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Master thesis

The housing market in Ukraine

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České Budějovice 2020

UNIVERSITY OF SOUTH BOHEMIA IN ČESKÉ BUDĚJOVICE

Faculty of Economics

Academic year: 2017/2018

ASSIGNMENT OF MASTER THESIS

(project, art work, art performance)

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Study programme:

Assigning department:

N6208 Economics and Management Commerce and Entrepreneurship

Field of study: Work topic:

The housing market in Ukraine

Department of Trade and Tourism

Theses guidelines

The goal is to investigate the housing marker in likeraine, to identify the current situation as well as trends, in the context of Ukrainian continuous EU-integration.

Methodology:

- 1. Literature review
- 2. Data collection
- 3. Sytuation analysis
- 4. Proposal of recommendations including economic evaluation

1. Introduction. 2. Literature review. 3. Goals and methodology. 4. Analysis and synthesis of own findings. 5. Recommendations. 6. Conclusion. 7. Resources. 8. Summary. 9. Appendices.

Scope of work report:

60-70 pages

Extent of graphics content:

as needed

Form processing of master thesis:

printed

Recommended resources:

Literature:

Fabozzi, F. J. (2015). Capital markets: institutions, instruments, and risk management. London, England: The MIT Press Harris, J.M. & Goodwin, N. R. (2009). Twenty-first century macroeconomics: responding to the climate challenge. Cheltenham, UK: Edward Elgar Kotler, P. (2010). Principles of Marketing. Upper Saddle River: Pearson Sobel, Russell S. (2009). Understanding macroeconomics. Mason: South-Western / Cengage Learning

Supervisors of master thesis:

Roberto Bergami, Dr.

Department of Trade and Tourism

Date of assignment of master thesis: Submission deadline of master thesis: February 28, 2018 April 13, 2019

In České Budějovice February 28, 2018

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Statement

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České Budějovice 12. 5. 2020		
	Vladyslav Diakov	

Acknowledgements I extend my gratitude towards my thesis tutor Dr. Roberto Bergami for staying up nights in Down Under, my parents and friends who on different occasions prevented me from or joined me in my procrastination

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1. Introduction

"Access to a home is a fundamental human need that should be available to all" (UNECE, 2015, p. 1). According to Mcleod (2020) housing is one of the most important branches of any national economy. It creates jobs for contractors, incentivizes loans, spending and, most importantly, it helps to satisfy the second basic necessity from Maslow's (1943) hierarchy of needs – safety.

Housing and everything that is connected to this branch of the economy is usually treated like any other sector of economy. Many publications on this topic often concentrate on selected aspects, considering these through a very narrow lens. However, housing is a complex and multi-layered issue, which requires investigation and research from many different angles, two of which will be the focus of this thesis.

The first angle is to look at the situation from an economic point of view, analyze secondary data and get a basic understanding on how the housing market in Ukraine operates. Ukraine has a very distinct post-soviet economy, which has not quite become a free market. There is a lot of corruption, inconvenient and redundant legislation, an oligopolistic structure and unethical behavior. In this thesis I will try to describe the effects of these behaviors on the housing market and propose solutions to mitigate them.

The second angle is to look at housing's social aspect. Housing can be affordable and available, however, this does not necessarily mean it will be pleasant to inhabit. The most popular type of housing in the Ukraine is hi-rise apartment block building inherited from the USSR. Moreover, developers often build housing in the same monotonous style. However, this style is terrible for people's psyche and has never created a positive urban environment.

In this thesis I will propose solutions that will take into consideration both of these very important angles, with a view to benefiting both the people interested in purchasing housing and developers alike.

2. Goals and methodology

The goals, aims, methodology and hypotheses are provided in this section

2.1 Goals

The object of study: Ukrainian housing market

Subject of research: Legislation, fiscal and monetary policy as the tools to regulate the housing market and the effect of macroeconomic and social factors on the housing mart and vice versa.

The aim of the thesis: to study the Ukrainian housing market and diagnose the roots of its main shortcomings, in order to find appropriate answers to solve the problems at hand.

Achieving this goal implies the completion of the following tasks:

- 1. Exploring the specific economic issues that stand in the way of harmonious development of the housing market in Ukraine;
- 2. Analyzing the historical roots of similar issues in other countries;
- 3. Analyzing the social implication of less affordable housing and patterns present in Ukrainian housing market; and
- 4. Synthesizing a set of recommended solutions based on both the suggestions of authors in Ukraine and international experiences.

The original intention was to consider the Ukraine housing market in the context of Eu-Integration, but it became obvious that, in reality, this goal was beyond achievement in the foreseeable future. The main reason for this realization was the ongoing conflict within the Ukraine with separatists movements, with the support of Russia, who objects to both Ukraine being included in an expanded NATO and being accepted as an EU Member State. It is difficult to imagine EU accession possible when parts of the nation are occupied by separatist forces whilst Ukraine's sovereignty is under siege, testament to this is the reannexation of Crimea by Russia. These are geopolitical considerations the thesis cannot address or solve, consequently the focus of the thesis had to be limited to investigating the Ukraine housing market and propose appropriate solutions, without EU-Integration considerations, however, this does not invalidate the thesis

Hypotheses of the study:

- 1. Currently the housing market in Ukraine is unbalanced and unregulated. Most of the construction companies follow old soviet-era patterns, which are arguably neither economically, nor socially efficient; and
- 2. Introducing new legislation and improved macroeconomic regulations will help to create the environment for affordable and comfortable housing to be developed gradually and naturally under new market conditions that will be created.

2.2 Methodology

Starting to write this thesis I thought that would not be any problems with obtaining data from developers, as I wanted to do field research. However, I found that collecting primary data for my thesis was virtually impossible.

In contacting "Київміськбуд" the oldest developer in Ukraine established in 1953, it turned out to be impossible to connect with a person senior enough in the company to answer questions for the thesis.

The same situation manifested itself, in a slightly different form with "Уκρбуд". They have a press office, but it seemed like there was only one person informing external parties on the official position of the company regarding issues relevant tot this thesis.

Additionally, I contacted two developers, Akvareli and Shchaslyvyy, who had only a few relatively large projects on their resumes. Needless to say, I had to contact their sales department, who took a few days to respond. Both declined to provide any information. In hindsight, I can appreciate neither one had any real reason to divulge information about their internal affairs, and perhaps felt ill at ease in not being able to verify my identity and purpose for my questions.

Subsequently, I contacted a developer that curated the project called Smelakvartal in Smila, my hometown. The project itself is relatively small - three 6-storey apartment buildings. It is one of very few housing projects in Smila over the past few years, since the town is in economic and demographic decline. I managed to speak with the person responsible for the project. He was not the type of developer I would have ideally chosen, since his experience was limited to the said project. However, prior to that he had been working in a different sphere of construction, so he had other knowledge about the industry. Also, his experience was very unique, since the project was accommodated by the

city administration interested in beautifying the town. Unfortunately, the information I obtained from this person was not enough to provide a sound basis for my thesis.

Since my attempts at collecting primary data failed, I decided to focus on analyzing available material in the form of secondary data.

The thesis consists of two distinct parts. The first part is the analysis of scientific publications of authors based on statistical data and the experiences of the authors in the field as well as my own personal experiences. The publications presented in the literature review section will mostly be from economists or statistical agencies, with many theoretical assumptions for the reasons of the current state of the housing market in the Ukraine and suggesting possible solutions to its problems. Those solutions are mostly based on statistical data with allusions to historical factors.

The second part will be about urbanization and include some theories about city planning and how it affects the human behavior and, eventually, the economy. In this part I will prepare the base for further discussion and propose possible solutions to the problems at hand.

3. Literature review

Housing in an important aspect of any economy with consequential social implications for the people of any nation. Whilst it is necessary to consider the wider literature in this field, it is beyond the scope of this thesis to undertake an analysis of all articles ever written on this topic. Consequently, only what is considered to be the most influential works will be analyzed, and whilst the literature will, by necessity incorporate some international aspects, the focus remains on the Ukraine situation.

The literature review is provided in two parts. The first part focuses on the economic factors and the second part considers the wider social aspects of housing as they relate to the Ukraine market and the social theories of housing construction relating to height, the greening of estates and associated factors.

The literature review does not have solutions or discussion of the problem in detail, it is a review of the literature, or if you prefer to think it another way, it is a summary of what other people have written about and if there are different views of economic or social

theories these differences can be pointed out, or if there are no differences, it can simply be stated there is general agreement between different authors.

The housing market, just like any other market, is affected by the fundamental law of supply and demand. However, housing, as a commodity has many unique aspects, which makes it very distinct from other markets.

Hall (2020) claims that it is never easy to measure supply and demand in the real estate market and it is partly because fixing up old homes and putting new ones into operation is a very time-consuming process. Buying and selling also takes a lot of time with housing and, similarly, with other types of property. Hall (2020) also claims that interest rates are a huge factor, because people are more likely to take on debt when the interest rates are lower and vice versa. He explains:

'If more buyers flood the market, the demand for housing increases. And if there's a limited supply of housing inventory, that makes people in a low interest rate environment want to purchase even more. Meanwhile, the supply of housing is in a constant state of change. Inventory may increase when people are moving—some may downsize, others may try to make more room for an expanding family, while others may purchase their first home. Similarly, there may be an increase in development and new home construction, adding to the existing inventory. On the other hand, housing inventory decreases during times of natural disasters—such as floods and earthquakes—and when existing properties are demolished. Land property is also a finite resource, so the amount of new developments is generally limited.'

Ukraine's history has also played a major part in the development of its housing market. In the 20th century alone, Ukraine went from being an agricultural society, under the Russian Empire, to being an industrial powerhouse under the USSR, after the Bolsheviks took over in 1922. In the 1990s, Ukraine became an oligarchy, as a result of privatization after the collapse of USSR in 1991. The 1990s, and the events of that period, are described later in this thesis.

Nowadays, Ukraine is a hybrid democratic regime where the oligarchic elites have not really gone away, but evolved into the system of today. They are still present, but have transformed themselves to fit into the current regulations and market dynamics.

Ukrainians cannot really strongly relate to any particular economic or ideology. Popovich (2017) claims that there 350+ political parties and a good dozen of them always have a strong chance of getting into the next convocation of the Verkhovna Rada (the Ukrainian parliament) in regular elections or primaries. In Ukraine, 35% of citizens believe that the nation needs a multi-party system, and that is only four percentage points less than those who hold the opposite view — a divided society indeed. These are the conditions every politician has to deal with to manage to win voters over to their side. In this struggle, which has often been unpredictable, the leaders of the political forces have to offer citizens something more attractive than what their opponents offer.

Korostelina (2012) claims:

'The majority of the population is served by political populists, such as Yulia Timoshenko and Victor Yanukovich, who promise a system of welfare but not the conditions for personal or political development. Thus, the paternalistic mentality and reliance on welfare are actively employed and maintained by populist politicians and the Yanukovich's Government Perhaps a contributing factor the people of Ukraine are described as tolerant, patient, accepting different powers through history without open resistance.'

According to Popovich (2017) in the next few years, purely in ideological terms, it is possible to predict that the main political competition will be just between parties which advocate for different versions of socialist policies, but are, nevertheless, politically very similar. A couple of these similar parties advocating for various socialist policies now collectively have support from about twenty percent of voters. The supporters of 'light nationalism', who hold very similar political views, usually gain collectively about 20%, however, they have shown some growth lately due to the arm conflict situation with the war in Donbass.

Such a political landscape results in very little change in policies. The general direction of the people in power rarely change. Every new party seems like a mixture of all

the parties that voters saw before. Whenever a new party like that is formed, it is colloquially referred to as a 'for all good against all bad' party. This points to a stagnation of Ukrainian politics. Whilst new parties appear every time before an election is coming, they bring nothing new to the table. The average Ukrainian voter is forced to choose between politicians and parties which are very similar, in both their competition and candidates, from previous elections.

Even though Popovich wrote the article in 2017, it seems its predictions are true. The current political outlook has not changed since then, even though the Verkhovna Rada has changed its configuration and most of the current deputies were not present in the previous convocation.

Karlova (2013) claims that the actual tasks of state formation in Ukraine require the formulation of a national ideology that would determine the directions of development of the country and the state, the main moral and spiritual values, which should be directed by society in its development. The new ideological system should unite Ukraine, put an end to political disputes, and promote social integration and consensus. In the absence of any ideological self-determination of the Ukrainian society, it is not possible to talk about deep reforms and systematic modernization of the country, meaning that any stabilization of social life is not achievable, with little hope for future positive developments for Ukraine.

