

Yield and the City.

When a metric entered Swedish Public Housing companies.

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Abstract

Real estate is an investment object following the logics of diversifying a portfolio. The housing bubbles and financial crash in 2008 have not refrained the actors. In contrast to this attention, studies have pointed to the problems of real estate as a tradable object. The physical status and location, plus a variety of other factors make every object special. This reasoning applies also to investments in housing, but with some added implications. Housing holds a specific position between “a right” and “a commodity” which has resulted in institutional solutions such as social and public housing.

Accounting practices are required to facilitate trade with such property objects. With the yield-metric real estate objects are possible to relate and housing becomes comparable to assets such as options, futures and bonds. This paper illustrates how yield has become applied in Swedish Public Housing, at the background of changes in the sector over the last twenty years. Rule following and regulation in accounting are discussed and findings point to how accounting practices determine the character of housing oscillating between commodity and right.

Introduction

Real estate is deeply integrated into the finance industry, as one investment along many others. This class of assets was in the epicentre during the financial crash 2008 and real estate was crucial also in the home-made Swedish financial meltdown in the early 1990's. Such events have not diminished the interest and property is still seen as an essential part of an investment portfolio. Housing holds a special position in real estate, as it historically has been placed in a position between "a right" for citizens and "a commodity" in finance. The balancing between these two poles has been handled differently over time and space. Social housing is for example used in the south of Europe while various forms of Public Housing is more common in the north. Similar institutional phenomena and historical changes are seen in other parts of the world. The way political initiatives have differed over history reflect this ambivalence on housing as both a human right and a tradable object.

The societal importance has linked housing both to financialisation (Fields & Uffer, 2016) and to wider political issues (Aalbers & Christophers, 2014). Also calculations have been studied, for example property valuation and its implications for the built environment (Crosby & Henneberry

2016). Planning policies such as DVA (Development viability appraisal) are practiced in England for distribution of surplus from development initiatives in land use (McAllister et al, 2015) hereby forming another example of how housing and planning draw on calculations. The more in-private calculations conducted at home in connection with homeownership (Munro & Smith, 2008) constitutes another example. Calculative practices of accountancy are however rarer in this literature. Such practices are characterised by “their ability to translate diverse and complex processes into *a single financial figure*” (Miller 2001 italics in original). It is this capacity that makes yield so illustrative when changes in housing policies are discussed.

Even if studies on accountancy practices are rare in housing and planning-research, accounting has an important position in real estate. One strong reason is how the application of yield-metrics make objects of various kinds comparable and how this in a following step facilitates trade. Current interest in housing transactions can be contrasted with how Swedish Public housing emerged. The ambitions with creating a Welfare State in the 1930’s was accompanied by the notion of “Folkhemmet” (“Peoples Home”); a place for all people mirroring also the crucial role played by housing. After the Second World War, Swedish municipalities had their own Public Housing company assigned a responsibility to provide housing for their inhabitants. These companies held a pivotal role when one million houses were built in the 1960’s and 70’s to come to grips with a lack of housing. From the 1990’s, these ambitious national housing policies have changed fundamentally (Hedin et al, 2012; Christophers, 2013). One recent consequence is how the public housing sector has been obliged to act more in accordance with commercial logics as a law in 2011 stated the companies were to follow “business like principles”. This development provides a backdrop in this paper and the question raised is how the legislation changed the accounting practices within the companies, and how management, politicians and staff motivated these changes. An interlinked question is the consequences for existing and potential tenants in the companies emanating from these changes in calculative practices.

The paper initially introduces a section on yield presenting both a historical background and how it is dependent on theoretical frameworks introduced into accounting. After that follows the historical background with Swedish Public Housing and its historical position in the emergence, and weakening, of the Welfare Stat. An empirical part presents hereafter the Swedish case, built on an interview study with 47 persons in nine Swedish Public housing companies. The final part, “Conclusions”, discusses the implications of the case in light of these empirical findings.

Yield – a tool for change

The role of the metric “Yield” in Swedish Public housing illustrates how a calculative practice drawing on Economics is linked to accounting and the consequences of this connection for housing provision in Sweden. The application of yield is no traditional practice in accounting, but has been introduced in parallel with regulations permitting “fair value”-methods instead of the more established “historical costs”. This in turn can be seen in relation to other inventions in accounting and how accounting as a practice is open for new techniques in spite of its image as a traditional and rigid discipline. Accounting is as Mennicken & Power (2012) make clear a discipline characterised by “plasticity”.

