

**Situations Vacant: A Conceptual Framework for Commercial Real Estate
Vacancy**

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Abstract

Commercial real estate vacancy is a key indicator of property market efficiency, economic performance and urban resilience. However, there has been little conceptual reflection into the abstract notion of vacancy beyond binary distinctions of natural and structural vacancy. Although useful simplifying meta-concepts, neither accounts for the internal complexity and imperfection that permeates real commercial property markets. Consequently, the objective of this article is to outline a conceptual framework that describes vacancy across the commercial real estate building life-cycle – from initial construction to final demolition and redevelopment. The originality of the research rests in its utility as the first known holistic examination of commercial real estate vacancy beyond that of an abstract economic factor, while its value is explicit in the conceptual typology which can be used by researchers interested in market imperfections and consequent interventions.

Key words: Natural Vacancy, Structural Vacancy, Commercial Real Estate,

Introduction and justification for research

Albert Einstein allegedly quipped that,

'If a cluttered desk is a sign of a cluttered mind, of what, then, is an empty desk a sign of?'

In a slightly broader context, what do underperforming and empty commercial properties (taken to mean office, retail and leisure and industrial buildings) tell us about the cities in which they reside, the landlords who own them, the investors that trade them, and the institutions of the commercial real estate markets which govern them? One way of considering this situation, from the perspective of the commercial office market, is that empty offices provide,

'A window into the soul of our shifting economy'

(Carter 2015, quoted in Sourcable.net 16 February 2015).

This analytical aperture directs the primary aim for this article. In order for researchers to reflect on commercial real estate vacancy, they need to have a conceptual framework (introduced in Figure 1) that can be used to reflect on the material reality of vacant properties - one that moves beyond the binary distinction of natural and structural vacancy and the broad notions of positive and negative vacancy. In this article, *natural vacancy* is broadly taken to mean those properties that efficiently clear respective property markets while *structural vacancy* is taken to mean those vacant properties that no longer have a relationship with occupier demand in their present use. Consequently, the primary objective of this article is to develop a framework that can be used to examine vacancy throughout the building lifecycle – starting with the initial construction phase and ending with demolition and redevelopment. The article is based on research into the commercial office market, however, the resultant conceptual typology can be applied broadly to all of the major commercial real property types (for example retail and leisure and industrial markets) as long as the unique nature of each type of property is also considered.

Theoretical context

Various researchers have examined vacancy; those interested in obsolescence and depreciation (Baum, 1991, 1993; Baum & McElhinney, 1997; Dunse et al, 2002; Andrew & Pitt, 2006; Crosby & Devaney 2006; Crosby et al 2011); those interested in the adaptation of vacant properties (Barlow & Gann, 1996; Beauregard, 2006; Kincaid, 2002; Heath 2001; Geraedts & van der Voordt, 2003; Agre, 2005; Langston et al, 2008; Remoy, 2010; Remoy and Wilkinson, 2012; Wilkinson and Read, 2011) those who want to map the characteristics of vacancy (Myers & Wyatt, 2004; Katyoka & Wyatt, 2008; Remoy H & Koppels, 2009); those who model the cyclical behaviour of the economy and property (Ball 2003; Barras, 2009; Wheaton 1999); and those who reflect on the medium to long-term rental adjustment process (Blank & Winnick, 1953; Wincott, 1997; Voith & Crone, 1988; Crone, 1989; Grenadier, 1995; Pissarides, 2000, 2005; Sanderson, et al., 2006; Miceli & Sirmans, 2013). Concurrently, professional practices regularly also use relative vacancy levels (alongside absorption and take-up, rent and yield) to monitor the performance of

local markets (see quarterly updates from international commercial real estate companies, CBRE, Colliers and Cushman and Wakefield, BNP Paribas, Jones Lang LaSalle).

Historically, it is the latter research into rental adjustment and professional practice that have given most attention to vacancy, although recognition is given to the more recent emphasis on understanding vacancy in order to assist adaptive re-use. Much of this traditional research has specifically focused on the natural rate of vacancy rate and the prime markets. Typically, this language has borrowed from neo-classical economics, particularly its cyclical nature, and surveys of the labour market. This is most clearly seen in the parallel utilisation of the natural rate of unemployment and property vacancy and the utilisation of initial, cyclical and frictional categories of unemployment and property vacancy (outlined by Kerris and Kopells, 2006).