Beginning with a very rough start in the 1990s, due to the crisis caused by the implosion of USSR, Ukrainians never really experienced a free market environment, because economic freedoms have been severely limited. According to the 2020 Index of Economic Freedom (The Heritage Foundation, 2020), the Ukraine ranks 134 out of 180 nations, with lack of business freedom being a major drawback. Ukraine's overall rating is on par with nations such as Benin and Pakistan. The lack of certain freedoms can also be observed in the cultural dimensions by Hofstede Insights (2020). Ukraine scores very highly on power distance, uncertainty avoidance and long-term orientation. These scores strongly reflect what used to be called homo-sovieticus by the communist ideologues of USSR, that is, a person who respects power, values and covets stability and is prepared to put oneself on the altar of building a bright future. This kind of ideology was cultivated in at least three generations. This means that most of the people born after 1991 in Ukraine were raised by parents who received their education in the USSR. Millennials in Ukraine

had no chance of inheriting values that put freedom and individualism before everything else. The USA is on the opposite ideological spectrum because the right for 'life, liberty, and the pursuit of happiness' has been engrained in the US Declaration of Independence since 1776. If we consider the historical context, the acceptance of lack of economic freedom by Ukrainians seems plausible, as there has not yet been enough time for people to internalize more libertarian values that lead to a freer society.

Of course, Ukraine has changed since gaining its independence, however, it has only experienced minor positive aspects of capitalism, but has also suffered most of its flaws. For example, John Davison Rockefeller Senior was the embodiment of capitalism owning almost every oil deposit in the country, however, consumers and workers were at a disadvantage because the monopolist can pretty much do whatever they want in such situation. This meant long hours, unethical business practices and higher prices. That's why his monopoly was broken by direct government action. Ukraine also has a number of people who managed to corner the market by controlling a lion's share of different industries, for example, house utility companies are owned by a few businessmen who created an oligopoly; and gas prices are agreed upon by a few businessmen, who own most of the major gas station chains. However, discussion on these oligopolies is beyond the scope of this thesis.

The majority of western countries have already experienced the implementation of neoliberal policies, which has led them to where they are now. Neoliberalism took shape in the second half of the 19th century. Its main features are:

- adherence to the fundamental postulates of liberalism, neoliberalism embodies the following principles: freedom and individual rights, equal rights of all citizens, constitutionalism, private property and entrepreneurship as the basis of economic life;
- government intervention is allowed to stabilize a market economy, since the
 mechanism of free competition is not automatically ensured (the formation of
 monopolies, crises in the economy, inflation, etc., violate the mechanism of market
 self-regulation);
- government intervention is limited only to the establishment of a "framework" in which economic activity is developed and which create favorable conditions for the

operation of competitive mechanisms (that is, the neoliberal concept does not imply direct state regulation of economic processes, but is limited only to supporting market self-regulation mechanisms);

• limited state regulation is manifested not only in the economy, but also in the social sphere. It is planned to redistribute part of the income through a system of taxes and state aid in favor of the poorer segments of the population, and to strengthen social justice in society.

Modern neoliberalism, while adhering to the fundamental principles of liberalism, has proved capable of correcting a number of important socio-economic postulates under the new social realities, adapting many new ideas, including those that are characteristic of other ideologies - socialist, social democratic neoconservative. Definitely not all of those points can be applied to the Ukrainian system. For example: Elimination of 'the public good' concept is not applicable because there are too many socialist aspects to how the government handles things. On the other hand, a lot of sectors of the economy, the housing market in particular, can definitely use some deregulation. Deregulation is already happening, but at a slow pace.

Ukraine, on the other hand, has never really experienced neoliberalism implementation, even though it suffers from the same thing all the western democracies are trying to minimize by implementing some policies that neoliberalism doctrine is opposed to. According to neoliberalist doctrine, there should be as little government control as possible, which leaves it to market forces to dominate, invariably meaning the balance of economic power shifts to the private sector, and typically towards larger corporations. The degree of government control in Ukraine is pretty high. However, this does not prevent a lot of companies in Ukraine from cornering the market in separate industries either by being bigger than the rest of the competition combined, or by oligiopolizing the market. Corporations in Ukraine are only able to create oligopolistic structures because the oligarchs who own them are often in bed with the government.

Davies (2014) describes the effect of neoliberalist policies:

'A common theme between the Marxist and the post-structuralist accounts of neoliberalism is the rising power and authority of corporate and quasi-corporate actors and experts in public life. During the 1990s, the sense that social life was

increasingly regulated by non-state intermediaries or private firms led to increased awareness of 'governance', 'governmentality' and risk as techniques for managing neoliberal or 'advanced liberal' societies in a calculated fashion. Arguably it is the managerial freedom of corporate and quasi-corporate actors which is maximized under applied neoliberalism, and not markets as such.' (p. 315)

Davies (2014) also argues that the mortgage crisis in general, and the 2008 bank bailouts in particular, only appear to have strengthened both the experts who propagate neoliberalist policies and the prioritization of defending the financial sector ahead of any other interest.

Ukrainian corporations are tied to the government just like in any country. Whenever a crisis is at large, the needs of corporations seem to be always taken care of, unlike the needs of people. The latest example of such practices is described by Volyn and Lutsk news (2020). The largest chain of household goods supermarkets in Ukraine called 'Epicenter' remained unaffected by quarantine measures due to COVID 19 outbreak despite mass small business closures. 'Epicenter' supermarkets allowed to operate when its competition (small businesses) are ordered to remain closed. Construction work was still allowed during the quarantine and the supermarkets became the only place where it is possible to buy household goods and construction materials. Even though it is barely possible to maintain social distancing in 'Epicenter' supermarkets because the limit of people per square meter is not being upheld. Whereas smaller stores are much more capable of serving customers separately and maintaining the safety standards.

Whilst the situation with Epicenter is only peripherally related to the housing market, by virtue of stocking building materials, it appears to support the notion that larger corporations are favored by the government, at times resulting in directions/regulations that are skewed in favor of big business. The net result for the Ukraine is that it appears as though it was on the later stages of implementing neoliberalist approaches, even though such approaches were never directly implemented. The Ukrainian system was able to effectively 'skip' a few steps because the entire country was basically bought by a few dozen powerful people during the 90's. The result we can observe now – an economy full of syndicates and oligopolies. The 1990's are discussed later in the thesis. However, privatization auctions and banditism in the 1990's allowed for the emergence of a system

that is usually created by decades of competition (like when Rockefeller cornered the market with Standard Oil). So, instead of evolving into a state where oligopolies corner the market and huge corporations effectively monopolize separate industries through decades of fierce competition between each other, Ukrainian elites managed to do that through the privatization auctions of the 1990's and following years of dealings with criminal syndicates. Johnson & Ustenko (1993) provide an extensive analysis of governmental policies in general and privatization in particular, claiming:

'The economic strategy of Ukraine since independence has been a form of gradualism, implemented by ex-communists who realize that something called "economic reform" is required but who are not willing to take the decisive measures.' (pp. 26-28)

There is a lot of monopolization on the Ukrainian markets (including housing), which leads to higher prices for consumers, a lot of corruption and backroom deals. As there is no free market, consumers benefit very little from companies vying for clients, because competitor activity is extremely limited between cartels.

Major economic theories about the housing market are based on a number of assumptions:

- 1. There are many buyers and seller, and each buyer and seller are too small to affect the market place;
- 2. Buyers and sellers have both perfect knowledge and perfect foresight of the market;
- 3. Buyers and sellers try to maximize their individual returns and there is no collusion amongst or between buyers and sellers;
- 4. There is free entry into and exit from the market for both buyers and sellers;
- 5. Buyers have continuous, transitive and established preferences over a wide range of alternative choices of products within the market; and
- 6. The market tends towards equilibrium free of distorting influences on the demand and supply of the product and the resources used to produce it.

Alhashimi & Dwyer (2004) claim that the housing market never tends towards equilibrium and is never in equilibrium, because the imperfections of the housing market would never allow it to be flexible enough. They say:

'At any one time, one part or another of the housing market is keeping it from achieving equilibrium. For one, the supply of land is a binding constraint, working against price falls. Again, supply at any one time tends to be rigid in the sense that sellers may not come into the market if selling conditions are adverse. New construction, when needed, may take several years to come on line.'

Alhashimi & Dwyer (2004) argue that the 'one shoe fits' all approach might even be harmful and hinder studying housing markets, because approaching the housing market with the general set of economic theories of supply and demand disregards most of the important aspects that actually influence the market. Alhashimi & Dwyer (2004) claim that determining value of housing in a major issue while studying the market:

'The residential housing market is imperfect. There is no central market place; buyers and sellers are relatively inexperienced and largely uninformed; prices are negotiated; and there is no uniform "product" since the product differs from unit to unit and within the mind of each buyer and seller. This makes the task of discovering the value of housing much more difficult than in those markets where there are standard units or products such as stocks, shares, gold, cars and so on.'

Alhashimi & Dwyer (2004) claim that housing economists must research the behavior of buyers and meld all of the insights provided by such research into a well-rounded approach that will allow it to include 'past prices, commuting, house and neighborhood attributes, associated exchange costs, and buyer and seller psychology'.(p. 6)

Kovtun (2011) provides a great analysis of the housing market and its institutional components and that is exactly what Alhashimi & Dwyer (2004) argue is crucial for any research related to the housing market. Kovtun (2011) analyses the Ukrainian housing market, claiming it is a system of economic relations between:

- buyers and landlords forming demand;
- sellers and tenants forming supply; and
- between professional participants about the creation, exchange, increase of value,
 management of the real estate object.

The housing market has an extensive structure and can be segmented into different characteristics. An effective institutional organization of the housing market is able to activate considerable resources of private savings and determines investment activity both in the housing sector and in the economy as a whole. Activating the savings of the population on the basis of effective organizational forms requires the implementation of a special economic policy.

These policies include:

- regulatory activity of the state to develop a policy of attracting public savings;
- legal and economic principles of expanding the institutional organization of savings; and
- revitalization of financial institutions to attract public savings.

Kovtun (2011) claims that institutional efficiency of the housing market in the postcrisis economy is ensured by:

- the mechanisms of the institute of private ownership of land,
- functional zoning of land plots, optimal assessment of property for tax purposes,
 and
- institutionalization of the legal framework of housing legislation.

However, in the Ukraine there is a selection of inefficient institutions in the housing market, which manifests itself in the formation of the following institutional pitfalls, which have a negative impact on the functioning of the housing sector and the macroeconomic situation as a whole:

- underinvestment of private savings in the housing sector;
- storage of savings in foreign currency savings to financial institutions in the housing market;
- evasion of utility bills;
- the development of the shadow sector in housing;
- information asymmetry;
- abuse of subsidies and benefits in payment for housing and housing services; and
- lack of tax incentives to own a home.

Kovtun (2011) argues that in transition economies, like Ukraine, the state and its housing market policies play a major role in the housing market, which is not always productive enough. The actions of other actors are also not optimal. A period of change is the most difficult period for any country, irrespective of the degree of its social and economic development. Such periods cause disconnection in the structure of the housing market due to the inconsistency of the actions of the institutions of power, which can lead to socio-economic crisis. Thus, the role of the state is a leading determinant of the housing market, because it is the key to many crucial functions:

- authorizing the choice of the optimal institutional model;
- organizational and legal support and implementation of this process;
- tracking its performance; and
- making the necessary adjustments and eliminating the negative consequences.

In conclusion, it is absolutely crucial to describe the Ukraine's housing market with caution and take into consideration every aspect of its uniqueness.

3.1 Economic considerations of the housing market

Most of the of articles on the Ukrainian housing market may be categorized into two groups. The first group considers, or focuses, on the problems of transition from a planned economy and social housing to commercial construction. The second group reviews the current situation on the housing market.

There is also some emphasis on the lack of legal support because the standards for commercial residential housing construction in the USSR (of which the Ukraine was an integral part) were non-existent. There were only state norms of construction that were at times too broad, and at times too specific, to be used for commercial projects.

Some authors (Sych, 2014; Euro Rating, 2015) point out the peculiarities of development of the Ukrainian housing market over the last decade, since these times were the most turbulent after the crises of the 1990s. None of the articles found take into consideration the huge wave of internally displaced people by a conflict in Donbass in 2014, and its effect on the housing market.

Babenko (2008) states that at present there is an ambiguous situation in the Ukrainian real estate market. Saturation of all segments has not yet been achieved, and there is growing demand and a steady increase in rental rates in the commercial real estate sector. At the same time, unfinished projects are frozen and construction volumes are reduced. Some market operators are forced to curtail the direction of development or go out of business by selling out. The reason lies in the growing difficulties with project financing. Коммерсант-Україна (2008) referring to Yuri Nartov Managing Director of Colliers International Ukraine state:

'The consequences of the global financial crisis are beginning to be felt primarily by bank financing, many developers already feel the lack of financial resources to complete the announced projects. In general, the processes occurring in the global economy, with a certain lag can affect the Ukrainian commercial real estate market. According to our data, a number of developers were denied financing of some projects. In addition, the standard for the ratio of own and borrowed funds was changed from 30/70 to 40/60 and even 50/50 in certain projects. Even though these assertions are more than ten years old, the current housing market situation remains primarily unchanged.'