Yield helps comparisons

Yield is essentially a metric facilitating comparisons in financial markets. MacKenzie & Hardie (2009) explain how the complexity of financial trade is immense with different timespans, diverse geographies and ever changing political conditions. All this necessitates a yardstick that assists the traders. A 10-year bond in Australian dollar compared to a 30-year bond in Mexican pesos – what do you prefer considering assessments of political climate, risks for earthquakes and revolutions,

currency fluctuations and many other factors? A metric is obviously a necessity as the authors (ibid:55) clarify: “the metric of “yield” helps to construct a *global* (italics in original) bond market”. Yield is used not only for bonds, but for most types of financial trade and has a strong position also within real estate. The reasons are the same as for the global bond market: comparability. When real estate defies comparability as location by definition differs, along with technique, conditions, age and a variety of other factors, yield makes the property possible to relate and trade with.

Yield and time value

When yield is taken for granted as a yardstick this hides the mathematical origin and the linkages to time value. Hawawini and Ware (2007) trace the historical path of yield, or more specifically “*The problem of deriving approximate values for the unknown yield implicit in a given annuity*” (ibid:19). This problem has constituted a challenge for mathematicians at least since 1556, according to the authors. The enigma might attract philosophers, but can also be seen in light of a growing bank sector and introduction of interest rates at his time. Yield and time reference are thus intimately linked, and as banking got more common during the Renaissance, the mathematics had to be clarified. As part of these ambitions, the Italian physicist and arithmetician Nicola Fontana reported the following problem “*A merchant gave a university 2814 ducats on the understanding ...to be paid back 618 ducats for nine years. What compounded interest was he getting?*”. The same type of problem applies to contemporary businesses and a solution is nowadays easy to assess with the help of computers in an iterative manner. The different ways of solving the algorithm suggested since 1556 all have different degrees of insecurity. Interestingly enough, Hawawini and Ware (2007) claim the solution commonly suggested in textbooks in finance is among the most unreliable. The fact yield constitutes a mathematical enigma has however not hindered the metric to enter accounting practices. A strong reason for this is the assumption of time value.

Time-value draws on the perception, with origin in Financial Economics (Miller, 1998), that money is worth more today than in the future. This follows from the logic of opportunity cost: financial capital possessed today can be invested and incur interest or revenue and hereby become more worth at a later stage. With the help of this reasoning yield has been assigned two interconnected applications. It is, firstly, the (mostly) yearly accounted result of a certain investment in a bond, a stock or a property. Secondly, yield is also used as a conversion factor for calculation purposes: how high dividend per year do we want from a certain investment? Such estimates determine how much less “money today” is worth compared to future cash flows. But how come this assumption of time value entered the toolbox of accounting practitioners’?

Accounting at the margins

Following Miller’s (1998) advice that accounting is most interesting at its margins, we look further into how yield and time value at large came to be accepted as an accounting practice. Accounting can at times and by some be described as a strict practice based upon regulations and a tradition of long standing principles to make possible “*a true and fair view*”. This has been contested in various ways, and Miller (ibid) exemplifies with cost accounting methods borrowed from Economics as fixed and variable costs got established when railways motivated new principles on marginal cost and revenues. Time value assumptions provide another of these examples.

Miller (ibid) shows how the entry of new techniques into accounting is no simple or straight-forward process, but accomplished through debates and contestations. Traditions and principles collide and proponents of new practices argue altered conditions make changes necessary. Time value assumptions and their applications in accounting is colliding with one assumed age-old postulate in accounting, namely that money is a fixed entity over time (“monetary principle”). That idea conflicts with time value, but as soon as the notion of money as a fixed entity is abandoned and time value accepted, new ways of producing accounts are possible. This is necessary for the next step paving the way for yield in real estate: fair value accounting.

Fair value accounting

According to traditional accounting practice, the production cost of a property or the cost for acquisition was verified with supporting vouchers. This constituted evidence (“verification”) for the entry into the ledgers and was in accordance with “historical costs”: With “fair value accounting” a current market value is instead assessed and reported, which opens up for other types of verifiability. Fair value accounting constitutes hereby another “accounting at the margin”-phenomenon with the aim to move away from principles of “historical values” and “verifiability” in its original sense.

