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Commercial Property Vacancies in American Cities

Emily Dinh
Portland State University

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Ngan Nguyen Kim Dinh

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Emily Dinh

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Abstract

This paper examines the alarming impacts of the vacancy phenomenon on commercial properties across America during and after the COVID-19 pandemic. The increase in remote work encourages people to work from home more frequently. This not only lessens employees' foot traffic to offices but also disconnects the engagement of consumers and visitors to public areas, such as malls, stores, and other amenities. Many commercial properties have closed, shrunk their operating spaces, or reallocated for safety and security reasons. Reduction in occupancy rate among the mentioned properties negatively influences business owners, their associated partners, residents of the impacted areas, and the city government.

Incorporating evidence from research papers, news articles, and statistics, this study demonstrates the concerns of commercial property vacancies in downtowns and cities. The two noble studies about the Urban Doom Loop and the Donut Effect are two major explanations for the ramifications of surging unoccupied spaces and remote work. Vacancy properties waste resources and generate unpleasant outcomes in many business and life aspects. Recommendations and potential regulations have been proposed to improve economic and social well-being.

Keywords: commercial property, vacancy trend, property valuation, urban development, urban doom loop, donut effect, city planning

Introduction

As the world continues to develop and expand, cities are thriving with businesses, and goods and services are moving rapidly across the globe. The United States, a developed economic hub, plays a significant role in this global exchange, connecting and collaborating with numerous territories and nations. Many American cities are considered dreamlands, offering valuable opportunities for growth and success. However, the U.S. economy faces several threats from both micro and macro conditions. Among these challenges, a significant concern is the continuous rise in commercial property vacancy rates within many cities and downtowns. This growing issue threatens both the economic and social fabric of these urban areas, demanding urgent attention and solutions.

According to Investopedia, commercial properties, defined as spaces used for business activities, have seen a decline in occupancy rates, a ratio of rented or used space to the total amount of available space. Property owners and their investors pay close attention to the occupancy rates of offices, malls, or brick-and-mortar stores, which is a critical factor in determining their value (Chen, 2021).

Big and mid-size cities of the United States will be used as representative examples throughout the paper, namely New York City, San Francisco, Seattle, and Portland. Undeniably, these names are either the hub of the economy of this wealthy nation or the potential place that nourishes talents, financial potential for businesses, and economic success for the country. However, these cities were the areas most concerned with high vacancy rates and social and economic failure, especially after the COVID-19 pandemic in 2020.

Within the past few decades, skyscrapers, tall buildings, and many other retail spaces have been built and put into use across America with the potential of solid growth and attraction from more national and international investors. Unfortunately, it is projected by a commercial real estate services firm, Cushman & Wakefield PLC, that 1.1 billion square feet of empty office space will be witnessed in the United States at the end of this decade (Grant, 2023). There are more examples of valuable buildings that witnessed tremendous drops in their fair value within the past decades due to the decline in businesses' interests and the vacancy crisis. For instance, on the West side of San Francisco's downtown, a valuable 22-story tower of the national commercial real estate with a value of $300 million before the COVID-19 pandemic is now for sale with an expected price of only around $60 million, making up nearly 20% of its original value (Grant & Carlton, 2023). Even so, the economic capital of the United States, New York City, has experienced the same downward trend in property values of office buildings. According to the Office of the New York State Comptroller, "New York's office building market was estimated at $172 billion in fiscal year 2021, but it went down to 16.6% in the fiscal 2022 final assessment roll" (Office of the New York State Comptroller, 2021).

On the other hand, Portland, Oregon, witnessed a similar crisis, in which dozens of notable retailers such as Walmart, Target, Starbucks, and REI stores had to relocate multiple locations within city limits during 2023. The main reason was that public safety within city limits needed to be guaranteed for their customers and employees, as well as unmet financial objectives related to these difficulties. According to data from the University of Toronto on the AXIOS Portland website, foot traffic in Portland downtown from March to May 2023 was just 36.9% of foot traffic during the same period in 2019 (Gebel et al., 2023). With just a gradual growth in revenues, these businesses had to witness an escalation of crimes such as break-ins, retail thefts, and a remarkable reduction in foot traffic from customers. Over time, it became a challenge to meet the financial expectations and the quality of performance.

Property vacancies are essential knowledge to commercial property investors, owners, and tenants. Besides that, the city councils experiencing the crisis have been dealing with numerous obstacles in making up for the city's loss and enhancing the overall performance. Not only the businesses and the government but also city residents, especially workers who live and work in those vacant areas, have been facing frequent moving, job loss, and more threats to their lives due to the emptiness and quietness that the streets and those tall buildings around downtowns and big cities bring them. The scope of this matter is more prominent than just closing stores and empty spaces. Economists, realtors, and lawmakers are also involved in deciding, changing, and improving the challenge of vacant metropolitan areas. An undeniable observation is that emptiness and quietness discourage consumption and decrease the growth of commercial rental properties, which can be unhealthy for the sustainability of the economy and city life in the long term.

Overall, despite the seriousness of the COVID-19 pandemic, it was just one of the minor components impacting the health of downtown cores. In contrast, the impacts of policies from the governments and business corporations, consumer behavior, and the social pandemic have been more severe and direct. The second half of the paper’s body will be dedicated to the impacts of the commercial property vacancy.

Major Contributors to the Commercial Property Vacancy Crisis

Global issue: COVID-19 Pandemic

It can be said that the COVID-19 Pandemic, which occurred around the end of 2019 and surged globally in 2020, directly changed the whole world. Because the Coronavirus is airborne, it weakens the human respiratory system quickly, causing severe flu symptoms of cough, shortness of breath, fever, loss of taste and smell, and many dangerous symptoms, according to the Centers for Disease Control (CDC, 2024). Within a month into 2020, the outbreak spread widely, recording millions of Coronavirus cases, which put numerous cities and regions under lockdown and borders shut. After two years after the first case in the U.S., the COVID-19 pandemic was officially named the third leading cause of death in the U.S. in April 2022.

