by Hugh F. Kelly, PhD

An Urban Doom Loop? Not So Fast!

About This Column

The Economic Perspectives column offers insights by guest columnists on factors currently at play in economics, real estate, and financial markets. This edition of Economic Perspectives looks at changes affecting urban real estate.

The French have a saying, "plus ça change, plus c'est la même chose," meaning the more things change, the more they remain the same. It is perhaps the signal feature of modernity that modern society favors change. In this, the French and Americans share a bias going back to the late eighteenth century, when both societies pursued change through revolutions.[1] History has highlighted the assistance of the Marquis de Lafayette as well as the French assistance in the form of money, armaments, and naval support without which the American victory over the British could never have been achieved.[2]

Indeed, it might be said that without change there is no such thing as history. And it is equally true that without critical thinking, there is no such thing as history, but Thucydides cautioned that "people are inclined to accept all stories of ancient times in an uncritical way…. Most people, in fact, will not take trouble in finding out the truth, but are more inclined to accept the first story they hear."[3]

The discipline to investigate stories, to weigh them in the crucible of evidence and experience, continues to be needed today. We are reminded to be wary of the "narrative fallacy," the tendency to weave large stories with supposedly broad implications out of partial and perhaps ephemeral bits of information.[4] That is likely what we are seeing in the current proclamation that America's cities are in the grip of an "urban doom loop," with perhaps irreversible consequences for real estate values. The catchphrase urban doom loop gained currency in the COVID-19 dislocation, and stems in large measure from research by

Opinions presented in this article are solely those of the author and do not constitute legal or financial advice.

1. This is discussed in scholarly depth in Hannah Arendt, *On Revolution*, Viking Compass (Penguin Books: New York, 1963). See also Jill Lepore, *These Truths: A History of the United States* (W. W. Norton: New York, 2018); Joseph J. Ellis, *American Sphinx: The Character of Thomas Jefferson* (Alfred A. Knopf: New York, 1997); and Denise Kiernan and Joseph D'Agnese, *Signing Their Lives Away: The Fame and Misfortune of the Men Who Signed the Declaration of Independence* (Quirk Books: Philadelphia, 2009).
2. See Bob Zeller, "Tipping Point," American Battlefield Trust, June 25, 2018, updated January 13, 2022, https://bit.ly/479rB8E. Reciprocally, the diplomatic efforts of Benjamin Franklin, Thomas Jefferson, and the Committee of Correspondence made the French aware that the principles of the Enlightenment were politically viable. The 1776 Declaration of Independence provided a template for the 1789 Declaration of the Rights of Man and the Citizen by the National Assembly in Paris; see Julie Marks, "How Did the American Revolution Influence the French Revolution?," History.com, May 1, 2018, updated June 13, 2023, https://bit.ly/3QeoLJJ.
3. Thucydides, *History of the Peloponnesian War* (New York: Penguin Classics, 1972). Thucydides was a rough contemporary of Herodotus in the fifth century BCE, and the two are generally recognized as the earliest historians.
4. Discussed in chapter 6 in Nassim Nicholas Taleb, *The Black Swan: The Impact of the Highly Improbable* (New York: Random House, 2007), 62–84. For a real estate application of Taleb's concepts, see Hugh F. Kelly, "Black Swans—The Original *Rara Avis*," *Real Estate Issues* 42, no. 5 (March 21, 2018). Even before the COVID pandemic, behavioral economics examined the implications of exceptional events; see, for example, Daniel Kahneman, *Thinking, Fast and Slow* (New York: Farrar, Straus and Giroux, 2011), especially chapter 26, "Prospect Theory," chapter 28, "Bad Events," chapter 30, "Rare Events," and chapter 34, "Frames and Reality."

