House Prices, Airport Location Proximity, and Air Traffic Volume: Plus some Covid-19 Effects

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ABSTRACTS

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GAME THEORY APPROACH FOR PUBLIC RENTAL HOUSING INVESTMENT

FARIDA RACHMAWATI
Institut Teknologi Sepuluh Nopember, Indonesia
CONNIE SUSILAWATI
Queensland University of Technology, Australia
ADHIKA NANDI WARDHANA
Institut Teknologi Sepuluh Nopember, Indonesia

ABSTRACT

Affordable housing provision in major cities is an ongoing challenge for governments. Issues related to demand for public housing provision include affordability and accessibility to housing finance systems, resulting in subsidised low rental prices for low-income families. Meanwhile from the supply side, the issue is a lack of housing supply from housing developers related to building regulations associated with the capping of prices, the cost of construction, and land prices, which resulting in some financial risks for housing developers.

This paper is conceptual paper which explores the use of game theory for decision making related to risk allocation in housing investment between two parties: government and housing developers. The findings provide a summary of the use of game theory for financial risk allocation in order to enhance future implementations including objects and approaches. Some game theory strategies are also discussed, which could be adopted for further empirical studies.

Paper ID 244

THE APARTMENT PROJECT MARKETING INDUSTRY: A SHIFTING INSTITUTIONAL STRUCTURE OVER A BOOM-BUST CYCLE

RUPA GANGULI, BILL RANDOLPH, HAL PAWSON
University of New South Wales, Australia

ABSTRACT

A notable apartment market cycle transpired in Sydney over the 2010 – 2020 period, alongside an expanding private rental sector. This was underpinned by off-the-plan sales, part of property ownership rights exchange and development financing. Real estate agents facilitating these transactions are commonly known as 'project marketers'. An institutional theory-based conceptual model is used to illustrate that the power of these marketers to shape development outcomes is embedded within an industry structure. A mixed-methods approach utilises interviews with 36 industry professionals and CoreLogic data on sales organisations associated with the 2017-2019 supply peak. A typology of 'players', with varied knowledge, experience, and networks emerges within a project marketing industry. The groups who sold most of the apartments have vertically integrated business structures to maximise revenue and evolve between a 'boom' and 'bust' period. This has relevance for all cities experiencing rising housing density and witnessing market risks arising from speculative development.

**BOOSTING THE ACCURACY OF COMMERCIAL REAL ESTATE APPRAISALS –
AN INTERPRETABLE MACHINE LEARNING APPROACH**

JUERGEN DEPPNER
University of Regensburg, Germany
BENEDICT VON AHLEFELDT-DEHN
University of Regensburg, Germany
ELI BERACHA
Florida International University, United States of America
WOLFGANG SCHAEFERS
University of Regensburg, Germany

ABSTRACT

In this article, we use property-level transaction data to assess the potential of machine learning techniques (i.e., boosting and bagging trees) to provide a material improvement over state-of-the-art appraisal practice. The accuracy and bias in the valuation of commercial real estate properties is examined using properties included in the NCREIF property index (NPI) between 1997 and 2021. Under consideration of 50 covariates, we find that appraisal errors exhibit structured variation that the applied boosting and bagging methods can capture to further explain these errors, thereby increasing appraisal accuracy and eliminating structural bias. Improvements are greatest for apartments and industrial properties, followed by retail and office buildings. Using model-agnostic permutation feature importance, we further find that, besides changing market characteristics, especially spatial, structural and macroeconomic covariates seem to have a dominant influence on appraisal errors. This study is the first in the literature to apply machine learning algorithms to commercial real estate data in the context of property pricing and valuation. The contributions of this study are, thus, timely and important to many parties in the real estate sector, including authorities, banks, insurers and pension and sovereign wealth funds.

INCLUSIVE URBAN REGENERATION IN INNER-CITY JOHANNESBURG, WHO DOES WHAT?

NOMFUNDO MBATHA AND KOLA IJASAN
University of the Witwatersrand, Johannesburg, South Africa

ABSTRACT

The effects of colonial spatial planning are still felt to date because of colonial spatial planning which was strategically designed to exclude low-income citizens from opportunities in South Africa's various economic hubs. Growing concentration and immigration to major cities by both low- and middle-income residents conveys that the relationship between urbanization and redevelopment has become a major policy concern. This study posits the possibility of an inclusionary urban regeneration solution that drives cohesion between the private sector, government, and policy development. Respondents included five Johannesburg City government officials involved in city planning and development, and five private sector development professionals operating within the city. It was found that there is a gap between policy development and implementation. This study's contribution to the field is through the identification of how the delivery of urban regeneration initiatives in Johannesburg inner-city can be structured to achieve an inclusive result that benefits all stakeholders.

Paper ID 839

FROM SURVIVING TO FLOURISHING: DOES INNER-CITY LIVING CONTRIBUTE TO TOWN CENTRE RESILIENCE?

NICOLE XIANG, OLGA FILIPPOVA AND DEBORAH LEVY
The University of Auckland, New Zealand

ABSTRACT

We explore recent trends in the building activity in regional town centres of New Zealand within the Adaptative Cycle Model framework. This study's specific focus is on the attractiveness of inner-city living. We interrogate the trends in the frequency and scope of building consents and property listings. It has emerged that towns with historical character, favourable climate, and within close proximity to large urban centres experience higher volumes of residential developments. Demographic composition of the town centres is shifting towards two main groups - young families and retirees. The increased residential activity and the traditional town centre businesses (retail, hospitality, medical etc) further enhance the connectivity of the small town, strengthening its resilience and attractiveness. We identify policy implications that help drive inner-city living. According to the Adaptive Cycle Model, adaptability is a crucial factor in the small-town success and local and national government leadership and support are paramount in keeping the small towns agile.

Paper ID 924   **Refereed**

AUSTRALIA'S HOUSING INFRASTRUCTURE FINANCING: A PROJECT FINANCE APPROACH

LEE-YUN CHIANGA, GEORGE EARLC, BENJAMIN LIUA, SACHA REID AND EDUARDO ROCA
Griffith University, Australia

ABSTRACT

Faced by the lack of access to capital markets and the inability to access cheaper and longer tenor debt financing, policymakers in Australia are assisting with a financing mechanism for housing projects through a public-sector housing development bank, National Housing Finance and Investment Corporation (NHFIC). A project finance model, one of the most common financing arrangements for public-private partnership projects, has been initiated by NHFIC to assist with debt structuring for projects involving community housing providers.

This research determines the operating subsidy levels that meet the lender's requirements, determines the maximum permissible debt size by considering two lenders' constraints using the debt sculpting (DS) method, and compares debt sizes by examining the DS and annuity repayment methods. Three case studies were utilised to determine the subsidy levels and maximum permissible debt size and to analyse the effectiveness of the DS method.

ARTIFICIAL INTELLIGENCE IN REAL ESTATE EDUCATION (AIREE)

STEVEN BOYD
CQUniversity, Australia

ABSTRACT

AI in education (AIED) has the potential to close the achievement gap between students due to individual or social differences. The goal of AIED K-12 is to develop systems that enable personalized flexible and engaging learning and to automate mundane teaching tasks such as assessment and feedback. In higher education automation pursuits have AI learning to write essays for students with other systems attempting to authentic assessments and provide feedback. Through AI smart content creation, learnings are tailored and updated as markets and practices change. Algorithmic 'nudging' embedded in the systems, can influence a student's emotional state, engaging them deeper in their learning.   This research identifies the potential benefits in AI adoption. The review extends to consider the risks and potential for unintended consequences by employing AI in real estate education. The later part of the research merges the AIED pillars of ethics, human rights, and a partnering framework for valuation, to create a partnering framework for real estate education. The AIREE partnering framework is presented for subsequent analysis.