Not only were individuals impacted directly with severe health conditions, but many more economic and financial aspects were also disrupted by the virus outbreak. Particularly, to put the "stay-at-home order" and ensure community safety, only businesses qualified as "essential services" were allowed to operate longer and regularly during the Coronavirus Outbreak. Those essential services, including health care, personal services, public services, food supply chain, transportation, communications, information technology, and financial services, were authorized to operate regularly without hours reduction or aggressive work-from-home policy. As a result, non-essential businesses such as dine-in restaurants, movie theaters, entertainment venues, retail stores not listed as essential, public events and gatherings, in-door shopping malls, etc., were more restricted in the operating hours as well as the other limitations of workers and direct in-person interaction. As a result, more employers and owners needed help to maintain their businesses and had to reduce most of their capital, either human resources or tangible assets, such as physical spaces.

For the sake of safety and health concerns, many businesses, either small or large, national, or international, implemented a work-from-home policy or reduction of working hours to reduce labor costs and avoid layoffs. On the other hand, many stores and spaces require proper facial masks and vaccination proof before entering the venue, making customers or visitors spend less time in public spaces. According to CNBC, nearly 30% of the retail storefronts were vacant around Midtown East and Grand Central. The contradiction takes place when The Real Estate Board of New York (REBNY) used to support about 2,579 businesses, including eateries and captured $6.5 billion of Manhattan's annual retail sales pre-pandemic. However, during 2021, only 93 of the retail stores were occupied. Even high-end department store operators such as Bloomingdale's, former Gap, Banana Republic, and Victoria's Secret locations sit vacant (Thomas, 2021).

According to a Pew survey of nontraditional workers, 2020, working from home or teleworking reached 43.3%, working fewer hours 40%, and almost 5% lost their jobs between June and July 2020 (Shelton, 2021). The U.S. Bureau of Labor Statistics also reported that the United States experienced a significant rise in unemployment due to the COVID-19 pandemic, marking the highest annual increase in unemployment since data collection began in 1948. The unemployment rate surged from 3.5% in February to a peak of 14.7% in April before gradually declining to 6.7% by December. This drastic increase was driven by widespread economic shutdowns and restrictions aimed at controlling the spread of the virus, which led to substantial job losses across various sectors, particularly in leisure and hospitality (U.S. Bureau of Labor

Statistics, 2021). Continuous lockdowns, social isolation, and high unemployment rates have impacted mental health with increased levels of anxiety and depression. The Centers for Disease Control and Prevention also released data from the Adolescent Behaviors and Experiences Survey (ABES) showing that a high percentage of domestic abuse, mental health issues, and job loss by an adult in the home was reported at 29% (CDC, 2022).

Authorization of Local Government and Corporation policies

Companies' policies on WFH.

Besides the primary impact of the COVID-19 pandemic on human well-being and community safety, business performances were also affected. Along with non-essential businesses, a vast majority of companies and businesses have decided to reduce direct interaction by prioritizing work-from-home. Buffer reports that 71 percent of employees prefer fully remote work, while 64 percent of the company's operation are now fully remote, a significant increase from 49 percent in 2022. These statistics are based on responses from 3,000 remote workers worldwide, including full-time and part-time remote employees, independent consultants, and business owners (Buffer, 2023). According to data from the security company Kastle Systems, the occupancy rates in many cities dipped below 20% around the beginning of 2020, especially in San Francisco, which reached only a 10% occupancy rate in this period. The data is collected after tracking access activity data from log-in apps, keycards, and fob usage in 2,600 buildings and 41,000 businesses across 47 states; they identify the pattern of Americans returning to the office (Kastle). As reported in an article by CNBC, New York office buildings across the metro area only recorded about 29% of card swipes into the buildings in 2021, leaving 47.4 million square feet of office space vacant in the second quarter of 2021 (Thomas, 2021). Nevertheless, the rate of returning to office in Asian and European countries ranged on the average of 80%, meaning people are back in office more than before the pandemic. In contrast, U.S. office occupancy is 40% to 60% of pre-pandemic levels (Putzier, 2023a).

With the global rise of the technology industry, numerous Silicon Valley-style hubs have emerged across the United States, attracting tech workers with flexible remote work policies. According to a Forbes article, a survey revealed that 60% of tech professionals prefer full-time remote work as their ideal work setting (Naik, 2023). Additionally, research from the U.S. Bureau of Labor Statistics indicates that software developers and positions in computer and mathematical fields are among the most sought-after remote job openings (Torpey, 2022). Although these positions primarily allow employees to work from home, many tech companies still prefer to establish their offices in downtown areas due to their robust and convenient geographic features. These companies not only choose the most ideal and accessible locations for their establishments but also tend to expand significantly on their properties. Cities like San Francisco, Seattle, and the New York Metro area are renowned tech hubs in North America, yet they also hold high records of vacancy rates. Before 2019, the technology sector was flourishing, with companies in the industry experiencing significant growth and success. Over the past decade, the demand for offices in the tech sector has evolved, leading to substantial expansion through acquisitions and mergers and expanding office spaces. For instance, Amazon acquired the former Lord & Taylor department store in Manhattan for $978 million (Putzier, 2023b), and Facebook purchased an office campus in Bellevue, Washington, for $368 million (Gottsegen, 2020). These substantial investments have made tech companies major contributors to city property revenues in recent years.

While city governments have increasingly depended on these tech giants, the companies themselves have recognized that their expansive real estate holdings are not generating the expected financial returns. Instead, they face increased costs associated with maintaining their current and newly acquired properties. This realization has prompted tech companies to reassess their real estate strategies amidst changing work habits and economic conditions. Meta Platforms Inc., Lyft Inc., Salesforce.com Inc., and other tech companies are vacating millions of square feet of office space in San Francisco, Silicon Valley, New York, Austin, Texas, and other locations. Amazon.com Inc., following a hiring freeze, halted construction on new office buildings in July and is now preparing for significant layoffs. (Grant, 2022). Amazon's decision to pause the construction of its second headquarters (HQ2) in Arlington, Virginia, which was set to complete the total of 4.9 million square feet of two phases for Metropolitan Park and PenPlace. This project promised to provide 25,000 jobs, impacting significantly on the city and its residents. Consequently, this pause comes amid Amazon's cost-cutting measures, including substantial layoffs, and a reassessment of office space needs due to hybrid work trends (Herrera, 2023). The halt in construction slows potential economic benefits, job creation, and local investment, impacting the city's anticipated growth and development. The withdrawal of big tech companies is a significant setback for the office market and many city economies, which have relied on the sector's demand for real estate to drive growth in recent years. Thus, the more high-rate mortgages defaulted by landlords, the more distressed the financial system would be.