Columbia University's Stijn Van Nieuwerburgh. The most substantive of his recent papers was published in November 2022 by the National Bureau of Economic Research (NBER).[5] In it, he examines data for the pandemic period (2019 to mid-2022) and then presents forecasting models that suggest urban economic losses and real estate market value declines will be substantial and long-lasting. Van Nieuwerburgh presents a detailed and careful review of implications for employment, innovation, productivity, and municipal finance as well as the expected consequences for real estate investment values, especially as reflected in publicly traded instruments such as REITs and CMBS. In a classic case of internet thought dilution, however, the business and popular press as well as the blogger legion have latched on to the urban doom loop catchphrase without the original author's sense of discipline and academic caution.[6]

The Phenomenon of Change

As I see it, a more careful and nuanced understanding of the phenomenon of change would help a lot in assessing the outlook for cities and for real estate. The real estate world has long understood that change comes principally in five basic forms: cycles, trends, maturation, change of state, and disruption.[7] In our complex world these basic forms of change are rarely found in their pure state. Most often we find the forms of change interacting in some combination, as illustrated in the Exhibit 1 matrix.[8]

Since the pandemic of the 2020s can be identified as a disruption, we should examine how that interacts with the other four common types of change. The various interactions and the results of each interaction are named in the far-right column of the Exhibit 1 matrix. Let's consider in more detail two results from disruption interaction—chaos and vector break.

Disruption + Cycles = Chaos

Real estate investment professionals monitoring cycles do so with an eye toward the future, rather than a simple interest in how the past has brought us to the present. They seek advantage in anticipating how cyclical movement, predicated on fluctuations around equilibrium, will more or less predictably drive toward the next phase of market conditions. Predictability, then, helps such investors achieve tactical advantages in getting ahead of change, at least notionally.

Disruption, though, is about unpredictability, or discontinuous change. Recognizing that even in disruptive conditions there remains a powerful

5. Stijn Van Nieuwerburgh, "The Remote Work Revolution: Impact on Real Estate Values and the Urban Environment," NBER Working Paper 30662, November 2022, www.nber.org/papers/w30662.

6. For instance, see Eric Revell, "San Francisco, New York Face 'Urban Doom Loop,'" FoxBusiness, June 27, 2023, https://fxn.ws/3Qmp4Ck; Peter St. Onge, "'Urban Doom Loop' Drives Time Bomb in Commercial Real Estate," *profstonge.com* (blog) July 15, 2023, https://bit.ly/3OhPn9N.

7. For additional discussion of these five basic forms of change, see Hugh F. Kelly, *24-Hour Cities: Real Investment Performance, Not Just Promises* (New York and London: Routledge, 2016), 29–32, 65–69, 89–96, 118–120, 146–150, and 172–181.

8. The matrix is drawn from a forthcoming textbook by Merrie Frankel, Hugh Kelly, and Constantino Korologos, *Real Estate Capital Markets: Evolution, Structure, Participants* (San Diego: Cognella, 2023), chapter 6. The matrix shows Leibniz's Axiom at the interaction of cycles and trends. German mathematician Gottfried von Leibniz notably observed that "nature has established patterns originating in the return of events, *but only for the most part*." That axiom means that even as cycles work toward equilibrium or regression to the mean, the cyclical pattern ends at a different point from the beginning—it does not return to square one. That's why the study of risk treats decision-making as one of probabilities, not certainties. See Peter L. Bernstein, *Against the Gods: The Remarkable Story of Risk* (New York: John Wiley & Sons, 1996), 4–5.

Exhibit 1 Forms of Change Interaction Matrix

	Cycles	Trends	Maturation	Change of State	Disruption
Cycles	X	Leibniz's Axiom	Predictable Paradigm	Spectral Shift	Chaos
Trends	X	X	Stasis: The End of the Line	Emergence: The End of an Era	Vector Break
Maturation	X	X	X	Metamorphosis	Mutation
Change of State	X	X	X	X	Metastasis
Disruption	X	X	X	X	X

tendency of cyclical patterns to assert themselves, investors are left to cope with countervailing forces leading to uncertain outcomes. Although it is rarely called by name, much less treated as an accurate descriptor of real estate capital markets, science is increasingly willing to apply a specific term to this condition—*chaos*.[9]

The impact of disruption on real estate and economic cycles can be best understood by recognizing that real estate markets are complex adaptive systems. The literature on the behavior of such systems is extensive. A basic observation is that complex systems are ensembles with a dynamic of interactions, but a system's behavior may not be predicted merely by the behavior of its components.