In the accounting regulation covering European public companies, IFRS (International Financial Reporting Standards), the most relevant standard for property yield and time-value is IAS 40 (IAS stands for International Accounting Standard). This standard creates a possibility for companies to use a fair value model to disclose its property holdings; fair value defined as “*the amount for which the property could be exchanged between knowledgeable, willing parties at an arm’s length transaction*” (IAS 40.5). The traditional way was to value property holdings “*at the lower of cost and net realisable value*”, still the convention for most assets. The turn to a fair value model opens up two questions. The first one concerns how rule following such as the one linked to IAS 40 is followed in practice. The other question is how this specific rule is possible to apply; who knows this fair value and is capable to determine “*the amount for which the property can be exchanged*”, who are these “*knowledgeable and willing partners*” and what is “*an arm’s lengths transaction*”?

How to follow the rules?

Rule following offers an important entrance to the understanding of accounting and has been discussed by MacKenzie (2008). He points to the classical idea of classification and how proper accounting practices assume the bookkeeper can sort various items and uses a scheme for this in a consistent way. The ledger is the material form for this task even if the computer now is the instrument for classifying various posts. Classification is thus no simple act but requires rules to follow. MacKenzie (ibid) follows Wittgenstein and other philosophers discussing finitism, as the perils of rule following are outlined. The core of a finitist reasoning is how every rule in itself requires another rule to function as a rule – and how this continues in an infinite regress. Beyond the philosophical arguments, the fast growth of accounting regulations (together with for example Banking regulation) seems to confirm this standpoint: every rule requires another rule to be clear and so on. Evidence of this is not hard to detect: the printed regulations such as IFRS (not to talk of more than 7000 for the American GAAP) get thicker and thicker, materialising the problems with accounting drawing on rule following.

So far we can sum up: yield requires time value assumption as a pillar. Once this is established, next step is to convince regulators time value is an acceptable foundation for accounting. “Fair value” accounting opens up this possibility; housing along with other assets seen as real estate can be valued according to a form of market value. This brings us to the next step: the actual practice of valuing property. The regulation IAS 40 and its fair value principle create opportunities for property valuers to contribute to the accounting practice. This industry or profession is far from unquestioned (Diaz & Hansz, 1997; Öhman Söderberg & Uhlin, 2012; Henneberry & Roberts, 2008). What matters more for this paper is how property valuers apply the principle of the time value of money. To accomplish the valuation of a building, they namely need to identify or imagine future cash flow connected to the property.

The valuation practices require time value

Rule following is thus problematic, as every rule requires another rule and this has implications also for accounting. Another consequence of fair-value accounting is the need to determine an exchange value without any transaction taking place. This is the task assigned to property valuers, who have

an important role in determining a market value. The practice of valuing property implies two major principal steps: first to assess what cash flows a specific holding can result in and secondly to find the conversion factor, the calculus rate, by which these flows of money can be moved in time to represent the same moment: something called the Net Present Value technique. This is where yield as a metric comes into valuations and calculations: the conversion factor moving cash over time is deducted from the assumed yield of the property. The conversion factor determines the effect of time value in the calculus, something having a strong impact for the disclosed values reported by housing companies in their accounts, as well as for their calculations of renovations and production of new houses. This makes in practice the property valuator the person to estimate the “fair value” of real estate; how much would this building be worth in a possible market transaction? This short description obviously hides a lot of practical problems in valuing property but for this reasoning it suffices.

The introduction of new practices in accounting has been described with the help of the concepts time value, yield and fair value. The application of these in the Net present value-technique (NPV) is used both for making calculations for future projects and to determine the value of the property in the accounts. As shown, these practices are at odds with traditional accounting principles such as “historical values” and “monetary principles”. To ground accounting on cash flows creates conflict with yet another convention in accounting: the principle of accruals. This convention states that what matters is when resources are consumed or produced and not when the connected cash transaction takes place.

Time value and concepts associated with this perception has anyhow made it possible to introduce the notion of current market value (“fair value”) into accounting regulations and practices for Swedish public housing companies. It means projected future cash flows determine the value of a property, instead of the traditional cost for production or acquisition (historical value). It further entails calculations is based on the yield-data provided by property valuers. This changed way of thinking on property values has repercussions far away from the “bookkeeping nerds”: accounting regulation specialists or staff practising accounting. The case from Swedish Public housing will show these implications.

