1. Who will close the energy efficiency gap? A quantitative study of what characterizes ambitious housing firms in Sweden

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This paper reports the results from a study that attempts to identify factors that characterize housing firms with particularly ambitious approaches to energy efficiency in connection to renovation. The aim of the study was to identify factors that correlate with ambitious firms and the market they operate in. The study builds on previous results that identified four ideal types among Swedish housing firms, ranging from not ambitious to very ambitious with regards to energy efficiency. Based on the ideal types, this paper uses three levels of ambition and focuses on the more ambitious levels to see if there are factors that co-vary with an ambitious approach.

Six hypotheses were formulated; ambitious firms were believed to be municipal, to be operating in markets with high and/or volatile energy prices, to be operating in strong markets, to have building portfolios in need of renovation, to be large and to have an expert employee who champions energy efficiency issues.

Using web survey results from housing firms, an ordered probit model was used to test if level of ambition as the independent variable and a number of firm and market specific factors as dependent variables The results indicate support for some of the hypotheses; the probability of being ambitious increases if firms are municipally owned, have a building portfolio in need of renovation and have an employee who champions energy efficiency issues. There were no indications that high/volatile energy prices, strong markets or firm size influence the probability of being more ambitious.

**Keywords:** Energy Efficiency, Housing, Sustainable Renovation, Incentives, Drivers

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2. Individual Metering and Charging of Heat and Hot Water in Multi-Apartment Buildings

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Individual metering and charging (IMC) means that tenants in multi-apartment buildings should pay only for their own consumption, which gives an economic incentive for a saving behavior. In April, 2014, the new Swedish law about energy metering in buildings (SFS 2014:267) was granted by the parliament as a result of the EU-directive 2012/27/EU. It is said that energy costs have to be divided by the actual energy use through energy measurement in individual apartments. Today only a few percent of the Swedish multi-apartment buildings has IMC of heat and/or hot water.

The main purpose with the thesis is to analyze the applicability for IMC of heat and hot water in multi-apartment buildings with the viewpoint from Swedish conditions. The study includes...
both interviews with tenants, landlords and board members in housing cooperatives, and a
development of models for investigating potential shortcomings with IMC.
The applicability of IMC of heat and hot water is affected by lack of cost-efficiency and
significant shortcomings. While the main incentive for landlords having IMC of heat and hot
water is to save energy and hence the environment, the main incentive for landlords to not
have IMC is the lack of cost-efficiency. Most residents are positive to the basic thought with
IMC, to pay only for the own use. However, the shortcomings with IMC of heat affect the
residents’ perception negatively. In energy efficient buildings the shortcomings become
highly significant and due to this and the fact that IMC only gives a percentage saving, IMC
of heat are not being recommended in energy efficient buildings. On the other hand, IMC of
hot water can due to its saving potential be a useful tool to achieve the European Union’s
goal with nearly zero-energy buildings.

**Keywords:** Heat, Hot Water, Cost Allocation, Multi-Apartment Buildings, Energy Savings.

3. Natural amenities in urban space – A geographically weighted regression approach

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Natural amenities play an important role in explaining intra-regional economic growth,
because they increase the competition between places and the relative demand for housing.
This paper shows that these relationships are strongly location-specific, such that the
magnitude and the direction, of value assessments vary across the urban surface. The analysis
in this study addresses spatial heterogeneity in the valuations of preserved open space
amenities using Swedish house price data. The results show that marginal valuations of open
space amenities are high in locations that are characterised by high population and housing
densities and low or insignificant in areas where undeveloped lands are abundant, thus,
supporting the hypothesis that a greater competition for those, locational attributes that are in
high demand, yet locally scarce, results in higher marginal prices.