Companies' policies on massive layoffs.

As employees began to return to offices and the trend stabilized, numerous companies, particularly in the tech industry, initiated large-scale layoffs, cutting hundreds to thousands of jobs throughout 2022. This trend highlights the over-hiring that occurred during the COVID-19 pandemic and the adoption of flexible work-from-home policies. With ongoing workforce reductions from 2022 to the present, it is expected that the demand for office and other commercial properties will continue to decline. Interestingly, while tech companies have been at the forefront of promoting flexible working styles, they have also led in reducing human capital over the past few years. For instance, the Big 4 Tech Companies have announced massive layoffs. Namely, Amazon has cut more than 25,000 employees over the past couple of years, including Meta Platforms, Alphabet, and Microsoft.

Nevertheless, reductions are also witnessed in other sectors, such as banking, restaurants, and mechanical sectors (Avila, 2023). Unfortunately, for every new job created in the future, there will be less office space needed for that position than in the past (CBRE Investment Management, 2023). Many companies have recalculated their operating expenses as they reduce their previous large-footprint office in downtown or business districts and move to smaller-sized locations in pursuit of efficient growth. Consequently, with the decrease in office demand, many commercial buildings will likely remain vacant for an extended period.

Closing malls - closing stores.

For decades, malls have served as hubs for socializing, community engagement, and various entertainment options. Additionally, they accommodate numerous stores and businesses spanning diverse categories. However, with malls closing and downsizing across downtowns, there is a corresponding rise in unemployment rates and a decrease in foot traffic in the surrounding areas. The Wall Street Journal has an article demonstrating the decline of American malls, in which they had an interview with Nick Egelanian, the president of retail advisory firm SiteWorks. Nick commented that the number of U.S. malls has dropped from around 2,500 in the

1980s to about 700 today. Many malls were converted into open-air retail spaces, a costly and lengthy process, while some were demolished or left vacant. Egelanian predicts the number of malls will further decline to around 150 over the next decade, with only top-tier properties featuring modern infrastructure and high-end retailers expected to survive (King, 2022). Smaller businesses, such as eateries, restaurants, malls, and other commodity stores, have been experiencing restructuring. Many business owners operating either inside or outside of malls had to follow the regulation of social distancing and hours reduction from the government during the pandemic, and many shops and amenities had to come to the decision of closure or cut back on their human capital. This leads to job losses and closures in retailers and shops, resulting in quiet and empty malls across the country. With slow returns on customers, many businesses previously occupying mall spaces may seek alternative locations, such as standalone storefronts or mixed-use developments.

Banking Policies.

As previously discussed in this paper, declining commercial property values and business performance have led to inevitable changes in banks' lending policies. Commercial properties typically require significant investments from owners and substantial loans from banks, as these properties have the potential to yield high returns. The loan-to-value ratio used to be around 60% and more between the owner equity and the lenders for a commercial property's value (Janover et al. Estate, 2023). However, due to the negative impacts of office vacancies and the shrinking of malls and brick-and-mortar stores, property owners are now hesitant to invest their capital into buildings. Many even consider returning properties to the banks when financing is due.

"In 2023, $541 billion in debt backed by office buildings, hotels, apartments, and other types of commercial real estate came due, the highest amount ever for a single year," according to data firm. Trepp reports that commercial debt maturities are expected to continue rising, with over $2.2 trillion coming between now and the end of 2027 (Grant, 2024). Consequently, recognizing property owners' reluctance to invest in commercial buildings, banks are also withdrawing from lending initiatives or imposing higher interest rates on these loans. As a result, stricter lending policies increase investment withdrawals, resulting in a need for more renovations and adequate maintenance for existing buildings.

Local Government Policies.

Macroeconomic conditions within the United States pose significant challenges to local governments. The substantial shift in city residency has led to deficits in transportation, infrastructure maintenance, and essential services, burdening city governments. Additionally, business relocations and delays in paying property taxes and other operating expenses have exacerbated these financial strains, creating budget deficits. Consequently, city councils have resorted to imposing additional taxes and fees on residents and companies. This has prompted many residents, especially those who can work remotely, to relocate to avoid high taxes while maintaining similar benefits such as education and accommodations. To address its budget challenges, the New York City government proposed several measures to establish a more stable economic foundation for its residents. One significant proposal involves raising the income tax on the top 1% of earners and regressing property taxes. This approach is considered reasonable given the city's significant income inequality, with some of the wealthiest individuals in the country residing in New York City. Meanwhile, nearly 18% of the population lives in poverty (with a taxable income threshold of $36,262), and approximately 41% are near poverty (with a taxable income threshold of $52,566) as of 2019. The government observed that individuals with taxable incomes exceeding $1 million have been paying the same marginal tax rate as those with incomes above $50,000. This tax imposition discourages residents and businesses from staying in the city, worsening vacancy rates in central business districts, downtowns, and metro areas (New York City Comptroller, 2023).

Shifts in lifestyle - A remote era

E-commerce and online shopping and delivery.