Method

The overall aim of this study is to identify accounting practices in public housing companies and their impact on housing policies. It entails a contextual perspective and to take part of various accounts through documents and interviews in a free form. The data collection consists of documents retrieved through personal contacts with the companies or over Internet and interviews in the premises of the companies. The following section on method will firstly discuss the selection of companies, and hereafter present how interviews and analysis were undertaken.

Nine companies were selected for this field study, amongst more than 300 nationwide. Part of the idea was to represent the diversity among the companies in Sweden, why the size differs from 700 apartments in the smallest company to more than 23000 in the biggest. From Malmö in the south there is almost 1100 kilometres up to Kramfors, the most northern company in the study. The majority of the public housing companies are relatively small but these are not represented according to numbers in our selection. There is instead an emphasis on larger companies south of Stockholm. The reason is how size and location make them more relevant to study as their management is affecting more tenants, these companies represent larger organisations and they also mirror the strong Swedish urbanisation. Exact representativeness is no rationale in a study such as this, the main emphasis is instead on housing companies with tenants in cities where most of the population have settled.

Between four and six interviews were conducted in each of the nine companies. We were mostly two researchers present during the talk, my colleague focused on more general issues relating to social responsibility in the companies, and I had the main responsibility for the accounting questions. We interviewed the CEO of the company, the CFO, the person responsible for social responsibility and often a member of staff working in a housing area. We also talked to at least one politician from the board of the company in each municipality, mostly the chairman. In some municipalities with local political disagreements we interviewed politicians from each camp. In total 47 interviews were conducted taking from 45 minutes up to 2 hours.

The questions had two main areas of interest: social initiatives the companies were working with and, secondly, the way they accounted for these efforts and renovations and production of new housing. The interviews contained questions on where the company had built and were planning to build and how they made their assessments of such projects. The connections between such decisions, the political ambitions and the calculation techniques were also asked for, in different ways for politicians, managers and accountants. The same type of questions was raised on renovations as political ambitions and numerical techniques were asked for. The documents we got access to were primarily on Internet. All companies had a yearly public account, where we studied the last two years and in some cases, even older documents. These accounts were of different quality and the level of disclosure differed. In the interviews reference was sometimes made to other documents or accounts that we could get access to. Most of the internal documents or accounts were not public and hence not disclosed to us.

The idea was to carry out the interviews in a conversation like style (Kvale and Brinkmann, 2009), with open questions from a written guide to direct the conversation. Along with Mishler (1981) we aimed to have an open attitude to the interviewees and allow them to speak as freely as possible. We had the ambition to hold back our own intervention, and let them form their own narrative. We further emphasised to the interviewees that our aim was not to identify the exact picture of any “real process” (cf. Rorty, 1980), but to take part of their personal impressions and experiences. We left open for spontaneous comments and the ambition was to make the setting informal. This was successful in most cases, even if the tension in some municipalities where public housing is a sensitive issue was also reflected in the interviews. In these companies, some members of staff and a few politicians had a very strict approach to us and were very careful of what they said, but in the absolute majority of the interviews the atmosphere was relaxed and open. An interview guide, different for each company, was outlined before the interviews. Not only were areas of interest encircled along with particular explicit questions. We also made use of the documents we had studied, and frequently our questions gave us additional documents.

A first analysis of the interviews was undertaken by the researchers involved in the interviews immediately after the talk, where spontaneous reflections were noted. All interviews were also taped and transcribed, why a second analysis took place later in a more systematic manner. We sent the transcripts for comments to each of the interviewees, and all the quotes used have also been checked by the person for a Swedish report upon which this text is written. All people quoted in the text are anonymous.

