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The Office Market Recovery: Distress is Lurking in the Shadows

Table of Contents:

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Overview

During the late-2007 to 2009 recession, the US lost 1½ times the office jobs as in the dot-com bust, yet the national office market experienced only half the outflow in occupied space as it did in that earlier downturn. Due to the surprisingly low amount of space give-backs, office vacancy climbed no higher than it did in the dot-com bust, even though demand fundamentals are severely weaker. Part of the explanation for the discrepancy in performance between this cycle and the last lies in more restrained level of supply additions prior to the current downturn. But the primary reason is the emergence of unutilized shadow space that accumulated out of view of the vacancy statistics. Adding the shadow space to the surveyed vacancy figures, the overall effective vacancy is much higher now than in the dot-com bust, and instead is similar to the effective vacancy at the bottom of the early 1990s downturn.

This lurking shadow vacancy will create a drag on future leasing as companies will need to backfill this space before expanding into new space, and backfilling just the shadow space could siphon more than half of the demand growth arising from job recovery. As a result, the recovery absorption pattern will bear more resemblance to the troubled 1993 to 1999 expansion than to the more robust 2004 to 2007 recovery. The drag on net absorption caused by shadow space, which will likely delay rent recovery, highlights the risk protection provided by properties with long-term leases in place. Metros with sounder outlooks in market fundamentals generally contain less shadow inventory, making their expected future performance all the more attractive for core office investments compared with lagging recovery markets.

The Hidden Vacancy Problem

Shadow office space is office area leased by tenants but which is neither being used nor marketed for sublease. It occurs when companies lay off workers faster than they can downsize their space. Despite finding themselves with excess cubicles, tenants are not putting the space on the sublease market at the pace suggested by layoffs. There are a variety of reasons for not subleasing the space at any given time, such as the dim prospects for finding sublease tenants, a short remaining lease term, high cost of reconfiguring the space, or optimism that the space can be held for potential future re-hires. In addition, GAAP accounting rules require corporations to write off the loss incurred by a sublease, which may act as a disincentive for some companies to take this action. Whatever the reasons, while vacancy figures include sublease space, they do not account for shadow space, which is instead hidden within the "occupied" inventory.

Due to the presence of shadow space, reported vacancy rates understate the true magnitude of total effective vacancy. Instead of expanding into new space and decreasing the vacancy as hiring picks up, tenants holding onto shadow space can simply absorb their own needs within their existing spaces. This will dampen the demand for space that job gains would otherwise generate, delaying the market tightening required to drive rent growth recovery. While this phenomenon is not unique to this cycle, far more shadow space has accumulated since 2007 than occurred during the dot-com bust.

Estimating Shadow Space

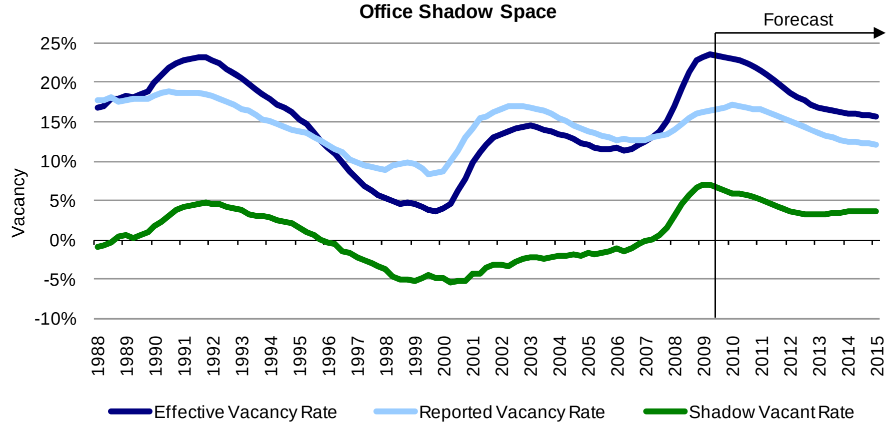
RREEF Research has expressed concern about shadow vacancy in the office sector for more than a year now, but it has not been clear whether firms would eventually shed space commensurate with their staff reductions, bringing occupancy more in line with actual space utilization. As job losses slowed and finally reversed course in the first half of 2010, office vacancies appear to have peaked, with only mild negative absorption registered in first quarter, followed by a slight turnaround to the positive in second quarter. With vacancy at an inflection point, now is an opportune time to assess the magnitude of shadow inventory that has built up.

