stores, compared to 100 a year ago. The company is counting on its digital strategy to reach its long-term goal of \$10 billion in sales over the next three to five years.<sup>38</sup>

<sup>&</sup>lt;sup>36</sup> https://columbusregion.com/industries/logistics/

<sup>37</sup> https://www.bbwinc.com/news-releases/news-release-details/bath-body-works-reports-fourth-quarter-and-full-year-2022-sales

<sup>38</sup> https://seekingalpha.com/article/4477762-bath-and-body-works-retail-winner-has-more-upside-in-2022

#### Columbus: Center of Retail Innovation



**Victoria's Secret:** This \$6.3 billion, Fortune 500 specialty retailer is one of the world's most recognizable brands of lingerie, intimate wear, sleepwear, athleisure and swimwear, as well as fragrances and body care products. The company employs more than 30,000 associates across a global footprint of 1,360 retail stores in 70 countries. Its brands include Adore Me, a technology-led, digital-first, intimates brand, and Happy Nation, a fully digital retail brand offering a range of gender-free products for tweens.<sup>39</sup>

**Big Lots:** One of the nation's largest home discount retailers, the \$5.5 billion company operates more than 1,425 stores in 48 states, as well as an ecommerce platform with expanded fulfillment and delivery capabilities. Big Lots has emphasized digital and omnichannel growth, as it plans to turn its e-commerce arm into a \$1 billion sales channel.<sup>40</sup>

**Designer Brands:** This \$3.2 billion company is one of North America's largest designers, producers and retailers of footwear and accessories, with more than 640 stores in the U.S. and Canada and more than 1,000 points of distribution in total. Its business segments include design and sourcing operations, and a robust wholesaling business. Its flagship retail brand is DSW Designer Shoe Warehouse, and it also owns Camuto Group, a footwear and handbag company recognized for its vertically integrated design, sourcing, distribution, logistics and brand marketing services. The company has also acquired the iconic brand Keds. Designer Brands says its growth over the next five years will be driven by its direct-to-consumer channels.<sup>41</sup>

## A Central Logistics Hub

The North American International Freight Center is a collection of logistics assets in the 11-county Columbus region, including Rickenbacker International Airport; John Glenn Columbus International Airport; Foreign-Trade Zone 138, one of the top 10 foreign trade zones in the country; warehouse and distribution capabilities, including Rickenbacker Global Logistics Park; and four intermodal facilities. Rickenbacker is a cargo-dedicated airport, and offers air freight service to hubs in Asia, Europe and the Middle East. Rickenbacker's intermodal terminal is a high-capacity, high-speed facility that is connected to major East Coast and West Coast seaports and serves both domestic and international ocean container customers. The airport and its surrounding partners also serve an extensive freight catchment area, as they are a one-day truck drive to nearly half of the U.S. and one-third of the Canadian population. 42

 $<sup>^{39}</sup>_{--} \text{ https://www.victoriassecretandco.com/news-releases/news-release-details/victorias-secret-co-launches-happy-nation-fully-digital-brand}$ 

https://www.biglots.com/corporate/investors/news

https://investors.designerbrands.com/press-releases?o=10

https://rickenbackeradvantage.com/rail-intermodal

#### Columbus: Center of Retail Innovation



## Technology Talent

Technology operations in the Columbus region are deep, and span industries such as retail, finance, media and headquarters operations. Columbus is home to more than 50 data centers, including large campus locations for Amazon Web Services, Google Cloud, and Facebook, which have collectively invested billions there. It is home to many corporate-owned facilities as well. JPMorgan Chase, for example, employs more than 20,000 people in the region, including 5,000 tech workers who build apps and digital tools for online banking. The Ohio Supercomputer Center at Ohio State University provides supercomputing, cyber infrastructure, research, and educational resources. The Battelle Memorial Institute, one of the world's largest private contract research and development organizations, has played a key role in the global technology community, as many products have been launched based on discoveries there. 44