To be clear, "complexity" and "chaos" are not synonyms. However, scientists such as Bettencourt et al. who study complex adaptive systems carefully assert that such systems may function on the edge of chaos. These scientists employ the rigor of advanced mathematics to understand system behavior and do so to surprising effect.[10] Nevertheless, progressive adaptation promotes an increase in diversity. In the words of one author, "complexity breeds diversity, which increases complexity, which breeds diversity."[11] Put another way, such systems are co-adaptive and at a very minimum should be understood as ill-suited for the simplification normally articulated in the predictions of cyclical recurrence.

Both the economy as a whole and cities as a particular subset can be studied as complex adaptive systems moving on the edge of chaos. One key insight on the economics side is that perhaps equilibrium is not all it is cracked up to be. Instead of developing expectations based on the state of a system that never truly settles down, perhaps we need a perspective that emphasizes comprehension and explanation.

9. This term has spread widely into popular discussion. An early treatment of the phenomenon was by James Gleick, *Chaos: Making a New Science* (New York: Viking, 1987) explored *the butterfly effect* or "sensitive dependence upon initial conditions" as a way to understand the unpredictable ramifications of apparently small differences upon changes in a system.

10. See, for example, Luís M. A. Bettencourt, José Lobo, Dirk Helbing, Christian Kühnert, and Geoffrey B. West, "Growth, Innovation, Scaling, and the Pace of Life in Cities," Proceedings of the National Academy of Science 104:17 (April 24, 2007), 7301–7306, available at https://bit.ly/43Onjk7.

11. Mark C. Taylor, *The Moment of Complexity: Emerging Network Culture* (Chicago and London: University of Chicago Press, 2001), 169.

The study of urban change, in line with the work of Bettencourt et al., has been intensively pursued by Michael Batty of University College, London, and others.[12] Batty explores the impact of scale (urban size) and hierarchy (a city's rank-order in a network of cities). These are factors that not only differentiate urban areas from each other but also help direct the kinds of land use (e.g., building forms) most likely to be economically successful. Naturally, this investigation needs to consider the pace of growth, but here a new factor of uncertainty is introduced. Batty and others[13] have noted that the acceleration of growth factors in a city (however desirable such growth may be), interacting with each other over time, can have a destabilizing effect physically, socially, and economically. Focusing on dynamics, Batty says, "we consider *disequilibrium* to be a more characteristic state of urban systems" than stability and relative predictability.

If nothing else, such analysis cautions us against jumping to conclusions about what the pandemic disruption portends for expected future performance in real estate cycles.

Disruption + Trends = Vector Break

There seems to be a consensus that the world is now in a post-COVID period, although I think a better term would be late-COVID period, as the coronavirus is still active globally. For the week ending July 12, 2023, there were 191,922 new cases of COVID-19 and 647 deaths registered by the World Health Organization (WHO).[14]

Beyond the raw numbers of cases and deaths, the disruptive impact of the novel coronavirus must be considered in terms of the aggregate social and economic dislocation experienced over the course—still not completed—of this deadly disease. Such disruptive changes cannot be turned off like a spigot. Even if new cases and deaths fell to zero, the worldwide impacts would linger.

The progressive urbanization of the American economy is one of the longest and most well-established trends affecting US real estate as a whole. The urban doom loop narrative anticipates that COVID is causing a *vector break*, a disruptive shift with a long-term consequence of greater population dispersion from the cities.

