Practice papers

How downtown multifunctionality is packaged is a key to its success

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Abstract In the large downtowns in the US, the adaption rates and impacts of remote work have been strong and sparked efforts to make these districts far more multifunctional, especially by adding lots of new housing. While comparable city centres in Western Europe have not seen remote work have similar impacts on office occupancy, multifunctionalism has long been heralded as a factor that makes them strong. For example, it underpins their two key competitive advantages of dense agglomeration and the generation of many multipurpose trips. While multifunctionalism is a familiar concept and is often mentioned in relevant publications, there is amazingly little written about it theoretically, and little to no empirical research done on it. I took on that topic in a recent paper in which I noted that how downtown multifunctionality is 'packaged' in the physical containers in which the venues of these functions are activated, and how they physically relate to each other, are very often the key factors in determining whether efforts to make a downtown more multifunctional will succeed. I also argued that a function must have very magnetic destinations active in these containers. This paper focuses just on the topic of packaging functions and is an expansion of my prior analysis that covers much new ground.

Keywords: *multifunctional downtowns, multifunctionalism, downtowns, downtown recoveries, central social functions, downtown office clusters, downtown housing*

INTRODUCTION

This paper is focused on large downtowns in the US, where adaption rates and impacts of remote work have been strong and sparked efforts to make these districts far more multifunctional; ie to have other strong uses besides office activities. Remote work has ignited less concern about increasing the multifunctionality of smaller downtowns in the US and comparable commercial centres in Western Europe, Korea and Japan. There are a few large office cluster-dominated business districts in these nations, however, such as Canary Wharf and La Défense, where it is also a serious issue. Leaders in many large US downtowns are looking to avoid a 'doom loop' by making theirs less dependent on office activity through making them significantly more multifunctional, especially by adding a lot more housing.

Having worked in the downtown revitalisation field since 1974, I had long heard that strong downtowns were multifunctional, but I recently realised that while it was a familiar concept, and it was often mentioned in relevant publications, there was amazingly little written about it theoretically, and little to no relevant empirical research. In May 2023, I published a paper[1] attempting to provide some theoretical underpinning to the concept, while noting some of its behavioural characteristics based on my field observations and identifying some action implications.[2] I hopefully established in that article that the concept of downtown multifunctionality has an analytical richness and action importance that make it one to which urbanists everywhere, now or in the future, in large towns or small, should pay far more attention.

In that paper, I identified how downtown multifunctionality is 'packaged' in the physical containers in which the venues of these functions are active and how they physically relate to each other are very often the key factors in determining whether efforts to make a downtown more multifunctional will achieve its desired goals. I also argued that a function must have very magnetic destinations active in these containers.

Much, although far from all, of the discussion below is taken without apology from that earlier paper. Sufficient new material has been added to this paper that it may be considered a follow-up and enable it to stand on its own legs.

THE SHIFTING SWAY OF OFFICE DEVELOPMENT

Problematic downtown office sectors are not new

As Robert Fogelson noted in his wonderful history of our downtowns, after the Second World War in our larger downtowns, offices were becoming their increasingly dominant use, while other uses such as housing and retail were moving to the suburbs.[3] Offices provided investors the highest return on their downtown real estate investments and generally raised real estate prices. They also provided the highest-paying jobs. The raised real estate values are good for some, but not for others. In recent years, office-dominated downtowns have become much more expensive places to operate a business, live, dine in restaurants or attend cultural and entertainment events.

Also, the link between office growth and reduced downtown multifunctionality is not a new phenomenon produced by remote work and the COVID-19 pandemic. During the late 1970s and 1980s office development proved to be very problematic for numerous downtowns. Office development was then seen by many downtown experts as the best engine for downtown growth, but the resulting revitalisation efforts produced fortress-type buildings that created a very unfriendly environment for pedestrians. Clusters of those buildings increased the fear of crime instead of reducing it and made it far more difficult for sidewalk-facing storefront operations to survive or succeed. Skyway and tunnel systems and internal 'off-street retail networks' siphoned off shoppers from downtown sidewalks. The packaging of the office function in these downtowns was ill-conceived and harmful. Some of the afflicted larger downtowns have been able to bring life and energy back to their sidewalks by making buildings more permeable, closing sky bridges and tunnels, increasing outdoor dining, creating vibrant public spaces and generally attracting stronger storefront operations. This required a decade or two to achieve and bundles of resources.

The ability of offices to be the dominant downtown function varies with the size of the city

Office development and multifunctionality appear in even relatively very small communities, but the ways in which office workers dominate the local workforce and office buildings dominate the downtown's commercial spaces sharply differentiate the very large downtowns from their smaller cousins. For example, Table 1 shows that in some small towns with populations around 2,500, office-prone industries averaged about 16 per cent of the workforce, and in one town they accounted for 28 per cent of the local workforce. Moreover, the ratio of employees per resident is under 1, and the average ratio for office-prone workers per resident is even far lower, 0.04. Most businesses and employment in these small downtowns are in central social function (CSF) type operations such as eateries, food for the home, bars, personal and trade services and entertainment. Their central business functions are far from robust. In these small towns, offices usually offer little or no threat to their commercial districts' multifunctionality.

In somewhat larger cities, especially the suburbs in strong metro areas, office development is substantially larger than in the small towns, although it never reaches the size and density found in our large downtowns. Moreover, most of such office development is not located in the downtown, but in the rest of the town. The downtown may have a significant number of office-using jobs, but in these strong suburban downtowns visitation is not generated mostly by people who work there, but by those who come to have fun, meet and connect with other people, get essential services and shop. Morristown, NJ, is a good example of such a downtown (see Table 2). The city is a strong regional commercial centre with a substantial amount of office development. It has more office workers than residents, with its ratio of office workers to residents being about 1.3:1. Only about 24 per cent of the office-prone workers, however, are located within the 0.25-mile ring that defines the downtown core, and about 35 per cent are with a 0.50-mile ring. Its downtown has an exceptionally strong array of CSFs that Bill Ryan and I wrote about in 'The vibrant 15-minute geographies of suburban Morristown, NJ', which appeared in the *Journal of Urban Regeneration and Renewal* (*JURR*).[4] Among these assets are a large number of market rate housing units, exceptionally large and strong restaurant and pamper niche, a cluster of strong boutique shops and a magnetic community theatre that draws about 200,000 patrons annually.