Swedish Public Housing and the Welfare state

The emergence of Swedish Public Housing can be traced to the 1930's. The housing situation was problematic as industrialisation and urbanisation had not yet resulted in decent housing for people leaving the countryside. The initial initiatives were aimed at families with many children, and these “Barnrikehus” (“Houses rich with children”) became a predecessor to more ambitious Housing

policies implemented after the Second World War. Most municipalities started a housing company to fulfil a legal responsibility to secure housing for their population. Two ideas were formative for these housing companies. Firstly, the companies were to provide affordable housing and secondly, the companies had the whole population as target-group. The umbrella term for the housing sector signalled this: “Allmännyttan”, (“for the benefit of everyone”) in contrast to “Social Housing” built on means testing. The sector was for a long period seen as uncontroversial and as an integrated part of Swedish welfare (Elander, 1991). The 60’s and 70’s proved to be important as housing was once again in short supply when Swedish industry was successful and expanded its workforce. Public housing companies became a major player in the “Million Homes Program”, an historically unprecedented effort to, once again, provide affordable housing. Ironically, when this project was finalised in the mid 1970’s and one million homes had been built, the industrial crisis started. This resulted in many empty flats and severe economic problems for many companies in industrial areas (Turner & Whitehead, 2002). The legacy of this crisis is still characterising many companies.

The 1990’s constituted a new formative period for Swedish Housing. The Conservative government in power from 1991 closed the Department of Housing as a first symbolic measure. A number of laws were hereafter abolished, such as the Housing Provision law, and the system for financing also changed. Subsidies either discontinued or were radically reduced at the same time as housing allowances were diminished (Bengtsson 1995). As a consequence of this, Sweden saw a decline of new production and a rise in vacancies (Hedin et al 2012). There were also growing gaps between different tenure groups and a social polarization as a result. Another development in the Municipal Housing companies was how they became “Social by Default” (Magnusson & Turner, 2008) as low income earners formed an increasing part of the tenants. In spite of these challenges facing the housing sector, resistance towards “Social Housing” has all along remained strong in Sweden as it is believed to create a social stigmatisation.

Another important component in the history of Swedish housing is the effect of the Swedish entry into the EU in 1995 (Elsinga & Lind, 2013). A public battle on the position of Swedish public housing emerged as the result of the affiliation, where The Swedish Property Federation claimed the sector violated rules on fair competition in the union. Social housing has a special provision in the EU-law, as this housing regime is targeted only at parts of the population and is based on means testing. Public housing with the purpose of providing houses for the entire population has another character and how this relates to the special EU provisions for social housing is debated. Before the status of Swedish public housing formally became a legal case, a compromise was reached whereby also the rental negotiation system changed and companies lost their rent leading position. The wording of “Business principles” described earlier is another result of the compromise turned into legislation 2011.

The situation for Swedish Housing generally and the Public Housing companies can be seen as a consequence both of changes in the 1990’s and the law from 2011. The shift in policies in the 90’s was never altered by the following social democratic governments (Hedin et al, 2012). Christophers (2013) has described the housing system in Sweden as hybrid – where de-regulation attempts to cohabit with strictly regulated components, creating a problematic mix. Hedin et al. (2012) express the situation in slightly different terms: “neoliberal housing politics have established market-governed housing provision with a minimum of state engagement”. The most profound changes have taken place in the capital of Stockholm. The proportion of public rental flats in the city has shrunk from 32% of all residents in 1990 to 18% in 2010. In the inner city, the change has been even more dramatic: from 19% to 7%. This is mostly explained by the conversion of rental flats in public housing companies to co-op tenure (Andersson & Turner 2014). The descriptions might differ slightly, but there seems to be a general agreement that Swedish housing policies have changed drastically since early 1990’ and that the housing situation is precarious.

The 2011 law should thus be understood in view of the longer history of Swedish Public Housing briefly presented here. Two main challenges for current housing in Sweden has been presented by Christophers (2013): the worsening housing shortage and the increasingly unaffordable prices for housing for purchase. The public housing companies are in the midst of these problems. The lack of rental housing is especially troublesome, along with the demands for renovations, as a substantial part of their holdings are from the 1970's and the Million Homes program. The companies meet these challenges under the dual constraint of both social responsibility and business logics supposed to be the norm. Accounting practices is here offering one way of understanding how this balancing is undertaken.

The Case: Calculative, renovate, build.

The nine public housing companies in the study reflect an uneven urban growth in Sweden. The following table (with figures mostly from 2013) mirrors these differing conditions among

1. Companies in the three main cities,
2. Companies in the larger cities located west or south of Stockholm and
3. the two smaller companies in the north of Sweden.

The impact of the law from 2011 was also different, where the two small companies in crises-ridden municipalities up north faced problems of their own. They were the only reasonably strong actor on a local housing market why social responsibility was restricted to provide rental flats. The other companies had a more favourable position as their municipalities were growing and the demand for rental housing was larger than supply. These companies represent also the composition characterised by "Social by default", with a high representation of low income residents and migrants. This implied the work with social responsibility took other expressions such as social projects, links to schools in the neighbourhoods and employment activities for adults. These seven companies were also more severely affected by the current shortage of rental housing in Sweden.