**Keywords:** Open Space Amenities, Local Heterogeneity, Geographically Weighted
Regression Model


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The process of urbanization is one of the important causes to loss of arable land and decline
in natural vegetation land cover (Lopez et al., 2001). Expansion of urban areas is currently
occurring in fast both in terms of area and population. Today, 54 per cent of the world’s
population lives in urban areas, a proportion that is expected to increase to 66 per cent by 2050 (United Nations, 2014a). The expansion of cities together with an increased population in urban areas will provide rapid changes in land use and land cover and therefore seen as one major challenge to global sustainable development due to its impact on environmental conditions at local and global scales. United Nations post-2015 development agenda suggests monitoring and understanding urban expansion to be included in the Sustainable Development Goals under Goal 11 (United Nations, 2014b).

In this sense, developing cheaper, easier, more comprehensive, and more objective ways of observing urban expansions and estimating their impacts is quite significant for development of sustainable urban policies. The objectives of the present study are twofold; 1.) to describe the urban expansion of Istanbul during the period 2000 to 2013 using remotely sensed data, 2.) to analyze the change by employing change detection methods to locate high and low growth municipalities in the study area.

This study introduces one of such methods, which utilizes Moderate Resolution Imaging Spectroradiometer (MODIS) images provided by National Aeronautics and Space Administration (NASA) and Geographical Information Systems (GIS). The study area consists of two provinces in western Turkey; Istanbul province, the biggest urban area in Turkey and Kocaeli Province with Izmit as main city.

5. The Successive Principle as a way to avoid cost overruns: A critical analysis

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The aim of the paper is to investigate if the Successive Principle (SP) can solve the problem of cost overruns. The answer is no. SP can reduce the risk of cost overruns especially concerning risks related to technical problems. SP has limited influence on other causes of cost overruns such as scope changes, strategic behaviour and optimism bias.

The findings rely on analysing arguments for the proposal: “SP prevent cost overruns”. The arguments analysed are: SP prevent technical disasters, SP prevent scope changes, SP prevent strategic behaviour and SP prevent optimism bias. The choice of these arguments is due to the fact that the leading researcher within the field, Flyvbjerg, states these as important causes of cost overruns.

The background to this paper is the use of SP within the Swedish Transport Administration (Trafikverket), and also the self-confident statements about SP:s possibilities to avoid cost overruns made by Lichtenberg (2000).

6. My home and my economy- a theoretical approach to the use of accounting and valuation when purchasing a cooperative flat

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A well-functioning housing market is of great significance for the individual, the society and the urban development as a whole. Purchasing a dwelling is often the largest and most important decision a person takes in life and the economic consequences can be devastating. This paper is part of a thesis dealing with people and their valuation of a cooperative flat. The trade with cooperative flats in Sweden is extensive and the prices have raised a lot in the largest cities during the past decade.

In Sweden and some other countries (as Finland and Norway) there is the form of cooperative flats where you purchase a right to live in an apartment and become a member of a housing association. The board of the association fettes a fee that is supposed to cover all the costs associated with the property. The purchaser can get information about things that can affect the future fee in the Annual Report of the housing association. The economy, when purchasing the cooperative flat, therefore deals with both the private economy and the economy of the association.

This is a qualitative study where middle class people in the city of Malmö (the third largest city in Sweden) have been asked to narrate the process when they purchased their cooperative flat, with focus on the financial information used.

Researchers have worked with accounting in practice earlier, but focus has mostly been on organizations or companies, not individuals. Even when it comes to cooperative flats there is not so much research, especially not related to accounting and financial information.

The results of the empirical study show that the decisions based on financial information cannot be separated from other more social complexities where things like place, social class, power, and taste have importance. Theories from sociology and anthropology are used to understand the interplay when cooperative flats are valued and decisions are made. The purchase of a cooperative flat goes beyond the issue if middle class people do irrational or rational decisions based upon accounting information.