To estimate shadow space, RREEF Research first calculated the average historical occupied multi-tenant space per office worker during 1988 through 2009 and multiplied it by the number of office jobs lost between the peak through the trough quarters of the down-cycle.[1] This provides an indication of how much office space demand was lost due to job declines. The indicated demand decline was then compared with the decline in occupied space during the same time period; the difference indicates how much of the occupied space lies fallow as shadow space.

During third quarter 2007 to first quarter 2010 the top 52 metros in the US lost 1.73 million office jobs, inferring roughly 280 million square feet of demand loss based on typical office usage patterns. Yet once tenant outflows began a year later, only 40 million square feet in actual negative net absorption was recorded from third quarter 2008 through first quarter 2010, leaving a difference of about 240 million square feet. Thus, only about 15% of the loss in underlying demand showed up in the reported vacancy rate, while 85% lurks as leased, but underutilized, shadow space.

The shadow vacancy calculated by RREEF Research equates to about 7.0% of total inventory, which is within the range of 5% to 9% estimated by several third party sources.[2]

Exhibit 1
Office Shadow Space



Source: RREEF Research, CBRE-Econometric Advisors, Moody's Economy.com

[1] See the appendix for additional discussion of methodology issues and limitations.

[2] RREEF Research identified several sources that have attempted to quantify their estimates of shadow space. CBRE Economic Advisors provided an estimate of 8.6% as of 2Q10 in a September 2010 analysis requested by RREEF. Costar estimates about 5.1%, which was extracted from their estimate of 420 MSF of office demand loss from job layoffs reported in a June 2010 interview with CNBC, and comparing it with Costar's figure of -42 MSF negative net absorption during 2009 through mid-2010 as reported in their mid-year 2010 national office market report. The 398 million square feet of difference between demand loss and absorption loss equates to 5.1% of Costar's reported inventory shown in that report. Jones Lang LaSalle estimated 9.0% in its First Quarter 2010 North America Office Outlook.

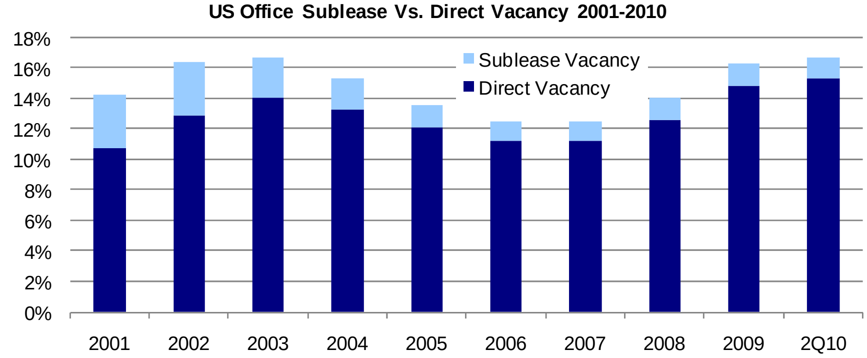
Adding the estimated shadow vacancy of 7.0% to the stated rate of 16.6% yields an effective total vacancy of 23.6%. On an absolute basis, the estimate of 240 million square feet of shadow space compares with 370 million square feet of demand growth implied by the forecast increase in office jobs through 2015. Thus, to backfill just the shadow space could siphon more than half of the demand growth arising from job recovery.