NEEDED BUT NOT THERE: FIRM LOCATION, CORPORATE SITE VISITS, AND STOCK PRICE CRASH RISK

XIAOLING CHU
University of Hong Kong, Hong Kong
KIN LO
University of British Columbia, Canada
DESMOND TSANG
Chinese University of Hong Kong, Hong Kong

ABSTRACT

This study examines the intertwined relationship of firm location and corporate site visits, and their impact on stock price crash risk. We show that firms located further away from financial centers are associated with fewer corporate site visits by institutional investors. However, these firms are also associated with a higher stock price crash risk, which could be mitigated by more corporate site visits. By contrast, firms located close to financial centers have a lower stock price crash risk but receive more frequent site visits. To mitigate endogeneity and better establish causality, we explore the rapid expansion of high-speed rail connections in China as a series of exogenous shocks and find that the opening of high-speed rail stations is followed by increased site visits and reduced stock price crash risk. We further establish the channel through which firm location and corporate site visits impact stock price crash risk via their effects on information asymmetry. Our heterogeneous analyses reveal that corporate site visits become more important for distant firms in regions with low social trust, low marketization, and low religiosity. Overall, our findings imply that corporate site visits facilitate information acquisition and monitoring by institutional investors, which are most needed for distant firms with a high level of information asymmetry. However, institutional investors conduct significantly fewer corporate site visits to firms located farther away due to higher travel costs to these locations.

WHEN SMALL IS SOMETIMES LARGE AND SPACIOUS: OBJECTIVE VS. SUBJECTIVE SIZE DESCRIPTIONS IN REAL ESTATE LISTINGS

SEAN BRUNSON
Citibank, United States of America
RICHARD J. BUTTIMER JR.
University of North Florida, United States of America
STEVE SWIDLER
Lafayette College, United States of America

ABSTRACT

This paper examines Multiple Listing Service descriptions of more than 400,000 homes that sold in the Charlotte, NC area. Frequently the agent remarks use the words large or spacious to describe some feature or attribute of the home. Additionally, property information includes the objective measure of the home's size in square feet. We consider three main questions of interest: 1) does size matter, 2) what do large and spacious modify and 3) do markets attach the same value to large and spacious when homes are objectively of different size? A central finding is that context is important. Specifically, the terms large and spacious appear to help when describing small houses but are primarily hype for large homes. One lesson for realtors is they must be careful when using subjective descriptors that relate to objective measures or facts presented in the property information.

Paper ID 1195

HOUSEHOLD INDEBTEDNESS ACROSS THE UK: A PATCHWORK QUILT OF RISKS?

NORMAN HUTCHISON [1]
University of Aberdeen, United Kingdom

PIYUSH TIWARI [2]
University of Melbourne, Australia

ALLA KOBLYAKOVA [3]
Nottingham Trent University, United Kingdom

DAVID GREEN [4]
University of Aberdeen, United Kingdom

JAKE TAN [5]
University of Aberdeen, United Kingdom

[1,2,3,4] Author sequence

ABSTRACT

Prior to the Covid-19 pandemic, the level of total household debt across the UK, secured and unsecured, was rising. Data from the ONS (2019) on total wealth, show that bottom wealth deciles are most likely to have financial debt, while the middle wealth deciles are most likely to have property debt. While these macro figures illustrate inequalities in interest rate risk that households in lower wealth deciles face relative to higher wealth households, there is also a regional dimension to the lending risk that is less well understood. Understanding where across the UK these additional risks are located is relevant when evaluating the robustness of the economy to recession. This paper assesses the lending risks associated with the level of total household indebtedness at a regional level. Specifically, the paper examines where the economic risk lies, where the risk is concentrated and if there is a downturn in the economy which areas are likely to suffer more. Using visual representation of geographical data at household level, the paper identifies regional concentrations of financial risk and how it has evolved over 2013 and 2019.

EMPLOYEES' ACCEPTANCE OF VARYING ACTIVITY BASED WORKPLACE IMPLEMENTATION STRATEGIES

EILEEN SIM AND CHRIS HEYWOOD
University of Melbourne, Australia

ABSTRACT

Increased Activity Based Working (ABW) offices adoption is attributable to the multi-faceted strategies they aim to achieve. Existing studies identified that ABW implementation processes impact employees' ABW acceptance. However, no recent in-depth studies investigate employees' acceptance of varying implementation strategies and the process adopted. This paper explores the acceptance of ABW Implementation processes by employees' and Change Champions'. The data was collected through interviews and focus group interviews with employees from three participating financial institutions. Thematic content analysis was used to analyse the data. A business-driven implementation strategy was superior to design a workplace meeting employees' needs that translated to less desire for employee engagement and involvement in the ABW Implementation process. More implementation process involvement does not translate to more positive acceptance if employees perceive that their input was not incorporated. This study supports organizations' implementation of ABW that achieves their organisational strategies.

THE PRACTICE OF INVESTMENT VALUATION IN AUSTRALIAN GOVERNMENT FUNDED DISABILITY PROPERTY

JAE WON KANG, DAVID MCLENNAN, JOHN NICOLS AND SAM CUCCURULLO
International College of Management, Sydney (ICMS), Australia

ABSTRACT

The selection of a specialist property valuation method is the responsibility of the valuer under the particular circumstances. Despite a substantial body of property investment research focusing on the emerging government funded market, common valuation approaches provide a lack of guidance as to how they should be applied to specialist disability accommodation (SDA) in Australia. The purpose of this study was to help both commercial and residential property valuers identify challenges faced by the relevant comparable transactions, and offer suggestions to address a realistic valuation on different metrics and approaches (market, net operating income and capitalization of net income) under the four SDA design standard categories (improved liveability, robust, fully accessible, and high physical support) of the National Disability Insurance Scheme (NDIS). Consistency in the valuation of government funded disability property lends new support to the market data, trends and performance indicators for the SDA investment grade property market.

EXTERNALITIES OF COVID-19 ECONOMIC RESPONSES ON FIRST HOME BUYERS: EVIDENCE FROM NEW SOUTH WALES, AUSTRALIA

MUSTAPHA BANGURA
University of Technology Sydney
CHYI LIN LEE
University of New South Wales
BENJAMIN SCHAFER
Track Financial, Australia

ABSTRACT

As in many other nations, the Australian government has implemented a suite of monetary and fiscal policies as an economic recovery process from the COVID-19 pandemic. Some of these policies have a specific target of assisting First Home Buyers (FHBs) to enter the housing market. These unprecedented economic policies might also have other direct and indirect implications on FHBs, which the existing literature has not considered. This study examines the implications of COVID-19 economic responses on FHBs using a mixed-method approach. We enumerated 41 respondents through the mortgage broking industry and collected secondary data through various private and government publications. Our results show that externalities of COVID-19 economic responses have placed FHBs at a relatively disadvantage position due to an intensifying property market as property prices have increased significantly since the onset of the pandemic. These responses have also widened housing inequality as FHBs increasingly rely on intergenerational family support, taking on more financial risk to secure a property with the fear of missing out, and relocating to regional areas. These findings could be used by macro economists and housing policymakers in formulating policies that seek to minimise the unintended consequences of economic stimulus policies.

LANDLORDISM AND SQUALOR: THE SORRY STATE OF AUSTRALIA'S RENTAL HOUSING

BRAAM LOWIES [1]
University of South Australia, Australia
CHRIS LEISHMAN [3]
University of South Australia, Australia

PETER ROSSINI [2]
University of South Australia, Australia
STANLEY MCGREAL [4]
Ulster University, United Kingdom

ABSTRACT

Together with having enough money to support the increasing costs of living, having access to a good quality home is central to an individual's wellbeing. It can assist in social inclusion, mobility, the reduction of poverty, and the improvement of equal opportunities. Currently, in Australia, just over one-third of all households rent their home. However, many renters in the private and public rental markets find their housing to be suboptimal, insecure, of poor quality, and unaffordable. This exploratory paper uses a combination of census data, the Survey of Income and Housing dataset, and the Australian Rental Housing Conditions Dataset to examine the impact of the physical conditions of rental housing on renters by gender and by age. The preliminary analysis shows that a remarkable number of tenants report issues and that younger tenants in particular reports more issues. Analysing the nature of these issues, including the urgency of repairs, housing type, and monthly rents should provide evidence of the likely effect of these physical housing condition issues on renters, and on both the public and private rental markets.