7. Towards a measure of speculative housing markets

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The aim of this paper is to develop a measure of speculative housing markets. The methodology takes a common definition of asset bubbles as the starting point. In brief, the existence of a bubble is defined as a market where prices increase, without fundamental economic factors justify such an increase. Our developed methodology has two steps. First, we acknowledge that speculation can be measured as backward looking expectations, where agents today look at historic prices when they buy a property. Within the standard hedonic modelling framework, this suggests an additive term of historic price changes. However, this measure is not satisfactory. The second step is to acknowledge that historic price changes may very well be due to historic changes in underlying economic fundamental factors. We here estimate historic price changes using a model with economic factors. We argue that the residuals of this model, when correctly specified, will be speculation, that is, changes to
prices that cannot be explained by historic changes in economic fundamental variables. This will give us two new variables to use within the hedonic modelling framework, one that explains historical price changes due to economic factors, and one due to speculation. For the empirical estimation we need a market known to have been dominated by speculation. Here, we choose the Icelandic pre and post crisis housing markets. There is a general consensus that the Icelandic pre crisis market saw rapidly increasing property prices because of speculation. This becomes important as we need to know that what we are looking for is actually there to be found. The empirical analysis relies on two types of data sets. First, we use official statistics from Statistics Iceland in order to build a model explaining (and predicting) historic changes to house price index, the aim of this is to create the two variables to be used in the hedonic model. For the hedonic model we use a data set containing some 30,000 individual transactions of apartments and single family houses. The empirical analysis leads to some interesting results. For the whole time period both the coefficients for speculation and fundamentally explained prices are significant and of equal magnitude. However, when we look only at the time period of speculation, the pre bust period, the speculation coefficient is dominating, this suggests our method performs as expected.

Keywords: JEL-Classifications

8. Network Structure and Business Model Innovation in Real Estate Networks. A management perspective

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Within the traditional real estate business today there’s a growing trend focusing on increased customer value at office workplaces. Facilitating innovation requires transfer of different kinds of knowledge, which means that the knowledge-bearing actors must meet and interact. The customer is therefore no longer passive but deemed as an important active actor in the development of new and changed business models. In a case study, this paper seeks to improve our understanding of how network structure affects innovation outcomes in real estate innovation networks by analyzing network structure in terms of network size, density and in terms of actor centrality or position. This study shows that it was primarily the customer who was behind the innovative development of the workplace while the real estate company had a more network coordinating role.

9. Proposal of use in commercial real estate from a gender perspective

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This study contributes to our understanding of gender and the real estate industry. The purpose is to examine how students at the real estate management programme at Malmö University contribute to the gendering of the real estate industry in Sweden. To fulfill the purpose, a project work in the course in Real estate development is explored.

The empirical data of the study consists of a student project work in the course real estate development. The students’ work in pairs and the aim of the project is to develop an existing commercial real estate. The groups consist of either only women, only men and a few groups with both women and men.

This paper address the question if there are any differences in proposal of use for the real estate, regarding being women or men and are there any differences when both women and men cooperate.

There are different norms and values being a woman and man, is this shown when students at the real estate management program develop a real estate and propose how to use it? Are the proposed uses of the real estate the same? The study covers three different years of projects; 2012-2014.

The study highlights the importance of diversity in the real estate industry.

**Keywords:** Gender, Real Estate Industry, Property Use

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**10. Representations of Gender in the Real Estate Industry**

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This study contributes to our understanding of gender and the real estate industry. The purpose is to examine how annual reports contribute to the gendering of the real estate industry in Sweden. To fulfill the purpose, representations of gender in financial annual reports in the real estate industry are analyzed longitudinal, between the years of 2008-2013.

A critical theoretical perspective is applied. The empirical data of the study consists of representations of gender in photographs in financial annual reports. The annual reports are seen as social constructs, that is to say they are seen as human products expressing corporate identities.

Different organizations seem to show different awareness regarding representations of gender in the photographs; thereby different corporate identities are expressed, partly due to different business concepts.

There are stereotypical images of women and men that serve to maintain the hierarchical gender order in the real estate industry. The token position -being one of the few women in the real estate industry is also used. Women are underrepresented in the corporate identity and the heterosexuality is also preserved.