In the study of employment, initial vacancy is taken to mean those potential employees who are recently qualified but yet to find employment. The parallel example in commercial real estate are those commercial properties that have just been constructed but have not been filled yet. Cyclical unemployment occurs in parallel with the economic cycle; for example, when the economy is in decline unemployment will rise and vice versa. A similar process takes place, although lagged, in commercial real estate as the property cycle oscillates over time. Furthermore, frictional unemployment is a result of the movement of employees between firms and the consequent time taken to hire and refill vacant positions. This same process takes place in commercial real estate as businesses expand and retract. While structural unemployment is the consequence of a permanent change in the composition of the economy which leads to mis-matches between the requirements of business and the available employee skills and training base to fill these positions (for a rare discussion of structural property vacancy see Remoy, 2010).

The central argument in this article is that while commercial real estate is most certainly linked into the economic cycle it deserves its own conceptual framework that recognises the unique nature and imperfections associated with property markets. It is worth noting that initial, cyclical and frictional concepts of vacancy implicitly assume that the market process will correct itself over time as the market clears. It is only structural vacancy that considers the other side of this situation, those properties that do not clear the market. On a certain level, the existing set of terminology covers both sides of the commercial market, those properties that are temporarily vacant and those that are permanently vacant. However, under closer scrutiny this argument starts to fall apart when we consider that the natural rate of vacancy, which by most estimates only accounts for 4-10% of stock, has received the majority of academic attention. The rest of the vacant commercial stock, that considered structurally vacant, is relatively unexplored (Lausberg, 2008). This article responds to this situation by setting out a conceptual framework that delves under this situation, particularly, the transition from natural to structural vacancy and reveals the operation of sub-optimal variants of vacancy which have received less attention in academia and practice. It achieves this aim by introducing two other commercial property ingredients into the discussion, the commercial property

descriptions 'prime' and secondary. In this paper prime property is taken to mean the most recent additions to, and most desirable segments of, commercial stock. In contrast, secondary property is taken to mean older stock in relation to the traditionally more desirable prime stock. The secondary focus is vindicated in the vacancy typology, when it becomes increasingly apparent that a simple bifurcation between natural and structural vacancy does not exist. Secondary vacancy transcends both positions, indicating the ambiguous and dynamic nature of commercial vacancy.

It is worth noting that it is not the aim of this article to criticise existing research into vacancy, indeed, it is the basis for many of the econometric pillars of commercial real estate thought. Rather, the article argues that the current nature of commercial real estate necessitates a more detailed engagement with vacancy which in turn will help those engaged with a more resilient built environment. This extended debate also has the potential to inform new econometric analysis into less efficient parts of commercial real estate. The conceptual output of this article, the vacancy typology, is informed by a 3-year research project into office market obsolescence, depreciation and vacancy in the UK. While conducting this research, primarily based on an on-going interview process with industry professionals, it quickly became apparent that the traditional language used in academia and practice to describe vacancy was not adequate to express or explain the various manifestations of vacancy present in the commercial office market, nor its variability and change. The typology builds upon the traditional concepts of initial, frictional, cyclical and structural vacancy, in order to better reflect the full extent, and process, of commercial vacancy.

Situations vacant

Some commercial vacancy is a 'necessary' attribute of property markets. The efficient operation of the commercial markets, reflected in churn and filtering of businesses (Greenhalgh et al., 2003; Greenhalgh, 2008) up and down the property ladder cannot happen without a certain degree of vacancy. This type of vacancy can be understood as that part of stock that efficiently clears in response to the needs of occupier demand. This process of vacancy is generally referred to as initial, frictional or cyclical in nature (Kerris and Kopells, 2006). However, this perspective does not tackle those properties that do not efficiently clear through the market mechanism. This type of vacancy is not just a problem for commercial property landlords; it is also a problem for every nearby small business owner who depends on workers for daily trade. Each empty desk or shop represents one less person spending money in town, city and regional centres (Carter, 2015).