AN AUSTRALIAN RELATIONSHIP BETWEEN LAND VALUES AND LAND POLICIES

JOHN SHEEHAN
Bond University, Australia
LUCY CRADDUCK
Queensland University of Technology, Australia
LYNNE ARMITAGE
Bond University, Australia
KEN RAYNER
Purkyne University in Usti nad Labem, Czech Republic

ABSTRACT

The well-intentioned praxis of land policy and planning often fail to recognise their impacts on land valuations. As territorial politico-legal theories of possessive individualism lie at the heart of Australian private property rights, the touchstone for effectivity and efficiency in the relationship between land policies and values is the legal architecture. The authors argue land policies and planning ought to be infused with the reality of land as impacted by external forces. The reduction in the insurable value of climate change-impacted private land is one such impact. However, the authors posit land policies and planning struggle to respond with effectivity and efficiency to the changed circumstances of climate change. The authors will consider why is this so; and why land policies and planning has such (almost intractable) difficulties in responding to these changed constitutive conditions. In doing so, significant legal and practice issues arising for land values will be identified.

DRIVERS OF GATED COMMUNITY DEVELOPMENTS IN THE UNITED KINGDOM (CASE STUDY: LONDON)

GIDEON KWAME OTCHERE, REBECCA LESHINSKY AND JUDITH CALLANAN
RMIT University, Australia

ABSTRACT

Gated communities continue to proliferate in cities across the world. Like other countries, the United Kingdom has seen growth in the development and demand for gated communities since the early 2000s and is one of the countries with many gated community developments.

The paper explores drivers for gated community developments in the UK using London as a case study by identifying the factors influencing residents to move into gated neighbourhoods. The results of this study are expected to augment literature and influence urban housing policy decisions toward developing sustainable urban housing typologies. Data was collected from selected gated communities through an online survey of residents. The residents were asked to rank particular selected drivers, which were derived from an extensive literature review. Security, facilities and services, property values, location, and prestige, were ranked as the main drivers of gated communities. Community-living and land title security were identified as minor drivers.

Paper ID 2598

CAPITAL FINANCING CHALLENGES IN RESIDENTIAL AGED CARE WITHIN AUSTRALIA

ADAM FAHEY, HASSAN FEREIDOUNI AND SHARON YAM
University of Western Sydney, Australia

ABSTRACT

This study investigates the relationship between aged care accommodation pricing options (Refundable Accommodation Deposits [RAD], Daily Accommodation Payment [DAP] or Concessional) and the profitability of aged care facilities. The data analysis is based on a confidential data set from 33 aged care facilities across New South Wales, Australia. The regression analyses suggest that an increased proportion in RADs results in a decreased profitability in aged care facilities. On the other hand, an increase in concessional and median house price increases the level of profitability. These findings may benefit aged care operators by reviewing their strategies and portfolios to enhance their financial performance. The results are also beneficial to the Australian Government to further explore how the removal of RADs may transform the aged care sector's profitability.

Paper ID 2820

A CASE FOR PRIVATE SECTOR INVESTMENT FOR ECONOMIC STIMULUS

DOUW BOSHOFF
Growthpoint Properties Ltd, South Africa

ABSTRACT

COVID-19 pandemic is known to have caused havoc globally. South Africa is no exception to that, but it is evident that a market downturn started in 2017, with a rapid acceleration of this during 2020. The aim of this research is to investigate the options available to improve the situation and the possible alternative use of vacant space.

A specific consideration is to make space available to small and medium enterprises (SME's) with shares taken in lieu of rent, with the possible dividend from such shares as a reward.

The methodology for the analysis:

1. The economic impact of SME's is calculated using an IO-model.

2. The equilibrium price of space is then analysed against the vacancy factor.

3. If the above can show a positive outcome, the question is whether property that does not perform can be moved to a special investment fund.

Results indicate the positive alternative application of vacant space through private sector economic stimulus, as an alternative to formal government fiscal policy. The impact of the paper is the ability to measure the success of such strategy to drive investment policy for large Real Estate Investment funds.

THE IMPACT OF REAL ESTATE MARKET TRANSPARENCY ON THE LINKAGES BETWEEN DIRECT AND INDIRECT REAL ESTATE INVESTMENT

ERVI LIUSMAN
Chinese University of Hong Kong, Hong Kong
K.W. CHAU
The University of Hong Kong, Hong Kong
P.S. LAU
The University of Hong Kong, Hong Kong

ABSTRACT

This paper examines how real estate market transparency affects the linkages between direct or (physical) real estate (DRE) and indirect or (securitized) real estate (IRE) investment. We measure three different aspects of real estate market transparency based on the sub-indices of Jones Lang LaSalle's (JLL's) Global Real Estate Market Transparency Index (GRETI). The three aspects are overall information transparency (OIT), institutional direct market transparency (IDT) and institutional indirect market transparency (IIT). Long- and shortterm IRE-DRE linkages are measured by the variance decomposition method (Hoesli & Oikarinen, 2012) and Granger causality (Newell and Chau, 1996; Newell et al. 2005) respectively. Our empirical results show that:
• OIT has significant positive impact on the short-term IRE-DRE linkages (shorter time for diffusion of information from the IRE to DRE market).
• IDT has positive impact on the long-term IRE-DRE linkages
• IIT has negative impact on long-term IRE-DRE linkages
Real estate market transparency is a broad concept that has many dimensions (Forssbaeck & Oxelheim, 2014), each of which has different impacts on the short and long-term IRE-DRE linkages. The contribution of this study is to disentangle the impacts of informational from institutional transparency on the IRE-DRE linkages.

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50 YEARS OF RESEARCH IN REAL ESTATE BROKERAGE -A SEMI STRUCTURED LITERATURE REVIEW

NEVILLE HURST
RMIT University, Australia
MARTIN AHLENIUS
University of Gävle, Sweden
BJORN BERGGREN
The Royal Institute of Technology, Sweden

ABSTRACT

While the historical origin of intermediaries is difficult to identify, the characteristics of modern commerce and business has consolidated their position in society. As business transactions, particularly those involving members of the public, have become increasingly complex, the specialised knowledge held by intermediaries is often sought after. Although this is unquestionably the case for real estate agency, research in the field of agency/brokerage remain fragmented. This paper reports on a systematic literature review of literature investigating the multi-facetted nature of agency practise. The aim is to understand how agency research is developing and if such research is demonstrating elements of becoming its own discipline. To do this, several research questions were developed and this paper reports on the findings of the preliminary question, namely, is there evidence in the literature to show agency is evolving as a recognised discipline? Findings thus far have identified a trend of increasing interest in the topic, but the discipline remains fragmented.

THE VALUATION OF MINING IMPACTED PROPERTY FOR COMPENSATION: INSIGHTS FROM A GHANAIAN CASE STUDY AND TRANSFORMATIVE SUGGESTIONS

EFFAH AMPONSAH, DULANI HALVITIGALA, HYEMI HWANG AND CHRIS EVES

RMIT University, Australia

ABSTRACT

Issues relating to compensation for mining impacted property have dominated Ghana's policy discourses for years. Although the 1992 Constitution and other key legislation and policies call for fair, prompt and adequate compensation upon expropriation, compensation for mining-impacted property remains a source of conflict between mining companies and host communities. This notwithstanding, studies are yet to reveal the appropriateness of the compensation procedures and valuation methods applied in assessing compensation for impacted buildings and immovable properties. Using one of the largescale mining companies in Ghana as a case study, this article analysed data collected from in-depth interviews with 31 stakeholders and document analysis. The study found that the conflicts relating to compensation for expropriated properties are assignable to valuers' disregard for the legal provisions on compensation and their use of inappropriate valuation methods to assess compensation for expropriated commercial structures. This has critical social and economic implications for expropriated property owners. Towards addressing the issues, the research recommends changes to the current valuation techniques and rigorous regulatory oversight of compensation practices.

