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VACANT NHH PROPERTIES

ANALYSIS FOR YORKSHIRE WATER AND
BUSINESS STREAM



CONTENTS

Executive summary	3
Section 1: Context	4
Section 2: Current approach	8
Section 3: Market efficiency	12
Section 4: Reform options	20
Annexes	28

EXECUTIVE SUMMARY

- There have been reports that the number of vacant properties in the non-household (NHH) water retail market has increased since market opening. Together with issues relating to the quality of data on vacancies, this has led to concerns that properties recorded as vacant do not actually reflect ‘true’ vacancies, but instead ‘false’ vacancies, and that the current approach to managing vacant properties may not be delivering fair outcomes for NHH customers.¹
- Economic Insight has been commissioned by Yorkshire Water and Business Stream to carry out an independent study on vacant properties in the non-household (NHH) retail market. This project is funded by the Market Improvement Fund.² The Market Improvement Fund was set up to fund innovative projects that will benefit the non-household water market and its customers. The fund is overseen by the Strategic Panel (including project selection, funding allocation and progress of work) and administered by MOSL.
- We consider:
 - a) whether there is a problem in the market in delivering the efficient level of false vacant properties; and
 - b) if so, what the options are for incentivising the market to deliver the efficient level of false vacancies.

¹ In this report, we use the term ‘vacant properties’ to refer to properties which are assumed to be empty or unoccupied (which includes ‘void properties’, as defined by Ofwat). We use the term ‘false vacancies’ to refer to: (i) occupied properties which should not be recorded as vacant; (ii) properties which do not have a connection and therefore should be deregistered; and (iii) properties that should not be in the market (e.g. properties that have been demolished or domestic properties). Please see Annex A for further details.

² <https://mosl.co.uk/services/market-improvement/market-improvement-fund>

- The key conclusions from our work are as follows.
 - **Economic theory suggests that, in a competitive market, the market will deliver the ‘efficient level’ of false vacancies.** Given that it is in each market participant’s interest to reduce the extent of false vacant properties in the market, the market should deliver the efficient level of false vacancies. Importantly, it is not efficient for the market to deliver zero false vacancies, since there are costs associated with finding false vacancies that the market will need to pay for.
 - **The available evidence indicates that the market might already be delivering the efficient level of false vacant properties.** In particular: (i) there is variation in vacancy levels between wholesale regions and retailers, but they follow expectations; and (ii) vacancies have not materially increased since market opening.
 - **The most effective way of reducing the level of false vacancies in the market would therefore be to improve the ‘efficient’ level of activity** (i.e. where the marginal cost of identifying a false vacancy is equal to the marginal benefit).
 - Based on our evaluation criteria, we find that **reform options aimed at reducing the marginal costs associated with identifying false vacancies are likely to be the most effective at achieving this.** The most desirable reform options include: (a) increased cross-sector cooperation; (b) pooling of wholesaler and retailer efforts; and (c) sharing of bad debt risk between retailers and already billed customers.
- The rest of this pack is structured as follows: (i) Section 1 sets out further details on the context surrounding this work; (ii) Section 2 presents a summary of the current approach to managing vacant properties in the market; (iii) Section 3 provides our assessment of whether the market is delivering the efficient level of false vacancies; and (iv) Section 4 identifies and evaluates different reform options for reducing the level of false vacancies in the market.



1. CONTEXT FOR THIS WORK



THE MOTIVATION FOR OPENING THE NHH WATER RETAIL MARKET WAS TO IMPROVE OUTCOMES FOR CUSTOMERS.

- The NHH water retail market opened for competition on 1st April 2017 (following changes to The Water Act 2014) and resulted in over 1.2 million businesses in England and Wales being able to choose their supplier of water and wastewater retail services. The motivation for opening the market was primarily to improve outcomes for customers, saving them: money, water and time. It was also expected that the market would lead to wider environmental benefits, and spill-over effects from the potential efficiency gains. (*Source: 'Open for business: Reviewing the first year of the business retail water market'. Ofwat (July 2018).*)
- The main players in the NHH water retail market are:
 - **Retailers.** The role of retailers is to buy wholesale water services from regional wholesalers and provide retail services (such as metering and billing) to NHH customers. Retailers in the market can be divided into: (i) incumbent associated retailers, that is, retailers which started operating at the time of market opening in 2017 and are owned by a 'parent' wholesale company (and so considered 'associated'); (ii) incumbent non-associated retailers, that is, retailers which started operating at the time of market opening in 2017 but are not owned by a 'parent' wholesale company (and so considered 'non-associated'); and (iii) new entrant retailers, that is, retailers which have joined the market since 2017.
 - **Wholesalers.** Wholesalers own and operate the network of pipes, mains and treatment works for water and wastewater. The role of wholesalers in the market is to provide a range of services necessary for retailers to serve customers.
 - **NHH customers.** NHH customers are premises that are used primarily by businesses, charities or public sector organisations.
 - **Market Operator Services Ltd (MOSL).** At market opening, the responsibility of providing retail services to customers was transferred from wholesalers (who were previously responsible for providing retail services to customers in their wholesale areas) to incumbent retailers. MOSL are the market operator for the non-household water retail market in England. MOSL sit at the centre of the market, with access to central market data, processing thousands of transactions each day through the Central Market Operating System (CMOS), which records key customer information such as: their location; their wholesaler; their retailer; whether their property is metered or unmetered; whether the property is vacant; etc. MOSL is responsible for the day-to-day running of the market, enabling new companies to enter the market, customers to switch and settlement to take place.
 - **Ofwat.** Ofwat is the economic regulator of the market and issues licenses to retailers which enable them to operate. Although the market has been opened for competition, it is still regulated by Ofwat, who sets controls on the prices charged to customers who have not actively agreed a contract with their retailer (referred to as default tariffs).

THE REVENUE IMPACT OF FALSE VACANCIES IS ESTIMATED TO BE £12M PER ANNUM.



- ‘Vacant properties’ (also called ‘vacancies’ throughout this report) are properties which are assumed to be empty or unoccupied.¹ These properties receive fixed services such as water connection and wastewater services but, if they are in fact empty, do not consume water. As per the current charging policy in the NHH water retail market, the majority of vacant properties are not charged (please see Section 2 for further details). The implication of this is that existing customers (or ‘billed customers’) pay higher water bills to cover the costs of the fixed services received by vacant properties.
- There is a concern in the market regarding the quality of the CMOS data and, in particular, that properties recorded as vacant in the database do not actually reflect ‘true’ vacancies, but ‘false’ vacancies. False vacancies include: (i) occupied properties which should not be recorded as vacant; (ii) properties which do not have a connection and therefore should be deregistered; and (iii) properties that should not be in the market (e.g. properties that have been demolished or domestic properties). There have been reports that the number of vacant properties has increased since market opening (however, as explained further in Section 3, we find that vacancies have not materially increased in practice). Together with the issues relating to data quality, this had led to concerns that the current approach to managing vacant properties may not be delivering fair outcomes for NHH customers. (We note that MOSL has recently undertaken Project TIDE, which aims to address data quality issues in CMOS, and is considering implementing a centrally managed data cleansing project.)
- We have estimated the revenue impact of false vacancies to be around £12m per annum. This is equivalent to approximately 0.4% of annual retail market revenue, or around 0.7% of average annual customer bills. Please see Annex B for further details.

¹ Please see Annex A for further details on the definitions used in this report.

THERE ARE COSTS ASSOCIATED WITH IDENTIFYING FALSE VACANT PROPERTIES FOR MARKET PARTICIPANTS.

- It is in each market player's interest to find and reduce these false vacancies.
 - **Retailers** can benefit from: (a) bringing more properties into the market; and as a result (b) being more competitive in the rest of the market due to being able to offer lower prices to billed customers (e.g. retailers which have a lower stock of vacant properties may be able to offer lower prices than retailers with a higher stock of vacancies, as they have fewer vacant properties for which they need to recover the costs of fixed services through charging higher prices to billed customers). Some retailers can also benefit from the vacancy incentive schemes set up by certain wholesalers to identify false vacancies (as described in Annex C).
 - **Wholesalers** can benefit from: (a) meeting their leakage targets (Ofwat set all wholesalers a 15% leakage reduction target at PR19); (b) more broadly managing their supply-demand balance as part of their WRMP; and (c) reputational gains, through keeping average bills low and customers only being charged for the services they use. At PR19, five wholesalers also introduced bespoke Performance Commitments (PCs) related to correctly identifying vacant business properties. However, Ofwat is not considering a continuation of these bespoke PCs at PR24, meaning that this benefit is transitory (*Source: PR24 Final Methodology – Appendix 7*).
 - **NHH customers** can benefit from: (a) being charged for only the services they use and, as part of that, (for billed customers) having lower average bills (due to no longer covering costs for false vacant customers); and (b) (for previously unbilled customers) receiving support services from retailers (e.g. if they need to report internal sewer flooding instances), albeit at the cost of paying a bill.
- **MOSL / Ofwat** can benefit from better supporting the functioning of the market.
- However, there are costs associated with identifying false vacancies, which can be significant. In particular, identifying false vacancies is not as straightforward as simply identifying properties where some consumption is taking place. These properties are often unmetered or have unread meters, which means market players need to investigate whether the property is vacant or not (e.g. through undertaking a site visit). Retailers also face an additional bad debt risk associated with identifying vacant properties, if a property that has not been billed in the past (due to being falsely recorded as vacant) is sent a bill and does not pay it.
- Yorkshire Water and Business Stream have therefore asked us to look at:
 - a) whether there is a problem in the market in delivering the efficient level of false vacant properties; and
 - b) if so, what the options are for incentivising the market to deliver the efficient level of false vacancies.
- To develop this work, we have relied on: (i) desk-based research and our understanding of the NHH retail market; (ii) input from wholesalers and retailers (particularly discussions with sponsors), including through a questionnaire; and (iii) data from and discussion with MOSL. See Annex C for further details.