Babenko (2008) claims that developing residential housing project is difficult not only for "small-time" Ukrainian developers, but even for those companies that already have experience in attracting financial resources from abroad. Babenko (2008) quotes Lev Partshaladze, chairman of the board of 'XXI Century Investment Company' at the time, who stated:

'This year, money on foreign markets became much more costly. For example, a year ago, the XXI Century company issued Eurobonds at 10% per annum, now it's 14% per annum. Access to foreign loans, which are cheaper than domestic ones, is now possible for only individual companies that have managed to make an initial public offering on stock exchanges and enjoy certain trust from creditors.'

Діловий Житомир: Бізнес портал (Business Zhytomyr: Entrepreneurial portal) (2019) reports that according to Ukrstat, 8689.4 thousand square meters of residential housing was put into operation in Ukraine in 2018. Here the term can be defined as a separate housing unit within a bigger residential complex. In 2018, nearly 8.7 million

square meters of housing has been put into operation in Ukraine, which is more than 100.000 new apartments.

According to Ukrstat (2018), 5652.4 thousand square meters of housing was commissioned in urban areas of the cities of the Ukraine, equivalent to 65% of total construction), with the remaining 35% (3,037 million square metres) built outside urban areas, as shown in Figure 1.

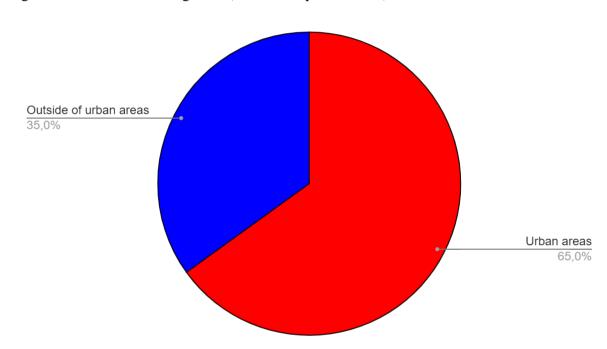
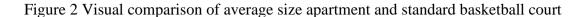
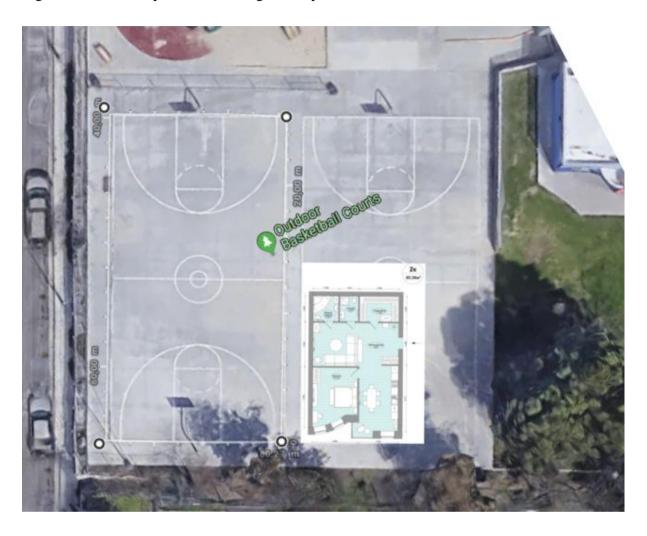


Figure 1 Amount of housing built (thousand square meters)

Of the total housing constructed, 51% was in the form of multi-apartment buildings, 48.9% in single-family houses, and 0.1% in dormitories. The total area of summer cottages and garden houses taken into operation increased by 15.3% compared to 2017. The average size of one apartment was 84.2 square meters, and the average size of one apartment visualized in relation to a standard basketball court is shown at Figure 2.





Діловий Житомир: Бізнес портал (Business Zhytomyr: Entrepreneurial portal) (2019) reports that in 2019, according to Lev Partshaladze, Deputy Minister of Regional Development, Construction and Housing, there are plans to review a number of key rules for the design of residential and high-rise buildings, cultural and leisure facilities, etc.

The rate of commissioning of housing in Ukraine in 2018 was 8.689 square meters, a decrease of 5.7% from 2017. There was an amnesty Procedure introduced that allowed for registration of illegally built housing and, consequently, a total of 498.4 thousand square meters of housing, representing 5.7% of the total, was entered into the national register of residential estate. Thus, the introduction of this procedure decreased "samostroy" (a very common illegal practice of construction of unaccounted real estate without any permits) by 11.1% - to 8.191 million square meters.

In my opinion, this amnesty is a positive development in and of itself because it alleviates some legal pressure from a lot of people. For example, if something is stolen from an illegally erected building, it is much more likely to go unreported. However, the amnesty does not address the root of the problem. People break the law because the regulations are too complex and bureaucratic and, consequently, it is simply easier "get around" them. If there was a proper channel to apply for construction of additional residential premises, people would use it. However, paying an architect (a professional that's hard to come by in small towns, for example) to map your current house, draw a version with the desired design, wait N days for the approval with a high degree of uncertainty as to whether it will proceed or not, often with dubious reasons for rejection. This is symptomatic of the strata of corruption that has generally permeated the Ukrainian business environment, testament to this is the Transparency International ranking where the Ukraine scores a poorly 126 out of 180 nations.

'Quietly' building on your own house, therefore, appears as a much better option. There is at least anecdotal evidence this is happening. I can quote from personal experience as a proxy for evidence of how these processes work. A family friend Alexei (a pseudonym) bought a house in a suburban area. He had a neighbor who wanted to extend his summer kitchen – this is a kitchen that is a separate building from the main house. The neighbor had a smaller piece of land and there was no way to fit the building in without obstructing the driveway. He asked my dad's friend to extend his kitchen building onto Alexei's piece of land. The extension was about 0.5 by 3 meters - a really small rectangle. The only way for him to legally do so was to buy that piece of land from Alexei and get some sort of building permit because the building was actually closer than 5 meters to the water communication line belonging to Alexei, who would be glad to sell the land. However, that would involve paying at least a few people fees for the paperwork and wasting at least a week walking door to door. The extension by this day is covered by a painted piece of chipboard to cover it from those prying eyes. And of course, it was all built without any transaction (except for an expensive bottle of Cognac from one neighbor to another) taking place.

World Bank (2020) ranks the Ukraine as high as 20th place in the world in dealing with construction permits. However, that does not take into account all the handshake

deals, bribes and blackmail happening behind closed doors. These factors impossible to account for, especially in the research conducted by the World Bank (2020), as it states:

'Information is collected through a questionnaire administered to experts in construction licensing, including architects, civil engineers, construction lawyers, construction firms, utility service providers and public officials who deal with building regulations, including approvals, permit issuance and inspections.'

The methodology for gathering of such data has potential flaws, as it is subject to bias from the very people who answer the questionnaires. Such experts may distort their responses about the market to suit their own purposes. In the absence of validation steps to ensure the integrity of responses, it is unlikely the World Bank approach can be accepted without question. It is commonly accepted that for corruption to exist is must operate covertly, therefore difficult to uncover as discussed further in this section. Since the time the situation with Alexei transpired, a new administrative body was introduced called 'Public Service Center' (PSC). By channeling all applications through the PSCs, the process has become more efficient and effective resulting in considerable time savings, however, this has done nothing to address the corruption problem that adversely affects developers. For example, the documents to erect a residential building include a permit from the fire department and a permit from the city hall. In theory, those permits should not be hard to obtain. The proposed building should not interfere with the city hall's 'vision' of the town and not be a death trap in case of fire. However, the fire safety inspector can refuse to approve the plan and a city hall official can refuse to provide permission with seemingly no grounds. A developer may ask for official confirmation of the refusal and go to court, but the courts are corrupt and it would take much longer to resolve the problem 'unofficially' with a bribe or two. Officially, the time to approve all the documents, reach a decision and issue a permit is 10 working days from the date of submission to the PSC. This time frame usually works if all the documents provided are in order, however, it usually takes much longer than that to get to a point where PSC is able to provide approval because obtaining the documents to submit to PSC is a lengthy process.

Such problems with obtaining documents are very hard to prove and cite, as according to Wang & Rosenau, (2001)

'International executives name corruption as one of the biggest obstacles to doing business in less developed countries. A poll of Danish businesspeople overseas revealed 74 percent had paid bribes to win contracts. The problem is widespread and can account for up to 30 percent of a project's cost. In a way, companies operating in a corruption-ridden environment are trapped in a game of Prisoner's Dilemma.' (pp. 40-41)

Transparency International (2020) provides many sources describing corruption in various institutions, however, concrete evidence is still hard to come by, especially when relatively small bribes are involved. Most exposés by journalists are, for example, about very high-ranking officials trying to broker deals with big businessmen. However, cases of small-time corruption are known to happen routinely. It is generally accepted that corruption is covert. The rogue operates 'in the cover of darkness' and the payer is disadvantaged and does not want to disclose the deal, so shining a spotlight on it becomes very difficult to do.

According to Sinitsina (2008), a construction boom began in Ukraine in the 1980s. From 1981 to 1990, 200M square meters of housing were built. Of this, 17.45M square meters were constructed in 1990 - the year before implosion of the USSR. All of this, despite a "chronic budget deficit" (referring to the severe USSR's budget deficit after the Chernobyl incident and until the USSR collapse in 1991), according to Alexashenko (2002). It might be argued that as most of the construction in the Soviet Union was financed from the state budget, this boom greatly contributed to the deficit. However, after the collapse of the USSR in 1991, the construction market, along with other industries, froze.

Reva (2018) states that the Ukrainian residential real estate market owes its appearance to the Law on Privatization adopted on June 19, 1992. The first transactions of apartments sales began to be concluded in August of that year. Pricing was chaotic, as the concept of market value did not yet exist in its modern form. Presumably, the basis of pricing was the cost of apartments that were sold during the Soviet era. Prices for apartments, as well as for the majority of more or less valuable goods, were initially indicated in US dollars. Due to hyperinflation in the early 90s, the US dollar was the only viable currency to hold money in. The US dollar remains the only currency for a lot of

financial operation. Often mortgage contracts state upfront that premiums are a subject to change depending on the USD/UAH exchange rate fluctuations Dmitrieva (2020).

Intermediaries appeared simultaneously with the conclusion of the first transactions of sale of apartments. The largest real estate agency today, called Blagovest, began work in 1993, and whilst smaller agencies opened too, there were few of them until the end of the 1990s. The work of intermediaries was outside the legal field and remains so still.

According to Reva (2018) a one-room apartment in Kiev in the early 90s started from 7,000 USD on the outskirts of the city and from 9,000 USD closer to the center. Price tags started at 3,000-4,000 USD in most of the large cities of Ukraine. Prices were gradually rising until 1998 - this was facilitated by demand from buyers of apartments and entrepreneurs who converted apartments into offices.

There was a very strong trend for buying out the communal apartments in the mid-90s. Communal apartments were apartments with many separate rooms, communal bathrooms and kitchens. They were usually inhabited by a few families. A lot of upcoming businessmen were willing to buy out all of those apartments and turn them into a luxury residential estate or office spaces.

According to Reva (2018) large international companies already worked in Ukraine in the 90s They just rented premises in reconstructed mansions and former Soviet research institutes. Development of the 1990s was mainly in reconstruction. Little new projects were built. New construction required permits and a lot of documentation. Permits were difficult to obtain because there was a lack of clear guidelines, rules and regulations made available by the relevant state authorities, leading to confusion and uncertainty with builders and state employees who were to approve the projects. The Ukrainian government at the time was still in disarray from the collapse of USSR and had little to no idea on how to setup and tune a 'legal dialogue' with businesses. The government was not designed for that since up until the late 1980s private property was not typical in the USSR.

Since the nineties most of the nation's wealth has been concentrated in the hands of oligarchs. Oligarchs mainly obtained their assets through privatization auctions that took place not long after the implosion of the USSR. Foreigners were not allowed to participate in those auctions. According to Encyclopedia Britannica (2020) many forms of

entrepreneurship in the UUSR were allowed by Gorbachev during Perestroika. That led to a lot of businessmen making their first million by buying state owned assets, such as factories, warehouses and mines for a fraction of their true value.

Throughout the nineties those businessmen were seriously pushed around by the newly emerged criminal syndicates and this all led to wealth being concentrated in hands of people who acquired it by mostly unsavory means according to Lomakina (2019).