THE CHANGING FACE OF RESIDENTIAL RENTS AND INVESTOR RETURNS IN ADELAIDE

PETER ROSSINI

University of South Australia, Australia

ABSTRACT

The last 2 years have seen a significant change in the housing market in Australia led mainly by the impacts of the COVID pandemic but more recently by changes to interest rates. This has had a significant effect on the rental market, affecting both renters and investors. This exploratory paper examines changes to the residential rental market in Adelaide over the last 18 months through transaction-level analysis of properties that have been rented and sold on the open market. Modeling of the rental data is compared over several periods and changes to the spatial distribution of weekly rents and investment yields are discussed. The analysis shows that there have been significant changes in the micro-level determinates of rents resulting in a spatial change to more affordable rents. The total returns to investors have also changed with the variations in capital growth and return to yield.

ARE SEA LEVEL RISE RISKS CAPITALISED INTO HOUSE PRICES: A CASE STUDY OF HAWKES BAY, NEW ZEALAND

MICHAEL REHM, OLGA FILIPPOVA AND SELENA SHENG
The University of Auckland, New Zealand

ABSTRACT

Sea level rise is a consequence of climate change. Using evidence from a coastal community, we pose a question: Do people factor in warnings by scientists and governments about sea level rise when making their investment decisions? Using a difference-in-differences framework, we examine if disclosure of future risks affects coastal property prices in Hawkes Bay, New Zealand.

HOUSING STABILITY AMONG RENTERS - THE CASE OF KOREA

JUN HYUNG KIM
Myongji University, South Korea

ABSTRACT

Recently, the Korean Government has reformed lease acts - the right to request contract renewal, a ceiling on monthly rent and jeonsei, and the monthly rent and jeonsei reporting system. The government expected that the so-called '3 lease acts' would stablize housing market, and lessen the housing cost burden among renters. However, the results were beyond its expectations: the landlord decided to move into the residential property or transfer it to his or her child. The available rental properties were reduced which raised rents rapidly. Political analysts attribute the defeat of following presidential election to the clumsy housing policy, including the 3 lease acts.

This paper assumes the failure lies on the wrong assumption of housing stability among renters. The acts assumes the housing stability would be guarantted if the renter can live in the current residence. However, the housing stability is not static, but dynamic. Although they do not purchase a house for a while, households prefer to enlarge the housing space, and accumulate their housing wealth. Using the microdata of Korean Housing Survey, we figure out the dynamics of renter's housing stability.

CONCEPTUAL PAPER: IMPACT OF COVID-19 ON NEW WORK PRACTICES IN COMMERCIAL FIRMS: EVIDENCE FROM AUSTRALIA

JAYANTHA WADU MESTHRIGE
RMIT University, Australia
KUSAL NANAYAKKARA
RMIT University, Australia
OLADINRIN TIMOTHY
University of Wolverhampton, United Kingdom

ABSTRACT

To accommodate the challenges in today's competitive business environment, impressive changes have been observed in the way work is organized within commercial business organizations around the world. Many business organizations have embraced new work practices (NWPs) in reorganizing workplace strategies to enhance performance and face global competition. While this research aims to broadly explore the types of NWPs happening and to what extent they are being implemented in office-occupying firms in Australia, the main aim is to explore whether there is any impact of COVID on NWPs in Australia. The intended methodology includes a comprehensive literature review and a questionnaire survey of offices occupying commercial firms across Australia. The premilitary literature review suggests around 15-20 NWPs are happening around the world. The proposed study will enrich the growing body of international literature on the implementation of NWPs in global commercial business organizations. The research findings are expected to inform policymaking towards the better planning ahead of commercial properties to incorporate NWPs effectively.

REAL ESTATE AGENTS' TRIST ACCOUNT COMPLIANCE: CONSUMER PROTECTION

HERA ANTONIADES
University of Technology Sydney, Australia
CHRIS EVES
RMIT University, Australia

ABSTRACT

Licensing of property agents in Australia varies within each individual state and territory. The introduction of legislation aimed to regulate the property industry and to enhance consumer protection. An individual working in the property industry buying, selling, leasing and negotiating in property transactions must be either licensed or hold a certificate of registration under the relevant legislation. In New South Wales there has been a steady increase in fraud with agency's trust accounts. The aim of this research was to identify any trends contributing to trust accounting fraud in property agents' trust accounts. The purpose of the research was to undertake a 20 year data set document analysis of public records such as court cases and enforcement notices relating to the misappropriation of trust account funds. The findings identified a total of 140 instances of fraud, involving 171 individuals, with 84.80% of these individuals licenced, and 13.45% holding a certificate of registration. A very small percentage, 1.75%, did not hold either a licence or certificate of registration. The various reasons for the misappropriation of trust funds included gambling, funds to operate the property agency business, personal debts, loan scheme scam, pre-drawing of sales commission, and funding legal expenses.

IMPACT OF INDOOR ENVIRONMENTAL QUALITY ON OCCUPANT IN THE POST PANDEMIC: A LITERATURE REVIEW

JUNPENG LYU
The Bartlett School of Sustainable Construction, United Kingdom
YU JIAO
Tongji University, China
MICHAEL PITT
The Bartlett School of Sustainable Construction, United Kingdom

ABSTRACT

People spend 90% of their time indoors on average even before the COVID-19 epidemic. Understanding the factors that affect IEQ and how to operate buildings to provide the ideal IEQ is essential for protecting health. This research aimed to investigate how COVID-19 affected the indoor environment's impacts on occupants. We reviewed the impact on occupants of the environment of four key themes (indoor thermal comfort, indoor air quality, acoustic comfort and visual comfort) in the post-pandemic era based on CiteSpace. In general, indoor air quality was the IEQ direction that received the greatest attention in the literature evaluations, with an emphasis on the health of the occupants. The results of a cluster analysis showed that the knowledge base focuses more of an emphasis on topics like "indoor air quality", "temperature", "carbon dioxide", "energy consumption", "residential heritage", and "air quality". As a result of the pandemic, people think that future building design, construction, and operation will pay more attention to people's health from the perspective of indoor air quality and indoor air pollutants.

Paper ID 4195

BUILDING RESILIENCE TO URBAN HEAT AND FLOODING WITH GREEN INFRASTRUCTURE IN RESIDENTIAL PROPERTY: ECONOMIC PERSPECTIVES FROM SYDNEY, AUSTRALIA

AGNES ZAJELSKA-JONSSON [1]
KTH - Royal Institute of Technology
Stockholm, Sweden

SARA WILKINSON [2]
University of Technology Sydney, Australia

RICHARD WAHLUND [3]
Stockholm School of Economics, Sweden

REBECCA CUNNINGHAM [4]
Climate Risk, Australia

ABSTRACT

The climate is changing. Extreme flood and bushfires occur with greater frequency and intensity. In 2019 eastern Australia experienced the Black Summer Bushfires, by 2022 much of the same area experienced the fourth flood event in 18 months. The costs of the Black Summer Bushfires is estimated to be $5bn, whilst the full costs of the 2022 La Nina are unknown, current costs are estimated to be $4bn. At Federal, State and Local government levels resilience plans aim to reduce risk and impact, and hasten recovery. What measures can be taken to reduce risks and impacts and facilitate faster recovery? Green Infrastructure (GI), trees, green roofs, and green walls attenuate urban heat and provide surfaces that absorb rainwater.

What are the costs and benefits of GI, how interested are home buyers in, and how willing are they to pay for GI? This paper highlights the social, environmental, and economic costs and benefits of adopting GI. A survey of 500 potential homebuyers in Sydney ascertained buyer willingness to pay for GI. The paper highlights the results of the survey and whether a market lead approach could improve urban resilience against fire and flood.