2. CURRENT APPROACH TO MANAGING VACANT PROPERTIES



UNDER THE EXISTING CHARGING STRUCTURE, CHARGES ARE TYPICALLY NOT APPLIED TO VACANT PROPERTIES.

- The current charging structure in England has been in place since before market opening in 2017. The key features are as follows.
 - **Occupied properties.** Wholesalers charge wholesale charges to retailers, who are then responsible for recovering wholesale and retail charges from customers. Any charges that retailers are unable to recover will result in bad debt for the retailer.
 - **Vacant properties.** Most wholesalers do not charge retailers for vacant properties, although some do apply charges (volumetric or/or fixed charges). Retailers cannot charge vacant properties unless wholesalers do. Further details on charging arrangements for vacant properties are set out in Annex C.
- The implication of the current charging structure is that billed customers pay higher water bills to cover the costs of the fixed services received by vacant properties.
- In the Scottish NHH water market, all properties (i.e. occupied or vacant) are charged fixed and volumetric charges based on their consumption, with landlords responsible for paying water bills for vacant properties. This approach is also the charging structure for business rates and electricity in England.

Respondents have told us that the existing charging structure for vacant properties is, at least in part, a reflection of differences in interpretation of Section 144 of the 1991 Water Industry Act.

WHOLESALE AND RETAILERS HAVE DIVIDED RESPONSIBILITIES IN RECORDING CUSTOMER DATA ON CMOS.

- At market opening, the responsibility of providing retail services to customers was transferred from wholesalers to incumbent retailers. To facilitate this transition, CMOS was set up as the core database for the NHH market, containing key customer information.
- Wholesalers and retailers are responsible for accurate updating and maintaining of different data fields in CMOS relating to vacancies. Some high-level responsibilities are as follows.
 - **Wholesalers are responsible for deregistered properties and temporary or permanent disconnections.** A property may be deregistered where: (i) the property is no longer eligible (e.g. change of use to domestic); (ii) the property was registered in error; or (iii) the property no longer represents a supply point (e.g. no longer exists).
 - **Retailers are responsible for the occupancy status of a property.** This field records whether a property is vacant or occupied and thus determines whether a property is billed.
- Further details on the division of responsibilities between wholesalers and retailers are available in the MOSL Wholesale-Retail Code.
- The **vacancy challenge process** allows wholesalers (and other retailers) to request a change in the occupancy status if they believe it has been incorrectly marked as vacant by the owner retailer. This requires the owning retailer to first investigate whether the property is truly vacant (e.g. through undertaking a site visit). An application and submission of evidence can then be made by the wholesaler if the owning retailer disagrees with the proposed status. Following this application, if any trading parties (including the owning retailer) disagree with the applicant's proposed occupancy status, MOSL will organise an independent expert, funded by the losing party in the challenge. In total, the process can have a timeframe of up to 185 days if the application is challenged by a trading party and 65 days if not. Retailers can also revert the occupancy status after the challenge process has finished. We note that MOSL is currently undertaking a review of the vacancy challenge process.

THERE ARE A VARIETY OF APPROACHES USED TO IDENTIFY FALSE VACANT PROPERTIES.

- Most wholesalers and retailers use a combination of different methods to identify false vacancies. The main approaches used are set out below.

Monitoring consumption in vacancies.

This method involves monitoring the levels of consumption in metered properties that are registered as vacant. If consumption is above a minimum threshold, properties can be flagged by firms and the occupancy status of these properties can then be investigated in further detail using the other methods listed here. Relatedly, firms may also use historic meter reads and skip codes (which identify the reason a meter reading was unobtainable) provided by meter reading partners to highlight sites for potential investigation.

Desk-based research.

This approach involves undertaking desk-based research to verify the accuracy of the occupancy status of a property within firms' internal databases against that of external sources. Such external sources include local authority business rates databases from the Valuation Office Agency (VOA). Statistical difference between the datasets may then trigger further investigation.

Proactive site visits.

This method involves wholesalers or retailers visiting a site suspected to be a false vacancy to check its occupancy status, having been possibly triggered by various different criteria (e.g. a minimum level of consumption). It is a relatively costly method and takes time but is considered by wholesalers to be effective. This method, alongside the use of consumption data, appears to be the primary approach to identifying false vacancies, with a majority of wholesalers mentioning it in their questionnaire responses.

Lettering campaigns.

This approach is used where retailers are missing some customer details and involves attempting to make contact with potential occupants at properties marked as vacant by sending letters to the address. If there are occupants at the address, this letter is intended to prompt them to get in touch with the retailer, allowing the CMOS data to be updated. Delivery / return information from Royal Mail can also be used to update the CMOS data.

Use of third-party providers.

Third-parties may be commissioned to use a combination of the approaches set out above to identify occupiers on behalf of a retailer or wholesaler. For instance, the provider OccuTrace compares water company data with their own sources, to identify potential void properties. Field agents are also deployed to visit properties and check the accuracy of the details included in the database.

Proactive customer service.

This approach involves proactively attempting to identify whether there is a new tenant as soon as a customer moves out. This has been identified as one of the easiest ways of managing false vacancies.



3. IS THE MARKET WORKING EFFICIENTLY?

ECONOMIC THEORY SUGGESTS THAT, IN A COMPETITIVE MARKET, THE MARKET WILL DELIVER THE 'EFFICIENT LEVEL' OF FALSE VACANCIES.

- **As a first step, it is important to understand whether there is actually a problem in delivering the efficient level of false vacancies in the market.** Only once this is established can we consider whether reforms are required in order to incentivise the market to deliver the efficient outcome.
- As explained in Section 1, it is in each market participant's interest to reduce the extent of false vacant properties in the market, and therefore the market should deliver the efficient level of false vacancies.
- For clarity, it is not efficient for the market to deliver zero false vacancies, since there are costs associated with finding false vacancies that the market will need to pay for. Instead, the efficient level of activity will be where the marginal cost of identifying a false vacancy is equal to the marginal benefit.
- To assess whether the market is working efficiently, we would ideally estimate the efficient level of false vacant properties in the market and compare this with the current level. However, in practice, determining the efficient level of false vacancies is not easy, because it would involve calculating the marginal costs and marginal benefits of false vacancies.
- We have therefore relied on alternative evidence to assess whether the market is working efficiently. In particular:
 - We estimated our own vacancy rates using data from local authorities (LAs), to assess whether the vacancy rates in the CMOS data are reflective of vacancy rates in this data, and to assess whether vacancy rates varied between wholesale regions and retailers; and
 - We analysed changes in overall vacancies and vacancy categories over time, to assess whether the data suggests an increase in false vacancies since market opening.
- We provide further details of the above analyses in the subsequent slides and in Annex D.
- Overall, **the available evidence indicates that the market might already be delivering the efficient level of false vacant properties.** This suggests that reforms aimed at incentivising the market to achieve the efficient level of activity would not be effective at reducing the level of false vacancies in the market. Instead, as discussed in Section 4, reforms should be focused on improving the efficient level of activity, by reducing the marginal costs and/or increasing the marginal benefits associated with identifying false vacancies.

EVIDENCE FROM THE LA DATA DOES NOT INDICATE THAT THERE IS AN ISSUE IN DELIVERING THE EFFICIENT LEVEL OF FALSE VACANCIES.



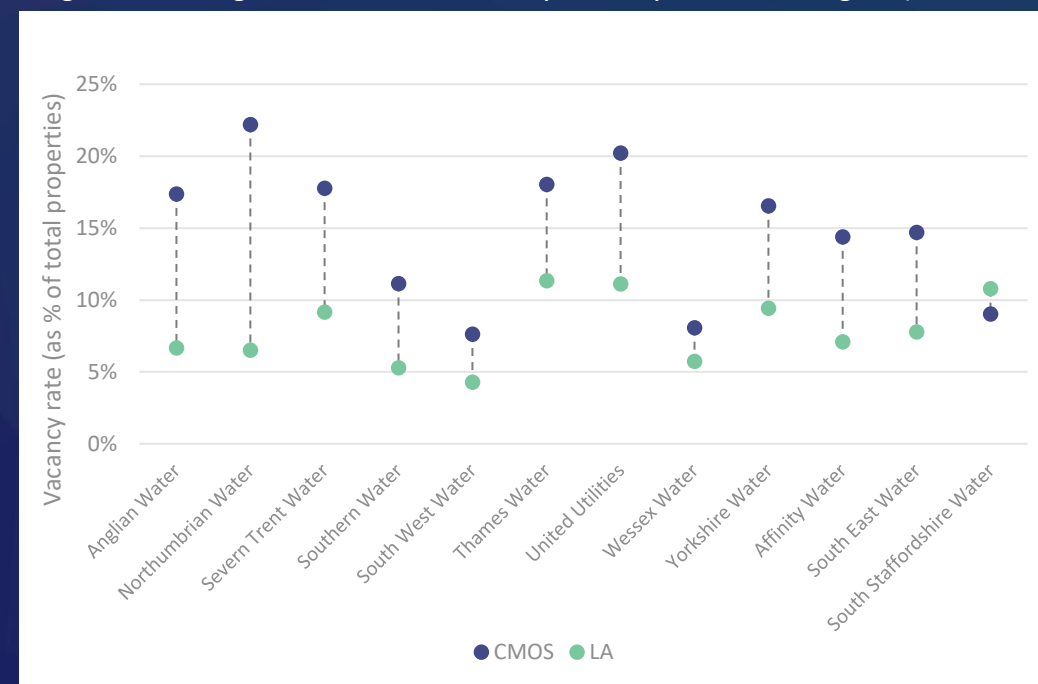
- We first estimated our own vacancy rates using LA data and compared these with vacancy rates recorded in the CMOS data. This analysis looked to assess whether the CMOS data records an unreasonable level of false vacancies, relative to the LA data, and whether this is more pronounced for some wholesale regions and/or retailers.
- Our approach to estimating our own vacancy rates was based on data held by LAs on the total number of business properties in their LA that are recorded as 'empty', for the purpose of collecting business tax. We randomly selected four LAs from each wholesale region in order to estimate the wholesale average. Using the LA data for each wholesale region, we estimated our own vacancy rates for the wholesale regions as the total number of empty properties divided by the total number of properties in the region.
- Overall, this analysis did not indicate that there is a material problem in the market in delivering the efficient level of false vacancies. Our key findings are set out on the subsequent slides, with more detailed findings set out in Annex D.