If we look broadly at the multifunctionality of these strong suburban downtowns like Morristown, considering not only the different industries people are

Table 1: The proportion of jobs in five Wisconsin towns with populations around 2,500 that are in office-prone industries

Town	Population	Jobs		Employees per resident	Office prone per resident
		Total	% Office prone		
Sherwood	1,718	104	28.8%	0.06	0.02
Wrightstown	2,865	1,984	3.3%	0.69	0.02
Wales	2,552	869	24.7%	0.34	0.08
Winneconne	2,370	506	13.0%	0.21	0.03
Mondovi	2,775	640	11.6%	0.23	0.03
Mean	2,456	821	16.3%	0.33	0.04

Source: US Census, OnTheMap, 2020[5]

Table 2: Morristown, NJ: office-prone jobs in 2017

Geography	Count	% of city total office prone	Office prone % of all jobs in geography	Eds, meds and PA % of office prone jobs
.25 mile ring	5,509	23.9%	69.8%	26.3%
.5 mile ring	7,930	34.4%	70.0%	34.2%
11 mile ring	21,788	94.6%	81.7%	64.0%
City total	23,029	100.0%	82.8%	64.6%

Source: US Census Bureau, OnTheMap[6]

employed in, but also including residents and visitors who neither live nor work there, one might reasonably argue that they are surprisingly multifunctional and usually far more so than the business clusters in our large downtowns that are referred to as central business districts (CBDs). They demonstrate that a downtown does not have to be dominated by a large cluster of office buildings to be successful.

When we look to our larger downtowns, such as Midtown and Lower Manhattan in New York City, the size and densities of their office clusters dwarf those in the smaller downtowns. As Table 3 shows, within 0.25 miles of 30 Rockefeller Plaza are over 137,000 workers in office-prone industries, and over 400,000 within 0.5 miles. Morristown has about 5,500 workers and about 7,900 in the comparable ring areas. Corresponding numbers for the Seagram Building are 104,000 and 356,000. The clustering of such office towers means that the ratio of office workers to residents is often very high in the areas that immediately surround them. For example, the residential and office worker functions in the 0.25-mile ring around the Goldman Sachs HQ are in good balance, with an office-prone worker-to-resident ratio of just 1.24. My other research suggests that an acceptable functional balance can be maintained with ratios up to around three or four office workers per resident; however, the ratios for 30 Rockefeller Center, One Bryant Park, and the Seagram Building are far higher: 75.47, 50.09, and 37.55 respectively.

Also notable are the very low percentages of the populations who live within one mile of these buildings that live within an easy walk, ie 0.25 miles. For example, of the 210,018 residents who live within one mile of 30 Rockefeller Plaza,

Table 3: Statistics on residential populations around four selected large office buildings in parts of Manhattan's downtowns

AREA	Buildings at centre of rings	Office prone workers in ring area			Residents in ring area			Residents .25 ring as % of 1 mile ring	Employees/ resident in .25 mile ring
		0.25 Mile	0.5 Mile	1-Mile	0.25 mile	0.5 mile	1 mile		
Battery Park City	Goldman Sachs HQ	14,291	64,210	217,039	11,525	38,244	107,985	10.67%	1.24
Grand Central Partnership	Seagram Building	104,204	356,226	720,755	2,775	36,760	184,915	1.50%	37.55
Rockefeller Center	30 Rockefeller Plaza	137,739	400,030	789,197	1,825	20,755	210,018	0.87%	75.47
Bryant Park	One Bryant Park (BoA)	105,438	425,334	864,632	2,105	20,639	215,498	0.98%	50.09

Source: Residential properties were estimated using ACS data from five-year period estimates, vintage 2020. Data on employees are from OnTheMap, vintage 2019 only 0.87 per cent of them live with 0.25 miles of it. This means that the most easily addressable residential markets in and near this building do not have an easy walk to it and its tenants. In turn, that means that its tenants will need to be very magnetic with offerings that match the needs and wants of these proximate residents.

Housing, downtown visitation and multifunctionalism

There are numerous possible indicators of a downtown's level of multifunctionality. One I would very much like to see is attendance at arts and entertainment venues. Another is what people do when they visit a downtown. On this there is now some very strong data. A team led by Paul Levy released a very important report, 'Downtowns Rebound',[7] in October 2023, which looked closely at our 26 largest downtowns using mobile phone-based data from Placer.ai.[8] It found that invariably in all of these downtowns the daytime population and visitation was dominated not by the people who worked there, but by the visitors who neither lived nor worked there, but came to have fun, connect with people, dine, shop, obtain important services, etc.

Table 4 looks at the combined population of these 26 downtowns and finds that both prior to the pandemic and in Q2 of 2023, visitors accounted for about 60 per cent of their daytime population; more than the combined total of the residents and non-resident workers. The report shows that this pattern holds up when looking at the individual downtowns. This is a strong indirect indicator that these downtowns have a considerable amount of multifunctionalism that is sufficiently magnetic to attract such visitation. These visitors are not coming to work, but to play, engage or meet personal needs and wants. Many of these visits will be to the venues of CSFs: restaurants, retail shops, public spaces, museums, concert halls, medical appointments, etc.

Table 4: Composition of the combined population of the 26 largest core downtowns in 2019 and 2023

User group	2019 Q2	2023 Q2
Visitors	60.6%	61.7%
Non-resident workers	32.2%	27.1%
Residents	7.3%	11.2%

Source: Levy, 'Downtowns Rebound'[9]

It is notable that visits by visitors had the sharpest and largest decline as COVID-19's impacts were felt, and the quickest rebound. It was their declining presence, not that of workers, that most strongly helped create the image of downtowns being abandoned.