Comparisons with the Last Two Cycles

In the dot-com bust the top 52 metros in the US lost 1.03 million office jobs, inferring a loss in demand of 170 million square feet. In actuality, 110 million square feet were vacated during all of 2001 to 2002, meaning that about two-thirds of the job losses turned up as declines in occupancy, while about one-third remained out of view of the vacancy statistics. Thus, there is much more shadow space now than then.[3]

One of the reasons that a greater portion of the demand loss in the dot-com downturn found its way into vacancy, rather than showing up as shadow space, is that companies shut down and vacated spaces entirely, whereas, this recession has been marked more by companies downsizing. In addition, many companies were scrambling to secure expansion space during the dot-com boom in anticipation of growth that never occurred, leaving large blocks of space suitable for the sublease market. As a result, an exceptionally high amount of space during the dot-com bust found its way to the sublease market, which represented 25.0% of all vacancies and 3.7% of total inventory at the trough of that downturn as large swaths of space appeared on the market. This compares with current sublease vacancy peaking at only 10.5% of all vacancy and 1.6% of total inventory. The relatively low current sublease vacancy thus provides a false indication of market strength because it does not account for the large amount of underutilized space spread throughout the sector that is being held off the market.

Exhibit 2
US Office Sublease Vs. Direct Vacancy 2001-2010

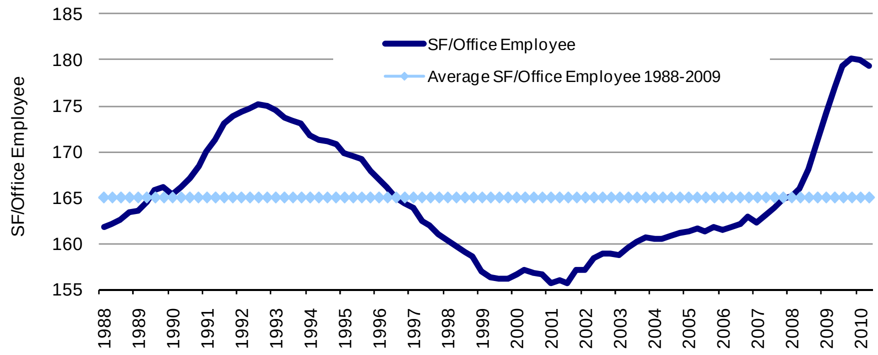


Note: Breakouts of vacancy prior to 2001 not available.
Source: RREEF Research, CBRE-Econometric Advisors, Moody's Economy.com

Another differentiation of the dot-com era is that by the peak in 2000, the amount of occupied space per employee shrank to about 155 square feet per employee. This was so low that even as more workers were shed than space in the down-cycle that followed, the ratio by the end of the downturn was only slightly below its long-term average of 165 square feet per employee. By contrast, at the beginning of the current downturn, space utilization in the 2007 to 2008 period began near the long-term average and swelled to roughly 180 square feet per employee by the beginning of 2010. Thus, the slack in occupied space is much greater now than then.

[3] The dot-com bust produced an anomaly in shadow space patterns. During the dot-com boom, employment growth outstripped the ability of the office market to accommodate the expansion by such an extent that, by the end of the bust the amount of square feet per employee was still slightly below the long-term average. As a result, shadow vacancy at the end of the downturn was theoretically negative. Nonetheless, the downturn produced more slack in occupied space, accounting for roughly 3% of inventory. This compares with the increase in a growing slack amounting to 7% of total inventory during the current bottom.

Exhibit 3
Occupied Multitenant Office Square Feet Per Employee



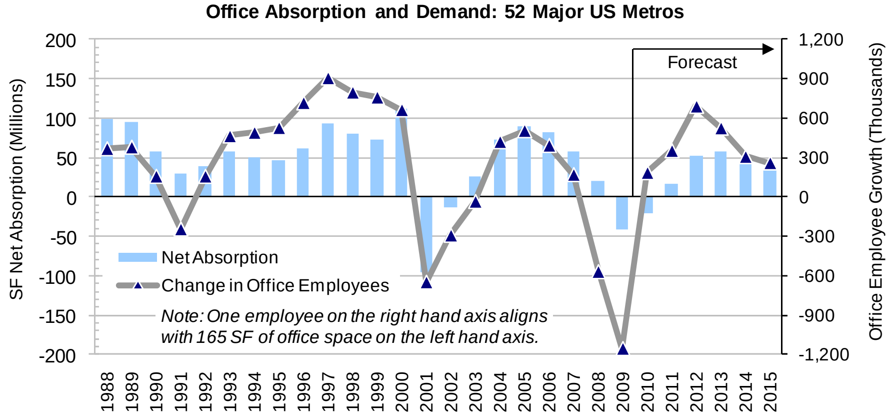
Source: RREEF Research, CBRE-Econometric Advisors, Moody's Economy.com