INTELLECTUAL STRUCTURE OF PUBLIC-PRIVATE PARTNERSHIP (PPP) ARTICLES FROM 1997 TO 2020

MUZZAMMIL ZEKRI, DEBORAH LEVY AND ABDUL-RASHEED AMIDU
The University of Auckland, New Zealand

ABSTRACT

Adopting scientometric approach, this paper aims to provide an overview of PPP research development from 1997 to 2020. The bibliometric data of PPP research was retrieved from two of the most recognised academic databases (Scopus and Web of Science), and in total, more than 2500 papers were examined. To better understand PPP research development, this study equally divides the period into two sub-periods (1997-2008 and 2009-2020). The periodic analysis revealed that PPP studies had grown significantly, which is evident by the aggressive collaboration between authors from different countries/regions and the use of more unique keywords between 2009 and 2020. The results showed that topics related to 'risk management and allocation' received significant attention from researchers between 1997 and 2020. Overall, this paper presented the intellectual structure of PPP research and revealed how the research developed over time to help guide future researchers to fill the gap in PPP research area.

SUSTAINABLE AND ENERGY EFFICIENT HOME BUILDING IN AUSTRALIA: VOLUME HOME BUILDERS SUSTAINABLE MESSAGING AND COMMUNICATION (OR LACK OF)

GEORGIA WARREN-MYERS
The University of Melbourne, Australia

ABSTRACT

Australia is often noted as having some of the poorest sustainability credentials for new homes in the developed world. Despite extensive research on why homes should be more sustainable, market implementation has been slow due to limited regulatory regimes and low engagement by volume home builders. Whilst there is demand for more sustainable homes from potential purchasers, it is not clear what options are available for consumers who like to purchase a more energy efficient home. To investigate what sustainability and energy efficiency home options were available, this research used content analysis to investigate the online communication channels of 23 New South Wales Volume Home Builders, through their websites, blogs and social media. The research was conducted over two periods, early 2020 and early 2022.

The initial findings demonstrate that whilst the leaders in the industry have improved their product offerings, the overall sector has reduced its' communication of sustainability and energy efficiency information for new volume-built homes. Suggesting that further research is required to examine why between 2020 and 2022, volume home builders have reframed from increasing and enhancing their sustainability product offering and associated information for consumers through their online platforms.

A FRAMEWORK OF GIS-BASED DECISION SUPPORT SYSTEM FOR HIGHWAY PAVEMENT MAINTENANCE MANAGEMENT AT THE NETWORK LEVEL

JUNDA LI, MICHAEL PITT AND LING MA
University College London, United Kingdom

ABSTRACT

With the ever-increasing scale of highway networks in many countries, highway agencies need to improve their decision-making in highway pavement maintenance management (HPMM) to be more efficient, rational and effective. This paper presents a framework of a GIS-based HPMM system. The input data, system architecture, main functions and key technologies to establish the system are discussed. Four decision support models that can address a wide range of problems in HPMM are integrated into this system, including: (1) pavement performance evaluation based on inspection data; (2) predicting pavement performance development based on historical pavement condition data; (3) formulating optimal maintenance plan using multi-objective heuristic; (4) prioritising pavement sections in the highway network considering multiple factors through MCDM approach. The system will be developed based on commercially available ArcGIS platform. GIS provides various tools for spatial analysis, linear referencing and dynamic segmentation, enabling these decision support models to be applied more reliably and efficiently, as well as dynamic visualisation and interpretation of the attributes and output results.

INFLUENCE OF POINTS OF INTEREST ON URBAN AND RURAL LAND VALUES: EVIDENCE FROM MACHINE LEARNING AND ARTIFICIAL NEURAL NETWORK APPROACHES

JALIYA AMARASINGHE ARACHCHIGE, EDUARDO ROCA, BENJAMIN LIU, ALAN WEECHUNG LIEW AND AKIHIRO OMURA
Griffith University, Australia

ABSTRACT

Understanding the locational influence on land prices is crucial in developing better land resource allocation policies. However, due to the complexity of factors impacting the land market, this has been a challenge for studies that use conventional methods. In order to overcome this, we deploy machine learning (ML) and Artificial Neural networks (ANN) to calculate and compare the impact of nearby points of interest (POI) on urban and rural lands, guided by location theory. The results indicate that POIs influence urban and rural land valuations differently and that these POIs affect land valuations collectively rather than individually. Furthermore, the study identifies new POIs influencing land values, especially natural resources such as beaches, basins, parks and forests influencing nearby rural land values. The study's findings can assist in developing efficient and area-specific government policies related to land resource allocation and land use in urban and rural areas.

THE DEVELOPMENT OF A NEW METRIC FOR ASSESSING THE "S" DIMENSION IN ESG

GRAEME NEWELL AND MUHAMMAD JUFRI BIN MARZUKI
Western Sydney University, Australia

ABSTRACT

Environment, Social and Governance (ESG) has attracted considerable attention in the property industry; and sustainability has taken on increased importance globally. This has seen a range of metrics produced to assess ESG performance. To date, much of this focus has been around the "E" dimension of ESG; particularly through the development of the GRESB indices. However, in comparison, the attention given to the "S" dimension of ESG has been very limited; largely driven by the S metrics produced by MSCI, Dow Jones etc. With the increased attention given to social issues in the property industry, such as gender equity, the need for diversity, supply chain management, and mental health and wellness, it is important for more comprehensive metrics to be developed in the "S" space of ESG. This paper reviews the state of the "S" dimension in ESG procedures by the Australian property industry and proposes a new metric for the "S" dimension of ESG; with examples provided of the use of this metric to assess "S" issues in the property industry and more widely. Suggestions for a wider range of "S" metrics in ESG are also provided.

CHALLENGES OF DESIGNING ACTIVITY BASED WORKING SPACES

KUSAL NANAYAKKARA
RMIT University, Australia
SARA WILKINSON
University of Technology Sydney, Australia
DULANI HALVITIGALA
RMIT University, Australia

ABSTRACT

Activity Based Working (ABW) spaces, which provide different workstations to accommodate various activities that employees undertake rather than having a rigid allocation of spaces, is a common flexible office layout arrangement in modern office buildings. This paper examines the issues and challenges faced by office design firms and workplace strategists when designing ABW settings. Office space designers and workplace strategy specialists from eight large, internationally renowned design firms which involved in the design of ABW settings were interviewed. The findings identified that they faced several issues in the design process as there was no "one size fits all" workplace solution as individual organisation's business strategies, corporate cultures and work practices varied. The findings also identified several client-specific, business-specific, occupierspecific, process-specific, building-specific and building service-specific main challenges that are faced when determining the optimal ABW settings. The study revealed that the critical achievement of workspace design is to integrate organisations' different business strategies, work practices, organisational cultures, values and behaviours of occupiers and users to meet organisations' ultimate goals.

RESETTING A PROGRAM FOR REAL ESTATE EDUCATION

STEVEN BOYD
CQ University, Australia

ABSTRACT

Universities and vocational colleges have applied lessons learned from mandatory distanced learning as they progress to more flexible, blended synchronous and asynchronous delivery. With the benefit of education technologies, these delivery approaches seek to engage as face-to-face has, while providing the ease of access and flexibility of online learning. That said, emerging findings in real estate education have lesson attendance and student engagement remining stubbornly low.

This research revisits theory on how activities and delivery approaches align to enhance the learning of real estate. The review extends to consider the role for emerging technologies, including artificial intelligence (AI), in higher and vocational education. The later part of the research demonstrates the design of a constructively aligned proposed program that integrates an Apply Evaluate Plan (AEP) sequence and the benefits of tailoring and engagement through an AI partnered learning system. The reset program commences with an asynchronous skill development focus, progresses to work integrated learning and synchronous problem-based learning workshops, and finishes with higher order reflective practices. The suggested delivery program and its design process are presented for subsequent analysis.