**Keywords:** Gender, Real Estate Industry, Organization, Images
11. You can talk the talk, but can you walk the walk?
A quantitative evaluation of Stockholm’s mixed tenure ambitions

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Allowing for a socio-economically mixed population throughout all neighborhoods of the city is an explicitly stated objective made by politicians governing Stockholm, and by providing a variety of tenure forms in all parts of the municipality it is presumed that this objective could, at least partially, be fulfilled. Since current proportions between rental and ownership apartments is far from equal in many areas one might consequently assume that the politicians – by utilizing the municipality’s planning monopoly and extensive land ownership – would try to bridge these gaps. Distribution of rental and ownership apartments in planned residential developments on municipal land should therefore correspond to present supply – implicating a larger allocation of rental apartments in neighborhoods were that supply is low and vice-versa for ownership apartment.

In this study we turn our focus to the nearly 50 000 apartments that have passed through Stockholm’s land allocation system between the years 2002-2012. By first classifying all apartments based on tenure (and if rental – private or public), location and year of allocation we secondly pool this information with a data set containing a wide range of demographical characteristics (among them current proportion of rental-ownership and share of public housing) for 128 neighborhoods of Stockholm. This leaves us with a unique set of data allowing for statistical testing of tenure mix policies. Additionally the allocation of public housing is studied following the same theme – are the distribution corresponding to the heavily shifting supply in different parts of the municipality?

Preliminary findings indicate that, contrary to the outspoken policy of promoting mixed tenure, allocation of ownership apartments is primarily given where we currently see large share of ownership apartments and rental apartments where we currently see a large share of rental apartments.

12. Accounting practices in Swedish Public Housing: yield requirements vs. social responsibility.

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Public Housing in Sweden has changed over the last 20-30 years. This traditional part of Swedish welfare was historically a guarantee for affordable housing and existed in all municipalities. The organisations are now facing a new situation. Legislation from 2011 clarifies how they are obliged to follow business-like principles. Public housing has disappeared completely in around 15 of Sweden’s 290 municipalities and holdings taken over
by private landlords. Many other companies have been forced to sell part of their housing stock to make financial room for renovations and production of new houses.

This study shows how the accounting practices in Public Housing can mirror this situation, as the companies manoeuvre between social responsibilities and yield requirements. The main finding in the field study, covering 9 companies in the sector and drawing on 47 interviews, is how differences in yield requirements between different areas in cities affect how social responsibility is perceived and handled. When these diversified yield requirements are implemented, renovations in some areas become more expensive and tenants often forced to abandon their previous affordable apartments. The new houses initiated by public housing companies are built in central locations with high rents as a result. Both these effects are consequences of calculation techniques perceived as neutral. The results hereby demonstrate how accounting practices have social implications and affect city planning.

13. Business Improvement Districts as Voluntary Arrangements

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Business improvement district (BID) is a concept that has gained increasing attention internationally. Previous studies suggest that this type of state-market hybrid has been successful at decreasing criminal behaviour in the areas concerned, as well as adjacent areas. As a means to solve free rider problems, BID in its original form has a legal status allowing for taxation. Several countries, among those Sweden, lack this possibility. The voluntary nature of the cooperation increases the risk of free riders, and makes the initial investments of the initiator of the BID more risky. Even so, there are a few successful BID cooperation projects. The purpose of this study is to analyze how cooperation in a BID may work in the absence of an enforcing law. Specifically we focus on the role of the Swedish public housing companies.