The financial crisis of 1998 and the devaluation of hryvnia - from 1.8 to 5.5 UAH per USD - affected all segments of the real estate market. Apartment prices almost halved and there were very few sales transactions. The same situation was with rental rates in the office sector: they fell from 45-50 USD to USD 25 per square meter per month. Although it was during this period that the first office centers were commissioned and the Kvadrat shopping center began to open, the market was in a state of stagnation. Foreign investors were afraid to invest in Ukrainian development, and residential real estate was being bought mainly for personal use. Market stagnation continued until 2001, when the first modern retail and office facilities appeared and apartment prices began to rise again.

There was a trend of reformatting of the administrative and retail space of the soviet period into commercial real estate of a new type. Greengrocers and dairy shops in the city center turned into restaurants; casinos opened in hotels; bars in cellars and bomb shelters; and shops on the ground floors of residential buildings in the city center. Bathhouses and restaurants were built, and a little later a wave of construction of pharmacies and hairdressers began, on the ground floors of the apartments in Kiev. The outlook of nearly every big city in the Ukraine became unrecognizable in a matter of years.

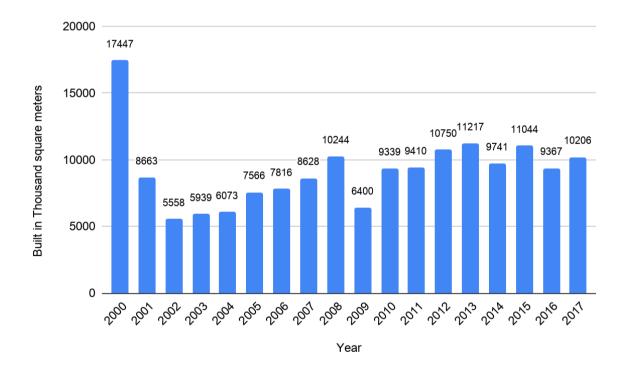
Sinitsina (2008) states that the construction growth resumed only at the beginning of 2006, when 8.6M square meters of housing was built in Ukraine. In 2007 this increased by 18.7% to 10.244M square meters. The volume of construction work performed in 2007 was estimated by Ukrstat (2007) at UAH 53.524 billion, an increase of 15.8%, with the number of apartments built increasing by 15.5%, numbering approximately 95000. One third of the total construction in the Ukraine happened in Kiev at the time.

However, the global financial crisis of 2007 forced Ukrainian developers to reconsider their plans. The volume of construction in Kiev in the first half of 2008

amounted to UAH 8.715 billion, equal to 31.9% of the market, an increase of only 3%. During this period, the market grew slightly in 12 regions, (including Crimea and Sevastopol), but in other areas, accounting for 42.9% of the construction market, it fell to a record low, with the worst situation observed in Donetsk, Dnepropetrovsk (Dnipro) and Lviv.

The shortage of residential space in Ukraine is critical with an average of only 22 square meters of living space per capita according to Sinitsina (2008). Demand for housing exists and, consequently, Sinstina (2008) claims companies will keep building, however the market just needs time to recover and find new ways to finance projects. As can be observed from Figure 3, the housing market conditions that existed in 2008 remain little changed a decade later, with less than 1% variation.

Figure 3 The total volume of housing built according to the commissioning of the total area of housing and the number of apartments built



Note: the data for years 2014-2018 do not take into account the autonomous republic of Crimea, and parts of Donetsk and Luhansk regions currently considered temporarily

occupied territories by the Russian Federation, and the separatist organizations commonly referred to as Donetsk People's Republic and Luhansk People's Republic.

Zapotosky et al. (2014) are convinced that an effective state housing policy is needed to solve the problem of the housing shortage. This should include measures aimed primarily at stimulating an increase in housing construction and, accordingly, an increase in the supply of housing on the market. These authors believe it is necessary to overcome the narrow interest of construction businesses that appears to be a desire for a continuing shortage of housing in the market. Zapotosky et al (2014) claim insignificant volumes of housing allows developers to maintain excessively high prices for housing and thereby increase builders' profitability, in a classis and simple economic supply and demand approach.

In order to make this claim credible, it would be expected that at least some evidence of oligopolistic structures exist in the construction market, but if such structures exist, no publicly available evidence can be found. Consequently, it can be argued that the claims by these authors appear to be biased, and are more likely to be based on subjective perception, or opinion, rather than hard evidence. The fact that the prices of housing in relation to salaries are still higher than in the developed economies does not necessarily indicate an oligopoly on the market. Therefore, this claim may be questionable.

Zapototsky et al. (2014) are also of the opinion that the regulatory economic mechanism of construction activity should provide an environment in which the building of insignificant volumes of housing with high prices leads to loss-making. Priority must be given to building in mass, at low prices. Zapototsky et al. (2014) claim that the next step should be support and maintenance of state programs in the field of construction, and support for mortgage lending. It is important to simplify the current bureaucratic process and ensure the transparency of government bodies that deal with housing construction issues in a particular area. Finally, it is necessary to ensure high quality legislation in the procedures for investing and receiving housing and preventing fraud in the construction market.

It should be noted that the article by Zapatosky et al (2014) seem to lean left politically, since the authors tacitly suggest that the solution of the current housing problem is the same as the solution provided by the government after the WWII and rapid

industrialization, which was: build more, quicker and cheaper. There is some sense to it. Government programs to build cheap housing will definitely solve the issue of affordability in the short to mid-term. However, Zapatosky et al (2014) do not seem to consider the effects such governmental intrusions have on the market in the long run.

Hongyu (1998) analyzes the effects of the government interventions into the housing market in China. The government in China is much bigger than in the Ukraine and, most definitely, it has more power to influence the market by developing big scale projects. However, this study is useful because it is an extreme example of a possible solution to the problem of housing affordability. It focuses on the government housing built for the poorer parts of the population, and allocated to people who meet a certain set of criteria. After a period of time apartments were allowed to be privatized, at approximately a third of their then current market price. Social housing was mainly built in urban areas, however, it did not really solve the lack of affordable housing problem. What it did do was to create a ripple effect in the province where the construction was done causing the market dynamic to change.

Many potential buyers started waiting for another house market fluctuation instead of buying property. As a result, invasive state social housing projects cause significant market fluctuations and force commercial developers to focus on suburban and rural areas. In the case of China this means less arable land, which is one of many undesirable outcomes according to Hongyu (1982).

The situation described above is a very unique example of government intervention because there are very few governments in the world capable of carrying projects with such a high degree of government control. In more democratic and economically liberal societies the efforts in this direction are likely to be limited to fiscal incentives and the state taking part in development as a minority investor into the project. In the case of the Ukrainian housing market, receiving funding from the government is almost impossible due to the dire national monetary situation and poor financial management. Hence, the only options seem to be resorting to tax breaks and other fiscal incentives, or, at best, subsidizing housing, by either rent or mortgage loans, for separate categories of people. Those measures will inevitably create some imbalances on the housing market. Rent subsidies will raise rent for the people ineligible for receiving subsidies and subprime

mortgage loans sponsored by the government will make the prices higher. Therefore, direct government intervention into the housing market in the Ukraine seems to be a very short-term solution.

Pajakkala (2018) states:

'European construction is growing well on the back of low interest rates, good economic growth and pent-up needs. Economic growth is expected to remain solid, unemployment will decrease, exports will grow, interest rates will remain low and the confidence of consumers and business and industry in the future is high. Thus, tax revenue will increase allowing e.g. increasing investment in public construction, transport networks and other infrastructure. Urbanisation, immigration and internal migration, and ageing of the population are other important factors from the viewpoint of construction.'

This author provides some numbers for specific regions and points out that the fastest growth will come from Poland, Hungary, Ireland and Portugal and the Nordic countries will have decreased their pace of construction growth by 2020, and this is already slower than the Europe's average. It is worth noting that most of the articles and sources coming from Europe are in general agreement with Pajakkala (2018). I argue that this is because Europe has been one of the most stable areas of the world and slow but sure economic growth with mild fluctuations is expected in all branches.

Ukraine is a relatively new nation. Throughout its short history it has been in the uncertain times during the early 1990s, when the collapse of USSR led to all of the economies of the former soviet republics being completely destroyed, and then the Ukraine was poorly put together in the mid to late 1990s by the former communist party nomenclature and newly formed mafia-like syndicates. Williams & Picarelli (2002) state:

'The development of organized crime in Ukraine during the 1990s was far from unique, followed a pattern similar to that in other states of the former Soviet Union. This is not surprising. State transitions shared certain common features that facilitate the expansion of organized crime: the collapse of state structures and a resulting crisis of authority and law; significant economic dislocation resulting from a profound shift in the principles of economic management and an equally abrupt

change in economic practices; and a re-orientation of relationships with the outside world, usually involving an opening of the economy and the society. Each of these dimensions was present in Ukraine, taking on its own distinct shape and giving texture to organized crime and corruption in the country.'

Atanasov (2011) states that it is not enough to just increase the role of the state in the regulation of the housing market and the construction of housing in order to solve the housing crisis. Instead, a systemic alternative to neoliberalism is necessary, where the priority of profitability is abandoned in favor of meeting public needs. As the first priority measures to provide affordable housing to the population, it is necessary to move to a widespread deployment of state housing programs, claims Atanasov (2011). The growth of housing construction will allow for the creation of large state and municipal housing stock, which should be available to all who need it in long-term rental housing. Long-term (20-30) years) programs of residential lending at low rates (0.5-1% per annum), as well as the establishment of maximum rental rates and mortgage rates, are also needed. This will necessitate measures such as the nationalization of the largest construction companies and the banking system as a whole. In practice, this can only be realized by a mass sociopolitical movement - a movement that will be able to achieve a radical reorganization of society on a socialist basis. In summary, Atanasov (2011) focuses towards long-term and radical solutions while highlighting many fallacies of the existing system as reasons for change.

It is worth noting that frowning upon the National Bank of Ukraine (NBU), when it comes to the problems of the housing market, is a common sentiment among people and the press alike. The Head of NBU is appointed by the president, and not elected, and it is commonly acknowledged that the NBU is a failed institution. Valeria Hontareva was the head of NBU, appointed in 2016 by Petro Poroshenko. As of 2019 she lives in exile in London. She made a lot of unpopular decisions that were necessary at the time, such as the liquidation of banks used by oligarchs to launder money, rather than to serve actual clients, colloquially referred to as "backpocket banks". Another very unpopular decision was the nationalization of the largest commercial bank in Ukraine - Privatbank. It was/is (unclear as of 2020) owned by Igor Kolomoisky - a very influential businessman of Jewish descent (this fact has been used to weaponized against him with little success in the past). He is commonly considered a personal enemy of both Poroshenko and, consequently, Hontareva.

In early September 2019 Hontarava was hit by a car in London and her house in one of the luxurious villages near Kyiv was lit up and burnt to the ground a few days after that, according to Pravda.UA (2019, September 17).

Public opinion indicated no sympathy for Hontanarava's accident, judging by the online comments to a video posted on Youtube (https://youtu.be/OqEUTJk1BGg). This could have been considered a classic political dogfight; however, this dogfight involved the national bank of a country with a population of over 40 million people - the institution that is (theoretically) supposed to be impartial not influenced by the political situation in the country.

A reliable national bank in any country is one of the most important, if not the most important component of any healthy and prosperous economy. The perpetual state of NBU reflects the state of Ukraine's economy very well. It is corrupt, counterproductive at times, and in some ways archaic, according to Budz (2019).

When referring to housing construction a national bank has a high degree of influence on developers. NBU's inability to keep the entire monetary system and commercial banks in check puts a strain on the housing construction market. The inability to finance projects through loans, low exchange rate stability, bureaucratic difficulties performing elementary financial operations and a near complete absence of sensible decisions on printing money and commercial bank licensing makes housing construction, an investment heavy business, a very risky venture.

Vlasenko (2016) considers the problems of privatization. It is worth noting that, most of the time, housing privatization after the USSR collapse did not have a financial component to it. In the Soviet Union, married people with one child were entitled to receive a one-bedroom apartment, two children a two-bedroom apartment, and so on. Usually, a married couple had to wait in a queue for housing to become available for them. This could take a few years, based on a number of criteria, including the region of residence and the applicants' occupation. It is also known that relatives and close friends of party nomenclature received bigger and nicer apartments in less time, by avoiding bureaucratic requirements (attaining housing quicker than the people who should have been prioritized due to their conditions such as more children, poorer heath or worse job conditions), but these accounts are nearly impossible to prove now.

After the actual housing was provided it was virtually owned by the family, but legally the state was the owner. So, in 1991 all the former soviet republics had to do something about the people living in apartments that they did not technically own. The problem was that the actual owner of most of the real estate in the country was the state - the entity that disappeared into the annals of history. So, the 'privatization' referred to is the process of document renewal.