Name of company	Number of apartments	Share of the total rental market	Market value of holdings (SEK*)	Value according to public accounts (SEK)	"Over-value"	Profit (after financial posts) (SEK)	Category (see above)
Bergs Hyreshus	700	95 %	433 mkr	433 mkr	0	7 mkr	3
Familjebostäder Gothenburg	18 260	14 % (of which Public Housing 53 %)	15 723 mkr	5 154 mkr	305 %	6 mkr	1
Familjebostäder Stockholm	18 896	10 % (of which Public Housing 38 %)	26 579 mkr	10 606 mkr	250 %	684 mkr	1
Hysesbostäder i Norrköping	9 475	32 %	7 449 mkr	4 260 mkr	174 %	450 mkr	2
Krambo Bostads AB	1 963	69 %	846 mkr	846 mkr	0	5 mkr	3
Landskronahem AB	4 000	40 %	2 680 mkr	1 334 mkr	200 %	-14 mkr	2
MKB Fastighets AB (Malmö)	22 700	35 %	21 600 mkr	7 700 mkr	280 %	200 mkr	1
Telge Hovsjö AB	1 655	8 % (of which Public Housing 53 %)	Not available	482 mkr	Ingen uppgift	-16 mkr	2
Örebrobostäder AB	23 163	66 %	16 208	6 780 mkr	239 %	0,4 mkr	2

*)100 Swedish crowns appr. = 11,2 USD

Business as usual?

The common point of departure was how representatives of the companies reported the law from 2011 had not changed the work. The absolute majority of respondents claimed they had always acted in a business-like manner and explained how the new legislation confirmed what had already been implemented. The discussion on accounting in relation to major challenges in the companies changed the picture. Renovation and new production of rental housing was a major concern.

In the three largest cities, Stockholm, Gothenburg and Malmö, policy statements from the political owners of the public housing companies spoke a very clear language: increase the production of rental housing! Also other companies in our study are striving in this direction, with some exceptions where refurbishments are more stressed. The two smaller companies located in the rural north have an entirely different situation. Their weak financial position in connection with depopulation makes any new production difficult and renovation more of 'Patch and mend' than the systematic efforts possible in the larger and slightly stronger companies in southern Sweden.

The accounting practices have at least two aspects, one is about the calculations needed for assessing future projects and the other concerns the disclosure of asset values in the public accounts. Even if the two are intertwined, the interviews mainly concerned the way companies made their calculations to determine whether a project was defensible from a financial perspective. This is where the question of location in the city proved to be crucial.

Interviewer: How does location factor and yield requirements influence the building of new houses?

CEO: More and more, I think. After the new legislation where we are working in a more business-like manner, it will be more difficult to produce new dwellings outside the urban area where rents are often lower and the required yield higher than those in the central areas. ... it is when we want to build outside the urban area that yield levels virtually make construction impossible.

In most of the companies interviewed the conversion factor in the calculation is based on a yield rate (plus a premium for inflation and risk). Malmö and its public housing company can serve as an example as their levels are found in their Yearly Report 2013. The conversion factor used for planned projects in their holdings varied between 5.5 and 10 percent for different areas. The lower rate is applied in more affluent areas in central locations with low yields, while higher conversion factors are used in areas outside the centre with higher yields. Similar differences between areas are found also in the holdings of other public housing companies. The figures used for calculus mostly emanate from databases at commercial valuation companies that compile data on property holdings and transactions. In addition to ordinary financial data, a "risk"-estimate is added based on assumptions about vacancies, higher maintenance costs and possible vandalism. The final estimated yield levels claim to be market values representing differences in the city.

Staff in the companies reasoned about the consequences of the differences.

... Before we initiated our current more intensive construction, the starting point was that everything we built must add to our portfolio. And that is where we had some inherent contradictions due to the logic of the market. Depending on where in the city we built an object, it could result in depreciation losses in one area and the building can defend its value in another. That is the reason we have historically built much in attractive locations. It is simply a consequence of good business practice.