The 1990 to 1992 downturn provides a better parallel than the dot-com bust for examining the effects of shadow vacancy. During that time the top 52 markets in the US lost 310,000 office jobs, yet net absorption never turned negative, and instead totaled positive 65 million square feet during the period of job losses. Shadow vacancy at that time peaked at about 6%, and the resulting total effective vacancy was just under 25%, similar to today's estimated effective vacancy.

Comparing Absorption and Job Growth

The following chart illustrates the relationship between annual absorption and office job growth. Each office job on the right scale aligns with roughly 165 square feet of multi-tenant space on the left scale, about equal to the US average from 1988 until 2009. Absorption above the employment growth line during a particular year indicates tenants are expanding more rapidly than jobs, while absorption below the line indicates tenants are not filling up space as quickly as the pace of job growth. Over time, absorption generally tracks the shape of job growth, but the last two recoveries show clearly different patterns.

Exhibit 4
Office Absorption and Demand: 52 Major US Metros



Source: RREEF Research, CBRE-Econometric Advisors, Moody's Economy.com

During the 1990 through 1991 downturn, more space was being absorbed than the sputtering job growth levels warranted. This, in turn, led to the build-up of a large shadow vacancy, and the average utilization of office space expanded to 175 square feet per employee from 165 square feet per employee. During the ensuing recovery in 1993 through 2000 absorption trailed job growth by a significant margin every year but 2000, demonstrating the drag on space uptake caused by the shadow space.[4]

By contrast, space losses during the 2001 to 2002 dot-com bust were much more on par with job losses, limiting the build-up of shadow vacancy, and the effective vacancy more closely tracked the nominal vacancy during the downturn. As a result, during the subsequent recovery in 2004 through 2008, there was little drag on net absorption, which actually outpaced job growth.

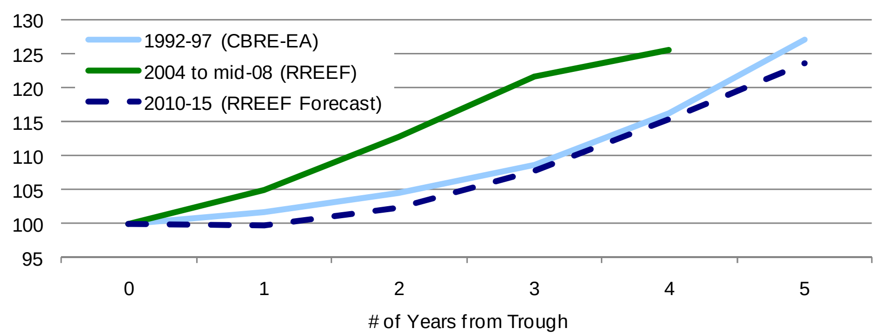
Considering the large recent build-up of shadow space during 2008 through early 2010, absorption during the current recovery is likely to be shaped more like the sluggish 1990s recovery than the 2000s up-cycle.

Consistent with this, RREEF's mid-year 2010 House View absorption forecast incorporates sluggish absorption relative to job growth, particularly in the early years through 2013 as shadow vacancy competes with vacant space that is tracked in market statistics. This is followed by a slowing, but sticky, pattern of absorption in 2014 and 2015 as the pace of job growth eases, a pattern typical of historical tendencies as job growth slows. Overall, the five-year pattern implies that at the end of five years, shadow space will diminish, but could still be a lingering issue in 2015.