'Downtowns Rebound' also found that while the residential segment was the smallest of the three looked at, its visitation rate was the most stable during the pandemic, often putting needed pedestrian activity on sidewalks that helped give them an aura of sufficient activation and safety. They also provided an assured base of shoppers for nearby shopkeepers. Furthermore, these downtown residential populations actually grew during the pandemic (see Table 4). The report also notes that a good number of these new residents will be live/workers; people who both live and work in the downtown. They also bring in a lot more consumer spending potential than the office workers.

Workforce indicators of downtown multifunctionality

Another useful indicator is data on the industries downtown job holders work in. Thanks to Paul Levy and Steve Landis at the Center City District (CCD), I had the data that enabled me to create Table 5, which shows the percentages of downtown job holders who work in some selected industry groups in the 26

Table 5: Private sector employment by industry groups in the 26 largest downtown cores in the US in 2019

Downtowns	Strongly office prone*	Retail trade	Eds and meds	Arts and entertainment	Accommodation/ food services
Atlanta	63.15%	1.0%	14.81%	1.4%	9.0%
Austin	54.70%	5.7%	9.10%	1.5%	14.4%
Boston	59.36%	5.4%	17.22%	1.9%	8.9%
Charlotte	83.78%	1.4%	1.40%	2.5%	6.6%
Chicago	65.06%	3.8%	11.75%	1.7%	7.5%
Columbus	59.40%	0.9%	19.67%	2.4%	7.0%
Dallas	70.78%	2.4%	3.79%	2.1%	7.6%
Denver	62.37%	2.1%	4.08%	1.3%	12.1%
Fort Worth	58.22%	1.0%	8.30%	1.4%	9.4%
Houston	54.60%	0.3%	2.76%	3.0%	6.0%
Indianapolis	45.58%	1.6%	18.71%	1.9%	8.9%
Jacksonville	39.81%	0.9%	45.41%	0.8%	5.5%
Los Angeles	60.37%	3.7%	4.92%	4.5%	13.0%
Lower Manhattan	66.94%	3.1%	13.72%	0.9%	6.8%
Memphis	33.82%	10.5%	21.06%	4.4%	15.3%
Midtown	64.80%	5.5%	5.66%	3.2%	8.1%
Nashville	50.17%	3.9%	6.94%	5.2%	24.3%
Philadelphia	56.66%	3.9%	19.91%	1.5%	9.9%
Phoenix	48.48%	0.4%	1.44%	7.4%	14.3%
Portland	60.87%	5.7%	9.82%	1.5%	11.6%
San Antonio	35.57%	3.4%	24.91%	2.0%	26.9%
San Diego	45.57%	2.6%	2.80%	3.5%	30.8%
San Francisco	66.50%	4.4%	4.86%	1.1%	8.6%
San Jose	72.97%	1.8%	4.44%	1.3%	12.8%
Seattle	54.42%	5.1%	13.61%	1.8%	8.9%
Washington DC	54.59%	2.3%	9.17%	1.5%	12.2%
Median	58.79%	2.9%	9.13%	1.8%	9.2%

Data source: From the Census Bureau's Longitudinal Household Employment Dynamics (HELD) data set, graciously provided for the 26 downtown cores by the CCD, Philadelphia. The data is based on downtown definitions for 'Downtowns Rebound'[10]

*Includes workers in these industries: information, finance and insurance, real estate and rental and leasing, professional, scientific and technical services, management of companies and enterprises, administration and support, waste management and remediation

largest downtown cores in 2019. I selected a pre-pandemic year to analyse, since the topic here is multifunctionality and things were fairly 'normal' in 2019, while 2020, the most recent year for which data is available, was pandemic-ridden. This data is supportive of the contention that there is a floor below which any doom loop process that might appear — and I have strongly argued that it is very, very unlikely — is very unlikely to drop. The median in the 26 largest downtown cores for those in industries strongly prone to lease and use office spaces is about 59 per cent, and even in a downtown core famed for the size and density of its office cluster, Midtown Manhattan, 65 per cent of the jobs are strongly office-prone. In several of these downtowns — eg San Diego, San Antonio, Phoenix, Memphis, Indianapolis — less that 50 per cent of their workforces were in strongly office industries.

Also, many of these downtown cores have the type of medical and educational operations that are not only difficult to physically relocate but also have strong community ties with strong political ramifications. They also are less susceptible to being weakened by their employees working remotely.

Several of these large downtowns have strong accommodations and food services sectors, eg San Diego, San Antonio, Nashville, and the 'Downtowns Rebound' report found that they were making the fastest job recoveries.

In San Antonio and Jacksonville, the combined employment in the medical and educational and hospitality sectors accounts for over 50 per cent of the workforce in their downtown cores, exceeding the employment in their strongly office-prone industries by about 10–15 per cent. This shows that downtowns do not need overwhelming numbers of office-prone jobs to function successfully. That said, the salaries in the hospitality industries are unlikely to match those of the office-prone industries.

The problem of the monofunctional office cluster

It is often said that retailers are like sheep — they like to herd! It appears that much the same is true for office development — office buildings like to cluster. That is why, even if a downtown already has substantial multifunctionality, parts of it will still need more of it. Recent events have also created smaller clusters of smaller office buildings that are outmoded, reinforcing the awareness of needed additional multifunctionality and efforts to make that happen.

How such additional multifunctionalism is packaged will strongly determine if such an effort will succeed.

THE REAL ESTATE PACKAGING OF MULTIFUNCTIONALITY

A downtown's built environment provides the containers for the functions of its operating venues. Those containers can vary considerably in character and this will affect how their functions interact with each other, as well as with those in other parts of the downtown. The characteristics of these containers can be determined organically as developers and landlords decide which uses will be best for their projects and properties. They can also, however, be determined by public policies and programmes that regulate new projects and the reuse of existing structures.