Take one concrete example: a house built in an area costing from 30,000 to 35,000 per square meter, it is worth the equivalent or perhaps a little more when it's completed. But if you build a similar building at the same cost in another location with lower performance

we might be forced to depreciate 5000-10000 SEK per square meter. It is actually the reason why we have built in attractive parts: simply to be business like. (CFO)

The application of differentiated yield levels is also found for the extensive overhauls commonly required in areas outside central locations. These areas are assigned high conversion factors as a consequence of the elevated yield levels. A large part of the holdings in the public housing companies consist of flats from the 1970's and the "Million Homes Program", in need of upgrading. As an example, in one company rents rose after refurbishments with between 20 and 40 %. When applying traditional calculation techniques, some of the projects were hard to defend.

But in an area where we have 200 apartments that are in a very bad state and the facades fall down, what should we do? Should we declare that it is impossible? We feel compelled to take care of and develop the houses. Strictly, one could say that it would be a better estimate to tore the houses down, as the depreciation would be lost in any way. But it's not an option for the 200 families living there and there are rather 1000 in the queue standing and waiting. Moreover, this would be a signal "this is not an area suitable for houses!" Yes, it's difficult. (CFO)

Alternatives are available

Some companies have taken steps to partially come to grips with these differentiated yield requirements. In Gothenburg, one uniform discount rate was planned to be applied all over the municipality, regardless of where a public housing company was planning a project. Other companies have depreciations in the calculation at an early stage, with the argument that it is not possible to build anything in some areas unless the value is written down immediately. Other options are also used, where the calculation technique is changed and accounting methods adjusted to make projects possible. The reasons for such deviations from the more established calculation methods described in the previous sections are similar and have to do with time and space. One limited single project is believed to influence a wider area and raise the property prices in the long run. This is how it can be motivated:

With this support, we can still say that it is profitable. ... We have a large population in this area; we actually own all the properties. We must protect the value by taking care of the properties and eventually be able to increase rental income. In this way, you get the development that goes beyond the individual property. An investment contributes to the development of the area whose effects are very difficult to measure. (CFO)

A similar reasoning on a project carried out some years back:

... it costs about 30 million SEK to build, twice as much as they were valued at afterwards. But we made the estimate that we would keep the premises and that the flow of people would affect the attraction. Even if the calculation of the given case does not show it is profitable, the costs can be carried by our large stock in the area. (CFO)

An ambitious and costly project with focus on retail premises in a suburb in the Stockholm area is motivated along the same way:

In this "Rinkeby-project", the social benefits and expected future returns will contribute to an enhanced property value.

The core of such reasoning is how property values will increase in the long run and over a larger area. Extending both the time and the territory in the calculations dissolves limitations in the calculations techniques. Different techniques can be used for this purpose, which means the impact of an isolated project is levelled out over a larger portfolio and a longer time period. Evidence of these projected advantages is of course impossible to demonstrate; it is merely an assumption or a hope.

The yield metric proves crucial to all companies in the study, regardless of how it was implemented in practice. For those following its logic the result was costly renovations and new production with high rents in central locations, areas where such projects are made profitable according to the calculation practice. For the companies slightly deviating from the calculating norm, their practice implied they had to make depreciations diminishing the value of their property with consequences for their financial situation.

For both these groups of companies the practices inferred that affordable housing was hard to achieve. For those following the financial principles the existing affordable housing was threatened after costly renovations, something confirmed in one company where almost 40% of residents had to move after the refurbishment. When also new production is expensive and only undertaken in expensive locations it contributes to the erosion of affordable housing in public housing companies.

It was further clear that where the alternative accounting practices had been in use, the purpose was never to achieve affordable housing. The projects were instead often more symbolic, targeting a group interested in collective living or environmental sustainability, alternatively for projects with a commercial orientation enhancing shops and other private initiatives in an area. Such investments were believed to have the capacity to extend the time and space for a project and hereby transcend the limits of the common calculation technique. More concretely: the investment was not required to show profitability, as the effects in the long run and in a wider area were believed to be positive.

The empirical results indicate how the application of yield and the demonstrated calculation technique are not only technical accounting issues. New constructions and renovations have social effects and accounting practices determine who can afford to move into the new homes and what groups have enough income for the renovated flats. One consequence is thus not only that there is little room for new affordable housing, the original rationale for Swedish public housing. The study also shows how the business orientation shrinks the existing volume of such apartments as the required renovations become more expansive due to the calculation practice in place.