With the encouragement of the working policy and the changes in the city governments, lifestyle has shifted people's mindset to the virtual world in all aspects. On the other hand, the advancement of technology, especially e-commerce, has led people to a new era of communication and transaction regardless of physical boundaries. We need to emphasize the impacts of social distancing in the dynamics of daily lifestyle. A new lifestyle includes a "take-out culture" from restaurants and eateries, strong growth of e-commerce with "prime" delivery from store to door, and other remote options that have created a new lifestyle for the 21st century. Data from the National League of Cities shows that revenues generated from modern retail businesses have been growing for the past decade but shifting in a different direction. The non-store sector is the most successful growth across the retail industry, which experienced a 27% increase in sales, with the vast portion of the rise of e-commerce in 2022. Due to the force of social distancing and the convenience of online shopping, brick-and-mortar stores experienced a slight decrease of 3.5% across all retail sectors. At the same time, a 45% increase in e-commerce was recorded in Q2 of 2020 (National League of Cities, 2021).

The E-commerce industry's impact can be seen through an upward trend between high vacancy rates in retail spaces and more clicks on social media websites for the same item. Consumers' tendencies are swaying away from physical locations and leaner into the accessibility of online shopping. In America, various goods and services are offered, and a simple return method is used to enable consumers to engage in online shopping. Amazon is an outstanding example, and it has been dominating the shopping era along with other international competitors. According to Amazon's annual 10-K financial report, their total net sales have increased remarkably annually, especially after the pandemic outbreak in 2020. They went from $280 billion to $574 billion in total net sales, including product sales and services, from 2018 to 2023 (Amazon’s 10-K, 2023). Food delivery services also surged when the social distancing regulation was enacted. In March, grocery delivery service apps saw a record number of downloads. According to Apptopia, an independent research firm that analyzes the app marketplace, daily downloads for Instacart, Walmart Grocery, and Shipt surged by 218%, 160%, and 124%, respectively, between March and February. As mentioned in the previous section, except for primary services, all other businesses were forced to stop offering in-person services, which increased takeout and delivery orders. Besides that, the revenue of the online food delivery market in the U.S was forecast to witness a stability increase to more than $530 billion over the next five years (Statista, 2024a), while number of users of the online food delivery market in the United States is also expected to grow gradually in both meal and grocery delivery (Statista, 2024b).

To highlight the importance of replacing virtual interactions with in-person communication, let us examine a widely-used communication tool: Zoom. During the pandemic, Zoom emerged as one of the "lockdown winners" of 2020. According to Statista, Zoom's revenue skyrocketed due to the high demand for virtual academic and work meetings, growing 300% from $623 million to

$2.65 billion between 2020 and 2021. The following year, revenue increased by another 55% to $4.1 billion. Although growth slowed after 2022, Zoom's platform remains popular for online conferencing and virtual meetings, attracting a vast user base worldwide (Richter, 2024).

The success of Zoom underscores a strong preference for remote communication, contributing to the reduced necessity for physical office spaces. While technological advancements like Zoom offer significant benefits, they also fundamentally alter our behavior and mindset regarding in-person interactions.

Evolving Lifestyles.

Furthermore, a new mindset of swaying from a 9-to-5 cubicle lifestyle to a more flexible way of living, shifting young people to choose van life or the digital nomad lifestyle. Post-pandemic years have been challenging to many Americans as countless corporate workers have faced job loss, high-cost living expenses, and unaffordable housing rates. Noticeably, the automotive industry, in fact, was pleased with the outcome of this new trend. The rise of remote work primarily reduces the demand for traditional office spaces in urban areas, leading to opt for physical setups at commercial properties in downtown areas.

Digital nomads opt for a location-independent, technology-enabled lifestyle that allows them to travel and work remotely anywhere with an Internet connection. Unlike typical remote workers who usually remain in one area, digital nomads continuously travel and explore new destinations while maintaining their work responsibilities. According to a report of MBO partners, in 2020, there were 10.9 million digital nomads in America alone, increasing 49% from 2019 (p.2). Moreover, current digital nomads also influence other workers in these fields, as more than 19 million Americans reported the desire to switch to this virtual working style (p.8). It was reported in the 2019/2020 period that there are various reasons to start a digital nomad style, either due to preference lifestyle or constraint living conditions. A majority of digital nomads choose to include freedom and flexibility in both their personal and professional styles, while others treat this option as the only possibility to save bills and live under budget. Understandably, the time of surging digital nomads and van life was around the beginning of COVID-19, when most of the public gathering areas closed, and direct interaction was limited.

Social problems.

Speaking of interruptions to community safety and the flow of business, social problems cannot be overlooked. One of the unfortunate facts resulting from COVID-19 is mental well-being. The National Library of Medicine opioid pandemic points out that long-term isolation can increase the prevalence of family violence, depression, anxiety, and post-traumatic stress disorder. Along with high rates and charges in fees and daily living fees, homelessness and thefts have been escalating daily for years, especially after the peak of the COVID-19 pandemic and other Urban protests. Many people come to toxic substances to relieve different mental illnesses (Hosseinzadeh et al., 2020)

For years, numerous states and cities across America have witnessed protests and instances of violence occur in downtown areas, drawing attention from the local community and beyond. Numerous incidents have highlighted the gravity and potential hazards associated with both verbal and physical actions of protestors or boycott participants. These events typically lead to disruptions such as road closures, damage to public property, and contentious discussions. As a result, both residents and tourists often find themselves compelled to steer clear of affected areas to avoid potential harm, inconvenience, or involvement in contentious situations.

Areas with higher rates of homelessness, substance abuse, and crime may deter potential customers from visiting businesses located in those areas. Many examples have been shown in downtown Portland City, Oregon, Seattle, Washington, and San Francisco, CA. Many businesses are greatly concerned about the safety of their employees and customers, which leads to relocation or closure and is a major contributor to commercial property vacancies. Furthermore, the vacancy phenomenon is caused by empty stores or malls, and quiet business district areas create negative perceptions when visitors visit. Social issues can also factor in a cycle of economic decline in certain areas, resulting in decreased economic activity and spending. Businesses have struggled to sustain themselves as owners encountered difficulty attracting tenants or collecting rent payments punctually. Inevitably, closures and vacancies in commercial properties rapidly become an escalating trend among cities and metropolitan areas across America.