As can be observed from this rather brief review of residential privatization by Vlasenko (2016) in Ukraine and other Warsaw pact post-socialist countries of Eastern Europe, massive and free privatization allowed the status quo on newly created housing markets whilst protecting basic rights to housing. At the national level, housing privatization in the Ukraine is almost completed, reaching a very high mark - about 96% of the housing stock is currently privately owned claims Vlasenko (2016). Firstly, hyperinflation in the first years of independence (1991-1995) and the sharp economic crises of 1998, 2009 and 2014 led to the transition of real estate price calculations into US dollars, which had a tremendous influence on the behavior of participants in this market. Secondly, despite the country's previous attempts to establish and spread cooperative relations between the co-owners of multi-apartment buildings, it was hindered by the free privatization of apartments without responsibility for joint ownership of public spaces, which created problems for servicing homes. In the USSR, maintenance was provided mostly by an organization called 'Housing Maintenance Office', commonly referred to as 'ЖЭК' ('HMO'). Usually HMOs would service 2 to 10 multi-storage housing blocks. HMOs continued to operate after the Ukraine gained independence, but began operating in a different market environment and began charging for their services. There were some minor reforms made to HMOs, but it is commonly accepted they do not provide a good level of service. Unlike the apartments themselves HMOs were not privatized as rapidly. HMOs in old buildings are often still owned by the state. HMOs in new apartment blocks are usually owned by the developer company.

Vlasenko (2016) provides a rather fresh outlook to the situation on the housing market. The main point made is that the quick privatization has left no room for an adequate evolution of general maintenance management. This lack of management mechanisms now hinders the development of the housing market in underdeveloped and highly urbanized areas. This also applies to bigger cities, but on a smaller scale.

Sych (2015) states that enterprises operating in the Ukrainian housing market face many problems that hinder their development. The most significant among them are:

- lack of financing sources for construction: significant reduction in the volume of public investment;
- reduction of investment opportunities from dominant economic entities; and
- impoverishment of a considerable part of the population;
- significant tax burdens; administrative barriers in construction;
- imperfect system of legal regulation of economic and social relations;
- and a high degree of wear and tear of current housing fund and the use of outdated, energy-consuming technologies.

The reference to energy consuming technologies is most likely referring to the so called 'Ilich's bulbs' that are old, very high-power consuming incandescent light bulbs still used in many old buildings due to their low purchasing cost.

There are ways to overcome existing problems in the construction industry, including:

- improvement of normative legal support of the construction process;
- the development of residential mortgages, lower interest rates and easier access to credit resources;
- providing tax exemptions for developers of social housing; and
- eliminating bureaucratic obstacles and shortening the timing of the approval of permit documents.

Further development of construction enterprises will be possible only if their efficiency increases due to introduction of innovations, professional development of personnel and creation of an effective system of management. This will allow both quantitative and qualitative indicators of the Ukrainian housing construction to be elevated to those of European standards.

It is worth nothing that this paper is one of very few providing a comprehensive list of problems and solutions.

Євро Рейтинг (Euro Rating) (2017) provides a very interesting perspective on the market based on crude statistical data.

The results of 2016 in the construction sector were not as bad as it could have been expected a few quarters beforehand. The results of 2015 were practically repeated in 2016 (a decrease of 1.1%). However, the fourth quarter of 2016 showed the highest quarterly growth in the period from 2105 to 2016 - almost 4% (measured over 12 months). The volumes of housing commissioned are still significantly higher than construction in years 2010-2012 that are considered successful in this regard. The Euro Rating (2017) claims that there is now some adjustment in the market after its artificial "overheating" in 2014. To recall, there was a sharp upsurge in construction activity due to a number of factors, including: the depreciation of the hryvnia; military actions in the east of the country, and the occupation of Crimea (which led to mass migration from these regions); and speculative market sentiment. In 2015-2016 the volume of new housing construction somewhat decreased, but the backlog of 2014 has remained through a pipeline effect. The introduction of a large housing complex may take several years, so many of the projects commenced at that time (2014) are being put into operation in 2017 and will continue to affect the final housing indicators for a few more years.

From 2017, the economic crisis (started by the military operations in east Ukraine - colloquially referred to as War in Donbass), and the political turmoil will continue to exert considerable pressure on the development of the housing real estate market in the future. The likely further deterioration of the state of affairs in the construction industry in the western region of Ukraine will adversely affect the general market situation. In other key areas (Kharkov, Dnepropetrovsk, Vinnitsa, Odessa and Kyiv) no clear growth trends have emerged.

It is worth noting that Euro Rating (2017) claims that the current lack of financial programs, both for potential investors (mortgages) and for developers themselves (bank financing and insurance), are a strong deterrent to development. The legal field for developers is being reformed, both in terms of simplifying the licensing procedure and increasing the responsibility of developer, however, optimization of financial programs should not be expected in the near future, as:

'Stagnation of the construction market will last until 2018. Further growth will depend on several factors: the economic situation, the introduction of mortgage programs, the improvement of the quality of construction while reducing costs. Note that those developers who can already attract the population as investors through their own loyalty programs and high-quality development will be able to lay a substantial development basis for the future.' (Euro Rating 2017)

I believe that this is one of very few articles on this topic that has both a crude statistical analysis and connections to the events of 2014-2015, whereas it is a common approach, both in academic circles and in the media, to either only address the problems caused by the war, briefly mentioning the turbulence on the housing market, or only work with crude data and economic categories.

Serdyuk (2010) explores the fluctuations on the Ukrainian housing market during the late Perestroika up until the housing bubble burst in the context of 'Raising the availability of housing' - the article's title.

Serdyuk (2010) provides a list of problems that can be summarized as: the lack of legal provisions; a confusing tax system; and corruption barriers. All of these factors make housing construction more costly and slow, hampering the natural development of the market and making it unbalanced.

Taking into account the world experience of providing certain categories of people with housing (such as the ones in Canada described by Grattan M. (2018) through the provision of state support by giving out preferential loans or targeted financial assistance in Ukraine during the crisis years, a number of legislative and regulatory documents have been developed aiming to overcome the crisis phenomena in construction and increasing the affordability of housing.

Other problems that should be solved according to Serdyuk 2010 are as follows:

- excessive administrative and corruption barriers to housing market access, land acquisition and building permits, which require considerable additional costs from construction firms;
- significant monopolization of housing markets;

- excessive use of energy heavy resources in the production of building materials and in housing maintenance;
- in Ukrainian mentality housing is the main guaranteed means of saving and increasing cash savings;
- excessive appetites of building organizations for profit, because of a number of existing risks;
- technologically low level of housing construction;
- complex and lengthy process of approval of technical documentation, which today can take up to 2.5 years; and
- tax burden, including mandatory deductions for urban infrastructure development.

Serdyuk 2010 also provides some solutions that may alleviate the problems mentioned above:

- introduction of a flexible and easy- to-pay real estate tax. At present there is no real estate tax in Ukraine, unlike the situation in most western countries; and
- simplification of the construction permits system, ensuring the functioning of a transparent market for land development and the transition to mass development of individual low-rise housing.

Serdyuk (2010) provides many curious statistics arguing for these reforms, however, despite talks about them being prominent in the media, none of these reforms have materialized. Although this article dates back to 2010 the problems described therein continue to remain to date, in that there has been no solution to these issues in the past decade in Ukraine.

Turko F. (2011) criticizes the current structure of mortgage lending in Ukraine and proposes a new alternative. She says that in modern conditions there is a need for the establishment of other financial-credit institutions in the mortgage housing market. This author argues for creating a legal structure for mortgage lending in Ukraine, since the present one is currently treated by banks in the same way as regular loans. A special role should be played by special banking institutions and credit agencies in the area of mortgage lending. In Ukraine, the regulatory authorities in the area of mortgage lending

are: the State Commission for Securities and Stock Market; the State Commission for the Regulation of Financial Markets; the NBU; the Ministry of Finance of Ukraine; the State Tax Administration of Ukraine; and other government agencies, such as the State Fund Property and the State Committee of Ukraine for Construction and Architecture.

In summary, Turko (2010) argues that the regulation of the mortgage lending is now performed by too many legal bodies and this creates a legal deadlock for legislators. In order to fix this, any legislator hoping to establish a new system will need to remove a lot of sparsely spread responsibilities from many government agencies and create a new one solely responsible for the mortgage market.

Having considered the main sources relevant to the Ukrainian housing market, the next sections focuses on the social considerations of. Housing.

3.2 Social considerations of the housing market

I will rely on published materials connected to urban studies that have a greater international focus. The discipline itself is strongly connected to the urban history that starts on the eve the industrial revolution in the early 19th century, when rapid industrialization forced people to quickly move from the countryside to cities where the new economic activities – industrial operations – were located.

Most of the articles mentioned in the previous section provide an analytical overview to the problems of residential housing construction. However, there is little connection drawn between the format of residential housing and its social viability. This section focuses on urban studies and considers the problem of residential housing through the lens of creating healthier urban environments.

Flora (2018), in 'Rural Communities: Legacy + Change', points out that in early 19th century there was a drastic change in approach to urban studies that shifted its focus from just exploring historical ramifications to developing viable ideas regarding an effective urban planning. Kevin Lynch's (1960) book 'The Image of the City' proposes a concept of 'city image':

'This book is about the look of cities, and whether this look is of any importance, and whether it can be changed. The urban landscape, among its many roles, is also something to be seen, to be remembered, and to delight in. Giving visual form to the city is a special kind of design problem, and a rather new one at that. In the course of examining this new problem, the book looks at three American cities: Boston, Jersey City, and Los Angeles. It suggests a method whereby we might begin to deal with visual form at the urban scale, and offers some first principles of city design.' (p. v-vi)

Most of the early works on this topic come from the US because, just as in every other branch of historical development, that country had to fast forward through the industrialization period and the problems of urban development posed themselves much more sharply than in European cities, that went through the process much more naturally and slowly. European cities posed a different set of problems in urban development that are considered less relevant to those of the Ukraine. In EU countries urbanization of rural communities 'took its time' because industrialization was not forced, but allowed to develop under capitalistic market structures. This was the case in the Soviet Union, that operated with a centrally controlled economy. When soviet revolutionaries took charge to the former Russian Empire, they proceeded to systematically change its centuries old fabric. People went from living in 2-5 storey revenue houses (in big cities) to living in square apartment block in less than 50 years due to Holodomor (collectivization), and a general worsening of living conditions in rural areas. This forced government to start building housing on mass.

According to Wädekin, K. 1982:

'It was only in 1963-64 that the Soviet Union for the first time after World War II contracted for big grain purchases in the United States, and only in 1972 that it became a regular buyer of increasing quantities. It is a fact that by now the Soviet Union produces 69 percent more grain than it did at that time (five-year average of 1976-80 compared to 1956-60), while its population in 1980 was only 23 percent more than in 1960. And yet it has turned from a net exporter of grain into a net importer.'

This fundamental rift in the soviet economy can only be understood in context. The Russian Empire was mostly a rural country with a few big metropolitan areas. After WWII and the Civil War between Bolsheviks and Whites, the newly formed USSR started to change. Slowly, but surely, the soviets began to make the life harder for people living in the country. There is even a unique soviet name for this, "dekulakization". Kulak is basically a richer or just wealthier than average peasant. A kulak would usually own land and hire people to work for him. Kulaks were regarded as inherently evil in by communists since private property was considered a theft under communist ideology. Krechetnikov (2010) thoroughly explains why and how kulaks (the most productive farmers) were being removed (executed or forcibly relocated to another part of the country) from society during the soviet times.

The effects of dekulakization and Collective in general were slightly mitigated by mechanization, but in the end the result was the same: the country with nearly 15% of the world's landmass turned from a net exporter to a net importer of grain. This was because as a result of dekulakization there was an internal population migration away from rural areas towards cities during the 1950s. In order to accommodate an increasing urban population, high-rise apartment buildings were constructed and are still standing today, and serve as a reminder of that period. Of course, the main goal of those hi-rise buildings was to provide housing for the people who would otherwise live in wood shacks with no running water and heating. Nowadays the main problem is to make cities nicer and the city environment more livable.

Jacobs (2016) focuses on regular and everyday things such as:

- what kinds city streets are safe and what kinds and not;
- why some city parks are marvelous and others become dens of vice and crime;
- why some slums stay slums and other slums regenerate themselves even against financial and official opposition;
- what makes downtowns shift their centers;
- what, if anything, is a city neighborhood; and
- what jobs, if any, neighborhoods in great cities do.

In short, the author is writing about how cities work in real life, because in her opinion this is the only way to learn what principles of planning and what practices in rebuilding can promote social and economic vitality in cities, and what practices and principles will help developers and city planners create better environments.