SHARED EQUITY HOMEOWNERSHIP AS AN ASSET-BASED WELFARE APPROACH FOR SUSTAINABLE URBAN DEVELOPMENT

P.S. MORAWAKAGE, G. EARL, B. LIU, E. ROCA AND A. OMURA
Griffith University, Australia

ABSTRACT

Aggravating the housing affordability crisis in Australia, the National Rental Assistance Scheme (NRAS), which is a government housing support program, will end by 2026. Therefore, policymakers at the state government level are evaluating proposals to increase the delivery of affordable houses. This study demonstrates that shared equity homeownership (SEH) is a feasible asset-based welfare approach to address the housing affordability issue and realise sustainable urban development. In doing so, we take the younger cohort of NRAS tenants in Melbourne, Victoria as a case study and employ a triangulation approach to evaluate the financial feasibility of a proposed SEH program. We also discuss the need to modernise different institutes' roles in affordable housing delivery to achieve sustainable urban development in Australia. This study has implications for the decision-making of government, financial institutions, home buyers, and housing associations.

Paper ID 7210

SECURITY OF TENURE IN AUSTRALIA AND REFORMS TO RESIDENTIAL TENANCY LAWS: A LITIGATOR'S VIEW OF WHY LANDLORDS WILL CONTINUE TO HOLD THE UPPER HAND

KARENA VIGLIANTI

University of New South Wales, Australia

ABSTRACT

A range of suggestions have been made to date to governments across Australia on what regulatory changes can be made to ensure greater security of tenure for tenants in the private residential sector (PRS). Even if those reforms were to be accepted, there are a range of regulatory provisions landlords can still rely on to end a residential tenancy where the tenant is not in breach of their lease. Without major reform to the manner in which residential leases in Australia can be determined, including procedural requirements for ending a lease, landlords are likely to hold the upper hand in determining security of tenure of residential tenancies in Australia for the foreseeable future. This paper examines why the regulatory landscape affecting security of tenure matters, including what legislative provisions litigators and landlords can still currently use to determine a residential lease, and what provisions landlords will still be able to call on even if some of the least conservative proposals for regulatory reform to favour tenants are implemented in each jurisdiction in Australia.

Paper ID 7373

EXPLORING ENERGY CULTURE IN AUSTRALIA'S MAJOR HOME BUILDERS

ERIKA BARTAK, GEORGIA WARREN-MYERS AND CHRISTOPHER HEYWOOD
The University of Melbourne, Australia

ABSTRACT

The benefits of high performance energy efficient housing are well established in academic literature, however the adoption of such housing is not widespread within Australia. To address the disconnect between discourse and practice, this study investigates major home builders through an 'energy cultures' lens. Interviews with a range of volume home building firms and personnel explored their energy efficiency 'culture' – that is, how residential energy efficiency is variously understood, communicated and implemented within the sector. Prevalent cultural characteristics were revealed, including industry norms and expectations, organisational practices and management approaches, and critical financial and physical resources. The research also identified an influential network of external stakeholders and circumstances that surrounds and shapes these cultural traits. By applying the systems-based perspective of energy cultures, this research has generated a nuanced and in-depth understanding of the barriers and opportunities for energy efficiency uptake in Australia's mainstream new housing market.

Paper ID 7734

AN ALTERNATIVE MEASURE OF LOCKDOWN COST: THE IMPACT OF COVID-19 RESTRICTIONS ON THE HOUSING MARKET

JIAN LIANG
Deakin University, Australia
QIANG LI
Deakin University, Australia
CHYI LIN LEE
University of New South Wales, Australia

ABSTRACT

Many countries adopt lockdown measures to combat the coronavirus (COVID-19) pandemic. The lockdowns in Victoria (VIC), Australia, are special in that the government divides VIC into two distinct areas using the Ring of Steel boundary and consistently places more restrictions on those within the boundary. This two-tier system provides an idea quasi-experimental setting to estimate residents' willingness to pay for "freedom" (i.e., fewer restrictions) on one side of the boundary versus the other; we argue that, in doing so, we provide an alternative measure of the indirect cost of lockdowns. We adopt a spatial difference-in-differences (SDID) design and use housing rental and sales data along the boundary between the two areas in VIC before and after the lockdowns during the pandemic to address the many confounding factors including the COVID-19 health risk and heterogeneity in the socioeconomic responses to the pandemic. We find that residents valued "freedom" at 3% to 6% of the housing price during the pandemic.

Paper ID 7735   **Refereed**

FILTERING IN THE RENTAL HOUSING MARKET OF GREATER MELBOURNE

MUSTAPHA BANGURA
University of Technology Sydney, Australia
CHYI LIN LEE
University of New South Wales, Australia

ABSTRACT

The increasing challenges faced by households in entering the housing market have resulted in a significant surge in the proportion of renting households in most metropolitan cities. Despite this increase, the literature on the rental housing market has received little attention. Recognising the discrepancies in the features of dwelling types, we adopted a submarket model using annual panel data for 31 local government areas (LGAs) of Greater Melbourne spanning March 2000 to December 2021 and documented the following findings. First, entry to the market has become extremely challenging as prospective homebuyers require more than 50% of household income to enter the market for houses or at least 42% for flats. The ultimate result of this severe unaffordability is an expansion of the rental market. Second, our Granger-causality results confirmed that the rental market is driven by challenging entry affordability. Third, our analysis of rent-supply linkage reveals filtering is likely to occur between houses and apartments but not between apartments. These results could inform the decisions of various stakeholders of the private rental market including policymakers, residential property developers and investors in terms of zoning, investment and rent affordability.

BLACK SWAN EVENTS, COVID-19 AND ITS STRUCTURAL IMPACT

PENG YEW WONG, KWABENA MINTAH, WOON WENG WONG AND GIDEON KWAME OTCHERE
RMIT University, Australia

ABSTRACT

Black Swan Events (BSEs) are those unplanned events that significantly and negatively impact various aspects of human life over a short period. The COVID-19 pandemic and the Global Financial Crisis in 2008 (GFC) have been considered by many as Black Swan Events. This study set out to investigate these events as either BSEs or non-BSEs by interviewing senior level officials and professionals to identify various structural changes that these events impacted. From the study, it was identified that many of the professionals identified these events as BSEs. However, a few suggested they are non-BSEs, and this study further evaluated the dissenting views and considered the changes these events have had on the economy of Australia. Some of the changes from these events can be identified in climate change, changes in social interactions, changes in market and commerce and changes in various government policies.

HOUSE PRICES, AIRPORT LOCATION PROXIMITY, AND AIR TRAFFIC VOLUME: PLUS SOME COVID-19 EFFECTS

GRAHAM SQUIRES
Massey University, New Zealand
THANH NGO
Massey University, New Zealand
MICHAEL MCCORD
Ulster University, United Kingdom
DANIEL LO
Ulster University, United Kingdom

ABSTRACT
Although house prices and airports are influenced by distinct factors that shape their evolutions, they are also intrinsically connected through the natural and built environment. Standard theory suggests that air-traffic noise and proximity to key economic hubs such as airports are of prime importance to house prices and the housing market. This study contributes to understanding the link between the housing market, airport location proximity, and air traffic. The research investigates this association across four key urban areas within New Zealand with an international airport - Auckland, Wellington, Christchurch, and Queenstown. Applying GLS regression analysis reveals that house prices, air-traffic activity, and proximity to airports within New Zealand demonstrate a statistically significant spatial effect. Moreover, we demonstrate that more air traffic helps increase house prices, which is consistent with the literature. Findings also show a U-shape relationship between distance to the airport and house prices, suggesting that airport noise and other externalities can adversely affect the housing market. Furthermore, the new Zealand housing market experienced a significant price increase during the Covid-19 pandemic, whilst the airport volume decreased during an extensive lockdown period and longer-term halting of international arrivals.