THERE IS VARIATION BETWEEN THE CMOS AND LA DATA, BUT WE CANNOT CONCLUSIVELY SAY THAT THE CMOS DATA IS WRONG.

– Variation in levels.

- ▶ As shown in Figure 2, there is variation in vacancy rates between the CMOS data and the LA data. For most wholesale regions (with the exception of South Staffordshire), the vacancy rate recorded in the CMOS data is almost double that estimated from the LA data.
- This difference could be as a result of: (i) false vacancies recorded in the CMOS data; (ii) the LA data incorrectly measuring the vacancy rate; or (iii) the CMOS and LA data measuring different vacancy rates. Unfortunately, given the nature of the data, we cannot conclusively say which of these is driving the difference.
- We note that, at least in part, the vacancy rate estimated using the LA data might be expected to be lower than the ‘true’ vacancy rate. This is because this data is recorded by LAs for the purpose of collecting business tax and businesses are only exempt from paying this tax for 3 months. Following these 3 months, landlords are expected to pay the business tax, and therefore LAs might have less incentive to maintain details of whether these properties continued to be vacant or not.
- ▶ Figure 2 also shows that there is variation regarding the extent of the difference between the CMOS and LA data between wholesale regions. The difference is highest for Northumbrian and lowest for Wessex and South Staffordshire.
- This variation between wholesale regions could be due to: (i) the CMOS data being particularly ‘bad’ for Northumbrian and particularly ‘good’ for Wessex and South Staffordshire; (ii) false vacancies recorded in the CMOS data; or (iii) the LA data not being fully reflective of the vacancy rates in the wholesale regions given the random sampling approach taken. Unfortunately, given the nature of the data, we cannot conclusively say: (a) whether there is a genuine problem across wholesale regions; and (b) whether some wholesale regions are doing better than others.

Figure 2: Average LA and CMOS vacancy rates by wholesale region (as of 2022)



Source: Economic Insight analysis of CMOS and LA data.

In Section 4, we put forward the recommendation of introducing automated checks on the accuracy of the CMOS vacancy data. Given that our comparison of the LA and CMOS data has been inconclusive, we suggest that these automated checks are undertaken using alternative data sources to the LA data (e.g. using data from the energy market).

THERE IS REGIONAL VARIATION IN VACANCY RATES, IN LINE WITH EXPECTATIONS.

– Variation between wholesale regions.

- ▶ As shown in Figures 3 and 4, we find a similar pattern of regional variation in vacancy rates in both the CMOS and LA data. This is also reflected in other sources like the vacancy rates of high street shops (see Figure 5). Variation between wholesale regions is to be expected since vacancy rates are determined by the relative demand and supply of NHH properties, which might vary between different regions.
- Factors that affect the *demand* of NHH properties that might vary between regions include: business closures and consolidations; deprivation; deindustrialisation; regeneration and redevelopment; business rates; size of commercial property; and changes in consumption habits.
- Factors that affect the *supply* of NHH properties that might vary between regions include: building rates; property prices; and changes in planning permission.

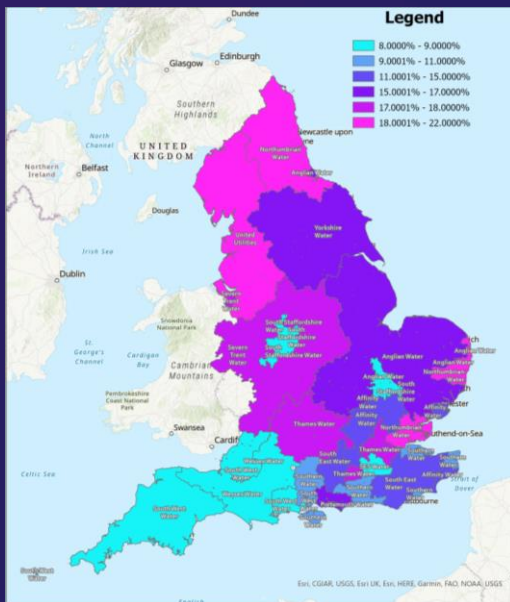


Figure 3: CMOS vacancy rates

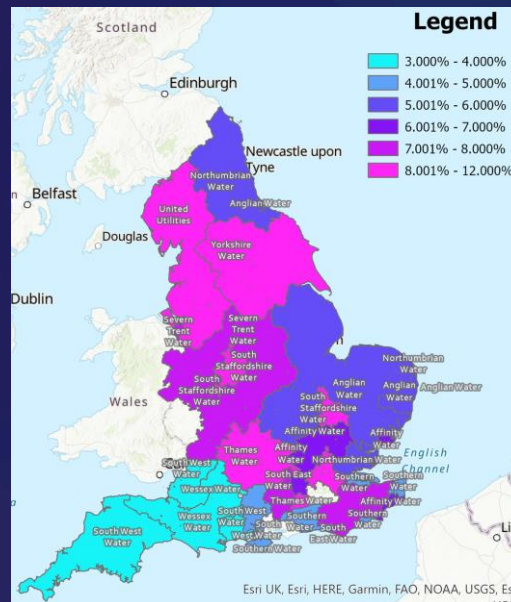


Figure 4: LA vacancy rates

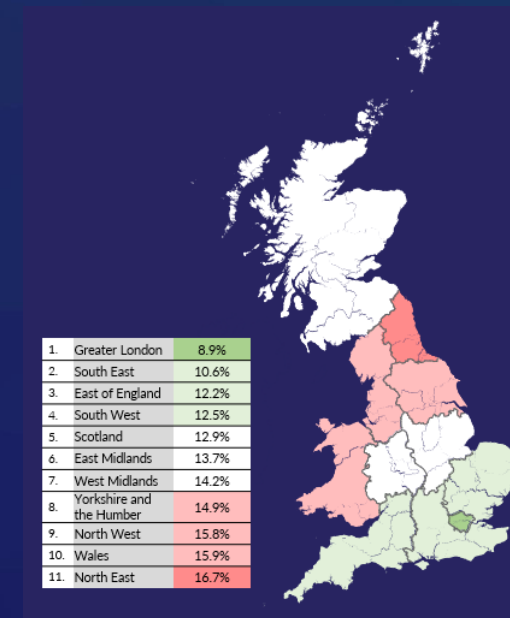


Figure 5: Vacancy rates of high street shops

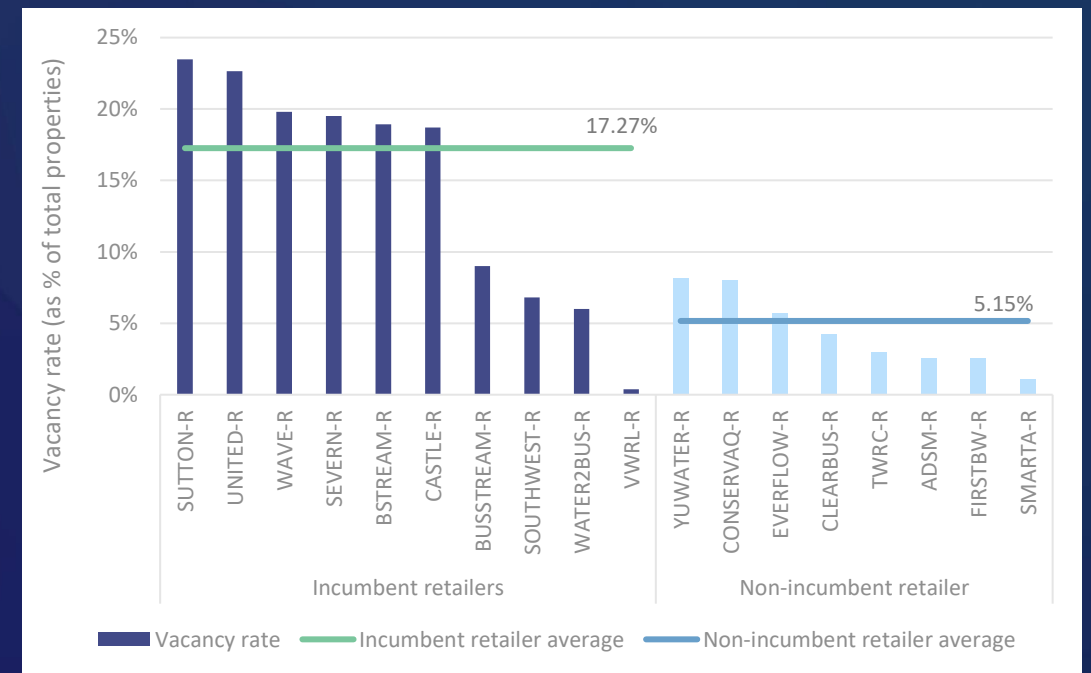
Source: Economic Insight analysis of CMOS and LA data, and <https://www.localdatacompany.com/blog/brc-vacancy-monitor>.

THERE IS VARIATION IN VACANT PROPERTIES BETWEEN RETAILERS, IN LINE WITH EXPECTATIONS.

– Variation between retailers.