The percentage distribution of the US urban population measured in all decennial census counts is presented in the Exhibit 2 graph.[15] The COVID pandemic appeared to interrupt that upward trend in urbanization, first seen in the flattening of the curve in 2020, and then in an absolute decline at the height of the public health emergence in 2020–2021. The 2020 drop in population was most acutely felt in urban areas with populations of one million or more, while smaller metros sustained modest growth, and non-metropolitan areas saw their first increase in population in years.[16] Net domestic migration accounted for

12. Michael Batty, *Cities and Complexity* (Cambridge, MA: MIT Press, 2005).

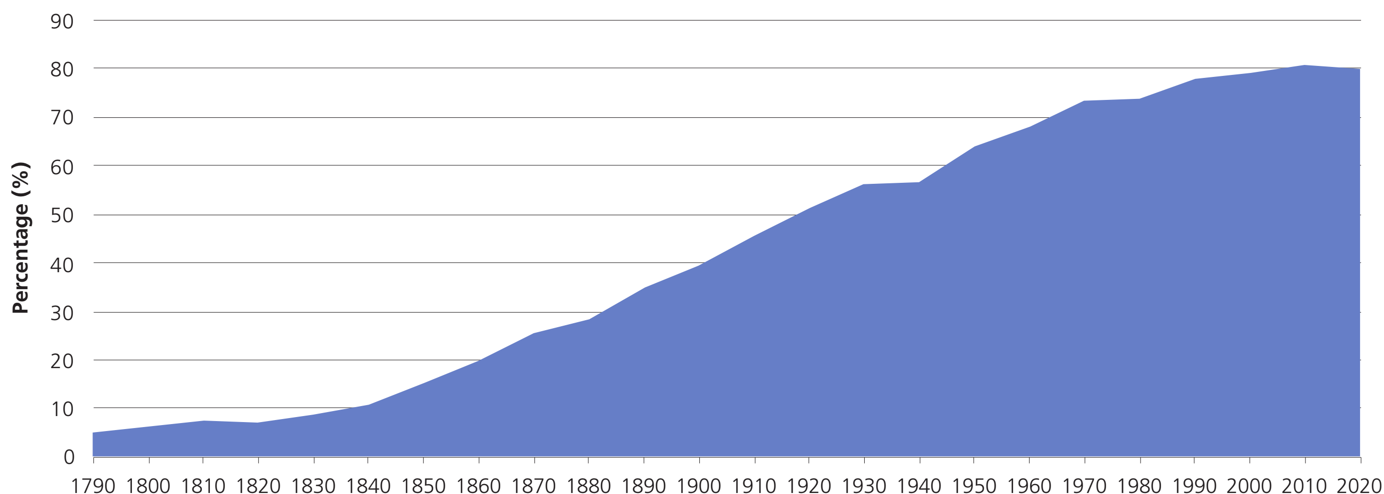
13. For example, see Melanie Mitchell, *Complexity: A Guided Tour* (Oxford UK and New York: Oxford University Press, 2009), 27–39.

14. That brought the world cumulative total to 768 million cases and 6.95 million deaths, figures that the WHO acknowledges are likely to be substantial undercounts. In the United States, cases have surpassed 103 million, with 1,127,157 deaths attributed to the virus. Data from the WHO Coronavirus (COVID-19) Dashboard, data accessed on July 18, 2023, https://COVID19.who.int/.

15. According to the US Census Bureau, "Urban areas, defined as densely developed residential, commercial, and other nonresidential areas, now account for 80.0% of the US population." Press Release CB22-CN.25, December 29, 2022. As the Exhibit 2 graph shows, the United States became a majority-urban society around 1920. Globally, the urban population surpassed the 50% mark in 2007, according to UNESCO estimates.

16. See William H. Frey, "New Census Data Shows a Huge Spike in Movement Out of Big Metro Areas during the Pandemic," Brookings Institution (blog), April 14, 2022, https://bit.ly/3rR9fJF.

Exhibit 2 Urban Share of US Population, 1790–2020



Source: US Census Bureau

the differential, although population growth in major cities was also hampered by sharply reduced international migration and the jump in mortality triggered by the coronavirus.

Digging more deeply into the data, the metro areas with the greatest numeric losses were New York, Los Angeles, San Francisco, and Chicago. While large metro areas in the Sunbelt continued to grow, even markets such as Dallas, Phoenix, Houston, and Austin saw their expansions decelerate. Does this indeed indicate a shift in the historic vector of urban growth? And what might that mean for real estate use and property investment?