Conclusions

Swedish municipalities started public housing companies in the 1940's to secure provision of housing for the whole population. It was a political response to a serious housing crises and an expression of welfare ambitions. The companies were originally managed along self-cost principles as all their other companies and a zero-result was the desired outcome. The law from 2011 required the companies to follow business like principles and this resulted in new accounting practices. The consequences of this development are at the core of this paper, especially how the changes relate to the historical legacy of Swedish Public Housing.

The reorientation of national housing policies started already in 1990, and these companies have struggled with new conditions since the 1970's when vacancies increased and a growing part of the tenants consisted of low income groups and immigrants with small economic resources (Andersson & Turner, 2014). The universalistic notion of the Swedish Public housing found in the term

“allmännyttan” – for the benefit of everyone – had thus been challenged long before the law required the companies to act along business like principles. The field studies show the problems the companies meet when retaining their role as guardians of a social housing policy and how the application of yield as a metric becomes part of these problems.

When calculations on new housing and renovations is drawing on yield levels that differ over the city, the consequences are obvious. New apartments are built in central locations with high rents, as those are the projects possible to defend with the applied calculation practice. The renovations required in areas with holdings from the 1970's outside the city centre become more expensive through the calculations as future cash flow is valued lower than similar cash flows in the city centre. This implies both new affordable apartments are not possible to build and that existing apartments with lower rents are threatened as the rents go high. It has been shown how this is a result of the calculation practice and more precisely how conversations of cash flow over time is carried out. Both these consequences make affordable housing at risk at a time the lack of rental housing for low- and middle income earners is one of the main national concerns. Accounting practices as applied in municipalities make the housing crisis worse.

The introduction of new accounting principles and how this is made possible with the help of a revised framework illustrate a “Plasticity of accounting” (Menicken & Power, 2015). This view assumes stipulated rules are followed also when regulatory framework changes fundamentally. The altered practices in the Swedish case illustrate a shift when traditional principles as “Historical cost” and “Monetary principles” are replaced by time value assumptions and accompanying techniques such as Net Present Value. But this is not the full story. The case shows how rule following is not always the case, as some companies deviate from the norm to differentiate the yields in the city as an expression of business like principles. These flexible forms of application can imply to have one common conversion rate in a city, not bother about depreciation or to bring in depreciations (impairments) in projects already at the planning stage. Such more flexible applications do not however increase affordable housing, but are instead used to motivate symbolic and commercial buildings. Such projects were not deemed profitable when the conventional calculation technique was used, but possible to defend with other arguments.

This points to a dual plasticity in accounting. Not only are regulations and practices open for new principles and techniques, as the introduction of ideas from Financial Economics illustrate in the example of yield. Also, the actual adherence to the framework is open for discretion, as rules are interpreted. When the alternative techniques were practised, the overall motive for the investments was how property values would increase in the long run and over a larger area – beyond what a limited calculation could capture. When this financial aim was not possible to achieve with the conventional yield-dependent calculation, the practices were modified in various ways and the investment – believed to be profitable in spite of the calculus - was decided. Accounting has a plasticity both in its principles and techniques, as well in how it is applied in practice. This means there is room for ideology and politics, something shown in the further development.

Regardless if accounting rules and yield techniques are followed strictly or applied in a more flexible way, the way is paved for housing as an investment object. From the historical position as a social right for all parts of the population in Sweden, public housing is increasingly seen as a commodity. When introducing yield, something possible to do in various ways, holdings are given a market value which open for another focus than housing provision.

This is linked to the capacity in accounting to make values visible. The use of yield implies an exchange value and that property is potentially up for sale. This perspective does not acknowledge any use value experienced by the tenant living in an apartment or the societal values of housing provision generally. The result is that new dwellings become expensive and existing affordable

housing is under pressure. Another consequence is how calculation practices render exchange values public, something previously not so obvious. This is confirmed lately in Sweden as residential areas from the 1970's increasingly have been sold by municipal housing companies to actors on the financial markets. The perceived low valuing of these holdings has been driving the prices upwards and created an interest in this type of real estate holdings. The municipal companies have found the price levels attractive, as they need resources for new production and renovations. In a following step it becomes necessary for the new private owners to raise the rents to make their investment profitable. This forms yet another way the disclosure of exchange values contributes to the housing shortages and especially to problems facing low income tenants.

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