- ▶ Vacancy rates recorded in the CMOS data suggest that the vacancy rates of incumbent retailers are significantly higher than that of non-incumbent retailers. (Please see Section 1 for a definition of incumbent and non-incumbent retailers.)
- ▶ This is, at least in part, to be expected since non-incumbent retailers have the option to choose which properties to compete for. This means that incumbent retailers are expected to hold on to long-term vacant properties.
- ▶ Nevertheless, within the categories of retailers, there appears to be a relatively large variation in vacancy rates. One reason for this might be the variation in the wholesale regions that they operate in.
- ▶ Unfortunately, given the nature of the data, we cannot conclusively say:
 - a) Whether there is a genuine problem across retailers; and
 - b) Whether some retailers are doing better than others.

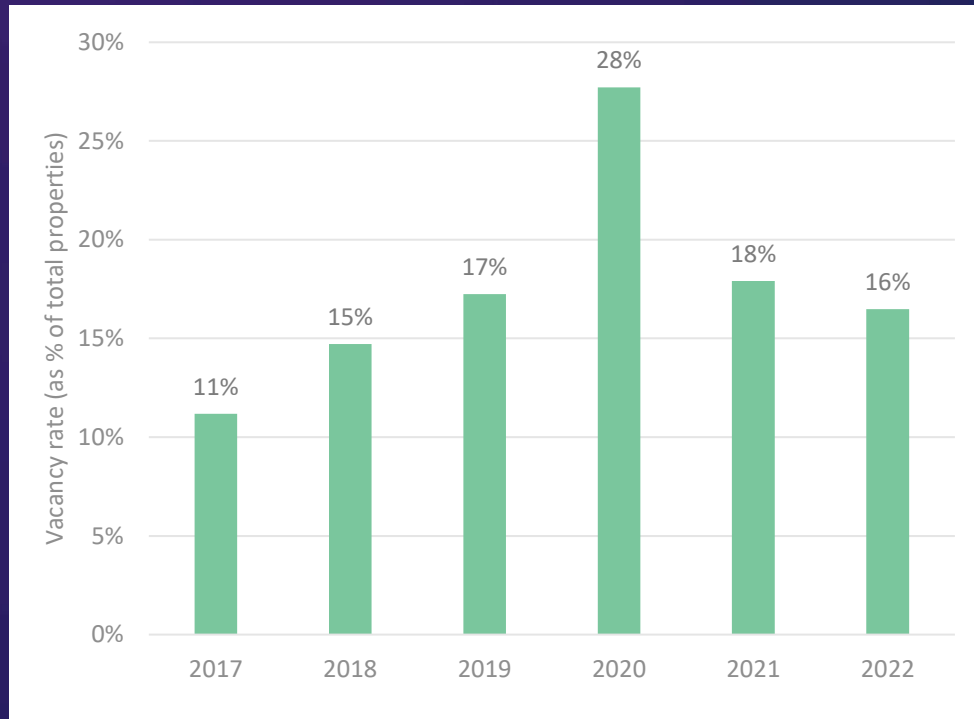
Figure 6: Incumbent and non-incumbent retailer vacancy rates



Source: Economic Insight analysis of CMOS data.
Notes: Please see Annex D for full retailer names.

OVERALL VACANCIES HAVE NOT MATERIALLY INCREASED SINCE MARKET OPENING...

Figure 7: Annual vacancy rates in the market



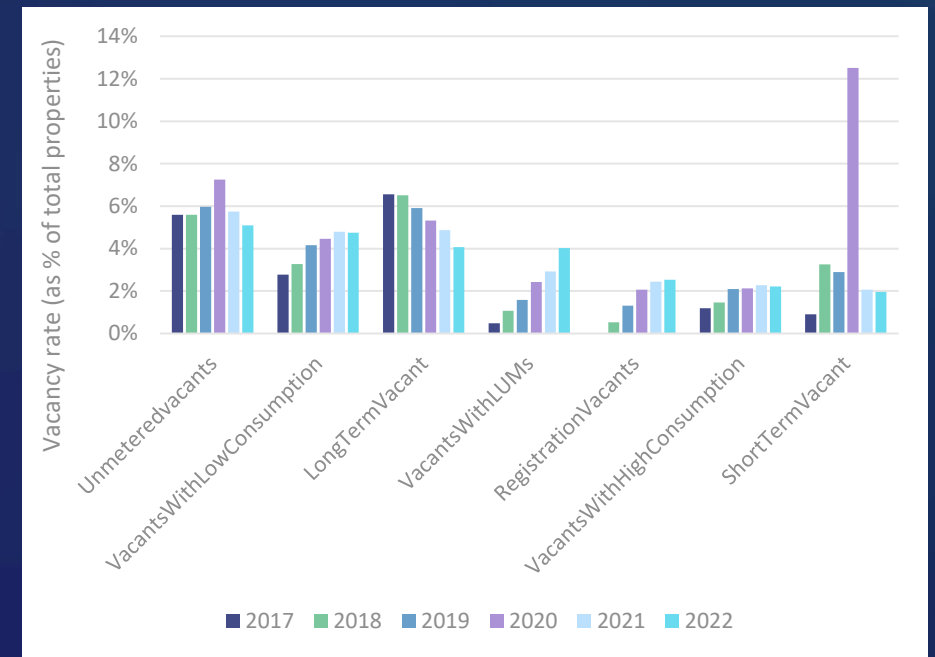
Source: Economic Insight analysis of CMOS data.

- We then undertook an analysis of changes in overall vacancies and vacancy categories over time, to assess whether the data supports there being an increase in false vacancies since market opening.
- Figure 7 presents trends in the level of overall vacancies between 2017 and 2022. As can be seen, the figure indicates that **the overall level of vacancies has not materially increased since market opening**. More specially:
 - Vacancies experienced a spike in 2020, which was likely due to fluctuations caused by the Covid-19 pandemic; but
 - Following this, the proportion of vacant properties has been declining towards the level at market opening.

...NOR HAVE PROMINENT VACANCY CATEGORIES MATERIALLY INCREASED SINCE MARKET OPENING.

- Figure 8 presents changes in vacancy categories since market opening, ordered based on prominence as of 2022. To further investigate whether the data suggest an increase in false vacancies, we examined the performance of the three most prominent vacancy categories in 2022 (i.e. the latest year of available data). As shown, the data suggests that **the three most prominent vacancy categories have also not materially increased since market opening.** More specifically, we have found that:
 - ▶ The proportion of long-term vacancies has steadily declined since market opening.
 - ▶ The proportion of vacants with low consumption has somewhat increased since market opening but has stabilised in recent years. This initial increase may have been due to properties being incorrectly labelled as household sites at market opening, for example.
 - ▶ The proportion of unmetered vacants has remained relatively stable since market opening, with the exception of 2020. This temporary increase is likely due to fluctuations caused by the pandemic.
- The small increase in overall vacancies therefore appears to be driven by other vacancy categories. In particular, we found that the small increase appears to be led by an increase in the proportion of vacants with long unread meters (LUMs) since market opening. This issue should be addressed by the broader metering discussions which are ongoing in the market, and therefore we do not comment on this any further in this report.

Figure 8: Vacancy categories since market opening (ordered based on prominence as of 2022)



Source: Economic Insight analysis of CMOS data.



4. REFORM OPTIONS

REDUCING THE LEVEL OF FALSE VACANCIES CAN BE ACHIEVED BY IMPROVING THE EFFICIENT LEVEL OF ACTIVITY.

- There are currently a number of ongoing schemes which could be helpful for reducing the level of false vacancies in the market. These include: (i) the vacancy incentive schemes put in place by certain wholesalers (see Annex C for further details); (ii) the bespoke PCs introduced by some wholesalers at PR19; (iii) MOSL's Project Tide, which aims to address data quality issues in CMOS; and (iv) ongoing metering discussions in the market.
- As discussed in Section 3, the available evidence indicates that the market might already be operating at the efficient level of activity for identifying false vacant properties. **The most effective way of reducing the level of false vacancies in the market would therefore be to improve the efficient level of activity** (that is, where the marginal cost of identifying a false vacancy is equal to the marginal benefit).
- Responses to our questionnaire indicate that there has been much discussion in the market regarding whether charges should be introduced for vacant NHH properties, which is the approach adopted in the Scottish NHH water retail market (as described in Annex C) and the energy market (where all properties are charged unless landlord can prove a property is vacant). In principle, if all properties in the market faced charges based on their consumption, the issue of false vacant properties would fall away. However:
 - The existing charging structure for vacant properties has been in place since before the NHH water retail market opened and we do not consider that market opening provides a compelling reason for changing it, particularly given that we have found no evidence of inefficiencies in the market in identifying false vacancies.
 - Introducing charges for vacant properties could result in increased bad debt risk for retailers, which is not a desirable outcome given that retailers are already facing increased bad debt risk following Covid-19 and negative margins (*Source: NHH Water Retail Market Study*).
 - There would also be practical challenges associated with introducing charges for vacant properties (e.g. deciding how to charge unmetered vacancies; potential legal issues; etc).

Overall, therefore, **we do not consider that introducing charges for vacant properties would be a desirable reform option** and do not consider it further in the subsequent slides.

- Instead, given that the efficient level of activity in the market is where the marginal cost of identifying a false vacancy is equal to the marginal benefit, reducing the level of false vacancies in the market could be realised through reforms aimed at:
 - a) reducing the marginal costs of identifying false vacancies;
 - b) increasing the marginal benefits of identifying false vacancies; and/or
 - c) related to (a) and (b), sharing the bad debt risk incurred by retailers when identifying false vacancies with other market players.

These categories of reform options are discussed in turn in the next slides.

(A) REDUCING MARGINAL COSTS (1)

- The first way to improve the efficient level of false vacancies in the market would be to reduce the marginal costs associated with identifying vacant properties. We have considered the following five reform options aimed at reducing marginal costs.

Cross-sector cooperation

This reform option would involve working with non-water bill providers (such as energy companies) to identify potentially false vacant properties. For example, a property marked as vacant in the water sector but being billed in the energy sector is likely to be a false vacancy. As a result, efforts in identifying and managing vacancies can be more targeted, using address and occupier data already collected by these third-party bill providers, which would reduce the marginal costs associated with identifying false vacant properties.