## A Closer Look: Reinventing the Pet Supply Business

Founded in 2012, Bark is an omni-channel brand that serves the vast community of dog owners nationwide with themed toys and treats subscriptions; custom product collections through its retail network that includes Target and Amazon; and personalized nutrition plans and health and wellness products. The company passed the \$100 million ARR mark in 2016, went public in 2021, and currently has 250 full-time employees in Columbus. It plans to triple its workforce there by the end of 2025, hiring across product, operations, management, technical and development positions. The company cited the region's startup ecosystem and its central location as reasons for its expansion location decision.<sup>45</sup>

<sup>44</sup> https://columbusregion.com/industries/logistics/

https://columbusregion.com/press-releases/bark-expands-in-the-columbus-region-tripling-workforce-with-500-new-jobs-over-the-next-four-years/



# Indianapolis, an 11-county metropolitan region with a population of 2.1 million, has been called "The Crossroads of America."

With its central location and extensive highway, rail, and air infrastructure, the region is a center for logistics and advanced manufacturing. Indianapolis is within a 12-hour drive of 75% of the U.S. population, and more than \$650 billion in goods move through its roads, rail, ports, and airports each year. Its advanced manufacturing sector includes companies such as Rolls-Royce jet engines, Raytheon Technologies, and Allison Transmission. The Indianapolis International Airport is the eighth largest cargo facility in the U.S. and is home to the world's second-largest FedEx air hub.<sup>46</sup>

## FedEx: A Growth Catalyst

The FedEx Express Indianapolis Hub opened in 1988 with just over 300 employees. Today, nearly 4,000 people work at the facility that has a sort capacity of 200,000 packages per hour and is a critical link in the FedEx global supply chain. The company plans to invest \$1.5 billion through 2025 to continue to expand the operation, ensuring that Indianapolis will continue to be a nexus of innovation for the parent company. FedEx Corp. is a \$94 billion company employing 550,000 people who provide integrated business solutions through various operating companies.<sup>47</sup>

FedEx has catalyzed growth in Indianapolis, as the region hosts 26 other FedEx operating company facilities, employing roughly 8,600 employees across the city. FedEx employment in Marion County increased nearly 10% in FY 2022. In addition to the investments at the FedEx Express airport hub, FedEx Ground has invested nearly \$84 million in capital improvements in the area since FY 2018. FedEx Express also expanded capacity between Indianapolis and international markets, launching a new weekly flight between Paris, the United Kingdom, and Indianapolis in February 2022. 48

### An Industrial Real Estate Hub

Indianapolis serves as headquarters for three of the largest real estate investment trusts in the U.S.: Simon Property Group, Duke Realty, and Kite Realty Group. Duke Realty manages a portfolio of 500 logistics facilities, primarily used for distribution and e-commerce. In 2022, Prologis, Inc., a San Francisco-based industrial real estate company, acquired Duke Realty in a transaction valued at \$23 billion. The acquisition added 142 million square feet of fully operational logistics buildings in 19 major U.S. markets; 7 million square feet of buildings under development; and approximately 17 million square feet of developable land to the Prologis portfolio.<sup>49</sup>

<sup>46</sup> https://lifeinindy.com/key-industries-and-employers/

https://www.fedex.com/en-us/about/policy/aviation/fedex-express-indianapolis-hub.html

<sup>48</sup> https://economicimpact.fedex.com/data/en/2022-FedEx-Economic-Impact-Report.pdf

<sup>&</sup>lt;sup>49</sup> https://www.prologis.com/news-research/press-releases/prologis-closes-acquisition-duke-realty



## A Network of Innovation

Indianapolis is the center of Indiana's entrepreneurship ecosystem. Preseed, seed, and early-stage funding is available through Elevate Ventures, which has invested in nearly 500 startups since 2011. <sup>50</sup> HighAlpha, founded by experienced technology entrepreneurs Scott Dorsey, Eric Tobias, Mike Fitzgerald and Kristian Andersen in 2015, pioneered the venture studio model and has raised more than \$260M across three funds and three studios. The firm has founded and launched more than 30 companies, including cloud companies Zylo, Lessonly, MetaCX, Mandolin, Casted, and Bolster. Recent funding and M&A activity across the High Alpha portfolio including Shutterstock's acquisition of Pattern89, Cisco's acquisition of Socio, and Seismic's acquisition of Lessonly.