Major Impacts of Commercial Property Vacancy

Many assume that empty commercial buildings are harmless, merely resulting in quiet streets. However, the issue was multifaceted, with far-reaching consequences extending beyond real estate and business. Through various studies and articles, including the Urban Doom Loop, and the Donut Effect, these phenomena contribute to more severe long-term effects on a nation's various aspects. While the immediate impact on residents may not be apparent, the gradual deterioration of society’s internal functions, economy, and social well-being in downtowns and cities is evident.

The economic disruption initially attributed to the COVID-19 pandemic was expected to resolve quickly and return to pre-pandemic conditions. However, numerous challenges hinder the recovery for individuals, corporate businesses, and authorities, making it clear that the damage from macroeconomic conditions is more profound and persistent than anticipated.

The Urban Doom Loop Theory

The Urban Doom Loop Theory, proposed by Professor Stijn Van Nieuwerburgh of Columbia Business School, outlines the cascading impacts of increased remote work and social changes since late 2019. In 2022, professor Nieuwerburgh published a paper called *The Remote Work Revolution: Impact on Real Estate Values and the Urban Environment* on the National Bureau of Economic Research. This paper explains how the decreased demand for office space has led many companies to stop renewing leases, resulting in significant revenue losses, and declining property values for office owners. This decline in property values reduces city property tax revenues, forcing budget cuts in critical services like public safety, sanitation, transportation, and education. These cuts make cities less attractive, prompting residents to move to more affordable areas, further exacerbating the cycle of fiscal decline known as the urban doom loop (Van Nieuwerburgh, 2022)

As such, a CNBC article from May 2023 highlights the financial impact of this migration, noting that New York and California lost over $90 billion in income to low-tax states during COVID. In New York City, commercial property tax revenue comprises about 10% of all tax revenue, and a 4% shortfall can mean a $4 billion deficit in a $100 billion budget (Frank, 2023). Similarly, San Francisco's mayor also reported a $700 million budget deficit, primarily due to empty office spaces and business closures in the financial district (Boyo, 2022). This shortfall forces cities to raise commodity prices to compensate, leading to further resident outflow.

The theory is not just academic but is playing out in real life. For instance, AXIOS data from March 2022 shows New York, San Francisco, and more cities experienced the high outflow migration in America after the COVID-19, with 299,557 households leaving New York and 343,230 leaving California (Evangelou, 2023). This cycle of vacancies has created financial strain for landlords and regional banks, leading to a credit crunch. According to Reuters, nearly $12 billion of loans in U.S. commercial mortgage-backed securities (CMBS) became delinquent, with office loans constituting about 35% of these delinquent loans (Tracy, 2023).

Additionally, the U.S. commercial real estate market, valued at $5.9 trillion, represents more than half of the world market. This market includes American pension funds and real estate investment trusts (REITs), which have seen significant declines. The REIT index has fallen 56 to 70% over the past 14 years.

Commercial real estate loans typically involve high levels of debt, and landlords facing reduced property values must either invest more equity or default. Many of these loans are non-recourse, meaning banks cannot claim landlords' other assets, leading to increased financial losses for banks. For example, one construction client secured a $60 million loan from Bank OZK, expecting the building site's value to reach $139 million in 2021. However, by December 2023, the property's market value was only $100 million, leaving the bank "effectively stuck with the property." (Shifflett & Putzier, 2023).

The ongoing fiscal crises due to resident outflows have led cities like New York to consider tax increases on high earners and adjustments in property tax to manage budget deficits. However, the continued outmigration of wealthy residents further strains city finances, creating a vicious cycle of declining revenues and increased financial pressure on cities. This Urban Doom Loop demonstrates the interconnectedness of real estate health and overall economic stability, showing how shifts in work habits and population movements can precipitate widespread fiscal and social challenges.

Many business owners in the areas experiencing urban decline need help with attracting customers and maintaining their finances because of the declining foot traffic, reduced consumer spending, and increased vacancy rates. On the other hand, landlords and banks are directly impacted by the Urban Doom Loop, sharing the same struggles. A frequent trend of business closures and relocation weighs more burden on landlords to fill commercial properties, leading to decreased rental income and potential property devaluation. In return for declining property values and rental incomes, many banks desperately face loan defaults and delinquency risks. At this point, the trust between lender and borrower is weaker as banks are hesitant to back up the major portion of commercial loans. Office vacancies are not just an issue solely for businesses; they collectively lead to destructive economic and social consequences. Alarming impacts like loan delinquency or surge in property rates will be mentioned as many cities are remarkably behind on payments, hurting the state's real estate industry and nationwide. (Siegel, 2023).

The other side of the story is the residents and the community of the impacted area. Not only are business owners impacted by the policies and changes of the Urban Doom Loop theory, but regular residents who own property or participate in real estate activities, such as homebuying, investing, or renting, may experience negative consequences as property values decline and economic opportunities diminish. Reduced property values can erode homeowners' equity and wealth, while increased vacancies and blight can affect residents' quality of life and sense of community. The government's revenues from multiple taxes and grants are dedicated to maintaining the city's operations, public infrastructures, and residents' safety, such as schools, hospitals, policies, etc. Budget cuts or revenue shortfalls can have far-reaching consequences for a city's quality of life, economic vitality, and long-term sustainability. Effective financial management and strategic planning are essential to mitigate these impacts and maintain essential services for residents and businesses.

The Donut Effect

Moving onto the next consequence of the downtown vacancy, the “Donut Effect” can be said to be a sequel to the Urban Doom Loop. One of the concerns for the city government is the escalating out-migrating trend. In 2021, Arjun Ramani and Nicholas Bloom from Standford University’s Department of Economics conducted an elaborating study about migration patterns and real estate markets in U.S. cities, focusing on Central Business District like Manhattan in New York. The two authors utilized the data from the Zillow Group and the dataset from the United States Postal Service (USPS) for both real estate and migration patterns. Three findings are determined through the study that raise considerations for large cities and their governments.