Automated checks

This reform option would involve introducing automated checks on the accuracy of the CMOS vacancy data. For example, this could be done by analysing: (i) vacant property consumption levels, as an increase in consumption levels at a property may be indicative of a false vacancy; (ii) business failures within regions, as an increase in business failures is likely to be associated with higher 'true' vacancy rates; and/or (iii) data from non-water bill providers (e.g. energy companies, as suggested above). This option would therefore reduce the marginal costs associated with identifying false vacancies by allowing for more targeted investigations into properties or regions which are most likely to have false vacancies.

Pooling wholesaler and retailer efforts

This reform option would involve increasing the cooperation between wholesalers and retailers in identifying false vacancies, by further pooling effort and resources (though we recognise that this is already happening to some extent). This may take the form of sharing responsibilities for updating fields in CMOS or in investigating occupancy statuses. In having greater transparency on the work undertaken and in combining responsibilities, the risk of efforts being duplicated is reduced and so are the marginal costs of identifying false vacant properties.

Customer engagement

This reform option would involve encouraging previously unbilled NHH customers to register with a retailer, by providing them with free water and/or other services for a limited period of time. This option would reduce the marginal costs associated with identifying false vacancies for retailers and wholesalers, as customers are encouraged to 'self-report', as well as reduce bad debt risks for retailers, as they do not have to issue bills that may not be paid.

MOSL as independent arbitrator

This reform option would involve making MOSL the independent advisor in conflicts in the vacancy challenge process (instead of an external independent expert). Under the current process, the independent advisor must be funded by the losing party in the challenge. Making MOSL the independent arbitrator would therefore reduce the marginal costs associated with identifying false vacancies for retailers and wholesalers, as they would no longer need to pay the costs if they incorrectly identify a false vacancy. We note that MOSL is already undertaking a review of how the vacancy challenge process could be improved.

(A) REDUCING MARGINAL COSTS (2)

- Table 1 overleaf presents our assessment of these five reform options. We employed the evaluation criteria set out opposite and applied a simple red-amber-green (RAG) rating system, in which: a green rating indicates that the reform option performed well / had a positive impact relative to the current situation and the other options; amber that the option had a neutral impact; and red that the option performed poorly / had a negative impact.
- As can be seen, our evaluation indicates that
 - ▶ **Cross-sector cooperation and pooling wholesaler/retailer efforts are the most attractive reforms options**, performing well on average across our evaluation criteria.
 - ▶ **Automated checks and customer engagement performed relatively well against our criteria** but may require further development to address weaknesses.
 - ▶ **MOSL as independent arbitrator is the least effective reform option**, primarily based on its ability to achieve the desired outcome and practicalities.

Evaluation criteria:

- ▶ **Improving efficient level of activity.** This considers whether the reform will be effective in improving the efficient level of false vacancies in the market.
- ▶ **Achieving desired outcome.** This considers whether the reform will achieve the desired outcome of reduced false vacant properties. This includes whether the option will: (i) maximise the billing of eligible properties, such as by increasing the number of customers brought into charge; and (ii) incentivise accurate and timely recording of properties on CMOS.
- ▶ **Impact on wholesalers.** This considers: (i) the administrative burden for wholesalers that the reform option has; and (ii) any impact on wholesalers' bad debt charge.
- ▶ **Impact on retailers.** This considers: (i) the administrative burden for retailers that the reform option has; (ii) any impact on retailers' overall costs (including ability to absorb bad debt); and (iii) differential impacts on incumbent versus non-incumbent retailers.
- ▶ **Impact on customers.** This considers whether the reform will lead to lower bills and fairer outcomes for customers.
- ▶ **Impact on competition.** This considers whether a reform option could have an impact on the overall level of competition within the retail market.
- ▶ **Practicality.** This considers the ease of implementation of each reform option. This includes: (i) any processes such as data cleansing that would need to be carried out prior to implementation; or (ii) any changes to legislation that may be required.

(A) REDUCING MARGINAL COSTS (3)

Table 1: Assessment of marginal costs reduction options.

	Cross-sector cooperation	Automated checks	Pooling efforts	Customer engagement	MOSL independent arbitrator
Improving efficient level	Reduces marginal costs associated with identifying false vacancies.	Reduces marginal costs associated with identifying false vacancies.	Reduces marginal costs associated with identifying false vacancies.	Reduces marginal costs associated with identifying false vacancies.	Reduces marginal costs associated with identifying false vacancies.
Achieving desired outcome	Encourages the billing of eligible properties and more accurate recording of properties on CMOS.	Consumption levels are already a common flag used by parties, so may lead to relatively small impact. Checks will highlight potential inaccuracies in CMOS data.	Encourages the billing of eligible properties and more accurate recording of properties on CMOS.	Encourages the billing of eligible properties. However, no clear impact on data accuracy.	Trading parties may be somewhat more inclined to participate in the vacancy challenge process, although the process is still lengthy and complex.
Impact on wholesalers	Reduces administrative and financial burden.	Allows more targeted efforts to identify false vacancies, but it may still be hard to locate customers.	Removes duplication of effort.	No clear impact.	Reduces financial burden of possibly paying for independent expert.
Impact on retailers	Reduces administrative and financial burden.	Allows more targeted efforts to identify false vacancies, but it may still be hard to locate customers.	Removes duplication of effort.	Reduced bad debt risk. However, retailers have to provide free water and/or services at their expense for a short time.	Reduces financial burden of possibly paying for independent expert.
Impact on customers	Lower bills for billed customers.	Lower bills for billed customers.	Lower bills for billed customers.	Lower bills for billed customers. Previously unbilled customers receive free water and/or services.	Lower bills for billed customers.
Impact on competition	No clear impact.	No clear impact.	No clear impact.	May increase competition amongst retailers as retailers compete for newly registered customers.	No clear impact.
Practicality	Bill providers already have the information needed and can be automated. However, requires an agreement to share data which may be costly / difficult (e.g. due to GDPR).	Relatively easy to implement and can be automated.	Requires cooperation and communication to establish shared responsibilities. May also require market code reforms.	Relatively easy to implement alongside existing approaches (e.g. lettering campaigns).	MOSL (society) bears cost of being independent expert.

(B) INCREASING MARGINAL BENEFITS

- Another way of improving the efficient level of false vacancies in the market would be to increase the marginal benefits associated with identifying false vacant properties.
- We have considered reform options aimed at increasing the marginal benefits of identifying false vacancies and concluded that **these options would not be effective in improving the efficient level of activity** (i.e. the first of evaluation criteria on slide 22).
 - This is because options directed at increasing the benefits associated with an activity would necessarily involve one market player ‘paying’ for another market player to receive enhanced benefits.
 - However, if the market is already operating at the efficient level of activity (as the evidence indicates in this case), this **would imply that market players would be ‘paying’ for an inefficient level of activity**, which is not a desirable outcome for a reform option.
- Given that the options aimed to increase marginal benefits ‘fail’ the first evaluation criteria, we have not conducted any further assessment of these options.
- Nonetheless, if it is decided that reforms aimed at increasing the marginal benefits associated with identifying false vacant properties for one player are desirable, options for doing so include the following.
 - ***Target vacancy outcomes with financial rewards.***
 - ▶ This reform option would involve setting target outcomes relating to the correct identification of vacant properties and attaching financial rewards for outperformance. These targets could be set for retailers and/or wholesalers, and could focus on particular vacancy categories which are most likely to have significant false vacancies (e.g. vacancies with high consumption).
 - ▶ Whilst this reform option would increase the marginal benefits associated with identifying false vacancies for retailers and/or wholesalers, it would involve the market ‘paying’ for an inefficient level of activity.
 - ***Market-wide wholesaler incentive scheme.***
 - ▶ This reform option would involve a market-wide application of the vacancy incentive schemes set up by certain wholesalers to identify false vacancies, which is described in Annex C.
 - ▶ Whilst this reform option would increase the marginal benefits associated with identifying false vacancies for retailers, it would involve wholesalers ‘paying’ for an inefficient level of activity.

(C) SHARING BAD DEBT RISK (1)

- Reforms can have unintended consequences. One important consequence of identifying additional false vacancies could be the increase of bad debt risk for retailers, if a property that has not been billed in the past (due to being falsely recorded as vacant) is sent a bill that is not paid. Therefore, a final way of improving the efficient level of false vacancies in the market would be to reduce this bad debt risk, by sharing the risk between retailers and other market players.
- Table 2 overleaf sets out our evaluation of which market player(s) might be best placed to share this bad debt risk with retailers.
 - We have adopted a different evaluation criteria compared to slide 23, as sharing of bad debt risk raises different questions to the other reform options considered. Our assessment criteria included: (i) whether the market player can control the bad debt risk; (ii) whether the market player can accommodate the bad debt risk; (iii) whether it is fair for the market player to bear the bad debt risk; and (iv) whether it is practical for the market player to bear the bad debt risk.
 - We adopted a RAG rating system for our evaluation, in which: a green rating indicates that the market player is well placed to take on the bad debt risk; an amber rating indicates that the player is somewhat well placed to take on the bad debt risk; and a red rating indicates that the player is poorly placed to take on the risk.
- As can be seen, our evaluation indicates that **already billed customers might be best placed to share the bad debt risk incurred by retailers when identifying false vacant properties**. This is primarily because billed customers currently bear the costs associated with false vacancies under the existing charging system and, therefore, they will benefit relative to current situation.
- One example of how such risk sharing could be implemented is a '*grace-period billing model*'.
 - Under this model, retailers would take on the bad debt risk associated with false vacancies in the short run, by issuing bills to properties that have not previously been billed. However, after a 'grace-period' (e.g. 3 to 6 months after a customer has been identified and billed), any properties which do not pay the issued bills would be recorded as vacant again, transferring the costs associated with these false vacancies from retailers back to billed customers.
 - By sharing the bad debt risk with billed customers in this way, the marginal costs associated with identifying false vacancies are reduced for retailers, which would lead to an improvement in the efficient level of false vacancies. Billed customers themselves would be either:
 - a) better off compared to the current situation, if the bill issuing leads to a previously unbilled property paying their bill (as billed customers would no longer have to cover the costs of their fixed services); or
 - b) unchanged compared to the status quo, if the bill issuing does not lead to a previously unbilled property paying their bill (as billed customers would simply continue to cover the costs of their fixed services).
 - We note, however, that there would likely be challenges associated with implementing such a model in practice. For example, recording a premises that is known to be occupied as vacant is not currently permitted in the market codes. Market code changes and ways of distinguishing these premises in CMOS would therefore be required.