This is happening a good deal these days as many major cities in the US try to make their downtowns more multifunctional by adding significant amounts of new housing units. The success of these efforts may substantially depend on how the cities 'package' these new units in terms of the types of containers they are placed in, where those containers are located and the magnetism of the destinations located within them. Unfortunately, few of the local discussions about increasing downtown housing cover this topic.

Within the current discussion about adding more housing for Manhattan, there is a lack of understanding about how new housing can have positive impacts on downtown pedestrian flows and consumer spending on retail, eating out and entertainment.[11] Positive results are possible, although not guaranteed. How that housing is packaged will strongly influence its ability to actually provide the desired positive impacts.

Individual buildings

These buildings can hold one or more functions. They can change functions — eg from office or religious uses to housing — or their mix of functions. They can be simple one or two-storey structures found in so many of our smaller downtown and main street districts. Our cities, large and small, also are filled with buildings that have storefronts at street level tenanted with retail and personal and professional service establishments, combined with several storeys of residential or offices above. In our large cities, there can be many storeys above street level storefronts. In larger downtowns, individual buildings can be strongly multifunctional, containing a mix of office, residential, hotel, personal services, retail and entertainment uses, with large amounts of space, eg 100,000+ft^2, occupied by each use. The recent conversions of relatively large office buildings in Buffalo and Dallas are characterised by such strong multifunctionality; several new buildings in Austin and Philadelphia with similarly strong multifunctionality have been built or are in the pipeline. Such buildings have been around for a while. In Chicago, 875 North Michigan Avenue, for example, was completed in 1969 (see Figure 1). Formerly known as the John Hancock Center, this 100-storey building is a mixture of condominiums, office space, retail, above-ground floors serving as a parking garage, two communications towers and an observatory.

Each building potentially centres a downtown multifunctional node (DMN), an area probably well under 1.5 miles in diameter or well within a 5-minute walk shed, in which the probability is maximal for meaningful positive interactions between the venues of the functions present in that area. Looking at the analyses of a number of DMNs will give researchers and decision makers a much better understanding of what is going on in their district than just looking at data where the whole downtown is the geographic referent.

An important factor that will influence the use of individual buildings to increase our downtowns' number of housing units is the comparative return on investment (ROI) on housing projects compared to potential office projects. In the past, in the vast majority of our largest downtowns, office spaces provided the highest ROI. In downtowns with large office clusters and strong demand for office space, inserting residential uses will be uncompetitive unless very high revenues can be captured. This means attracting residents with very high incomes and net worth. It also

Figure 1: The former John Hancock Center in Downtown Chicago

means inserting more housing in our downtowns that do not have large clusters of office spaces should be much easier than in those with such clusters, although the need for the housing to establish a functional rebalance will also be weaker. Urbanising suburban downtowns and most downtowns in cities with populations between 100,000 and 500,000± are unlikely to have such large office clusters, and therefore an easier time inserting more housing.

Because Midtown Manhattan has the most expensive real estate and the largest cluster of office space in the nation, it is useful to look at how housing has been packaged by the development of single buildings there prior to the COVID-19 crisis.

There are three patterns, all dependent on attracting very high-income households. That reflects the combination of high real estate costs and the presence of a large number of high-income households that can afford expensive residential units. There is a real danger that are largest and strongest downtowns are becoming high-income ghettos and local middle-income residents are losing any psychological attachment to their downtowns. That is a subject for another paper, being just too big to adequately treat here.

One pattern is the conversion of existing structures by adding new housing or by totally changing the building's use mix, one of which is housing. For example, the Plaza Hotel converted some rooms into 181 apartments, while The Pierre's room conversions produced 77 new units. The Crown Building has been converted into a hotel with 83 suites and 22 apartments.

Another pattern is new construction. Olympic Tower, across the streets from Rockefeller Center and St Patrick's Cathedral, combines 19 floors of office space with 230 condo units, and trophy retailers on the ground floor. Eight primarily residential buildings with a total of 1,040 units, now said to comprise a Billionaire's Row along 57th Street, have also been constructed recently. Four of those buildings also contain other uses such as major gallery space for MoMA, a five-storey Nordstrom department store, schools, 210 hotel suites and other retail.

Notably, these buildings are located inside of Midtown's core, an area where foot traffic and store sales were initially slow to rebound early in the pandemic. This seems to be the only really suitable packaging format for housing that locates in large downtown cores. The location of these buildings gave them the potential to have meaningful positive impacts. Although the buildings described above only have about 1,400 units, and alone cannot come even close to offsetting the influence of the district's 895,000 job holders, they can generate a significant amount of strategically important pedestrian traffic for the area immediately near them, and that can have impact ripples into the rest of the DMNs where they are located. For example, if fully occupied, Olympic Tower's 230 residential units can generate about 3,048 pedestrian trips each weekday. Some of its tenants are likely to own two or more homes and if we consequently assume only a 50 per cent occupancy rate, the total number of resident-generated trips, 1,524, is still significant. The Tower's other uses normally will also generate pedestrian traffic trips, eg its 480,000ft^2 of office space generated pre-pandemic an estimated 7,248 pedestrian trips per weekday.

These residential buildings also usually have smaller floorplates, and it may be easier and cheaper to find sites for them. They are often 'supertalls' to have enough units to make the projects attractive and viable investments.

The third important pattern is demonstrated by one of the most important housing developments on

Midtown's fringe: the organic emergence of a strong cluster of new market rate housing units in Lincoln Square, the area surrounding the Lincoln Center Performing Arts Center (LCPAC). It was not a single project with many buildings, but an organic aggregation of many projects mostly of single buildings. Many of these had ground floor storefronts with commercial tenants. Proximity to the LCPAC and Central Park, reasonably easy walking distances to the Midtown core, and strong mass transit were all locational assets. The fact that the area was impoverished prior to LCPAC's appearance meant land costs initially were relatively reasonable, because the area has never been considered a prime location for office development. Housing development was thus likely to yield the top ROI of any potential use. This organic multi-project development pattern for housing clusters is likely to have desirable impacts on the surrounding area. It is also the most traditional, and the way most downtown cores were developed in the past.