Candidly, this seems to be an open question as of this writing (in July 2023). Demographically, the tide of population out-migration appears to at least be ebbing, if not reversing. The years 2021 and 2022 did not seem to be strong candidates for an urban rebound, given unemployment followed by inflation and political turmoil in that period. These factors prompted many to head out of cities in search of more affordable options perceived to offer a better quality of life.[17] Yet of the nation's 50 largest cities, 46 experienced renewed population growth in 2022. The exceptions (those decreasing in population) were Baltimore, Detroit, Memphis, and Milwaukee. New York, Houston, Dallas, and Phoenix all bounced back moderately, while urban areas like Atlanta, Austin, Charlotte, Denver, and Seattle all enjoyed significant population expansion in 2022.

Given the long-term trend of urban growth, why should there be any surprise that major cities would prove resilient? The answer, at least in part, can be attributed to the narrative fallacy mentioned earlier. Harvard economists Edward Glaeser and David Cutler confronted such expec-

17. See Rick Suter, "50 Largest Cities in the United States by Population in 2022," ListWire (blog), February 15, 2023, *USA Today*, https://bit.ly/454Or01.

tations in their 2021 book.[18] While recognizing the serious challenges confronting cities—especially large, dense cities—in the 2020s, they write, "there is a way to bring cities back stronger, but it is not simple…. We must recognize that we do not have all the answers. We must have the humility to learn before we can transform."[19]

Real estate investors have intuitively taken such an admonition to heart. The initial demographic turmoil that saw significant migrations away from large and dense cities triggered a sharp reduction in transaction volumes. For instance, investment volumes for real estate during 2019–2020 fell 39% in New York, 37% in Los Angeles, 37% in San Francisco, 19% in Dallas, 31% in Washington DC, 17% in Boston, 25% in Atlanta, 59% in Seattle, and 33% in Chicago. This profile of a reversal of urban advantage was amplified in both traditional and social media, setting the stage for the real estate sector to succumb to the narrative fallacy of a vector break for capital flows in a putative era of a new normal.

Like the post-2020 return of population growth to cities, so too the 2021 and 2022 property investment data show varying transaction volumes in their vectors. Data recently suggest investment patterns returning to a preference for some cities in 2022 and early 2023. New York and Washington, DC, saw their investment volumes back at 2019 levels by 2022. Los Angeles (up 18%), Dallas (up 80%), Atlanta (up 55%), and Chicago (up 26%) saw net increases in capital flow from the immediate pre-pandemic volume. On the other hand, San Francisco was down 27%, Boston down 9%, and Seattle down 31%. So, the evidence of a vector break for real estate capital is, at best, mixed.[20]

Economic Foundation of Major Cities

To further investigate the economic foundation of major metro areas, let's turn to a framework that was both familiar and informative in the pre-COVID era, the taxonomy of 24-hour cities, 18-hour cities, and 9-to-5 cities.[21] For ease of reference, Exhibit 3 lists 21 cities within those clusters.

Exhibit 3 Major Metro Markets by Type

24-Hour Cities	18-Hour Cities	9-to-5 Cities
Boston	Austin	Atlanta
Chicago	Charlotte	Dallas
Las Vegas	Denver	Los Angeles
Miami	Houston	Minneapolis
New York	Nashville	Philadelphia
San Francisco	Portland	Phoenix
Washington, DC	San Diego	Seattle

These 21 metro areas play an outsized role in the US economy. Overall, urban economies dominate the United States, with 88% of total gross domestic product (GDP). The Office of Management and Budget defines 366 metro areas, but these 21 metros account for 45% of the US output of goods and services—21% by the seven 24-hour markets, 16% by the seven 9-to-5 markets, and 8% by the seven 18-hour markets. Moreover these 21 metros represent 39% of total US employment, or 60 million jobs. The labor

18. Edward Glaeser and David Cutler, *Survival of the City: The Future of Urban Life in an Age of Isolation* (New York: Penguin Books, 2021).

19. Glaeser and Cutler, *Survival of the City*, 8.

20. Transaction data drawn from Graeme Newell and Muhammad Jufri Marzuki, "The Impact of the COVID-19 Crisis on Global Real Estate Capital Flows," *Journal of Property Investment and Finance – Special COVID Issue* (forthcoming, 2023).