(C) SHARING BAD DEBT RISK (2)

Table 2: Assessment of options for sharing bad debt risk between retailers and other market players

	Retailers (status-quo)	Wholesalers	Billed customers	Unbilled customers	MOSL/Ofwat
Can the market player control the bad debt risk?	Retailers are somewhat able to control the bad debt risk associated with identifying false vacancies, given that they bill customers.	Wholesalers cannot control the bad debt risk associated with identifying false vacancies, given that they do not bill customers.	Billed customers cannot control the bad debt risk associated with identifying false vacancies.	Unbilled customers are able to control the bad debt risk, given that they are the source of it.	MOSL/Ofwat cannot control the bad debt risk associated with identifying false vacancies, given that they do not bill customers.
Can the market player accommodate the bad debt risk?	Retailers are already facing increased bad debt risk following Covid-19 and negative margins. <i>(Source: NHH Water Retail Market Study)</i>	Wholesalers may be somewhat better able to accommodate the bad debt risk compared to retailers, given their positive margins.	Billed customers pay higher water bills to cover the costs of the fixed services received by vacant properties, and so currently bear the costs associated with false vacancies.	There is no reason to believe that unbilled customers could not accommodate this risk.	It would likely be difficult for MOSL/Ofwat to accommodate the bad debt risk in the context of the cost of living crisis, as this would involve society bearing the costs of the bad debt.
Is it fair for the market player to bear the bad debt risk?	Given that retailers are not the source of the bad debt risk, it is not fair for them to bear the costs.	Given that wholesalers are not the source of the bad debt risk, it is not fair for them to bear the costs.	Given that billed customers are not the source of the bad debt risk, it is not fair for them to bear the costs.	Given that unbilled customers are the source of the bad debt risk, it is fairest for them to bear the costs.	Given that MOSL/Ofwat are not the source of the bad debt risk, it is not fair for them (or society) to bear the costs.
Is it practical for the market player to bear the bad debt risk?	Retailers currently bear the bad debt risk when a property that has not been billed in the past (due to being falsely recorded as vacant) is sent a bill and does not pay it.	Given that wholesalers are subject to a price control process, which aims to provide them with the efficient level of returns, any bad debt risk they incur would eventually be reflected in their prices and result in even higher prices for billed customers vs the status quo. Regulatory changes would also be required, as wholesalers are not currently funded for bad debt risk.	Billed customers currently pay higher water bills to cover the costs of the fixed services received by vacant properties, and so currently bear the costs associated with false vacancies.	It would not be feasible for unbilled customers to share the bad debt risk with retailers, as they are source of this risk.	There would likely be practical challenges associated with MOSL/Ofwat bearing the bad debt risk.



ANNEX A: KEY
DEFINITIONS USED
IN THIS REPORT



KEY DEFINITIONS EMPLOYED IN THIS REPORT.

- We use the term 'vacant properties' (or 'vacancies') to refer to properties which are assumed to be empty or unoccupied (which includes 'void properties', as defined by Ofwat). These properties receive fixed services such as water connection and wastewater services but, if they are in fact empty, do not consume water.
- We use the term 'false vacant properties' (or 'false vacancies') to refer to: (i) occupied properties which should not be recorded as vacant; (ii) properties which do not have a connection and therefore should be deregistered; and (iii) properties that should not be in the market (e.g. properties that have been demolished or domestic properties).

Ofwat defines 'void properties' as *"properties, within the company's supply area, which are connected to the company's assets for either a water only service, a wastewater only service or both services but do not receive a charge, as there are no occupants."*

(Source: 'RAG 4.10 – Guideline for the table definitions in the annual performance report.' Ofwat; 2021.)



ANNEX B: REVENUE IMPACT OF FALSE VACANCIES



APPROACH TO ESTIMATING THE REVENUE IMPACT OF FALSE VACANCIES.

- We estimated the revenue impact of false vacancies by multiplying: (i) the number of vacancies with high consumption; by (ii) an estimate of average annual NHH customer bills.
 - We calculated the number of vacants with high consumption using CMOS data (please see Annex D for further details). This was taken as a proxy for the number of false vacant properties, although it is acknowledged that vacant properties may have high consumption as a result of, for example, leakage and therefore not all vacants with consumption are necessarily false vacants.
 - Average annual NHH customer bills in 2019-20 are provided in the NHH Water Retail Market Study, for different customer sizes. We consider false vacancies are more likely to relate to microbusinesses rather than large business customers (given that retailers have a greater incentive to find and bill large customers). Therefore, we employed the average annual bill for microbusinesses (£350) in our calculations.
- Based on the above, we estimated the revenue impact of false vacancies to be around £12m per annum (in 2019-20 prices).
- To put this figure in context, we also calculated the revenue impact of false vacancies as a proportion of: (i) annual retail market revenue; and (ii) average annual customer bills.
 - Annual retail market revenue in 2019-20 is provided in the NHH Water Retail Market Study. This was estimated to be £2,676m. Using this, we estimated that the revenue impact of false vacancies is equivalent to approximately 0.4% of annual retail market revenue.
 - We calculated the number of billed customers by considering the number of properties not marked as vacant, which was equal to 1.2m in 2022. Using this, we estimated the average cost of unbilled vacant NHH properties per billed customer to be £9 per annum (£12m / 1.2m (rounded)). As outlined above, average annual NHH customer bills are provided in the NHH Water Retail Market Study. Given that we are interested in bills for the average customer, we employed the weighted average annual bill for customers (£1,400) in our calculations, rather than the average annual bill for microbusinesses. Based on this, we estimated that the revenue impact of false vacancies is equivalent to approximately 0.7% of average annual customer bills.



ANNEX C: INPUT FROM MARKET PLAYERS



APPROACHES UNDERTAKEN TO OBTAIN INPUT FROM MARKET PLAYERS.

- **We sent out a questionnaire to wholesalers and retailers** in order to better understand their approaches and experience in identifying and managing vacancies in the market. Our approach and the responses received from the questionnaire are detailed in slides 34 to 36 overleaf.
- **We held discussions with various market players** in order to gather research, including those set out below. Our findings with respect to the wholesale incentive scheme and the approach to charging in the Scottish NHH market are detailed in slides 37 to 38 overleaf.
 - Scottish Water to discuss the Scottish experience, including the approach to charging vacancies in the Scottish market, the wholesale incentive scheme and the Scottish debt transfer mechanism;
 - An associated retailer to understand the wholesale incentive scheme;
 - An unassociated retailer to understand the wholesale incentive scheme and the Scottish debt transfer mechanism;
 - A wholesaler to understand the wholesale incentive scheme; and
 - MOSL.
- As part of the study, **we also conducted a literature review on the factors that influence the level of non-household properties**. In conducting this literature review, we have gathered evidence from the following sources: (i) documents published by Ofwat and NHH market participants; (ii) academic papers; and (iii) documents and websites published by commercial property industry bodies (such as the Royal Institute of Chartered Surveyors). We found from this review that there are a wide range of factors that are likely to influence the number of vacancies at a national and regional level. These factors include those that: (i) affect the demand for NHH properties (e.g. deindustrialisation and business rates); and (ii) affect the supply of NHH properties (e.g. building rates and changes in planning permission).



QUESTIONNAIRE – OVERVIEW.

- We sent out a questionnaire to wholesalers and retailers in January 2023 and allowed two weeks for a response. We received nine responses from wholesalers and six responses from retailers.
- We asked questions on the following topics:
 - Charging arrangements;
 - Vacancy management approaches (for true vacancies, false vacancies and non-vacant properties);
 - Barriers to the identification of false and non-vacant properties;
 - Incentives and disincentives to identifying false and non-vacant properties; and
 - The wholesaler incentive scheme.
- The main issues identified in the questionnaire responses, from both wholesalers and retailers, were as follows:
 - ▶ The quality of data is poor;
 - ▶ Current mechanisms in place (such as the vacancy challenge scheme) take too long; and
 - ▶ A collaborative relationship between wholesalers and retailers is required.
- More detailed responses from wholesalers and retailers are provided overleaf.



QUESTIONNAIRE – SUMMARY OF RESPONSES.

- The specific key takeaway points are as follows:
 - Wholesalers:
 - ▶ Pro-active visits are wholesalers' primary method for identifying false vacancies as these are not reliant on inaccurate data, despite being time-consuming processes. Generally, proactive approaches are taken because there is a sense that otherwise false vacancies will not be identified by retailers.
 - ▶ Managing true vacancies requires collaboration between wholesalers and retailers as wholesalers pass on information to retailers who in turn are responsible for updating CMOS data / the occupancy status. This relationship is not sufficiently collaborative. The resource-heavy work wholesalers undertake therefore is not guaranteed any return, which is a major disincentive for them.
 - ▶ The formal challenge process is seen as too slow and difficult, meaning that either informal challenges are used instead or the process as a whole is avoided.
 - ▶ Most existing incentives focus on revenue or reputational impact.
 - ▶ Most wholesalers do not take part in vacancy incentive schemes, which do not appear to incentivise retailers properly.
 - Retailers:
 - ▶ Retailers are increasingly trying to proactively identify premises and/or contact customers. Most identification of vacancies relies on the use of consumption data to trigger investigation before proactively contacting customers or using third-parties.
 - ▶ Some retailers have few vacancies so do not have a systematic approach that differs between types of vacancies.
 - ▶ Vacant consumption charges from wholesalers incentivise retailers to identify occupiers, which they struggle with due to poor address data (provided by wholesalers). This is seen as the largest barrier to identification and as unfair due to market limitations. Further difficulties are also seen in proactive actions such as site visits (e.g. time, finding sites, etc.).
 - ▶ There is a mixed participation in incentive schemes. The schemes were initially successful but face challenges in terms of the volume of applications – associated retailers struggle to process them and unassociated retailers are dissatisfied with the time required to process them. Retailers agree they need better incentives to participate in the schemes.