Unfortunately, this pattern of a cluster of individually developed buildings containing housing has proved difficult to implement. Besides Lincoln Square, the single example that comes to mind has been the robust housing developed close to the High Line Park. Most of the housing was built in numerous projects by many developers in an area where the real estate was previously seen as relatively soft, although part of the park does pass through the huge Hudson Yards development. These days it is hard to find similar development opportunities in or near Manhattan's Midtown and Downtown business districts.

LARGE MONOFUNCTIONAL DEVELOPMENTS

What often seems to emerge when planners and economic developers become involved in bringing more housing to Manhattan is the proposed development of large projects with one developer team. Such projects are also primarily motivated not by the desire to improve an area's multifunctionality, but to substantially redevelop and improve an area. Some of these large projects are monofunctional, while others are multifunctional. Since most projects of this size are unlikely to be located in downtown cores, they are unlikely to have significant positive impacts on them. To have such positive impacts, downtown housing development has to be placed in the parts of the district where the needs for more pedestrian and customer traffic are substantial, otherwise the housing development may be too distant to have any meaningful influence. Also, as large as these projects and their housing components may be, they will not have the number of units needed to rebalance office and housing functions in cores of our largest, office cluster-dominated downtowns.

Both of Lower Manhattan's World Trade Center developments, Canary Wharf in London, Tudor City, Stuyvesant Town and Peter Cooper Village in Manhattan and the Park La Brea Housing Complex in Los Angeles are examples of monofunctional projects focused on offices or housing. Lincoln Center is an example of a project focused on the performing arts. Lower Manhattan also had the residentially oriented Battery Park City, to which the similarly monofunctional office-oriented World Financial Center was added (now known as Brookfield Place.)

Because these large development projects usually must locate on a downtown's periphery, they can have serious problems connecting with the rest of the downtown. Tudor City stands out as an example of how a multi-building, multi-block residential development can fit within a downtown's existing street system. That might have been helped by the fact it was built well before a lot of Midtown's most consequential development. In contrast are the clusters of monofunctional developments in Lower Manhattan's west side. I cannot think of a downtown more dependent on them than this one, where the World Trade Center, Battery Park City and Brookfield Place are all within short distances of each other (see Figure 2). Nevertheless, each is designed so the very wide and heavily trafficked West Street remains very unfriendly for pedestrians, with all looking inward or away from that street. Four pedestrian bridges over West Street and one pedestrian tunnel under it are intended to improve the connection, but their presence evidences the severity of the problem and using those connections remains far from optimal because of inadequate signage.

There is a tendency for these large monofunctional developments to grow needed supportive retail and personal services for residents and office workers. Less frequently have they spawned other dominant functions. Such additions more likely occur via another monofunctional development being built nearby. A good example of this is Brookfield Place/ World Financial Center being built next to Battery Park City instead of the offices being dispersed within.

The parts of Midtown and Lower Manhattan that still suffer from less-than-optimal recoveries of foot traffic and retail and entertainment spends might benefit if a multi-building housing development was located within an easy walk of them simply because of the foot traffic it would generate on local streets. But such a project placed in a more distant location is unlikely to have any major positive impact

Figure 2: Entrance to the tunnel connecting Brookfield Place, the World Trade Center and the Oculus

on them unless the cores have strong destinations that can attract residents living 0.25–1 mile away. The needs and wants of these residents may overlap but are unlikely to be fully congruent with those of the tourists that are the primary targeted market segment of so many retailers in large downtown cores.

Multifunctional multi-building developments

These are the equivalent of micro-downtowns. Versions of them are not only appearing in dense urban environments, but also in shopping malls such as the Easton Town Center in central Ohio and the expansion of a former mall into the Westgate Entertainment District in Glendale, AZ.

Rockefeller Center

An early and premier example of one is Midtown Manhattan's Rockefeller Center (formerly also known as Radio City). For many urbanists it is one of the very best downtown projects ever completed.[12] It is located well within the Midtown Manhattan core. Its presence has made nearby properties more valuable and increased their desirability as business locations. It attracts an enormous number of visitors, with one estimate putting it at 500,000 per day.[13]

Completed in 1939, its original 14 art deco buildings are located between 5th and 6th Avenues and between 48th and 51st Streets. While office activities were and are its primary use, the development also has:

- Considerable street-level retail as well as an underground shopping concourse with its own large post office. Considerable luxury retail is nearby along 5th Ave, eg Saks Fifth Ave, Cartier.
- The 6,000 seat Radio City Music Hall and NBC studios where shows like SNL telecast from with live audiences.
- The Channel Gardens public space that runs from 5th Ave to the famed outdoor ice rink in front of 30 Rockefeller Plaza (see Figure 3).
- A subway station underneath with integrated access to the underground shopping concourse.

Remarkably, Rockefeller Center has no housing, and relatively negligible amounts of it are within about 0.25 miles. Still, for people who work there or visit, there is a rich array of things they can do or buy within a very walkable area. Its attractions draw large numbers of tourists, foreign and domestic. From its inception, its uses were aimed at attracting tourists, especially those from abroad. The Channel Gardens (see Figure 3) are located between the British Empire Building and La Maison Française, with the International Building close by. These had many foreign tenants, and the offices of many travel agencies, airlines, steamship companies and the city's major passport office. Certainly there were and are the supportive services needed by the centre's office tenants and their employees, but there also have been a large number of establishments that target the various types of visitors who come to the centre. Interestingly, for many decades, save for a very few retailers such as Dunhill, the British tobacconist and pipe maker, and the Librairie de France bookstore, there were surprisingly few merchants or restaurants that were destinations. At least in the case of restaurants, that has apparently changed in recent years as a result of strong efforts by the centre's management to bring in new star chef operations that are destinations in their own right.