Underperforming and vacant buildings offer a powerful mode of reflection in relation to societies most wasteful practices. Increasingly, commercial buildings engage consumer demand for relatively fleeting moments in time, yet, endure for long centuries in the built environment. Reflecting this situation, following the opening of the Frank Gehry designed Facebook headquarters in California, Marc Kushner (2015) heralded the potential end of the office, arguing that social media is changing the way we consume the built environment. This statement is not necessarily as hyperbolic as it may first appear, technology is increasingly pervasive. However,

Lausberg (2008) indicates that this situation, the precarious nature of commercial property, is little known in contrast to traditional perspectives of market efficiency. Reflecting the importance of this omission, Wilkinson et al (2014) attest that the continuing use of existing commercial real estate stock is a universal concern.

They argue that,

'There is a need for greater knowledge and awareness of what happens to societies buildings over time and how we might adapt them sustainably. This action includes avoiding premature destruction through finding new uses for buildings that have become unwanted or obsolete. While new development must also be sustainable, there is insufficient time for us to act unless proactive intervention into the performance of existing building stock becomes a priority'

(Wilkinson et al., 2014:5).

Summarising this situation, Lausberg (2008) indicates that it is relatively easy to estimate natural vacancy (associated with initial, cyclical and frictional vacancy) from available market data. However, he indicates that there is a knowledge deficit in relation to structural vacancies, which he generally equates with obsolescence and location. He argues that not understanding this situation places commercial property and associated locations at significant risk.

The implications of this situation are disquieting. Instead of focusing on what is not known and working to remedy this situation, market actors and academics focus on the comfortable reality of the 'prime' market which can be equated with the historical 'natural' rate of vacancy. Consequently, the narrative of vacancy is beset by what Pickety (2014:2) calls,

'An abundance of prejudice and paucity of fact.'

Which results in a potential risk, where,

'We overestimate what we know and underestimate the value of the unknown'

(Taleb, 2010:140).

A Typology of commercial vacancy

Orthodox thought suggests that commercial vacancy can be separated into two broadly distinct tiers, that of natural vacancy and that of structural vacancy. This then interacts with the realities of commercial property practice, which in itself, is separated into the prime market and the secondary market. However, these bifurcations do not run contiguously. Each vacancy tier, natural and structural, has its own characteristics, and although both part of the same commercial market, operate and manifest themselves quite differently.

Figure 1, the Typological Model of Vacancy, and the preceding narrative explain this situation. Figure 1 should be read from left to right and top to bottom. The horizontal dimension describes the operational variation inherent in commercial property vacancy, running from the macro to the micro level. This is denoted by the

horizontal arrows which pass through Column 3. The vertical dimension represents the property ladder, the filtering process of tenants as they move between buildings, and the building life cycle. The best properties are added to the top in a funnel like system and the worst ones eventually drop out of the bottom depending on their contingent circumstance (following the vertical arrows in Column 3).

Figure 1: Typological Model of Vacancy

Segmentation		The Market (towns, cities and regions)	Vacancy Processes
Natural Vacancy	Premium Vacancy	↓ ← Prime →	<ul style="list-style-type: none"> • Cyclical • Frictional • Initial
	Auxiliary Vacancy	↓ ← →	<ul style="list-style-type: none"> • Churn • Hidden • Strategic
Structural Vacancy	Evolutionary Vacancy	↓ ← Secondary →	<ul style="list-style-type: none"> • Inefficient • Inertial • Transformational
	Final Vacancy	↓ ← → ↓	<ul style="list-style-type: none"> • Physical • Planning • Economic

The first column describes the respective tiers of vacancy, natural vacancy and structural vacancy. Natural vacancy describes those properties that efficiently clear through the classic supply and demand mechanism, while structural vacancy describes those properties that no longer clear through the supply and demand mechanism (Column 1 describes the macro level description of the vacancy process). This bifurcation can then be sub-divided in order to reflect real market segmentation. The natural rate can be sub-divided into premium and auxiliary vacancy. Premium vacancy, as the name suggests represents the very best buildings that are on the market and is associated with the familiar initial, frictional and cyclical vacancy (Kerris and Koppells, 2006; Lausberg, 2008). Auxiliary vacancy describes those vacant secondary properties that still have a role to play in the commercial real estate market. Auxiliary vacancy describes non-prime secondary properties that are held in reserve in order to 'fill in' prime supply shortages. The concept of 'filling in' is, by its very nature temporary. This is because it presumes that once new prime buildings are constructed, tenants will move to higher specification

accommodation. Filling in is most likely to take place in buoyant areas with tight supply conditions and during and following times of recession when speculative construction has abated resulting in lagged development.