QUESTIONNAIRE – RESPONSES RELATING TO CHARGING ARRANGEMENTS FOR VACANT PROPERTIES OF RETAILERS AND WHOLESALERS.

Table 3: Charging arrangements for vacant properties

Charge type	Name of wholesaler(s)	% of (respondent) wholesalers	Name of retailer(s)	% of (respondent) retailers
Volumetric	South West Water; Portsmouth Water; Affinity Water*; Thames Water	44%	-	0%
Fixed	-	0%	-	0%
Both	-	0%	SSE; Veolia	29%
None	Northumbrian Water; Southern Water; United Utilities; Welsh Water; Yorkshire Water	56%	Business Stream; Wave; SES Water; Waterplus; Everflow	71%

Source: Economic Insight review of questionnaire responses.

*Affinity Water does not apply charges for unmeasured vacant properties.

DISCUSSIONS WITH MARKET PLAYERS – WHOLESALE INCENTIVE SCHEME.

- The wholesale incentive scheme was introduced in May 2020, following the introduction of the market code 'Vacancy incentive scheme'. It is currently being operated by two wholesalers within the English business retail market: (i) United Utilities; and (ii) Severn Trent Water.
- The wholesaler pays a retailer where: (i) it is able to provide evidence that a property marked as vacant on CMOS is occupied; and (ii) the occupancy of the property is switched from vacant to occupied on CMOS. It is open to any retailers that have a wholesale contract with the awarding wholesaler. If the application is successful, the wholesaler will award the qualifying retailer with the incentive payment. The receiving retailer does not receive any payment.
- The scheme is currently funded through Ofwat's ODI mechanism.

How successful has the scheme been?

- The scheme has been successful at reducing vacant properties in UU, but the impact in SVT has been less clear. Between 2018-19 (the year before COVID-19) and 2021-22, UU have reduced the percentage of vacant properties from 26.8% to 20.2% (a reduction of 6.6 percentage points). This is significantly greater than the industry level.
- UU consider that the scheme has resulted in 30,000 properties being brought back into charge over the period. UU consider that the pay-back period of the scheme can be a little as two months and has led to it collecting a significantly greater level of revenue (which will result in lower bills for all its customers). However, UU consider the effectiveness of the scheme will reduce as the number of vacant properties decrease over time.

Increase in number of complaints

- Implementation of the scheme has resulted in an increased number of complaints received by the retailer. Many complaints related to disputes between landlords and tenants.

What is the administrative burden of the scheme?

- The administrative burden falls mainly on the receiving retailer. The receiving retailer has no control over the volume of applications, which can lead to an increase in costs for the retailer to process the applications within the required timeframes. One retailer also found that 60% of the applications it processed were rejected.
- Retailers have found that the quality of the applications have been poor. They noted a very high level of applications with critical fields often not fulfilled (website details, contact number, etc.) and many erroneous applications (applications for customers that have since moved out of the property).
- It can take several years for the receiving retailer to recover the costs associated with identifying the customer once they become the occupier.

Bad debt implications

- The scheme results in increased bad debt risk for the receiving retailer, as only about 50% of bills are paid within the first 90 days. The reason for customers not paying within this period is due to a number of issues, including: (i) a site being billed but nobody being there; (ii) a customer getting billed with no history of being billed so will not pay; and (iii) a customer getting billed who is not actually responsible for it (for example, commercial chains).

DISCUSSIONS WITH MARKET PLAYERS – CHARGING APPROACH IN THE SCOTTISH NHH RETAIL WATER MARKET.

- The Scottish Government introduced charges to vacant properties in 2017, 9 years after the market opened in Scotland. Prior to charging vacant properties, it used other mechanisms (e.g. vacant incentive scheme) to incentivise reductions in vacancy rates. The Scottish Government considered the introduction of charges to vacant properties was fair, as these properties were still reliant on the services provided by the water company (e.g. drainage services to protect properties from flooding).
- Under the current charging structure, Scottish Water passes the wholesale charges onto retailers who then attempt to recover the charges from customers. If the retailer is unable to recover the charges from customers, the retailer will still be liable to pay the wholesale charges, resulting in bad debt for the retailer. There are a number of reasons why the retailer may not be able to recover charges, including: (i) the customer refusing to pay; (ii) being unable to locate the customer (or owner); (iii) premises not existing; and (iv) errors in the data.

Introduction of debt transfer mechanism

- To mitigate the impact of bad debt on retailers, a debt transfer mechanism was implemented, which allowed retailers to transfer the debt (and back date the pay) to Scottish Water, who would then take on the responsibility for recovering debt from the owner (or customer) of the property. To qualify, a retailer must satisfy objective criteria that it had taken the right actions in attempting to recover the wholesale charges from the property owner.
- The process can also take a significant amount of time, up to 6 or 7 months, with up to 50% properties falling out of the process within this timescale.
- To date, Business Stream is the only retailer that has participated in the debt transfer scheme.

Reduction in vacancy rates

- Since the introduction of charges, vacancy rates in Scotland reduced from 14% to 10%.

Material impact on retailers

- The introduction of full charges has had a significant impact on retailers, as they became liable for wholesale charges (including premises that are not in the market e.g. demolished properties). This materially increased their bad debt.
- The charging scheme has incentivised retailers to identify (and bill) owners of the properties. One retailer considered the introduction of charges meant that it had to become very skilled at identifying occupiers.
- The debt transfer scheme comes with a large administrative burden to retailers in order to satisfy the conditions of the scheme. This is because the retailer has to follow legal proceedings with the owner of the property, which becomes even more challenging when the owner is located abroad (and therefore legal documents have to be translated). This large cost means that it is not cost beneficial to the retailer to take some properties through this process.

Limited impact on competition

- We understand that introduction of the wholesale scheme has not materially impacted the number of retailers participating in the market.



ANNEX D: DETAILS OF LA AND CMOS DATA ANALYSIS

DATA COLLECTION AND CLEANING.

LA data

- Local authorities (LAs) across England hold data on the total number of business properties in their LA that are recorded as 'empty' for the purpose of collecting business tax. This data was used to estimate our own vacancy rates.
- Most LAs did not provide a definition used for 'vacant properties', making it unclear whether properties identified were truly vacant or simply eligible for the 3 month discount. Selby LA defined 'vacant properties' as all properties in the area receiving an empty discount or exemption.
- In the interest of proportionality, we sent freedom of information (FOI) requests to four randomly selected LAs in each wholesale region. There was variation in the extent and scope of their responses, meaning that the data had to be cleaned. This involved removing any LAs where their vacancy rate (calculated as the number of empty properties divided by the total number of properties in the LA) appeared anomalous. This process removed West Devon and Luton from the dataset. Further, we removed any responses where it was not clear which data to use or whether the data provided was relevant. As a result, we were able to use data from 56 LAs of the 85 asked.
- For the wholesale regions where we had reliable data on at least 3 LAs, we calculated the region's vacancy rate. To estimate the vacancy rate of the wholesale region, we divided the total number of empty properties by the total number of properties in each LA relevant to the region. SES, Bristol and Portsmouth Water were removed as a result of having an insufficient number of LAs.
- The LA data had some limitations, including: (i) as we understand it, there is no consistent methodology for collecting and maintaining data between LAs; and (ii) the data on 3 LAs may capture more or less of a wholesale region depending on the size. Nonetheless, the data can still provide useful insights.

CMOS data

- Data on the number of properties and vacant properties for each wholesaler and retailer was retrieved from CMOS for the period 2017 to 2022.
- Wholesalers with less than 500 properties were excluded from our analysis. This removed Welsh Water and HD Cymru from the dataset. The vacancy rates of wholesale regions were then calculated by dividing the total number of vacancies by the total number of properties for each wholesale region.
- Retailers with less than 100 properties were excluded from our analysis. This removed 12 retailers from the cleaned wholesaler dataset. The vacancy rates of retailers were then calculated by dividing the total number of vacancies by the total number of properties for each retailer.



WE UNDERTOOK THREE MAIN ANALYSES USING THE LA AND CMOS DATA.

- We undertook three main analyses using the LA and CMOS data.
 - Variation across wholesale regions
 - ▶ The vacancy rates of wholesale regions calculated using LA data were compared to the vacancy rates of wholesale regions using CMOS data. This analysis is presented in Figure 2.
 - ▶ ArcGIS was used to plot both sets of vacancy rates on maps showing the wholesale regions (i.e. water service areas). This was used to understand the regional variation of vacancy rates in England. This analysis is presented in Figure 3 and Figure 4.
 - Variation across retailers
 - ▶ The vacancy rates of retailers from the CMOS data was compared between incumbent and non-incumbent retailers, including the averages for the two groups. This analysis is presented in Figure 6 and retailer acronyms are defined in slide 42 overleaf.
 - Variation across vacancy categories
 - ▶ The trends in vacancy categories over time was assessed. These categories were: long and short term vacancies; registration vacancies; unmetered vacancies; vacancies with long unread metres (LUMs); and vacancies with high and low consumption. This analysis is presented in Figure 8, as well as in slides 43 and 44 overleaf.
- We decided not to analyse vacancies which were reported by MOSL as having data quality issues in certain CMOS fields (e.g. the 'customer name' or 'VOA' fields) as most vacant properties had some form of data issue, limiting the extent to which such analysis would be useful.