The centre has the infrastructure to strongly facilitate visitors engaging in multipurpose trips while there. As a whole

Figure 3: The Channel Gardens in Rockefeller Center

entity it has significant destination strength for tourists. For those living within a mile of it, however, the centre itself is less likely to have destination magnetism. Their visits to the centre are much more likely to be dependent on the magnetism of its individual operations and niches.

Site assembly was eased by the fact that all the original site was owned by Columbia University. The chances of such an opportunity arising again in Midtown are highly unlikely. As Vornado's experience with its proposed Penn Station project demonstrated, putting together such a large redevelopment site can take many years to accomplish and face many financial, regulatory and political challenges.

Hudson Yards

A more modern version of such a multifunctional, multi-building development in a dense urban area is the Hudson Yards project located at the southwestern edge of Midtown Manhattan, mostly in the Midtown South area. Built largely on a very expensive platform constructed over an operating rail yard, when completed the project will include 20 new structures and about 20mft^2 of space. The primary use will be offices; about 10.6mft^2 in five buildings. In some instances, other uses such as housing or a school will also be in a building with the offices. Housing is the second-largest planned use, with about 4,000 units occupying about 5.8mft^2 in seven buildings.

Even without the originally planned Neiman Marcus store, the Yards will have close to 3mft^2 of upscale retail and restaurants. It also will have about 200,000ft^2 for event space and 120,000ft^2 for a school. With retailers such as Louis

Vuitton, Cartier, Dior, Tiffany, Piaget and chefs like José Andrés owning eateries, these functions are aimed at attracting large number of customers besides those who live or work in Hudson Yards. It, too, has the infrastructure to stimulate many multipurpose trips within its boundaries. Its office space is said to be benefiting from the 'flight to quality' of major office tenants, especially those in high-tech industries. Among its office locational assets are a relatively new subway station and the Moynihan Train Hall within a 10-minute walk from most parts of the Yards.

Plainly this is a very powerful new downtown-type development, but inserting a similar project into the core areas of downtowns like Midtown Manhattan and Lower Manhattan would be very difficult to accomplish.

That said, how then might Hudson Yards affect Midtown, given that it is only about 1–1.5 miles away? Are strong multifunctional developments on the fringe of a downtown a way to help strengthen its weaker or troubled areas, especially those closer to their cores? Can its 4,000 residential units provide the greater flow of residents that Midtown now still seems to need? Unfortunately, the answer seems to be that Hudson Yards is far more likely to compete with Midtown than to help it:

- Its office buildings have the latest design features that 'flight to quality' office tenants want, while many of Midtown's office buildings date back to the 1930s to 1970s and lack many of those features.
- Wealthy shoppers living south of Midtown might find it more convenient to go to the Hudson Yards locations of Cartier, Tiffany, Dior, etc. instead of their Midtown stores;
- Directly east of Hudson Yards, just across 10th Avenue is Brookfield's smaller, but still large multi-building project, and the locations for Vornado's proposed Penn Station Area project are also in the area. If all are built as proposed, together they could establish the area between 35th Street and 30th Street from 6th Avenue to the Hudson as a new stand-by-itself business district that would also include Macy's, Madison Square Garden and Penn Station.[14]
- Hudson Yards' 4,000 units, at best, could only provide a small fraction of the new residential visitors Midtown needs to rebalance the impacts of its office workers. Moreover, Midtown already has large numbers of residents living within a mile of many of its most important locations — eg about 210,000 for 30 Rockefeller Plaza — who do not seem to visit Midtown in substantial numbers, so why should Midtown's venues be more successful with the Yards' residents?

The design of Hudson Yards makes it an inward-looking project. It practically moons 10th Avenue by providing few street-level windows with anything interesting to look at or large attractive entryways to the buildings. The focus instead is on a kind of large plaza in the centre of which is the development's folly, The Vessel, that has 154 interconnecting flights of stairs. This structure was meant to be a kind of unique public space, like The Bean (Cloud Gate) in Chicago's Millennium Park. Although rather difficult for seniors, adults with young children and people with disabilities to use, its facilitation of a number of suicides by jumpers has closed it down. Large ground floor store windows face The Vessel and a driveway takes shoppers to the development's front door. The project does not seem to be designed in a manner that can help any places outside of it. In this regard, it is the antithesis of

Rockefeller Center. If a clone of Hudson Yards could be placed in Midtown, it too probably would do little to help the rest of the district.

ACTION IMPLICATIONS

Downtown landlords and developers

The impacts of remote work and heightened fear levels about crime and disease have sent huge shock waves through our large downtown office clusters that previously were seen as the crown jewels of their districts. Many property owners have found their office buildings badly outmoded. One estimate puts about two-thirds of NYC's office space in that category.[15] Few developers are planning large new office projects, and those that do will find it much harder to pinpoint funding and tenants. A foreseen 20 or 30 per cent reduction in office building values may mean that offices will no longer provide the highest ROI as in the past.[16]

While some see these difficulties as indications that Manhattan's major business districts, and those in other large cities, are on an unstoppable path of decline and doom, they also might be viewed as signs of major shorter-term stresses that will be eased as these downtowns continue recoveries that are already well under way. A report by Paul Levy and his staff at the CCD in Philadelphia provides a data-driven argument that what is happening in our 26 largest downtowns is not their slide into extinction, but their continuing and accelerating recoveries.[17]

Sales of troubled office buildings have started in some large downtowns such as San Francisco, where some buildings are being sold at substantial losses, but they then proceed to fill vacant spaces.[18] Rents obviously are following suit. A building with asking rents of US$90 before the pandemic is now asking rents in the US$50–$70 range and finding tenants, especially among artificial intelligence (AI) start-ups. While that represents a loss for the previous owner, it signifies real revenues for the new one. If this trend spreads, it means a reduced vacancy rate for downtowns. It also likely means the devaluation of those buildings has bottomed out, and their values can now be on a growth path; a good sign that a much-needed adjustment of a downtown's office economy is underway.