Jacobs (2016) is also convinced that there is a wistful myth that any problem of urban environment can be solved by throwing money at it - the figure is usually put at a hundred billion dollars. Presumably such measures will wipe out all of the slums in a relatively short period of time and reverse decay in the great, dull, gray belts that were yesterday's suburbs, and perhaps even solve the traffic problem.

One of the most prominent opinions voiced among urban studies scholars, that of Jan Gehl (2010), is that a healthy urban environment is impossible with buildings taller that 5-6 storeys. A more concrete analysis of New York districts in regards to this topic will be provided later in the thesis.

Gehl (2010) states:

'Events that take place in urban space or in the doors and windows on ground floors can be seen at a distance of up to 100 meters. In these situations, we can also get close up and bring all our senses to bear. From the street, we can only experience with difficulty events that take place higher up in buildings. The higher up, the more difficult it is to see. We have to move further and further back to look up, distances become greater and greater, and what we see and experience diminishes. Shouting and gesticulating don't help much. In fact, the connection between street plain and tall buildings is effectively lost after the fifth floor.'

Ghel (2010) claims that communication from tall buildings to their surroundings is correspondingly excellent from the two lower stories and feasible from the third, fourth and fifth floors. The author is convinced that, up to the fifth floor, people have the capacity to connect with the city: see and recognize people, shout and otherwise communicate and actually take part in the life of the city. Above five stories the situation changes drastically. Details cannot be seen, people on the ground can neither be recognized nor contacted. Above the fifth floor, offices and housing should logically be the province of the air-traffic authorities. He believes that they no longer belong to the city.

This is connected to the fact that an average person can tilt their head up 50-55 degrees without inflicting a painful sensation. We simply have no natural predators higher than that. Therefore, high-rise apartments are harmful to the urban environment and create social division.

Elder (2019) cites a study conducted in Denmark that tried to connect mental issues and illnesses with the abundance/absence of green parks. He analyzed the frequencies of 13 of the most widespread mental diseases in connection with growing up or living in proximity to green parks.

According to Engemann (2019):

'Our data is unique. We have had the opportunity to use a massive amount of data from Danish registers of, among other things, residential location and disease diagnoses and compare it with satellite images revealing the extent of green space surrounding each individual when growing up.'

He found that people surrounded by more green spaces are 55 per cent less likely to develop a mental disorder.

Grantr (2015) found out that children who grew up in the neighborhoods that have 21-40 per cent of their land area covered by flora had smaller proclivity towards mental illnesses. However, there was no noticeable decrease when the neighborhoods were greener than 40 per cent. This author also claimed that:

- recovery times in hospital are faster when people have a view of nature;
- the attention spans of students are better when they can interact with green and open spaces;
- levels of incivility and domestic dysfunction are lower in neighbourhoods with good access to trees and green space; and
- levels of hypertension, overweight and obesity are also lower where people can walk through verdant parklands, or relax in a quiet, leafy spot

Despite recognizing all the problems of the housing market in Ukraine, it may be regarded by some as being a bit too early to speak of social considerations of housing and

its specifications, however, legislation has been passed that, hopefully, will steer the construction industry in the right direction.

In 2017 the Ministry of Regional Development reviewed and approved 13 new State construction regulations. Malyar (2018) summarises the current legislation processes very laconically and clearly. This author states that, in late May 2018, the Ministry of Regional Policy published new state building codes in Newsletter No. 5/2018. The updated State Building Standards (SBS) regarding the planning and construction of territories, schools, streets and roads will be officially in force on 1 September 2018 in accordance with all procedures.

The new SBS "Territory Planning and Development" is the main document in the field of urban development in Ukraine. Not surprisingly, some of the rules are borrowed from previous documents, but there are many new terms, such as the concepts of blue, green and yellow lines.

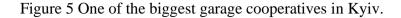
Blue lines regulate the appearance of buildings. They should create, by the Western model, a single style in the architecture in districts and neighborhoods, and preserve the integrity of the historic face of the city. That is, from now on, there are no postmodern theaters among pre-revolutionary estates, such as the theatre that was built in late 2017 in the middle of one of the oldest streets of Kyiv called "Andriyivskyy" descent (a type of street with a very steep angle). Figure 4 shows the contrast caused by lack of city planning and the consideration of preserving historical areas without their encroachment by modern buildings. From an aesthetic perspective this is a disaster and this lack of city planning also devalues, at least perceptually, the historical district.

Figure 4 The traditional buildings of the Andriyivskyy Descent street with a modern theatre in the background.



Also, SBS provides for the creation of pedestrian zones and the development zone is defined as one that should not violate the boundaries of cultural heritage. This should save not only urban landscapes but also the architectural heritage from destruction.

Furthermore, boxing garages in such residential areas are also prohibited. Boxing garages refer to the so called "garage cooperatives", that are large quantities of metal garages concentrated in one area close to a lot of residential houses where the owners of the garages live, as shown in Figure 5.





This decision is quite logical and understandable because boxing garages underutilize urban space and clog the infrastructure. However, it does not solve the issue of parking. It is common for people in Kyiv to block other cars while parking and leave their phone numbers on the windshield in case the owners of blocked cars need to leave earlier than those blocking.

The new SBS regulates the height of new developments, depending on the type of settlement and population. Thus, in villages with a population of up to one thousand people you are now only allowed to build detached type houses. Where the population of the village exceeds one thousand, then it may be possible to build apartment buildings of 4 floors maximum (up to 12 m). In urban settlements, the maximum height of a new building should not exceed 5 floors (up to 15 m). In cities with a population of up to 50 thousand - 9 floors (up to 27 m), and if the population is 50-100 thousand it is possible build a maximum of 16 floors (up to 48 m). If the population of the city is more than 100 thousand, there are no restrictions on the surface and height of the buildings. In large cities,

the surface of buildings is governed by the qualifications of designers and the savvy of developers rather than by SBS. According to old norms, population density limits were 180-450 people\Ha, but it could be increased during the development with "appropriate justification". However, neither the percentage increase in density, nor what specifically fits into the concept of "appropriate justification" were, in fact, defined in the actual text of the legislation. So, it turned out that there were real "ant nests" constructed in Ukrainian cities - the monuments to "optimizing the development of the site" and the desire of developers to "squeeze" profits to the maximum.

The new SBS specifies the maximum percentage increase in building density as 20%. That is, at all times the population density in newly designed houses could not exceed 540 people\Ha. In addition, the previously cryptic "appropriate justifications" are now clarified. Density increases are only possible if there is:

- construction of underground or terrestrial multi-level parking lots; or
- placement of kindergartens in built-in premises; or
- allocation of space for placement of objects of household infrastructure.

In addition, the new SBS introduce the concept of "maximum permissible percentage of site development." It is 45% for 4-storey buildings;40% for 5-8-storey buildings; 35% for 9-10-storey buildings; and 30% for buildings with 11 or more floors. Rest areas, playgrounds, and the like, should be located on the site free part of the site.

As can be observed, the new legislation ДБН (State Construction regulation) Б.(B)2.2-12:2018 provides for a healthier city environment, according to the aforementioned proponents of urban studies. The new legislation is barely a game changer, but it's a step into the right direction. Of course, it is impossible to change all the regulations overnight, and that's why the government is careful in introducing new legislation.

3.3 The effect of armed conflict on the economy

There are two angles to this problem: the overall effect on the economy; and the effect on the defense industry, in particular. These are discussed in this section

3.3.1 The effect of an armed conflict on the defense industry

Despite all of the arguments and theories regarding residential housing construction, the impact of the armed conflict in the eastern part of Ukraine on the economy is rarely discussed. Construction is very much affected by the general economic trends and dismissing the ongoing armed conflict while analyzing this part of the economy is impossible.

One of the positive effects of armament is actually the development of military-related companies.

Becker (2014) in his article about the effect of war on Israel's military companies gives an example of Israel Weapon Industries (IWI) that in 2005 was privatized with a workforce 50 employees, but by 2014 this has grown to 500, which 'turned out to still be insufficient' due to the high demand for its weapons. The arms can be battle-tested close to the company's headquarters in Tel-Aviv, which makes development quicker. American arms have to travel at least halfway across the world to see battle, rendering them less competitive. Moreover, Becker (2014), quoting Wainman (the chairman of the company), IWI exports about 90 percent of its production. The situation is similar for other Israeli defense companies says Becker (2014), with an export ratio of 75 percent or more being standard. These numbers suggest that the only way to cope with war for a country is by making it profitable. The Ukrainian defense industry has not yet come to the level of that of Israel

According to the Directive of the Cabinet of Ministers of the Ukraine signed by Azarov M. (prime-minister at the time) since 2011 there was a national state concern created called Ukroboronprom (an abbreviation for Ukrainian Defense Industry). More than 8000 people work on the various enterprises under its umbrella that numbers more than 160 companies. However, there is a major fallback in all this, as all of the companies working for the defense industries are state-owned.

According to the official Ukroboronprom report for the years 2014-2017 the average salary across all the companies belonging to the concern almost tripled, with the net income is up from 16 in 2014 to 94.1b UAH in 2017. According to this report, the talks about major partnerships for exports started only in late 2017, indicating that state-owned enterprises are ill-prepared to profit from its business.

Plakhuta (2018) claims that there are:

- no approved strategies for development and activities of Ukroboronprom (the Concern);
- no financial plan for 2018; the directions for the Concern's activities for the next year;
- the performance indicators of the Concern;
- no approved investment policy in relation to the assets of the Concern and investment in the assets belonging to the participants; and
- no investment plans of the Concern, including annual ones, as well as investment plans for the medium-term perspective (3-5 years).

It is known that the management mechanisms of the Concern are divided between the powers of the President and the Cabinet of Ministers. There is no central executive body responsible for the formation and implementation of the state military-industrial policy. As a result, there are uncontrolled activities of the Concern, monopoly, and the lack of regulation of the entire industry by the Government. This leads to the existence of a non-competitive environment and discrimination against Ukrainian producers, including non-state ownership, restraining foreign investment in the industry, and, consequently, inhibition of the development of the industry as a whole with corresponding losses for the State budget and damage to the country's defense capability.

State Audit Service of Ukraine (2018) review of the Concern's work for two and a half years again confirms that the management and control system in the Concern and the defense industrial complex of the country as a whole must be radically changed.

As can be noted, ongoing armed conflict in the territory of a sovereign country can be very beneficial to its economy. In case of Israel, the defense industry was largely owned by the state until recently, considering the fact that Jewish people have had some type of armed conflict ongoing ever since the 6 day war (5–10 June 1967). Therefore, it seems logical, based on this example, to assume that the defense industry in Ukraine ought to be privatized in the future.

After looking at the effect of the armed conflict in Donbass on the defense industry, it is appropriate to analyze the effect on the economy in general and the housing market in particular, since the former largely depends on the latter.

3.3.2 The overall effect on the economy and the housing market

Collier (2004) has shown that the estimated cost of a civil war is 2.2% of GDP annually due to the effect of reducing economic growth. If the average civil war lasts for seven years, at the end of the war the country's economy will be 15% below the pre-war figure.

GDP is impacted by the effects of armed conflict, with negative effects including: the destruction of production capacities; infrastructure; transport; and loss of land use capacity as a result of shelling, mines, and pollution. In addition, the departure of labor from the territory of the country, and losses among the civilian population lowers this indicator.

Even in the case of internal migration of labor resources from the zone of armed conflict to employment in a new place, the negative impact on the level of GDP is maintained due to the destruction/stop or loss of control over enterprises in the conflict zone. Thus, internal migration in the context of a conflict increases employment in certain regions, however, its negative impact on the national economy is maintained as a result of job cuts in the state through sacrifices or emigration.

The data from Table 1 indicate an apparent decrease in per capita GDP after the end of the conflict. The decline in GDP varies from 0.5% to 64.3%.

A comparative analysis of most military conflicts (interstate and civilian) in the period from 1990 to 2016 indicates an apparent decrease in per capita GDP after the end of the conflict. The decline in this indicator varies from 0.5 to 64.3%, as can be observed from Table 1.

If we narrow the list of conflicts over a period of more than five years (Burundi, Sierra Leone, Algeria), then the annual decline is in the range of 1.8-2.7%, which is close to Collier's conclusion. Therefore, it can be presumed that, due to the long duration of an armed conflict, the country's economy adapts and compensates for the losses that are characteristic of conflicts of up to two years.