14. A method to determine capitalization in small data samples

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Most policies regarding infrastructure or the built environment has an effect on real estate prices. While certain decisions have a positive effect, others have a negative one. Determining these effects are an important aspect of evaluating policy and can be done in
several ways. The most prevalent methods in the literature are (1) before and after analysis and (2) index creation. However, both these methods imply certain conditions of available data. (1) demands knowledge of a specific point in time when the policy was implemented and (2) demands sufficiently large quantities of data to be able to make accurate indices. This paper proposes an alternative method that can be applied when both these conditions are violated. The method, a continuous before-and-after analysis, is based on a dummy variable that is systematically redefined over time and re-estimated to tease out the effect that a particular event has had on property prices. The method is applied on transaction based data for Gällivare municipality, where an announcement regarding evacuation of a large residential area due to rich quantities of iron ore in this area. The method is found to perform well and the results indicate that the announcement of evacuation has had a positive effect on prices in the directly affected region. The time of capitalization corresponds roughly to when it is expected to.

**Keywords:** Capitalization, expropriation, hedonic model, information. JEL classification: O21, R21, R28, R32

15. How authorized property appraisers perceive information for valuation of commercial properties: a repertory grid study

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This study describe and analyze authorized property appraisers’ (APAs) thought patterns when commercial properties are valued, and compare and draw conclusions about their thinking in terms of content, complexity and homogeneity.

Design/methodology/approach – First, a standard set of elements and constructs was included in the grid form (used for data collection). Second, the repertory grid technique and principal component analysis were used to map and analyze the thought patterns of nearly half (67) of the authorized APAs in Sweden.

Findings - Analysis of the individual grids and the mean grid of all respondents demonstrated similarities in the APAs construing and revealed relatively homogeneous thought patterns. Accordingly, the APAs seem encouraged by general guidelines (such as Swedish Annual property Index valuation guidance), and by guidelines and ethical rules prepared by the APAs own organization. At the same time the APAs thought patterns were found to be relatively complex. They focus on several kinds of information and their assessments are perceived to affect property valuation on micro and macro levels differently.

Practical implications – Based on the homogeneity in the APA’s thought patterns, this study discusses if authorized APAs have begun a “legitimacy journey” towards an upcoming establishment of a profession.

Originality/value – To the auditors knowledge this is the first study using the repertory grid to map and analyse APA’s thought patterns at an aggregated level.
Keywords: Authorized Property Appraisers, Valuation Assessments, Commercial Properties, Thought Patterns, Aggregated Level, The Repertory Grid Technique

16. NIMBYs for rich and YIMBYs for poor – analyzing property price effects of infill developments

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A combination of strong urbanization and shortage of land in many European city areas lead to an impetus of infill developments, while current residents raise concern that it leads to lower nearby property prices. The aim of this paper is to analyze how nearby property prices are affected by new construction projects in Stockholm, Sweden. We are using a difference-in-difference specification in a hedonic model. We are utilizing more than 100 000 observation over the period 2006-2013. Our results are robust and indicate that prices on housing in nearby areas increase after the infill developments have been completed. Our results also indicate that infill development only have a positive spillover effect on nearby housing prices in areas with lower income, more public housing and more inhabitants born abroad.

17. Model for requirement driven renovation of multi family houses from 1950-1975

Part of project: Knowledge in the decision making process
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Renovation of multifamily houses is a challenging process as a large number of requirements from stakeholders such as tenants, property owners, building contractors, architects and society has to be coordinated. As part of larger project aiming to develop a requirement-driven model to support decisions for renovations of multifamily houses, our focus is on analysing requirements for knowledge sharing throughout the renovation process. New requirements due to a change from new production to maintenance and specialised services require new knowledge, new ways of collaboration and improved knowledge sharing. Through interviews with representatives from property companies the criteria for choosing which property to renovate emerge and the basis for renovation decisions. The range varies from ocular inspection to intense use of spreadsheets and yield calculations. The knowledge implementation in the decision making process is analysed in the project. On-going renovation processes and motivation and incentives for knowledge sharing within a project between stakeholders, from project to project within a property company and between property companies are analysed. Though an outspoken need for knowledge sharing, neither incentives nor developed and structured processes for knowledge sharing are commonly used.