That said, greater multifunctionality still can help downtown landlords attract new office tenants. Crime, the fear of crime and growing homeless populations are depressing the speed at which downtown visitation and return-to-office rates are recovering. Certainly, many landlords and developers have grasped the reality that adjacent streets devoid of pedestrian traffic but filled with closed storefronts and signs of public disorder do not make their office buildings attractive locations.

Downtowns are likely to provide optimal locations for office tenants that have adopted hybrid office models, and they will very likely be the main drivers of resurging demand for downtown office spaces in the near future. For their workers, the attractiveness of the area around their buildings will be as important as the appeal of the workspaces within them. Are the streets safe? Are there appealing places to get lunch, coffee or an after-work drink? Are there nearby out-of-the-office places where work-related meetings can be held? Are there places where you can meet a significant other after work for a night out?

There seems to be an implicit logic in this situation that says the future survival of downtown office uses will depend increasingly on their being interwoven physically with other dominant uses such as nearby housing, hotels, personal services and retail. In other words, large downtown office clusters need to be made much more multifunctional, although the office use may still be a very strong one.

Based on the above analysis, here are some observations that these landlords and developers might find useful:

- *Location still really counts, but proximity to strong other uses is now an important asset*: More than ever, the desirability of office spaces will depend on what is happening on the sidewalks and storefronts surrounding them. Office activity drives a lot of pedestrian traffic, but only at rush hours and lunchtime. Moreover, if for any reason office attendance is diminished, the resulting downturn in pedestrian traffic increases perceptions of disorder and levels of fear that will only encourage more people to stay away in a downward spiral. On the other hand, a more multifunctional area would have residents or visitors who would still walk and shop in the area. In our largest downtowns, visits by residents during the pandemic have proved to be remarkably steady.[19] If the venues of new functions, eg housing, are not within easy walking distance, say 5 minutes, they are unlikely to have positive impacts on a particular office building. The venues of functions located on a downtown's periphery are very unlikely to have favourable impacts on office buildings in its core, unless the core has destinations that are sufficiently magnetic to attract people from the distance in question.
- *Lots of 'proximate residents' are often there, but unnoticed*: For example, currently, there has been a flurry of suggestions about adding significant amounts of housing into our large downtown office clusters, but what is being missed is that large numbers of proximate residents often live in that area beyond the office cluster's 5-minute walk shed, but still within a doable 6–20 minute walk, or an easy cab/Uber ride. A cluster's empty streets and offices show they are not coming there to work, shop or play. It may be quicker, easier, and cheaper to attract these proximate residents than to increase the number of residential users by building new housing within the cluster. Tapping this proximate residential market segment, however, requires very magnetic destinations that match their needs and wants.
- *Strong destinations are essential*: They are the key to drawing users from other DMNs, proximate residents and tourists, as well the effective packaging of downtown functions. Some of these can be office tenants and/or in niches composed of a lot of small companies. For example, in many large office clusters, pamper niche operations, doctor and dental surgeries and numerous eateries are found, but all are usually in a supportive role, primarily serving the local office worker market. All of these supportive uses might be turned into dominant functions capable of attracting users from outside of its DMNs. Some examples include:
  - the very strong pamper niche in downtown Beverly Hills;[20]
  - the strengthened restaurant cluster in Rockefeller Center; and
  - the growing number of office locations occupied by hospitals and ancillary operations in Midtown Manhattan, and the hospital-owned offices in Philadelphia's CCD.
- *The demand for downtown housing is there*: Given the high prices Moody's has shown people are willing to pay for downtown housing, and the shrinking values of downtown office buildings, more developers may be interested in doing housing projects.[21]
- In their study, Paul Levy and his staff at the CCD looked at the 26 largest downtowns in the US and provide more evidence of such a demand, finding that: 'While there was net

outmigration in 2020, most of the 26 downtown areas have seen net in-migration since that time and have larger populations today than they did in 2019. In Q2 2023 residential population in the core downtown areas ranged from 96% of Q2 2019 in Boston to 160% in San Antonio.'[22] They also reported that 'Office jobs rebounded faster than many other jobs'.[23]

- *Housing affordability is a problem that runs well up the income ladder and will likely make downtown housing a hot political issue*: Behind this is the problem of how to increase the production of housing units at various price points in and around our downtowns. Zoning, overly regulated development environments and not-in-my back-yardism (NIMBYism) are probably inhibiting housing production in many large cities. Public financial assistance for such projects is likely to be tied to some percentage of the units being made 'affordable'.
- *Housing projects with 'Goldilocks' amounts of units/space and multiple uses are most likely to have positive impacts*: One way for developers to do significant housing projects while helping assure those units are integrated with other strong uses is to create a large mixed-use building combining large amounts of housing with large amounts of space for two or more other uses such as office, hotel, retail or services. Olympic Tower in Manhattan, Seneca One in Buffalo and Waterline Tower in Austin are some examples. Also worthy of note is that four of the eight Billionaire's Row residential buildings recently constructed in Manhattan have spaces for strong non-residential uses. Such strongly mixed-use projects help diversify investment in the project and can have meaningful political benefits that help the project get needed regulatory approvals and permissions.

Planners, policy makers and business improvement district (BID) managers

In the current milieu, these hopefully important downtown actors sometimes invoke the need to make their downtowns more multifunctional, but invariably they focus overwhelmingly on adding a specific kind of housing: converted office buildings. This is understandable, since there often is some fear of a doom loop-induced desperation in their calls for more outmoded office buildings to be converted into residential use. Their primary concerns are to save these buildings, put them again to good use, and salvage as much of the landlords' investments and revenues and city's tax revenues as possible.

Such objectives are certainly understandable and desirable in their own right. These downtown influentials, however, seldom raise the need for or benefits of other uses or get into the specifics about where the housing should be located for reasons other than its marketability, the positive impacts it could/would be targeted to achieve and how many units would be needed to attain those impacts. They look at how the housing can benefit troubled landlords, developers and the city, but they pay far less attention to other interested downtown parties.