Table 1: A comparative analysis of most military conflicts (interstate and civilian) in the period from 1990 to 2016

	GDP before conflict	GDP after conflict	Net change	Yearly average
Rwanda, 1990–1994	367	230	-37.32	-9.33
Burundi 1993–2005	184	144	-21.73	-1.8
DRC 997–1999	212	64	-69.81	-34.9
Ginea-Bissau, 1998–1999	388	311	-19.84	-9.9
Sierra-Leone, 1991–2002	214	150	-29.91	-2.7
Mali, 2012	739	715	-3.24	-3.2
Libya, 2011	13 400	6650	-50.37	-50.3
Serbia, 1999	2441	870	-64.35	-64.3
Tajikistan, 1992–1993	503	154	-69.38	-34.6
Algeirs, 1991–2002	2359	1743	-26.11	-2.37
Chad, 2005–2010	586	736	+15.59	+3.12
Iraq, 2003	691	637	-7.8	-7.8
Yemen, 1994	348	346	-0.57	-0.5
Georgia, 2008	2900	2446	-15.65	-15.6
Ukraine, 2014–ongoing	4030	2115	-47.5	-23.7

The dynamics of GDP per capita for Ukraine in the last years of the war correspond with this general trend. This suggests that the Ukraine's economy, per capita GDP, can show growth in the end of fiscal year 2019 if the (low) intensity of the conflict is maintained.

According to Статистика и аналитика (Analytics and Statistics) (2018), the prices for housing in USD are still declining. However, the decline is not as steep as in 2014 when the instability related to the War in Donbass started.

According to Ukrstat (2018) the prices for housing in UAH have been on the rise for the last two years, as shown in Table 2. The index illustrates how the price for housing changed in comparison to the previous year. Unfortunately, no official Ukrstat data is available for earlier periods.

Table 2 Price index of the housing market

Market	Index, %	Year
Primary market	102.1	2016
	104.4	2017
	105.1	2018
Secondary market	103.4	2016
	106.2	2017
	108.0	2018

Rising housing prices are a metric reflective of the general economic situation. In this particular case it falls in line with the rest of the data on the impact of war, as shown in Table 2.

According to data from Minfin in Ukrstat (2019) we can compare the salaries to the yearly indices of housing prices, as shown in Table 3.

Table 3 Average salary (UAH) in Ukraine and Housing price index

Year	Average salary	Average salary index	Housing price index
2016	6475	123.8	102.1
2017	8777	135.6	104.4
2018	10573	120.5	105.1
2019	10783	102.0	104.3

The overall dynamic is rather positive, but the gap between people's incomes and the housing prices is still very large.

From the data presented above it can be observed that the ongoing conflict in the eastern part of Ukraine has affected housing in the same way it affected other branches of economy - initial slowdown during the onset and gradual climb towards further stabilization.

4. Analysis and synthesis of own findings

Looking at the opinions of the authors, they seem to be pointing to a few general points.

Ukraine's housing market was largely formed by the housing constructions of the USSR. Much of the construction standards and regulations written in USSR remain embedded in current laws, because Ukrainian legislation was largely adapted from the soviet one and has never experienced a major overhaul since its inception, rather it has only been heavily revised.

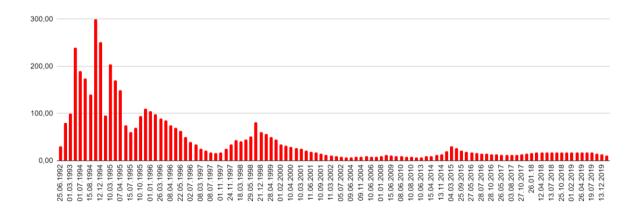
The privatization in the 1990s formed the market of today and influenced its practices. This market is highly monopolized by big developers who are not willing to give up their share of the market, whilst exercising a great deal of political influence, just like any other big industry sector. This stymies the development and implementation of any radical shift in legislation, because every new law passed is seen as a threat to the existing business practices of big companies. Consequently, their vested interests prevail while the status quo is maintained.

Small developers are not able to compete with the bigger ones because the barrier to entry is too high and the availability of funds is scarce. Moreover, they are practically powerless in courts that are easily swayed by bribes, and judges are sometimes unable to rule justly without serious consequences to their careers. Hence, the property rights protection, probably one of the most essential aspects of the neoliberalism doctrine, is very weak.

NBU, and consequently, all the commercial banks, is unable to facilitate economic growth, and an unobstructed growth of the housing market in particular.

In looking at the bank rate, it can be seen that in 2008 it was 12 percent and it had been gradually decreasing until 2013, when it soared again as a result of the 2014 Ukrainian Revolution. As of January 2020, the annual bank rate was 11 percent.

Figure 6 Historical bank rate in Ukraine



Availability of funds is crucial for any housing market in any country. The lack of financial resources hampers development and stunts growth. This can be observed by looking at any housing project. Apartments are being sold "off the plan" with developers sometimes offering free loans with, for example, 30% down payment. Apartments are as much as 30 percent cheaper during the construction. In other words, buying "off the plan" saves money. However, buying would not be a correct term because developers employ various schemes that allow buyers to pay for the apartment, or start paying for it, in installments and become official owners of the piece of real estate only after the construction is complete. For example, it is common for developers to list owners as

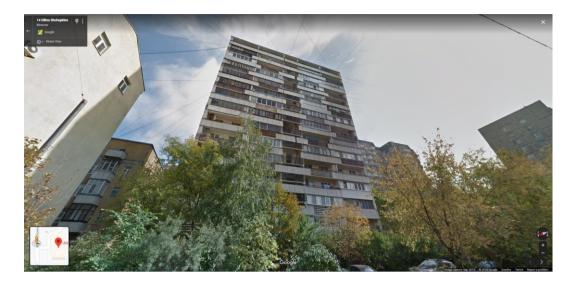
investors and an apartment as a stake, or a share, in the enterprise. If one acquires an apartment in such a way, it is not illegal to live there. There are just some restrictions related to the apartment's status, for example, you cannot get official registration there. The point is that the sheer existence of such schemes shows how maladapted the Ukrainian housing legislation is relative to the needs of the nation. Moreover, this shows that the developers are capable of providing what's effectively a mortgage lending to buyers using tax schemes and other various convoluted tactics. In the meantime, the NBU, that has all the possible power and instruments at its disposal, is still unable to facilitate an environment in which getting a mortgage loan is convenient and beneficial for buyers.

These market conditions also effectively bar small developers from entering the construction market without serious risks. Ideally, the funding is to be acquired through bank loans, or loans from bigger business entities. According to the historical perspective provided by Global Economy (2020), an interest rate of 15% for a business loan is comparatively low. Credit Agricole Bank (2020) is offering business loan at a rate of 15.22%. Borrowing money against a building project at such high interest rates may well be considered a significant barrier to entry.

Taking money from a bigger business entity in Ukraine often means subjecting oneself to the risk of a commercial takeover during one of the stages of the project, since Ukrainian courts can provide very limited protection from fraud. Budz (2019) claims that the main reasons for such legislative recourse are a lack of financing of the judicial branch and a lack of a proper screening process for judges.

There is also a problem with the overall trend of building. Most of the new projects undertaken by developers tend to follow a monotonous repetition of similar hi-rise apartment blocks, one of which can be seen at Figure 7.

Figure 7 A hi-rise apartment block building built in 1974 on Schepkina St., Moscow



Instead of taking a completely new approach a lot of developers just stick to the same paradigm of building the same cubical apartment buildings, such as those shown in Figure 8.

Figure 8 A housing complex on Mykhaila Maksymovycha St., Kyiv, built in 2017

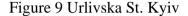


Although different projects are beginning to slowly emerge now, the general trend continues.

As discusses in Chapter 3, it is clear that hi-rise buildings, even though often profitable and affordable, rarely create favorable conditions for people to live in.

If the reforms of housing related legislation and the reform of the NBU are to be done, there is no point in encouraging the building of hi-rise apartment blocks, because in the span of a couple of decades they will have the potential to negatively influence the urban environment. This is already being witnessed in Kyiv.

We can see a typical "sleeping district" on Figure 9. Such districts are not liked by people, but the housing is usually more affordable than in the areas with lower population density.



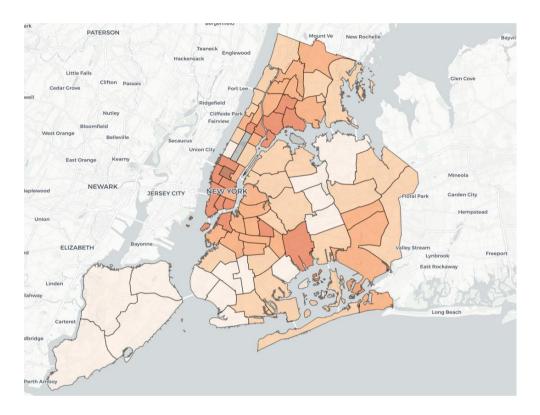


There are pros and cons to living in such conditions. Most of the time there are at least three grocery stores available within walking distance, and there are just as many if not more restaurants, cafes and bars around. The availability of goods and various services is a major positive in such districts.

However, the infrastructure of those places is rather poor. During the morning and evening rush hour, there are lines to get onto the bus most of the time, and traffic jams on main roads leading to the city center are routine. There are also sometimes lines to get into a subway, usually due to overcrowding. Parking spaces are also very difficult to come by. People either have to park a long way from their house, have to pay a lot for an overnight parking spot, or park in public spaces that are routinely overcrowded. These public parking spaces are usually poorly respected by drivers in general. It is common practice for drivers to park across driveways and leave their contact details in case someone they have blocked in needs to drive out

All of the aforementioned factors contribute to a worsening of the urban environment and these problems transcend cultures and national government, as they seem to be universally applicable. As an example, let's consider New York City. Figure 10 shows different neighborhoods of NYC and relative crime rates.

Figure 10 Map of crime in New York City neighborhoods from https://maps.nyc.gov/crime/



Let's consider the district of Canarise. with almost no building higher than 5 storeys, as shown in Figure 11. In this district, 'the serious crime rate was 8.2 serious crimes per 1,000 residents in 2018, compared to 11.3 serious crimes per 1,000 residents citywide' (NYU Furman Centre) full reference NUY Furman Centre, 2020, New York City Neighborhood Data Profiles, BK18: Flatlands/Canarsie, available at: https://furmancenter.org/neighborhoods/view/flatlands-canarsie accessed 1 May 2020

Figure 11 The aerial shot of Canarise district



Barely ten kilometers to the west there is the jurisdiction of the 75th NYPD precinct - the district of East New York, shown at Figure 12, where it can be observed that there are many hi-rise apartment blocks.

Figure 12 Aerial shot of East New York



East New York had a serious crime rate, in 2018, of 17.2 per 1,000 residents (NUY Furman Center, 2020), which is more than twice that of Canarsie. Although there are many factors that contribute to crime rates, these figures suggest that less congested living spaces create a better environment and sense of community and civic duty, thereby being less conducive to foster crime

Gehl (2010) points out a lot of flaws in modern city design, and how those flaws affect the social climate. Most of his comments can be distilled to the fact that people need a sense of community. This sense of community can only exist where people living in the vicinity are known to each other. In a typical suburban area, it is possible to get to know the neighbors on the block, because there are usually not that many. However, if we compare this to a hi-rise building where more than a hundred people could be inhabiting three or four floors, there is clearly a difference, not only in quantity and density, but in how people interact with each other. In a hi-rise building, the only places where people are likely to see each other is on the way from their front door to the elevator, the parking lot or a public transport stop. The population density in suburban areas is low and in hi-rise buildings, where it is high, people distance themselves from each other. Hi-rise buildings typically do not allow for anything other than parking lots and maybe some businesses to be built between them, whereas the lower buildings Gehl (2010) argues for, can have square parks, playgrounds and other places for people from the same building to congregate. Gehl (2010) advocates for something in between 5-6 storey buildings. And it seems logical, because that way people can at least maintain a sense of community.

Having considered the challenges of the Ukrainian housing market, the next section outlines a range of recommendations and solutions that should ameliorate the current situation and provide a basis from which longer-term reforms may be considered.

5. Recommendations

Based on my limited personal experience there seems to be a degree of secrecy that has permeated the housing market. Perhaps this is due, in part, to lack of trust in government institutions (and their processes and actions), or competitor activity (whether ethical or not). Regardless, this makes for a hostile environment for developers to work in.

The main goal of any reform should be to alleviate bureaucratic and tax burdens. Therefore, there is a number of suggested changes recommended to be carried out, as listed below.

A. The National Bank of Ukraine reforms

As of now, the NBU is a very corrupt and, at times, counterproductive institution. The reason for this is that most of the key positions in the institutions are rarely given to people based of their previous work experience, education, level of expertise and successful projects or reforms completed This needs to change.

If we compare the structure and the principles of operation of NBU to, for example, the Czech National Bank (CNB), they are not that different. However, it appears the CNB is generally one of the most respected government institutions by the Czech people, whereas the NBU seems to attract a barrage of criticism every time they announce a major decision. The solution to it appears as simple, in theory, yet it seems it will be very hard to achieve in practice. The people working at the Council of the NBU should be of exceptional moral character and qualified for the job - there does not seem to be a problem with the latter requirements, but the former one is routinely not considered.