Impact on Rent Growth

The drag on space demand from the shadow vacancy is expected to contribute to sluggish rent growth. The following exhibit compares rent growth patterns during the past two recoveries along with RREEF's House View forecast for the forthcoming recovery. Year 0 on the x-axis marks the bottom of each downturn, with effective market rents indexed to 100 at that point, tracing the path of subsequent increases. The graph illustrates how rent growth was much more muted in the 1990s recovery than the upcycle following the dot-com bust. Due to the expected similarities in demand during the 1990s, RREEF's forecast bears a remarkable similarity to the sluggish pace of rent growth during that time.

Exhibit 5
US Effective Office Market Rent Growth During Recoveries
(Trough Year = 100)



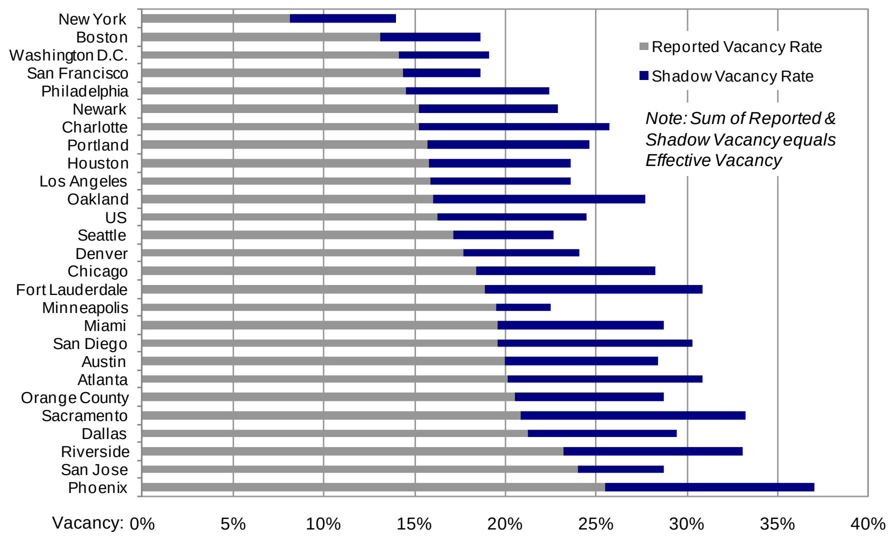
Source: CBRE - Econometric Advisors, RREEF Research

[4] Even allowing that a lag of six months to a year would be expected before jobs translate to expansion, the uptake during most years in 1993-2000 was slow.

Brightest Metros Cast the Smallest Shadows[5]

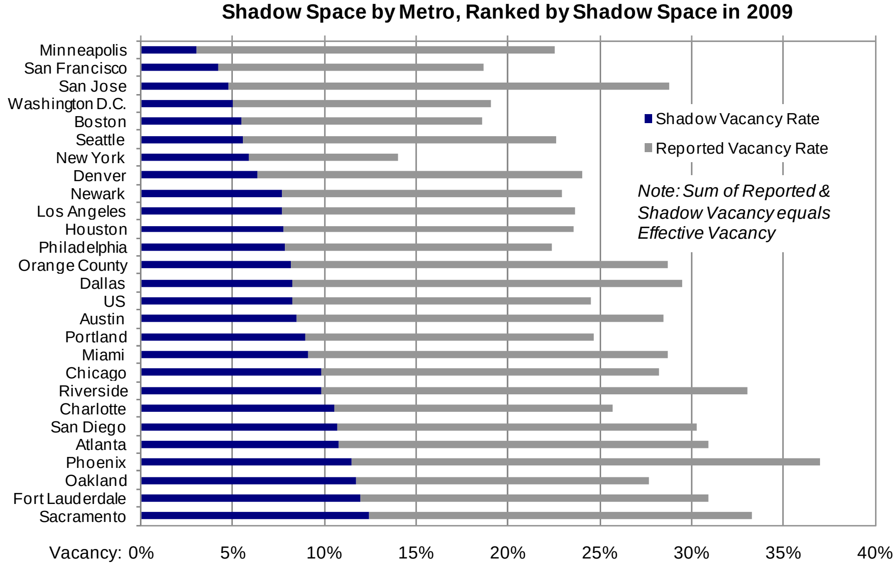
In general, metros having low proportions of shadow space relative to total inventory coincide with those having stronger outlooks in market fundamentals during the recovery – such as Boston, New York, San Francisco and Washington DC – which are driven by the technology and finance sectors, while those with the highest ratios of shadow space to inventory are those where housing and construction hit deepest leaving market fundamentals more out of line – Atlanta, Fort Lauderdale, Oakland, Phoenix and Sacramento. Thus, in general, the impact of shadow vacancy is of less concern in stronger metros than weaker ones and typically parallels overall market fundamentals strength.