Here are some observations and suggestions, based on the analysis presented earlier in this paper, as well as that presented in my earlier paper. I hope those making downtown plans and policies will find them of value:

- *Do not just look at the whole downtown to assess major impacts*: While even ten such buildings cannot bring the jobs-per-resident ratio in our largest office clusters, such as Midtown Manhattan, into better balance, they can help assure the presence of a level of foot traffic on the abutting sidewalks to support an image of activation and being a safe place. Such impacts can potentially have strong strategic value for the property owner and tenants, and the area surrounding that property in its DMN. Downtown subareas are where actual impacts are made and felt.

- *Goldilocks amounts of housing are needed if positive impacts are to be achieved*: To make a difference on the downtown or parts of it in terms of foot traffic and consumer behaviours, more housing has to be large enough to be a dominant use/function within its DMN, but not so large that it cannot be located near the place most in need of the favourable impacts it can provide. It certainly does not need, however, to be the sole or strongest dominant function in that DMN.
- *Small clusters of converted office buildings could theoretically have significant impacts on the surrounding area*: But they must already be in a 'needy' location since they cannot be moved. Also, the fewer the number of converted units, the weaker the potential for having meaningful impacts. Isolated smaller buildings are likely to have very few positive impacts on the surrounding areas.
- *The ability of a dominant housing function in one DMN to help solve a problem in another nearby DMN can be very unreliable*: For example, it is likely that a lot of the office conversions in Manhattan will occur in Midtown South. Given their likely incomes and lifestyle preferences, will those residents provide a significant portion of the foot traffic and shopper spending needed in various parts of Midtown? Probably no, if the housing is for the homeless or those with average or modest incomes. Probably yes, if they are affluent, there are enough of them, and Midtown merchants successfully cultivate them.
- *Planners need to think well beyond converted units if housing is to be a true vehicle for establishing greater multifunctionality*: Newly constructed units will be needed, while conversions from other types of structures also are possible, eg factories, warehouses, hotels. An important question is where they should be encouraged to be built to maximise positive benefits to the surrounding area. In turn, that requires the identification of the areas within a downtown where such beneficial impacts are needed. This is a very important point, since the need for more foot traffic, stronger feelings of security and increased consumer spending varies across a large downtown. The housing optimally should be located in areas where it is needed and can provide important impacts.
- *Just adding more housing without the proper analyses promises a suboptimal production of positive impacts and the ineffective use of scarce resources*: Factors such as location characteristics and needs and the ability of housing to generate the needed impacts must be considered. More housing does not solve all problems.
- *Some office clusters are so large and functionally unbalanced that a huge and unfeasible amount of new housing would be needed to make it truly multifunctional*: The DMN around 30 Rockefeller Plaza is a good example. The feasibility of bringing, say, 8,000+ new units into that DMN is very questionable, given expensive property values and high hurdles in site acquisition.
- *Look into capturing more visits from proximate residents*: For many large downtowns, a two-pronged strategy promises significant results. First, the destinations in the DMN need to be assessed for their ability to attract the residents who live within a 6–20-minute walk. If their magnetism is weak, then viable steps to strengthen

them should be identified and implemented. What Tishman Speyer did with the restaurants in Rockefeller Center is an example of what should be done in that and other DMNs.

- *Getting such assessments done will not be easy*: Persuading business managers and landlords to do them will be difficult. Even though their boards are dominated by such personages, BIDs probably are still best positioned to get a broad adoption of such reassessments. The easiest way to start such a process is to have an economic development strategy done for the area with research showing how well local destinations are attracting proximate residents, and detailing any improvements that should be made.
- *The second important prong of a housing development strategy for large office clusters is the development of an archipelago of single, large, strongly mixed-use buildings like Olympic Tower in Midtown Manhattan and the Waterline in Austin, TX*: Their individual impacts will likely be confined to within their DMNs, but that still can be significant, and the aggregate influence of a number of such scattered buildings in overlapping DMNs may be a very strong positive for the whole downtown; however, they probably will not bring about the rebalancing of jobs with other downtown functions.
- *Planners and government officials often egregiously err when they propose or advocate for large multi-building projects, either monofunctional or multifunctional*: In Lower Manhattan, for instance, their desires to redevelop specific subareas has meant the development of several very large projects, most of which have been dominated, at least initially, by one function/use. Such projects include both World Trade Centers, Battery Park City, the World Financial Center/Brookfield Place and South Street Seaport Mall. All are on the downtown's periphery, and most are not well integrated into its street layout. Pedestrian trips to and from them often resemble walking a gauntlet. They are most easily accessed by vehicle. Mass transit, if available, tends to be a chore to use when on-foot coming and going is not possible. The multifunctionality they add to a downtown is weakly shared with its other geographic parts. Eight separate strongly mixed-use buildings dispersed in needy locations within the downtown will contribute more to its multifunctionality than any eight-building project, be it mono or multifunctional, located on the downtown's periphery.
- *Downtowns can be hurt by the large multifunctional, multibuilding projects built on their peripheries*: Worse yet is the large multifunctional, multibuilding project built on the downtown's periphery that looks inward and makes few visual or user connections with its surrounding area. These may be paragons of multifunctionality, mini-downtowns in this regard, but they share little of their magnetism or multifunctionality with the surrounding area. Hudson Yards in Manhattan is a good example of this. Such projects cannot help Midtown but may well provide a strong close competitor to it. From the city's perspective, of course, its addition does increase overall economic assets and the tax base. Moreover, in this particular case, such a project seemed the only way to finance the redevelopment of a site long talked about, but that required a very expensive platform to be built for the site's potential to be realised. Nevertheless, let us be clear, building such strong, multifunctional mini-downtowns does not make the downtown they are in or near any stronger; rather, they compete with it.

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