One of the Midwest's largest exits occurred in Indianapolis in 2013, when San Francisco-based Salesforce Inc. completed its acquisition of ExactTarget, a cloud marketing platform used by more than 6,000 companies, including Coca-Cola, Gap and Nike. ExactTarget was an Indianapolis-based company founded in 2000 that innovated in social marketing solutions across email, social, mobile and the web. Its acquisition by Salesforce was a \$2.5 billion deal.

## A Closer Look: Toyota Advanced Logistics

In January 2023, Toyota Advanced Logistics announced plans to build a corporate campus just outside Indianapolis in Noblesville, Ind. A 162-acre site will serve as the future home to the corporate headquarters for Bastian Solutions, a Toyota Advanced Logistics company, as well as advanced manufacturing facilities that will produce supply chain automation technologies. The campus will support the company's growth over the next several decades, providing space for manufacturing, engineering, and research and development. Indianapolis-based Bastian Solutions, a family-owned business, was acquired in 2017 by Toyota Advanced Logistics, a division of Toyota Industries Corp., in a \$260 million deal. The acquisition was Toyota's full-scale entry into the North American materials handling solutions industry. <sup>51</sup>

## A Closer Look: Spot Freight's Rapid Growth

Established in 2009, Spot has become a leader in using technology to optimize freight delivery. In 2022, the company announced the opening of its second Indianapolis office. Over the next two years, its employment is expected to grow to 600 in-office workers in Indianapolis. Across all its locations, Spot says it will hire more than 600 additional workers by 2024. The company has more than 500 employees in Indianapolis, Charlotte, N.C., Tempe, Ariz., and Tampa, Fla. In addition, the company has spun off RED Technologies, which provides a transportation management software system used by shippers, carriers, and drivers. It recently announced plans to hire 50 developers. <sup>52</sup>

<sup>&</sup>lt;sup>50</sup> http://www.salesforce.com/

https://www.bastiansolutions.com/news/bastian-solutions-unveils-plans-for-new-corporate-campus-in-noblesville-indiana/

https://www.prnewswire.com/news-releases/spot-accelerates-growth-strengthening-downtown-economy-with-opening-of-second-indianapolis-office-301653619.html#:~:text=19%2C%202022%20%2FPRNewswire%2F%20%2D%2D,to%20strengthen%20the%20 downtown%20economy.



This paper has demonstrated that the Corridor of Commerce is already a leader in the nation's economic transformation. The question is: Can this region capture a leadership share of the growth that is yet to come from this revolution?

Accelerated by the COVID-19 pandemic, digital commerce will continue to grow, with the market expanding from \$3.3 trillion today to \$5.4 trillion in 2026. This region's organic assets in manufacturing, marketing, payment, and fulfillment distribution, put it in a commanding position to capitalize on this market expansion. The math has already been done by companies such as Amazon and DHL that have conducted their own research and decided to locate in the region. Variables now need to be added to the equation, catalysts ignite growth and advance the technologies that will drive the economic transformation in everything from advanced manufacturing to supply chain fulfillment capabilities to digital payments.

#### Here are five recommended steps based on research and interviews with key players:

- Create a regional capital strategy to drive growth through all stages of business formation, from seed to early-stage to growth and scale-up.
- Develop a collaborative, aligned, and coalitional approach to assume leadership in the economy's transformation.
- Amplify investments in supply chain transformation and digital innovation.
- Increase capital funding to meet and exceed that of peer cities and compete with venture capital hubs on the coasts.
- Commit to long-term investments in human capital and financial capital.

<sup>&</sup>lt;sup>53</sup> https://www.morganstanley.com/ideas/global-ecommerce-growth-forecast-2022

"The Ohio is the grand artery of that portion of America which lies beyond the mountains.

I consider therefore the settlement of the country watered by this great river as one of the greatest enterprises ever presented to man."

J. Hector St. John De Crèvecoeur. 1782

David McCullough The Pioneers: The Heroic Story of the Settlers Who Brought the American Ideal West