Exhibit 6
Shadow Space by Metro, Ranked by Nominal Vacancy in 2009



Source: RREEF Research, CBRE-Econometric Advisors, Moody's Economy.com

Exhibit 7
Shadow Space by Metro, Ranked by Shadow Space in 2009



Source: RREEF Research, CBRE-Econometric Advisors, Moody's Economy.com

[5] The methodology used for comparing metros is slightly different than that used for the US. The ratio used for benchmarking the number of office employees per square foot of building area for each metro was based on the ratio existing in each market at the peak of the last cycle rather than applying the long-term average.

Conclusions

Despite vacancy in the current cycle peaking at a level similar to the end of the dot-com bust, shadow space creates a much higher effective vacancy now than then, which will dampen the current office market recovery more than in the post-dot-com recovery. The hidden vacancy bears more resemblance to the situation existing in the early 1990s, which resulted in a protracted recovery that lagged job growth, and backfilling just the shadow space could siphon more than half of the demand growth arising from job recovery. The drag on net absorption caused by shadow space, which will likely delay rent recovery, highlights the benefit of risk protection provided by properties with long-term leases in place. From a metro perspective, markets with stronger fundamentals and outlooks generally contain less exposure to shadow space than weaker ones, which reinforces focusing on these metros for core office investment strategies.

Appendix: Limitations to the Analysis

Despite appearing to be a straight-forward calculation, the impact of shadow vacancy is difficult to definitively measure. The most important factor rests in identifying an appropriate benchmark level of space utilization (i.e., square feet per employee) for estimating office demand. While the long-term average is a reasonable starting point, this is a dynamic figure, not a static one.

The amount of space leased per employee is a function of variables other than employment growth, not the least of which is rent levels. For example, with office rents down more than 20% from their peak, a tenant may still consider a renewal in existing space economical even with staff declines. Alternatively, some tenants are currently re-examining their space needs and moving into space that accommodates a greater density (i.e., lower amount of square footage per employee) by incorporating more open floor plans, hotelling areas and other design elements. Thus, a simple historical average, or the ratio at either end of the cycle, may not be the true yardstick. Since average effective US office market rents are forecast to remain below their previous peak levels until 2015, space will remain relatively cheap, and a higher amount of square footage per employee may be acceptable during this period.

Another challenge lies in identifying which jobs actually end up in office buildings. For example, back office jobs are typically located in buildings technically classified as flex space, putting them into the industrial stock rather than office stock. In addition, the office inventory analyzed for this analysis includes multi-tenant space, and excludes corporate owned user facilities and single-tenant buildings. To the extent that shadow space impacts these segments differently, results of the analysis may vary.

A further complication is that the momentum of absorption moves out of sync with job growth, such that in an environment of declining employment, positive net absorption typically endures for some time, with a similar delay on the upswing. As a rule of thumb, this delay is around six months. However, during 1991 to 1992 net absorption never became negative. In the dot-com bust, negative absorption followed the market downturn quickly, starting in first quarter 2001. By comparison, absorption following the December 2007 start of the recession took a full year to post negative numbers. This irregular lag makes it challenging to assess which points in time are relevant for capturing the effects of shadow space in the data.

In addition, the potential impact on net absorption does not take into account obsolescence. That is, as buildings become obsolete, they will be removed from supply and take away vacancy, and this may be more relevant during the upcoming period of low supply than during other cycles. At even a low attrition rate of 0.5% per year, this totals 2.5% over five years, which could soften the drag on absorption.

In spite of these limitations, shadow space is a concern and is expected to cause absorption to behave in this recovery more like the 1990s than the 2000s.

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