21. Hugh Kelly and Emil Malizia, "Defining 24-Hour and 18-Hour Cities, Assessing Their Vibrancy, and Evaluating Their Property Performance," *Journal of Real Estate Portfolio Management* 23, no. 1 (2017): 87–104, https://bit.ly/3rJd1ED.

market distribution is 26.4 million jobs in the 24-hour metros, 22.3 million jobs in the 9-to-5 metros, and 11.1 million jobs in the 18-hour metros. And while US productivity averages $130,400 per worker (GDP/employment), these 21 markets are well above the national norm: $149,400 per worker for the 24-hour cluster; $143,100 per worker for the 9-to-5 cluster; and $138,200 per worker for the 18-hour cluster.[22]

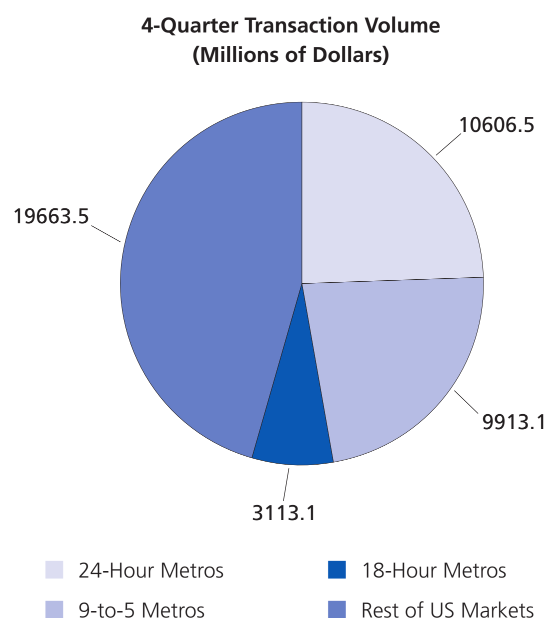
Benchmarks of Sustainable Demand

For real estate investors, labor market and productivity metrics are key benchmarks of sustainable demand. In brief, output reflects revenue and output per worker contributes to profitability. Profits are what enable tenants to pay the rent, and that in turn is what supports property values. So, it should not be surprising that investment capital is attracted to cities where high-revenue, high-productivity, and substantial labor markets are concentrated.

When it comes to aggregate commercial property investment for the four quarters through early 2023, the chart in Exhibit 4 demonstrates that the 21 selected metros punch above their weight. The 24-hour group, at $10.6 billion, shows a 24% share of total volume, with the 9-to-5 cluster close behind at $9.9 billion, or 23%. The 18-hour group, which has garnered much attention with the fast-growing Sunbelt rising stars, tallies $3.1 billion in investment real estate deals, a 7% share. For the rest of US markets, while the pie chart seems to indicate diffused investor interest with $19.7 billion, or 46%, remember that this is divided among 345 MSAs, or 94% of all metro areas.

There is an additional nuance to take into consideration with the benchmarks. The taxonomy classifies the 21 metros based on their characteristics as observed over the period from the late 1980s through 2014. During that period, investors enjoyed superior performance in the 24-hour cluster as measured by total returns in the NCREIF portfolio; this made such metros a capital magnet as monitored by the broader investment flows reported by Real Capital Analytics (which has since been acquired by MSCI). But this did not go unnoticed by those markets in the 18-hour and 9-to-5 categories. Many of those cities have made a deliberate attempt to replicate the live-work-play profile of the 24-hour cities. The following presents a few examples.

Exhibit 4 Distribution of US Transaction Volume by Metro Type



Source: MSCI Real Assets (data through 1Q23)

- Atlanta has grown its Midtown area into a dense, mixed-use district. Not only is there an office core, but convenient walk-to-work

22. Data drawn from the websites of the US Bureau of Economic Analysis, https://bit.ly/45clCht (metro GDP) and the US Bureau of Labor Statistics, https://bit.ly/3rZfAT5.

rental housing and condominiums fill the neighborhood. Atlanta's High Museum and Symphony Hall are here. Piedmont Park and the Atlanta Botanical Gardens provide significant outdoor amenities. There is a rich assortment of eating and drinking establishment cultivating nightlife.