THE ROLE OF THE STATE IN ENCOURAGING THE SUPPLY OF SENIOR HOUSING: HOUSING-WITH-CARE AND RETIREMENT VILLAGES IN SCOTLAND AND NEW ZEALAND

ANDREW FYFE
BNP Paribas Real Estate, United Kingdom
NORMAN HUTCHISON
University of Aberdeen, United Kingdom
GRAHAM SQUIRES
Massey University, New Zealand

ABSTRACT
The inexorable increase in the demand for senior housing across all countries is well recognised with attention focusing on supply side responses. Adopting a welfare perspective, this paper considers whether leaving the supply of housing-with-care to the market alone will achieve optimal societal outcomes or lead to the under provision of senior housing. The level of state intervention in senior housing markets is considered employing a comparative approach of the experience in Scotland and New Zealand. State interventions were analysed in the areas of planning, property law and social care integration. The evidence would suggest that the market in New Zealand is more regulated than is the case in Scotland, thus enabling developers and investors to operate and invest with greater confidence, resulting in higher levels of supply. Given the current shortfall in appropriate age-related accommodation in Scotland this leads to the conclusion that the Scottish government needs to intervene more proactively in the market to stimulate and direct construction activity if a senior housing crisis is to be avoided.

THE INVESTMENT DYNAMICS OF THE ASIAN PROPERTY MARKETS

JUFRI MARZUKI
Western Sydney University, Australia
NOR NAZIHAH CHUWENI
Universiti Teknologi MARA, Malaysia
MAHMOUD HIJJAWI
Western Sydney University, Australia

ABSTRACT
There is a growing recognition of the Asian property markets being an important global property investment destination. At approximately $9 trillion in size, its vibrant commercial property markets provide investors with a dynamic investment opportunity across a range of property sectors, strategies and vehicles in both developed and emerging markets. $204 billion in income-producing property were transacted across Asia in 2021; the highest volume in the last 15 years and accounting for more than 15% of the total income-producing transactions in the global property marketplace in 2021. These major investment destinations in Asia are spread across both developed (e.g.: Japan, Singapore, Hong Kong) and emerging markets (e.g.: China, Malaysia, Indonesia), providing unique investment opportunities for property investors. This paper reviews the prominence of commercial property investment in Asia, as well as assessing the risk-adjusted performance and diversification benefits of property markets across Asia over 2008-2021. Crucially, the distinction in investment attributes of developed and emerging Asian property markets will be assessed.

THE OBLIGATION TO REPORT CLIMATE RISKS: WHAT, WHO, AND HOW?

LUCY CRADDUCK
QUT Law, Australia
GEORGIA WARREN-MYERS
The University of Melbourne, Australia
MONIQUE SCHMIDT
The University of Melbourne, Australia

ABSTRACT

The adoption of formalised climate risk reporting, to help identify potential hazards associated with climaterelated risks and to enable better management of those events, is increasing. Groups such as the Task Force on Climate-Related Disclosures (TCFD), have a significant role in how identified risks should be communicated to the public. However, the adoption of formal reporting measures; when such measures will in fact be adopted; and whether these are mandated; currently is not consistent across all countries. By reference to selected countries, the authors identify how climate-related risks are being managed by governments and industry, and the direct impacts of this management on the built environment. This enables the presentation of information to enable the understanding of: what is required to enable consistent risk identification, reporting and management; how related risks and mitigation measures can be most effectively communicated to all stakeholders; and what action industry will need to take.

TECHNOLOGY USE FOR SPECIALISED PROPERTY VALUATION: A REVIEW

TERANS GUNAWARDHANA
RMIT University, Australia

ABSTRACT

Specialised properties are relatively complex and difficult to value due to the lack of comparable evidence. The literature shows that technological applications, perhaps developed for other industries, can assist specialised property valuation (SPV). However, the way many of these advanced technologies are used for SPV has not been researched yet. Therefore, this review aimed to identify possible advanced technologies for SPV.

Firstly, definitions for keywords, specialised properties and advanced technologies were given. Secondly, valuation approaches used for specialised property were identified. Thirdly, the available technologies which can assist in the SPV process: data accumulation, analysis, adjustment, and application, were discussed. Finally, the knowledge gaps in technology use for SPV were discussed.

Review results confirm that data accumulation is the most critical step for all property types in the specialised property category. Artificial Intelligence (AI), deep learning architectures, and spatial microsimulation models are more useful for data accumulation. In the analysis, Geographic Information Systems (GIS) and Building Information Modelling (BIM) can be used for all specialised property types. Finally, in the application stage, GIS is identified as the best-integrated platform for SPV to perform analysis, data visualisation and communication.

Paper ID 8243

INTEGRATION OF BUILDING INFORMATION MODELLING (BIM) WITHIN FACILITIES MANAGEMENT (FM) IN SOUTH AFRICA

THABELO RAMANTSWANA
University of Witwatersrand, South Africa

ABSTRACT

Facilities Management (FM) involves various operations, activities and maintenance services to support the main functions of the facility. FM teams require a considerable amount of information to enable them to execute their responsibility. The biggest challenge for FM team is having an information system that is comprehensive, accurate, and enables capturing and retrieving building system data. Building Information Modelling (BIM) as a process that enables the creation and management of information throughout the project life cycle can be helpful in FM. BIM has not been sufficiently integrated within the existing FM systems, particularly in the South African context. This paper, therefore, explores the integration of BIM in FM. Interviews will be conducted with Facilities Managers across different industries.

Paper ID 8558

THE KNOWLEDGE REQUIREMENTS OF PROPERTY VALUATION GRADUATES OF THE FUTURE

JUDITH CALLANAN, REBECCA LESHINSKY AND DULANI HALVITIGALA
RMIT University, Australia

ABSTRACT

Future skills and knowledge required within the property valuation industry, is rapidly evolving with new technology and industry requirements. This paper will help inform the education and skill set requirements of graduates. Focus groups in England, USA and Australia were undertaken. Focus groups provided in-depth discussions around the future of the industry along with the knowledge base and practical skills necessary for work ready graduates. Data from the focus groups highlights that the valuation process is rapidly changing. Understanding the collection, storage and analysis of big data is a critical skill set for graduates, as well as excellent Proptech, communication skills and know how of visual mapping of data. The implication of this research is that Universities and industry professional bodies must move quickly to update the key capability requirements to reflect the shift of skill sets, particularly as big data, AI and the Blockchain are now integral platforms for the real estate sector.

THE POST-PANDEMIC INVESTMENT OPPORTUNITIES IN THE AUSTRALIAN HOSPITALITY PROPERTY SECTOR

JUFRI MARZUKI AND GRAEME NEWELL
Western Sydney University, Australia

ABSTRACT

As the world emerges from the debilitating COVID-19 pandemic, there has been an increased investment interest in the hospitality property sector as it shifts into a post-pandemic recovery stage. Major institutional investors such as GIC, APG and PGGM have recently reactivated their capital deployment in the hospitality sector, as well as global investment managers actively raising capital or seeking JV partners for their hospitality-focussed investment activities (e.g.: Blackstone, Azora, Tristan, Henderson Park). The reopening of borders and reinstatement of air travel have reignited the tourism sector, resulting in an influx of new and returning visitors to tourist destinations throughout the world. Using the unique transaction and performance dataset sourced from RCA and MSCI, this paper reviews the hospitality property sector at an Australian and global level, as well as assessing the risk-adjusted performance and diversification benefits of the hospitality sector in Australia against the other main property segments. The strategic post-pandemic property investment implications for the hospitality property sector in Australia are also highlighted.

AN ARISTOTELEAN INTERPRETATION OF HOUSING AFFORDABILITY

GARRICK SMALL
CQUniversity, Australia
LAN SUN
CQUniversity, Australia
STEVEN BOYD
CQUniversity, Australia
DANIEL YOUNAN
Austin Woodbury Institue, Australia

ABSTRACT

Housing has become progressively less affordable over the last half century in Australia. Attempts at making housing more affordable have been ineffective in reversing the trend. This paper argues that housing unaffordability is actually an artefact of philosophical assumptions built into contemporary economics that have become so commonly accepted as to become invisible. The metaphysics of Aristotle is representative of philosophical approaches that lead to different economic outcomes where housing would be durably affordable. Using Aristotle's understanding of private property and natural price, it is argued that private profittaking in unimproved land is improper. Likewise, excessive charges for human products, such as building improvements is immoral. Combined, this would suggest that if house pricing were based on Aristotelian principles, the building industry could flourish as a vibrant private enterprise, but housing would remain affordable. Comparisons to other cultures suggest the implicit presence of Aristotelean principles in societies where housing is durably affordable.