The first finding introduces the "Donut Effect" concept and how significant the movement has been. Rapid and strong outmigration from the center of big cities to the edges of these same cities or states in such a short period creates a hollow at the city center, similar to the shape of a donut. By sampling the 12 largest U.S. metros, both the results from Zillow Group and the USPS indicate a decline in real estate and housing demand in the city with a 15-percent drop in rent growth and a 9-to-16-percent rise in a cumulative net population and business outflows, compared to their pre-pandemic levels. (Ramani & Bloom, 2021, p.2 &3). From the second main result, it is noted that large cities are where the donut effect takes place the most. "The top 12 metros, as measured by population, see the most substantial donut effects, the next 13-50 metros see more minor effects, while the remaining 51 to 365 metros see little to no effects (Ramani & Bloom, 2021, p.3). The final crucial finding points out that the decline in real estate is due to the vast majority of people and businesses migrating from the cities to the rural areas. Ramani and Bloom found that the New York and San Francisco metros are impacted the most by this donut effect for several noticeable reasons. It is mostly reported that post-pandemic, New York and San Francisco were densely populated cities with costly real estate markets, primarily due to their significant finance and technology sectors, which also facilitated a substantial portion of their populations being able to work from home. Another reported reason is because of declines in safety and increases in greater premium home size and other amenities for donut movers.

The three key findings form a new structure of metro areas and central business districts in big cities in the United States. As mentioned in the reason section above, a cumulation of social crisis, rocketing prices, and the flexibility to work from home, most white-collar employees from different fields across the country are demanding more remote work. With the flexibility and dependency of not-coming-to-the-living expenses of cities, they are surging as inflations in fuel, food, and many other components increase. People are choosing to reside further away from central business districts and downtowns. Unfortunately, the sudden and vast movements are unhealthy and unsustainable for the remaining residents and the surrounding environment.

The two authors have also kept track of the moving pattern of "donut movers" based on a dataset of households from Data Axle's quarterly household files. "Donut movers" are classified as those households that left a Central Business District (CBD) of a top 12 metro for a destination of another category (Ramani & Bloom, 2021, p.12). The findings indicate that 58% of individuals relocating from CBDs within the same metropolitan area chose to move to other areas. Therefore, the predominant trend in these relocations was a shift towards places with lower population density. Other metros outside the top 12 witnessed a movement of 29% of the households from CBDs, which is considered the second largest group in the study. Finally, the study records distributions of 9% to other large metros and 4% to rural areas (p.13). Since there are two main types of work-from-home methods, hybrid WFH and full-time WFH, the two professors build a simple model to illustrate how the trend move to within-metro and between-metro population will look if basic assumptions remain constant. Basic assumptions include utility, which is a function of wages, amenities, commute costs, and housing rents. From comparative statistics, there is reallocation from city centers to their respective suburbs in both hybrid and full-time WFH households. A smaller parameter of the share of days worked in the office indicates more remote work, leading to more reallocation. Although sizable rates of both methods indicate remarkable movements exist both within and between metro areas, the level of reallocation under hybrid WFH is less than that of full-time WFH (p.14). Hence, hybrid remote workers, who still need to be present during the week, tend to reside close to their workplace, while full-time remote workers may opt to depart from the metropolitan area where their employer is located.

The nature of the Donut Effect lies in urban sprawl or suburbanization, which is the expansion of urban areas from commercial areas to low-density residential on the outskirts of cities. Although this phenomenon can benefit housing supply and economic growth, it also raises several concerns and significantly affects both urban and suburban areas. First and foremost, one of the primary concerns of urban sprawl is its environmental impact. With extensive and rapid movements from big cities, rural areas must adapt to immediate development. To answer the demand for urban sprawl, intensive constructions have been built based on existing infrastructure. Smaller cities or rural areas that welcome new residents from bigger cities have looked for accommodation to broaden their network between roads, bridges, utilities, and public services. With an understanding that inadequate infrastructure investment can result in congestion, overcrowding, and service deficiencies, city governments are willing to add more budget to their expenditures. Despite only 9% of households moving from CBDs to rural areas, the expansion, maintenance, and repairs put weight on the monetary aspect and damage the quality of the ecosystem. Growth in residential constructions, increased vehicle use, and scaling up of artificial creations have factored into air, water, and noise pollution.

Furthermore, frequent traffic congestion and continuous release of energy usage from buildings and different activities require more fossil fuels burnt like coal and oil, which puts more carbon dioxide into the atmosphere. Scientists have observed and proven that the process of fueled gases in Earth's atmosphere that traps the Sun's heat leads to greenhouse gas emissions, exacerbating environmental degradation and climate change. Another concern when it comes to converting land to commercial and residential developments is the loss of agricultural land. The encroachment of urbanization on farmland threatens local food systems, agricultural livelihoods, and rural communities, undermining the sustainability of food production and exacerbating global food insecurity.

It should also be acknowledged that the Donut Effect, or urban sprawl, has a more significant influence on social and economic aspects than just land and infrastructure. Since studies and reports have captured that mostly high-earned donut movers are moving away from business districts and robust cities to smaller cities or non-CBD areas, this transition can easily give rise to social segregation and inequality. Gaps in income, race, and ethnicity are standard components between incoming and current residents. They can perpetuate disparities in access to quality education, healthcare, employment opportunities, and public services, exacerbating social divisions and fostering social exclusion. Finally, a concern for health and well-being is recognized because of the rapid shift in the daily commute. 58% of donut movers from top cities are willing to commute longer daily in order to acquire more living space from a lower-density place. As a result, a reliance on automobiles for transportation can lead to decreased physical activity and severe pollution from traffic congestion.

Social impacts

Throughout discussions of the Urban Doom Loop and Donut Effect theories, it is clear that commercial property vacancies have substantial impacts on local communities. Various dimensions of urban life are disturbed, and people struggle to adapt to the new standard created by policy changes and shifts in human behavior. The first negative impact is the loss of jobs and economic opportunities resulting from economic decline and reduced services. This decline in foot traffic to downtowns or Central Business Districts directly affects local businesses, such as eateries, cafes, amenities, healthcare providers, and retail options. The decreased demand for the physical upkeep of neighborhoods can discourage current and potential new businesses and the surrounding community.