Auxiliary vacancy is more permanent in those areas with adverse economic conditions, where it is difficult to justify the cost of development. In these locations it is important to safeguard viable secondary space in order to fulfil the requirements of occupier demand and economic development (in such areas auxiliary vacancy is closer to premium vacancy).

In turn, structural vacancy can then be sub divided into evolutionary vacancy and final vacancy. Evolutionary vacancy describes those properties that could still have a future in alternative use if adapted. Final vacancy, as the name suggests describes those properties that no longer have a future either in their present or alternative use and should therefore be removed from property supply altogether. The first two columns can then be related to the overall commercial market (column 3), which, for simplicity, is divided into prime property and secondary property. The prime market only intersects with premium vacancy, while, secondary vacancy accounts for auxiliary, evolutionary and final vacancy.

It is this part of the model that lays out the disparity and non-alignment between natural and structural vacancy, and the prime and secondary market (they are not one and the same). Demonstrating the influence of the secondary market, this model indicates that it is, in part, included in both tiers of vacancy, natural and structural, as it also forms part of the auxiliary layer of vacancy. It is this non alignment that exposes the myth that all secondary vacancy is bad and that the natural rate of vacancy only contains prime property. The third column, representing the property market (and its contingent location), forms the spinal structure of the model. The left hand side (of which) considers the segmentation of vacancy in market locations, while the final column to the right, considers the processes of vacancy that take place in these locations. It is these processes that reflect and make sense of the dynamic change and movement that takes place within and between the respective segments of commercial vacancy.

This is because the final column describes the micro level vacancy interaction. 'Cyclical', 'frictional' and 'initial' vacancy are relatively well known in the international literature (Kerris and Koppells, 2006; Lausberg, 2008; Remoy, 2010). These concepts are typically associated with the 'natural' rate of vacancy, market clearing and concepts of equilibrium and premium vacancy. By themselves they are an efficient means of describing premium vacancy as its level oscillates around equilibrium (cyclical), as it facilitates the movement of firms (frictional) and as new property enters the market (initial). All three types of vacancy are helpful as they facilitate the efficient operation of the property market and are therefore presumed to be temporary in nature.

Moving down Column 4, churn, hidden and strategic vacancy describe those types of commercial vacancy that taken place within auxiliary vacancy. Churn vacancy is a variation of frictional vacancy, describing this concept after it has begun to filter down the property ladder. Churn vacancy takes place when the push and pull factors of

new development at higher specification are constructed and cause existing tenants to filter up the property ladder through a 'flight to quality.' It is different to frictional vacancy because it leads to a downward revision in rent, capital value and yield (without significant property improvement) and takes place more regularly. In itself, it is not a negative attribute of vacancy, (this type of filtering and absorption is directly related to new start-ups and small businesses), however, it is a signal that such property is no longer a prime investment. Hidden vacancy describes that portion of vacancy that is difficult to detect, often consciously so. It includes those properties that are taking shelter from empty property taxation (but are vacant to all intents and purposes) and those properties considered grey space (those properties that are leased but are surplus to tenant requirements).

Strategic vacancy is a potentially negative attribute of the commercial market. It describes those instances when landlords forcibly evict or coerce tenants to leave their buildings in pursuit of higher values associated with alternative building use even though they are still relatively viable in their present use (hence why it sits in the auxiliary segment). Strategic vacancy is particularly prevalent in England, following planning changes which have incentivised landlords in certain locations to target more profitable use (the advent of relaxed planning regulation, through permitted development rights, has been seen to favour office to residential conversion due to the higher economic value of the latter). All three of these concepts are still part of natural vacancy but are also associated with degrading performance and an increase in void space.