RETAILER ACRONYMS

- The table below provides the full retailer names associated with the acronyms presented in Figure 6.

Table 4: Retailer acronyms

Retailer acronym	Retailer name
ADSM-R	Advanced Demand Side Management
BSTREAM-R	Business Stream
BUSSTREAM-R	Business Stream
CASTLE-R	Castle Water
CLEARBUS-R	Clear Business Water
CONSERVAQ-R	ConservAqua
EVERFLOW-R	Everflow
FIRSTBW-R	First Business
SEVERN-R	Severn Trent Services
SMARTA-R	Smarta Water
SOUTHWEST-R	South West Water
SUTTON-R	Sutton and East Surrey Water Services
TWRC-R	The Water Retail Company
UNITED-R	Water Plus
VWRL-R	Veolia Water Retail
WATER2BUS-R	Water 2 Business
WAVE-R	Wave Utilities
YUWATER-R	Yu Water

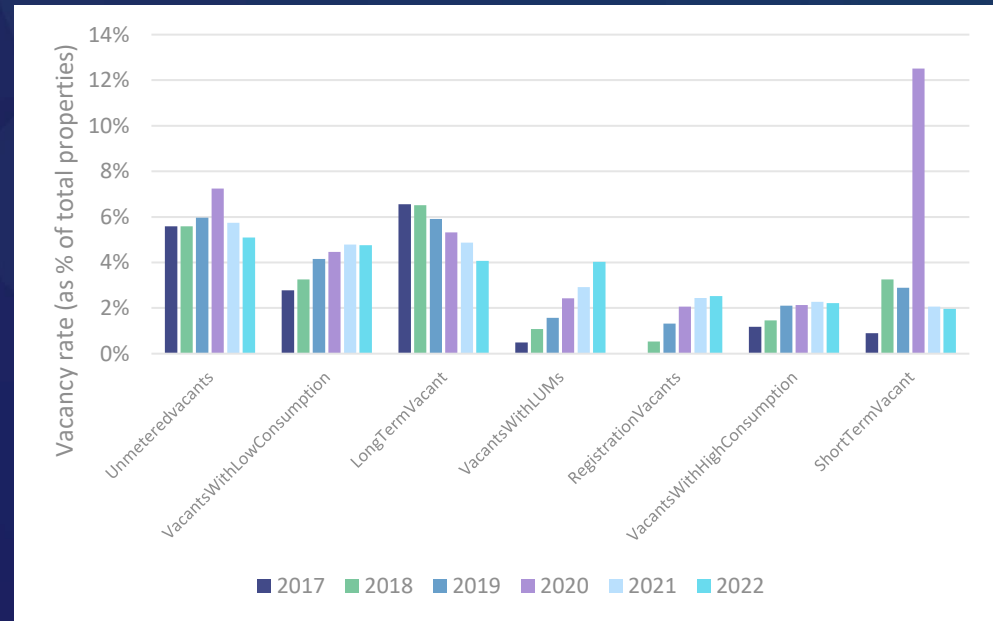
Source: Ofwat licences and licensees, 2023.

RESULTS – VARIATION ACROSS VACANCY CATEGORIES.

Figure 9: Vacancy categories as proportion of total vacancies, as of November 2022



Figure 10: Vacancy categories since market opening



Source: Economic Insight analysis of CMOS data.

Note: The total vacancies in Figure 10 add up to more than 100% as properties may belong to multiple categories at once. For example, one vacant property may be a long-term vacant, as well as a vacant with high consumption. As it is not possible to identify individual (and therefore duplicate) properties, the number of vacancies in these categories is higher than the total number of vacancies overall.

RESULTS – HIGH AND LOW CONSUMPTION VACANCY CATEGORIES.

Source: Economic Insight analysis of CMOS data.

Figure 11: Vacant properties with high consumption for wholesalers

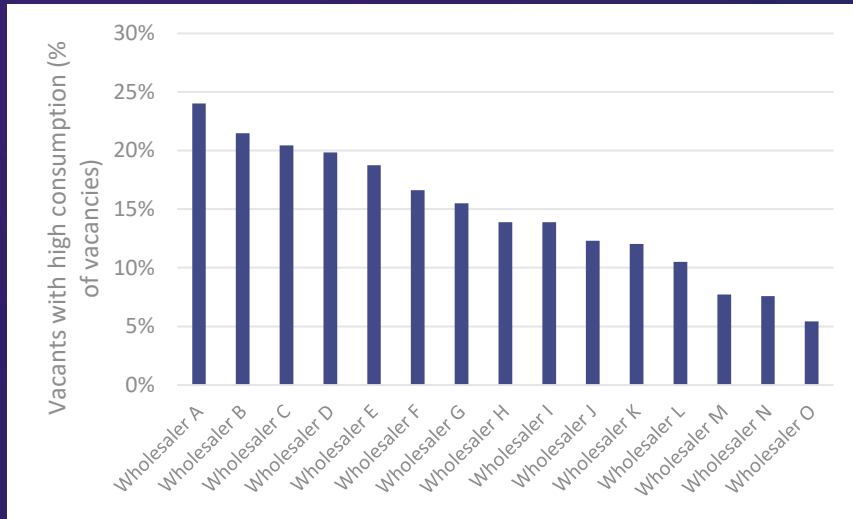


Figure 12: Vacant properties with low consumption for wholesalers

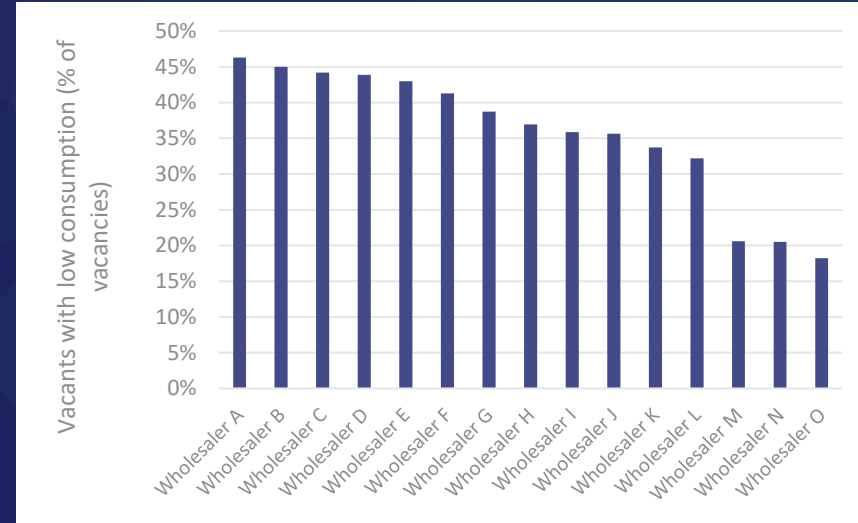


Figure 13: Vacant properties with high consumption for retailers

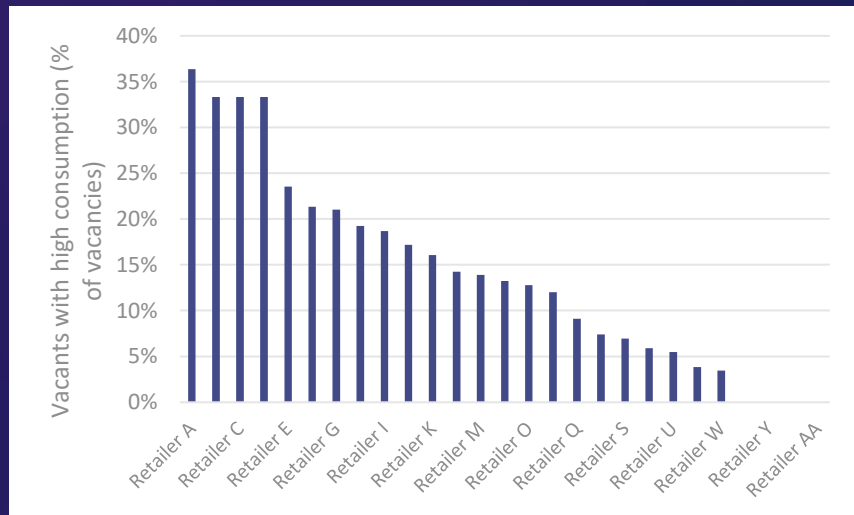
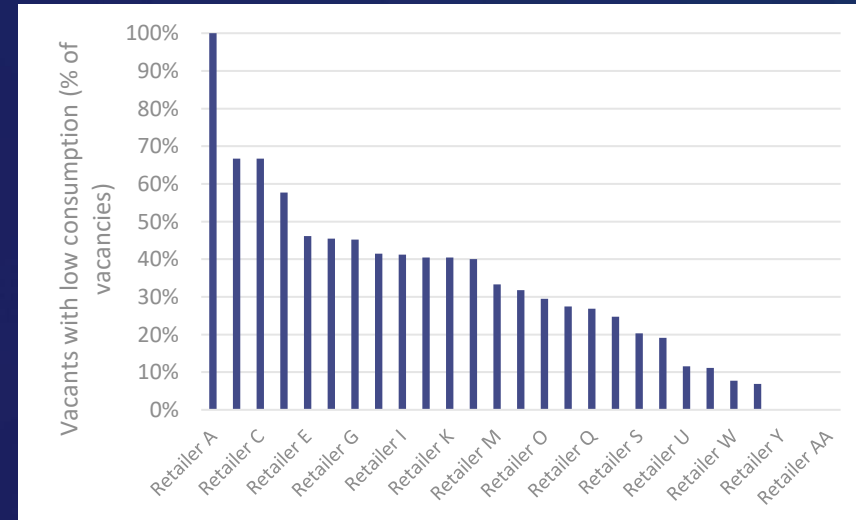


Figure 14: Vacant properties with low consumption for retailers





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