Furthermore, to address budget deficits caused by outmigration and high loan delinquency, city officials often resort to increasing taxes and cutting funding for public services. Resource shortages disrupt support for schools, parks, and infrastructure maintenance, lowering residents' quality of life. As a result, the public's health and well-being can deteriorate, leading to a rise in crime and vandalism, which further contributes to depopulation and challenges long-term community development, especially in downtown areas.

If governments fail to secure abandoned commercial properties, they inadvertently create opportunities for criminal activities, such as vandalism, squatting, and drug use, which threaten residents' safety and trust. Vacant and dilapidated complexes can be depressing and unattractive, deterring investors and new residents, thereby perpetuating a cycle of decline. Vacant sites often become hazardous, accumulating trash, pest infestations, and structural deterioration, posing direct health risks to nearby residents. These adverse conditions create significant barriers to revitalization and community development.

The Donut Effect theory explains the trend of people moving from big cities to other areas, leading to a decrease in population. This migration reduces economic activity and weakens the social fabric of neighborhoods. Revitalizing areas with high vacancy rates is challenging and resource-intensive, often requiring significant investment and coordinated efforts from multiple stakeholders. The future of impacted areas depends on these revitalization efforts to restore economic vitality and community cohesion.

Recommendations and Conclusion

New York City, San Francisco, Seattle, and Portland are renowned for their economic vitality and quality of life nationally and globally. However, despite their growth potential, these cities have faced significant challenges due to macroeconomic conditions and unforeseen market trends. The proliferation of commercial property vacancies and business closures have posed barriers to the continued success and overall well-being of these urban centers.

Addressing commercial property vacancy in American cities and downtowns aims to highlight the economic and societal well-being of both business and non-business sectors. However, the concerning impacts resonate with government officials, business owners, and workers within these commercial spaces. While numerous proposals for improvement and recovery have been put forward, some can be implemented quickly, while limited resources hinder others. Although the aim is to restore conditions to pre-COVID-19 levels, this paper also advocates for several recommendations and explores alternative paths.

To enhance the quality of downtowns and business districts, it is a national responsibility to address the alarming vacancy issue in the United States. Not only are businesses and property owners required to take part in the solutions, but individuals and governments also need to lend a hand in acquiring a multifaceted approach. As I mentioned earlier, empty buildings represent economic, regulatory, and market dynamics concerns.

Governmental aids

First and foremost, aid and power from the local and state governments are essential to offering economic development incentives to attract businesses to vacant commercial properties. These incentives may include tax breaks, grants, low-interest loans, or other financial incentives to encourage businesses to lease or purchase vacant properties. Secondly, as studies have shown, Central Business Districts and metropolitan areas are the most vacant, with flexible zoning and regulations allowing more flexibility and potential for adaptive reuse of vacant buildings to meet changing market conditions. During an interview with San Francisco's mayor, it was reported that the city has yet to be able to get involved and invest in conversions and redevelopment of buildings due to financial constraints, timeliness, and existing policies. Therefore, most commercial property transformations depend solely on investors or businesses, which is still a barrier to carry on investments. Nonetheless, other recommendations would be to streamline permitting processes and collaborate with private developers and investors through public-private partnerships. Governments can join the process of reinventing vacant properties and bringing them back into productive use.

Another power that the government can use to address the vacancy phenomenon is implementing and modifying several tax-related strategies. Since many property owners have faced hardships finding tenants to sustain their business performance, offering tax credits or deductions on these assets can encourage the owners to lower rents or improve the conditions of their properties to attract potential tenants. Besides that, with incoming owners of those vacant properties, the government can either provide tax credits or reduce business taxes for these new businesses to motivate entrepreneurs to choose downtown or CBD areas for their new ventures. Furthermore, as the goal is to recover the engagement of the public, more collaborative tax programs can revitalize Central Business District areas. By implementing public-private partnerships or community redevelopment tax incentives, both private and public entities are enabled to redevelop vacant commercial properties through the leverage of private investments with public support.

Reinforce and strengthen fundamental needs, such as security, sanitation, transportation, health care, education, and entertainment in downtown and public areas. Social and psychological components measure a city's livability to current and potential residents. Closed and abandoned commercial buildings for a long time are ideas to house various threats to the neighborhood, such as crime, environmental issues from stormwater management, and heat island effects.

Security and Sanitation

It should be emphasized that most city outmigration is due to a lack of safety and fundamental needs, primarily security and sanitation. To address the security concerns, the government can implement various strategies focusing on enhanced police presence with surveillance systems and establishing more lighting and environmental design to illuminate dark areas around empty buildings, reducing opportunities for crime. Another strategy is Crime Prevention Through Environmental Design (ICA home page), which is a multi-disciplinary approach to crime prevention that uses urban and architectural design and the management of built and natural environments via territoriality, surveillance, and access control. On the other hand, governmental revenues should cover the quality of the city's sanitation. In order to establish community-based activities, such as volunteer clean-up initiatives or public awareness campaigns, cities can reconnect residents while improving the cleanliness of neighborhoods. As downtowns are expected to be convenient and welcoming for visitors and residents, improvements in public amenities are essential. Restroom facilities and green spaces that are regularly cleaned and monitored should be easily accessible in downtown areas to enhance convenience for visitors.

Migration Policies

With more negative impacts, the Donut Effect theory raises an awareness of outmigration from cities. In order to ensure the balance and well-being of the city, the government of each state or county can establish and monitor regulations in the migration flows between cities, preventing the exploitation of natural sites and resources. Governments should also be aware of any unpleasant effects of unplanned constructions, potential congestion, and environmental impacts of urban sprawl. Although city officials cannot directly control the desire for migration within the territories, there are several indirect plans to discourage migration patterns to prevent urban sprawl. For example, Portland State University offers a tuition-free degree program for new applicants who meet specific conditions: they must be current Oregon residents who have lived in the state for more than one year, and their reason for residency cannot be solely for attending school. It is undeniable that the flow of migration can boost the economy and create more opportunities for people in different industries and areas. However, with regulations, the balance and well-being of the habitat can be preserved.