- Los Angeles has, over time, taken a struggling downtown and established a vibrant corridor running from the Disney Center at the head of Bunker Hill to the Staples Center in the South Park neighborhood. Los Angeles, long synonymous with automobile traffic congestion, has invested in a mass transit system facilitating commuting. Downtown Los Angeles added 19,500 residential units for the decade ending 2022, boasting a population of more than 82,700.
- San Diego's Gaslight District and Denver's LoDo have staked a claim to national attention in reclaiming formerly tattered areas and making them showcases for those cities' urban cores. Likewise, Austin and Nashville have parlayed the mix of entertainment, commercial businesses, government, and top educational institutions and have become vibrant attractors of both corporations and new residents.
- Recently, Philadelphia has appointed a "director of the night time economy" to advance its status toward 24-hour robustness.

So, as New York and San Francisco have taken the brunt of the COVID disruption, other metros are not running away from the 24-hour city model. The doom loop narrative seems to be at least premature, if not ultimately mistaken. This is, in my experience, at least the fifth time that New York has been written off. The current troubles pale compared to New York's 1970s Fiscal Crisis, where the city lost 800,000 residents and 600,000 jobs.[23] At the height of the crack cocaine crime epidemic, the sunset of Gotham was widely proclaimed.[24] After 9/11, the conventional wisdom was that companies would flee Manhattan as a permanent target of terrorism.[25] The Global Financial Crisis was expected to harm the world's financial center as its major banking institutions melted down.[26]

Output reflects revenue and output per worker contributes to profitability.

23. During this era, the 44-story 1166 Sixth Avenue building, which opened in 1976, was famously referred to as "the towering fiasco" as it sat vacant for years; however, by 1979 the market had picked up and it was occupied and functioning. See Leonard Sloane, "New Episode in the 1166 Saga: Success at Last," *New York Magazine*, https://bit.ly/3YaCx1E.

24. NYU urbanists Mitchell Moss and Hugh O'Neill presciently issued a more positive outlook with *Reinventing New York: Competing in the Next Century's Global Economy* (New York: New York University, 1991).

25. The present author, to the contrary, published research suggesting that the behavior of displaced firms that were in or near the World Trade Center on 9/11 predicted a successful return of Lower Manhattan if Ground Zero were rebuilt as commercial office buildings and related facilities. See Hugh F. Kelly, "The New York Regional and Downtown Office Market: History and Prospects After 9/11: A Report for the Civic Alliance" (August 9, 2002) and "A Planning Framework to Rebuild Downtown New York," The Civic Alliance Draft Report (Regional Plan Association, 2002).

26. In response to the unraveling of finance triggered by the subprime mortgage debacle, a multidisciplinary panel of economists, planners, architects, and real estate professionals prepared a forward-looking report with recommendations, *Downtown 2020*, Steven L. Newman Real Estate Institute, Baruch College, CUNY, 2008, supplemented by a Spring 2009 addendum, *Going Long on NYC: The Case for Strategic Investments in Downtown's Bedrock Assets*. Both the main report and the addendum candidly looked at New York's difficulties, but correctly saw its resilience in the 2010–2020 decade then ahead.

There is at least a solid probability that the doom-saying around cities in 2023 will prove an excessive, perhaps myopic, reaction to the undeniable challenges of the late-COVID era.

To return to the era of America's founding noted in the opening to this essay, Thomas Jefferson and others articulated what has been an anti-urban bias that has persisted in our history.[27] Jefferson wrote, "I view great cities as pestilential to the morals, the health, and the liberties of man." Yet, as the data presented earlier show, cities—and particularly the "great cities"—are the engines of America's economic prosperity. They have proven resilient over the course of nearly 250 years of US history, and I expect they will again rebound as we pass through the 2020s.

About the Author

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27. See Richard McGahey, "Unequal Cities—Overcoming America's Anti-Urban Bias to Fight Inequality," *Forbes*, December 19, 2022, https://bit.ly/3YeHO8L.