Inefficient vacancy, transformational vacancy and inertial vacancy take place in the evolutionary vacancy layer. These types of vacancy can be considered on a progressive redevelopment spectrum and chart the transition of commercial property into potential new use. Inefficient vacancy describes those properties that are inefficient in terms of operational cost, holding cost and embodied carbon. These properties are functionally and economically obsolete and are ready to transition into alternative use (or potentially within use following major improvement). Inertial vacancy describes the regular impasse between operational use (in original form) and transformation (into new use). It does not happen in all cases but can be a consequence of restrictive tenancy covenants, planning negotiations and financial due diligence. As the names suggests, transformational vacancy describes those properties going through new development, and details the final transition between inefficient use, and such properties leaving supply altogether (and entering another property market with additional attributes).

Physical, planning and economic (often interrelated rather than separate categories) vacancy processes make up final vacancy. Planning vacancy includes those properties that cannot be adapted into alternative use (but are no longer viable in their present use) because they are constrained by planning regulation that places restriction on alternative use. Physical vacancy describes those properties that have either depreciated beyond repair or have restrictive designs which do not lend themselves to re-use. Economic vacancy describes those properties that are not supported by viable local rental levels. In other words, the underlying rental levels that underpin such buildings do not cover existing running cost or the cost of

development. The only way these buildings can be re-used is through the introduction of subsidy.

The segmentation is not a static model. There is a great deal of transference between the fuzzy boundaries of the four segments, especially between auxiliary and evolutionary vacancy (and increasingly between market segments as the boundaries between use dissolve). The model will also vary between locations depending on the prevailing market conditions in those locations.

Conclusion

This article has explicated a conceptual framework for commercial vacancy that moves beyond the positive facets of vacancy, such as initial, frictional and cyclical vacancy types (Kerris and Koppels, 2006) and the general approximation of structural vacancy. This thread of enquiry builds upon the initial work of Kerris and Koppels (2006) and sets out a conceptual framework that considers natural and structural types of vacancy, highlighting an additional set of vacancy concepts. The theoretical argument suggests that commercial vacancy can be separated into two distinct tiers, that of natural vacancy and that of structural vacancy.

Natural vacancy describes those properties that efficiently clear through the classic supply and demand mechanism, while structural vacancy describes those properties that no longer clear through this mechanism. This distinction then interacts with the commercial market, which in itself is separated into the prime market and the secondary market. However, these bifurcations do not run contiguously. Not all secondary vacancy is structural; for example, auxiliary vacancy captures those secondary properties that still clear the market and are held in reserve to support and fill-in for the prime market in certain locations.

Each vacancy tier has its own characteristics, and although part of the same commercial market, operate and manifest quite differently. To demonstrate this situation, the horizontal dimension of the vacancy typology describes the scale based variation inherent in vacancy, running from the macro to the micro level. The vertical dimension represents the property ladder and the temporal building life cycle. The best properties are added to the top in a funnel-like system and the worst ones eventually drop out of the bottom dependent on their contingent circumstance. The originality of the research rests in its utility as the first known holistic examination of commercial real estate vacancy beyond that of an abstract economic factor, while its value is explicit in the conceptual typology which can be used by researchers interested in market imperfections and consequent interventions.

However, in order to begin to understand commercial vacancy, it is necessary to qualify the research findings in this paper. First, the UK focus of the research reveals the need for some cautionary words in relation to the context and content of the findings and conclusions in this paper. We must be careful of over generalisation and simplification. Each location in the world contains a variety of comparable but highly

specific real estate markets which are contingent and socially produced in each context. It is therefore likely that the operation of vacancy will be different in alternative market contexts. Therefore, it is hoped that the conceptual framework set out in this paper is used as a framework for discussion rather than rigid structure.

Similarly, in taking such a wide view of commercial vacancy, some of the finer details of the different types of property and vacancy been dealt with in cursory fashion. This paper has only provided general descriptions and drawn broad conclusions, a great deal more research will be needed to fully understand the specific nature of commercial vacancy. Finally, by focusing its research on the UK, the paper is Anglocentric in its conceptualisation and understanding of commercial real estate, which will most certainly add a degree of bias to the judgements contained within. Despite these caveats, we consider that the material within provides a conceptual framework through which a more comprehensive picture of commercial vacancy begins to emerge. Above all, the message is clear: we misunderstand contemporary commercial real estate, if we believe that commercial vacancy can be reduced to a simple bifurcation of natural and structural vacancy.

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