Commercial properties conversion

Suppose the cities can relieve their CBDs and metropolitan areas to become more livable, rezoning unused office and retail space for residential and public gatherings. In that case, they can answer the concern of drops in foot traffic. Encouraging adaptive reuse and redevelopment of vacant commercial properties can breathe new life into underutilized spaces. As a result, various ways exist to incorporate and convert offices and retail spaces into multi-purpose spaces, serving both residential and commercial functions. Although the structure of commercial properties is challenging to construct into residential housing, it is open to other mixed-used developments combining multiple functions. This includes turning office spaces and old malls into medical or dental clinics, educational facilities, such as schools or training centers, and more leisure facilities like art galleries or studios, fitness centers, warehouses, storage facilities, and many more. For example, A Macy's in Vermont was temporarily turned into a high school in 2021 when toxic industrial chemicals were found on school grounds. Amazon bought buckled malls and turned them into distribution fulfillment centers. Cities can eliminate wasted resources and promote more accessibility to academia, community engagement, and life quality enhancement (Rubin, 2023).

Another type of conversion is modifying urban surfaces to reflect or dissipate heat, preserving natural areas to restore ecological integrity, and enhancing energy efficiency. Building owners and investors can construct their project as LEED (Leadership in Energy and Environmental

Design), the world's most widely used green building rating system. Strategies can be divided into changes to the built environment, such as reflective pavements, green roofs, and enhancements to the natural environment like urban green spaces. Green spaces not only cool urban areas but also offer additional benefits like improved water quality and biodiversity. Transforming underused urban areas, such as vacant lots, into green spaces can reduce urban heat island (UHI) effects and provide ecosystem services. Cities like Detroit are examples where such initiatives have been incorporated into redevelopment plans. By converting abandoned properties into green spaces, building owners can effectively solve the vacancy problem as well as the climate change concerns in the cities (Cady et al., 2020).

Shifts in business structure

Although Macy's has closed hundreds of its locations due to significant drops in visitors' foot traffic, the chain's CEO decided to move the business into smaller locations and continue operating regularly. This strategy enables Macy's to relaunch bigger spaces in the near future.

Alternatively, as the office spaces and business complex are downsizing their physical margins, considering sublease as a new normal. By sharing spaces, businesses can save most expenses on leases, utilities, and other resources, such as land. Moreover, less demand for enormous spaces contributes to less demand for construction and destruction. Sublease contracts can be a methodology to fill up the current gaps of small-sized teams, enabling companies to work with other tenant teammates more collaboratively and interact better with each other after a long time working from home.

While remote work offers convenience, company leaders should also emphasize the health benefits of being active and returning to the office. In-person work allows employees to engage in face-to-face interactions and move between tasks and locations, which can enhance physical activity and mental well-being. Direct interaction with colleagues can support mental health, in contrast to the isolation of working exclusively through computers. Therefore, senior managers should gradually reduce work-from-home policies to restore foot traffic in business districts and revitalize local shops, cafes, and eateries by bringing back their customer base.

International Immigration

An alternative future for American cities and downtowns is to be more open and welcoming to academic and workforce immigration, particularly international students. For decades, the United States has been a global leader in higher education, with more than one million international students enrolled and graduating, providing a great source to the diversity pool and a significant means to globalization. According to a report, nearly one million international students who attended U.S. colleges and universities contributed $40 billion to the U.S. economy and supported more than 368,333 jobs in 2022 and 2023 alone (NAFSA, 2023). Additionally, for every three international students in the U.S., one job was created within the same period. With people coming to attend the U.S. education, increased demand for housing and economic growth boost are undeniable (NAFSA, 2023). Apartments or any types of accommodations are required during academic years, which indirectly stimulates the local real estate market and reduces vacancy rates in residential properties. Besides that, local economies are likely to be influenced positively by the demand for spending on goods and services. Various necessities such as restaurants, shops, grocery stores, malls, and other specialty shops can be relived again, especially in downtowns.

As an international student at Portland State University, I appreciate that this is a diverse campus located in the heart of downtown Portland, which is a wide-open door to opportunities and growth. The international programs and language Not only that I can sustain my self-growth, but I also have the ability to contribute to the city and give back to the community afterward. This is the mission of the school is to:

> "We serve and sustain a vibrant urban region through creativity, collective knowledge, and expertise. We are dedicated to collaborative learning, innovative research, sustainability, and community engagement. We educate diverse communities of lifelong learners. Our research and teaching have global impact" (PSU website).

In conclusion, this paper has highlighted the critical issue of commercial property vacancy in American downtowns, drawing on various government studies and statistical data to illustrate the gravity of the situation. While the COVID-19 pandemic has significantly disrupted the economy, shifts in policies and human behavior have played a decisive role in shaping our current societal landscape. The Urban Doom Loop and Donut Effect theories provide a comprehensive view of how these human factors have disrupted the flow of life, clearly indicating the connection between work-from-home habits and the subsequent economic decline. The evident consequences, including downsizing malls and office spaces, closures of brick-and-mortar stores, and reduced foot traffic in metropolitan areas, have raised awareness among commercial property owners, tenants, and city governments.

However, the impact extends beyond the business and real estate sectors, as the increasing vacancy rates disrupt lending practices and affect both current and future residents. Promoting remote work, coupled with higher city taxes, has led to outmigration to smaller or nearby areas, causing imbalances in city management and budget shortfalls. As a result, cities need help to maintain essential services for their residents while managing financial constraints.

This paper has proposed and advocated for a range of recommendations to various authorities, highlighting the need for a concerted effort to revitalize urban areas, attract businesses back to city centers, and balance remote work with in-person engagement. Addressing the vacancy phenomenon requires collective action and awareness about sustainable urban living. By advocating for appropriate policies, we can prevent the decline of cities and enhance the well-being of all residents and businesses across the United States. Any single entity cannot cause the issue of empty buildings and streets, and it cannot be solved by one alone; it demands a unified approach to create vibrant, sustainable urban environments.

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