BEHAVIOUR CHANGES TOWARDS ACCESSIBILITY TO MEDICAL RESOURCES IN THE POST-PANDEMIC ERA IN CHINAAND THE UK CITIES

JIAYI   YAN [1]
University College London, United Kingdom
QIUCHEN LU [3]
University College London, United Kingdom

ZIGENG FANG [2]
University College London, United Kingdom
JUNQING TANG [4]
Peking University, China

LONG CHEN [5]
Loughborough University, United Kingdom

MICHAEL PITT [6]
University College London, United Kingdom

ABSTRACT

Medical resources are the important components of the city systems. In the post-pandemic era, the intervention of the global Covid-19 pandemic has caused pressure on medical services in different countries to a different level of extent. This affects the public's accessibility to medical resources. However, many previous studies have focused on the influences of physical or spatial factors like intensive care unit (ICU) bed availability or transport distance. The psychological influence of people's behaviour and decision change to access medical resources has been overlooked. Under this background, this study (1) systematically examines current studies and summarises 30 and 42 factors based on a 'COMB' behaviour system model with three essential categories (i.e., capability, opportunity, and motivation) that might affect the accessibility of medical resources in the pre-Covid and postCovid era respectively; (2) conducts an online survey in the UK and China cities to determine and compare to what extent that these factors might affect people's behaviour and decision change to access medical resources. A total number of 121 responded survey has been collected. The data are analysed descriptively and through statistical modelling techniques. Results show that the driving factors change significantly from pro-Covid to post-Covid era in both the UK cities and Chinese cities.

NATURAL DISASTERS AND HOUSING MARKET RESILIENCE IN AUSTRALIA: 2000-2022

AMEETA JAIN AND QIANG LI
Deakin University, Australia

ABSTRACT

Natural disasters such as floods, droughts, storms, cyclones, and bushfires which plague Australia repeatedly have the potential to change the entire developmental trajectory downward. Intuitively, as the regional or national economy is negatively impacted by such natural disasters, house prices should demonstrate a similar trajectory. However, Australian house prices nationally have remained resilient and not demonstrated any such sharp swing in the last two decades despite numerous natural disasters providing an interesting conundrum: what are the factors mitigating the impact on natural disasters on housing price in Australia?

We draw on regional and economic resilience literature to identify the factors considered to be drivers of resilience across all local government areas in Australia. We investigate whether diversity in ethnic background, education, and house ownership might be the factors supporting housing market resilience across all the local government areas (LGAs) of Australia in response to natural and economic shocks for the period 2008-2020. Generally, our empirical results support the idea that diversity enhances house prices resilience. The results of this study will assist the policy makers to mitigate volatility and downturns in the housing market and in future planning and development of housing.

ANALYSING THE IMPACTS OF COVID ON THE COMMERCIAL PROPERTY STOCK IN SYDNEY

SARA WILKINSON, GILL ARMSTRONG, JUA CILLIERS AND MARK WILLERS
University of Technology Sydney, Australia

ABSTRACT

The social economic and environmental impacts of Covid are still evolving. 2021 in Australia was the year of the lockdown, where all nonessential workers were required to work from home to prevent the spread of the virus. Our capital cities and towns became ghost towns as workers, tourists and visitors disappeared and economic and social vibrancy declined. Despite economic support, many businesses ceased trading and others reduced the amount of leased space they occupied. Vacancy and inactivity increased, but what are the consequences of this change? It is well known that secondary and tertiary impacts or, ripple effects, occur because of a primary impact. This research analyses the impacts in the Sydney CBD in 2021/22. Data was collected at the STAR (Sustainable temporary Adaptive Reuse) Toolkit Project stakeholder workshop in 2022 using the Futures Wheel methodology. This paper discusses some of the impacts of Covid on the property stock in the Sydney CBD.

THE ELEMENTS OF ACTIVE AGING FOR ELDERLY COHOUSING DEVELOPMENT IN MALAYSIA

FITRIYAH RAZALI, WAN IBRISAM FIKRY WAN ISMAIL, DZURLLKANIAN DAUD, NUR FARAH ATIKAH MOHD RAZIF, NOORSIDI AIZUDDIN MAT NOOR, NURUL HANA ADI MAIMUN AND FATIN AFIQAH MD AZMI
Universiti Teknologi Malaysia, Malaysia

ABSTRACT

In 2015 all the United Nations (UN) member states, including Malaysia, agreed on the 17 Sustainable Goals (SDGs) as part of the 2030 Agenda for Sustainable Development. This paper highlighted the significant development of cohousing for the elderly in Malaysia based on the Maqasid Shari'ah governance. The significant development of cohousing for the elderly in Malaysia encourages the country to achieve SDGs Goal 9 regarding the necessities of innovation in infrastructure and enhancing the healthy lifestyle of the elderly in Malaysia. The enhancement of a healthy lifestyle and active aging living is significant for the country to reach SDGs Goal 3, which is related to good health and well-being of all ages. The development of cohousing with the consideration of Islamic values is essential for Malaysian society since most Malaysian is Muslim. Quantitative data are collected from the questionnaire survey, and the frequency data analysis is applied to the data. Results proved that most respondents agreed with the concepts of cohousing development, and the elements of cohousing development are supported. This paper provided the essential elements and the concept of cohousing for Muslim elderly in Malaysia with the suggested housing plan development.

COLLABORATIVE DECISION MAKING WITHIN THE COMMERCIAL PROPERTY VALUATION PROCESS: MOTIVATIONS AND CHALLENGES

HASSAN LIMAN, ABDUL-RASHEED AMIDU AND DEBORAH LEVY
The University of Auckland, New Zealand

ABSTRACT

Existing literature suggests that valuers engage in collaborative practices when undertaking commercial property valuation assignments. Yet, there is no full understanding of the factors that drive or hinder collaboration within the context of property valuations. As part of ongoing research seeking to understand collaborative decision making within the valuation process, this paper reports on the motivations and challenges associated with collaboration among valuers while undertaking valuation assignments. We employ a grounded theory methodology to gather and analyse responses from interviews conducted with 17 property valuers that undertake commercial property valuations in Auckland, New Zealand. We found out that valuers collaborate to properly manage and meet clients' needs and to adequately reflect actual market conditions in their valuations. We also found that the nature of valuation jobs and the need for ensuring quality are strong motivations for collaboration. Nevertheless, collaboration could be hindered by time constraint, workload and occasional unavailability of team members. Furthermore, parties outside of valuers' own firms tend to be non-cooperative when they feel they are not going to benefit from a collaborative relationship.

INNOVATING WITH DIGITAL WAYFINDING FOR A USER-AWARE APPROACH IN COMPLEX BUILDING SITES

YASMIN GARCIA-STERLING AND MICHAEL PITT
University College London, United Kingdom

ABSTRACT

Wayfinding is critical to the way users interpret the world and mobilise within. The current system is universally characterised and partitions distinctions between its space, information and users. Embedded in the theory of Wayfinding and parallel to the methodology used to design, applicate and develop that results in a geometric driven spatial modelling. Critically Wayfinding has evolved with prioritisation to interpret space over users and is carried into the methods fabrication and installation of signage. increasing studies have shown deteriorating user experiences implications found in complex buildings from evaluations made for user capabilities alongside the eventual limitations in disabilities found from inadequate wayfinding methods. In this article, we will review Wayfindings methods in their arrangement and the efficiency found from automatically querying effects of users' awareness, carried from the industrials revolutionary Wayfinding methods of geometric-driven spatial planning and applied form. With particular attention being paid to personalisation solutions in digital Wayfinding and review if innovation can aid access to complex building sites. Postulating the need to optimise performance strategies for inclusive environmental information.