According to article 6 of 'Act No. 6/1993 Coll., on the Czech National Bank', point 6b, the person appointed for the position in a council should be 'of integrity'. In my opinion, this point is one of the most important ones. The person in charge of the monetary system should be a person completely devoted to the good of people and be able to put the interests of people higher than their own ones, or their affiliates.

As of now, there is no way for a regular person to look through the materials attached to the decisions of a committee appointing the head of NBU. If those records are released publicly, there will be higher scrutiny by the committee throughout the process. Moreover, the materials of a thorough background check should be published along with the decision to appoint a person. Of course, all the sensitive info should be redacted, but if there is a thorough account of reasoning behind the decision and it is made accessible, the probability of it being meddled with drastically decreases. It will become much easier to hold people responsible for appointing the head of NBU accountable both in a court of public opinion and legally. Moreover, if the records are made public, they will be almost impossible to scrap or redact post-factum.

Nowadays it is common for mass media to report on the head of NBU being changed, or appointed post-factum. If the general public can be informed about the process from its very beginning, the public naturally has more effect on it. For example, there are

two equally qualified candidates (experience-wise), but one has crystal clear reputation and another one has a bad reputation, or is connected with questionable individuals/organizations. If the process of choosing between those two candidates is public, there are real implications in opting for less 'savory' candidate.

If the national bank is functional and productive, developers should have easier access to funds, in turn reducing reliance on private funding. This would mean that the barrier to market entry could be significantly lowered, and, in turn, a lower threshold means more competition and higher consumer benefits.

B. Corruption

Corruption is another major issue. As of now, the process that developers need to go through depends on a lot of officials who have power to delay the progress. People like fire safety inspectors and city hall officials (especially those who have been occupying their positions for over 10 years) can be in the business of soliciting bribes in exchange for a swift approval process. Developers have very little power over such individuals, mainly because there is no reliable way of holding them accountable. Courts either take too long to process a lawsuit or the judges in those courts are corrupt and can rule against a legitimate claim.

Although corruption was definitely worse in the late 1990s, this does not mean the situation is good now. Ukraine still ranks the most corrupt among European countries.

Corruption is a very systemic issue and its solution is beyond the scope of this research. However, the best first step would definitely be creating a better system of appointing judges to courts.

As of 2020 becoming a judge involves an exam and a lot of paperwork. The candidate's credentials should be in order (proper education and experience). However, there is a lot of nepotism involved, and the commissions in charge of judge appointment proceedings often disregard some standards completely, in favor of appointing the 'important' person. Ukrinform (2019) in their article describe numerous cases of corruption and misconduct among judges in Ukraine.

The process of appointing a judge is already rigorous enough, the problem is that its norms are not always being upheld. My solution introduces a separate entity that helps to shed light on the process and indirectly involve the general public.

I propose that all the proceedings involved in appointing a judge should be made publicly. A jury of 10 people is selected from applicants from the general population, who are not in any way connected with any political parties or government bureaucracy. This is to ensure as much transparency as possible in the process. The jurors are paid modest financial compensation for their participation. The jury gets a vote on some of the key parts of the process and is never permanent (one person can only take part in a certain amount of proceedings every year) so there is less possibility of them being paid off. The jury needs to be able to sway the main commission's decision, but not have a final say. All of this is to be streamed online. The goal of this jury and the process being public is similar to the proposition about the head of NBU appointment — be the eyes of the public. People need to be able to influence unfair decisions of committees who appoint judges and "hold their feet to the fire".

This practice is to be implemented gradually starting from the capital, Kyiv, and gradually expand to regional centers. It will not have an immediate effect, but it will certainly start to sway the system into the right direction. Ukrainian people have the capacity to affect people in power. This was demonstrated in 2004 during the Orange Revolution, or in 2014 during the Revolution of Dignity. The public watch on judges should make appointing corrupt judges more difficult and encourage legislators to implement reforms into the justice system quicker.

This kind of reform should also be accompanied by some kind of PR campaign for judges. At present judges are infamous for being corrupt. People dislike them similarly to how they dislike police. The public should be informed whenever a judge is appointed according to a new process. The means of informing have to be determined by local officials because if they got elected in the local district, they are the best at reaching people in that district. This information campaign will also help people realize they can go to courts and defend their rights because usually people do not even see court as an option in solving their problem unless it is really serious (like divorce or an inheritance claim).

C. Introducing new legislation and lifting the bureaucratic burden

The main problem with the current laws regulating housing construction is that they generically evolved from the norms and regulations that were in place in the USSR. Whilst a good deal of the legislation has been revised, through updates, it has not been reformed. Reform was never a driving force behind the housing construction legislation, probably due to oligarchs' vested interests and their covert power of influence and corruption. Consequently, most of the laws that exist now never aimed to change the housing market, but rather accommodated its natural evolution until it became the very problematic thing described in this thesis. This is not enough to change the situation.

There should be a committee established. A committee with a sole purpose of introducing legislation related to the residential housing market and construction. Its mission statement should be bettering the conditions of doing business for developers with the focus on bettering the urban environment. This means that the committee should research the housing market by commissioning surveys of both developers and urban dwellers to determine the current challenges and devise the best course for changes to existing legislation. This body is to be given the power to introduce legislation, and the laws it proposes should have a priority amongst all the other laws related to housing. That power only is enough to start the process of reformation. Nowadays most laws are introduced by Verkhovna Rada deputies. For example, if the law is about economy, it is usually introduced by a deputy with a strong team of his peers helping him to draft the first version. However, whenever the law has the potential to seriously impact one of the oligarchs, it can be introduced by someone with no background and pass because no alternative law is introduced and the oligarchs have the power to affect deputies' vote. A historical example of passing such laws is when in 2014 president Yanukovich passed antiprotest laws, colloquially referred to as 'the laws about dictatorship'. Citizen Journal (2020) provides a detailed description of those laws and how they affected Ukrainians at the time.

The committee should consist of people who have experience related to the housing industry. Realtors, former employees of construction companies, architects, economists and logistics specialists would be a great fit. The allegiance of these people is to be insured be a thorough background check and candidates unrelated to parties having a conflict of

interests with the committee should be prioritized. However, if the work of the committee is public, the risk of it being affected is relatively low because businessmen and politicians alike dislike public exposure, for fear of having their potential corrupt practices exposed.

The end result of their work should be legislation that will find a good balance between healthy city environments describes by authors like Jan Gehl, and favorable market conditions for developers and affordability for consumers. Such a comity would provide the driving force needed to kick start the reformation of Ukraine's archaic legislation.

The committee should pay a lot of attention to the social side of housing because currently there is a trend towards building hi-rise apartment blocks that may be able to increase housing affordability, but are likely to create pressure on infrastructure. If the committee is able to eliminate bureaucratic and financial barriers for new developers, by introducing better legislation, this should enable smaller developers to enter the market. That is one of the goals of these reforms. However, the committee should also ensure small time developers do not follow the general market trends of building housing that burdens infrastructure and creates social issues. It is important that new legislation encourages housing construction patterns advocated by Gehl (2010) in order to make the urban environment more sustainable and pleasant in the long run.

Townsley et al (2013) claim:

"...it was found that residential tenure appeared to have a relationship with the amount of crime recorded at the building level. Buildings with long-term residents recorded the lowest levels of crime, on average. Buildings with short-term tenancies (holiday apartments, hotels) had the next highest, and buildings with mixed tenure (both long- and short-term tenancies) recording the highest levels of crime." (p. 3)

There is very little, if any, reliable data on how many people living in big cities rent their housing as opposed to owning it. According to UNECE (2013):

'Ukraine's housing stock is 93.7% private, which is mainly a result of the privatization of public housing stock, while 3.4% of households live in private-rental housing. The low share of rental housing in Ukraine does not give the real picture of

the housing rental market in Ukraine, as the process is often done informally and outside the official tax system. According to some estimates, the housing rental market accounts for almost 13% of the total residential stock.' (p.2)

However, we can look at population projections. 100reality (2019) reports that Kyiv agglomeration is now home to 7.5 million people. Agglomeration here refers to the city of Kyiv and surrounding towns directly connected to the city and embedded into its infrastructure. According to 100reality (2019), 560 thousand people travel to work to the city of Kyiv every day. It projected that the city of Kyiv can have 5 million inhabitants by 2025. This poses a very real concern because that increase in population will be mainly due to internal migration and the ownership rate is usually very low among people moving to the capital. In turn, this means a lot of hi-rise buildings with mixed tenure, which, according to Townsley et al (2013) are most prone to having high levels of crime.

Such population surges also pose a serious challenge to any city's infrastructure. If no action is taken in next few years, Kyiv and other big cities in Ukraine, where people are actively moving to, are at risk of becoming much worse places to live in than they currently are.

6. Conclusions

The hypotheses of this thesis are:

- 1. Currently the housing market in Ukraine is unbalanced and unregulated. Most of the construction companies follow old soviet-era patterns, which are arguably neither economically, nor socially efficient; and
- 2. Introducing new legislation and improved macroeconomic regulations will help to create the environment for affordable and comfortable housing to be developed gradually and naturally under the market conditions that will be created.

The first hypothesis cannot be conclusively disproven. The legislation is definitely there, but is, at the very least, sub-optimal and lacks contributors who are able to pass laws that would be beneficial to developers. The housing market definitely lacks stability, but it turns out that in and of itself, the housing market does not create fluctuations. Rather, most

of the instability comes from either political of economic turmoil caused by external (to the housing market) factors like economic crises or political instability.

The second hypothesis cannot be neither confirmed nor disputed. Ukraine has only been independent from USSR for less than three decades and there is no research that can be conducted on the effects of regulations on the housing market because it takes very long for any measures to affect it. There is similar research from other countries, but it is not applicable to Ukraine because the underlying conditions in different nations are not easily compared.

However, there is definitely some truth to the theories about bettering urban environment. The research on that is based on real examples and social and psychological dynamics that are applicable to people in general, regardless of the system they are under.

Ukraine's housing market is a very difficult topic to research because its development, like everything else, is highly influenced by the political and economic situation in the country

Most of the problems of Ukrainian housing market are rooted in two main issues: corruption and the relationship with Russia. The current situation with oil prices, and the crisis caused by SARS CoV 2 outbreak, will significantly weaken Russia's influence on foreign nations, but, strong or weak, Russia will always remain an existential danger to an independent Ukraine. Corruption on the other hand is a systematic institutional issue. There are few examples of countries overcoming such deep-seated systemic issues, namely the group called the Asian Tigers. Those are the countries that have been showing two-digit growth almost annually over the last 50 years. During that period 'A generation that had toiled as farmers and labourers watched their grandchildren become some of the most educated people on the planet' according to the Economist (2019). It is difficult to imagine that Ukraine will be able to match the likes of South Korea or Singapore in the foreseeable future.

However, there will always be so called "islands of integrity". This term coined by Transparency International (2020) means 'Islands of integrity are public institutions that reduce corruption despite being surrounded by endemic corruption.' In Ukraine they manifest themselves in local officials like mayors of small towns or deputies of local

parliaments standing for their people and gradually pushing local businessmen to abandon unsavory and scam tactics in favor of legal practices. Sometimes private companies help government to implement those islands of stability, such as in the case with ProZorro, a hybrid electronic open source government e-procurement system. This system helped to save billions UAH on government contracts. ProZorro, among other things, made government procurement public to an extent and became a success. Its accomplishments prove that bringing attention to the problem and making a process public works in Ukraine. Consequently, my propositions about NBU reforms and judge appointment reforms include a similar level of publicity.

There is definitely a scope for more detailed research into separate problems of the housing market, including:

- Differences between regional housing markets. A huge portion of economy is centered around big cities like Kyiv, Odesa, Kharkiv, Lviv, Dnipro and their metropolitan areas. There is much more housing construction there because the property prices are much higher. This creates differences between markets in and around big cities and smaller towns. Those differences have to be studied and taken into account while designing legislation.
- Problems of 'samostroy' and small-scale developers. The share of Ukraine's shadow economy is hard to estimate, but it is believed to be significant. Illegal building erection is a part of the black economy. If corruption is to be reduced, this is an expect that warrants further investigation with a view to devising countermeasures.
- The problems of logistics in the bigger cities. Bigger cities are usually old and not planned for the current population numbers. This is a universal problem around the world. A better understanding on how to create a better built environment is necessary to create better living spaces and reduce logistics issues, such as traffic congestions and improving public transport; and
- Issues of renting and leasing housing. Most of the home owners rent out their property informally and as UNECE (2013) claims this is outside the tax system.

The issue of tax avoidance needs further investigation as this has a direct effect on government revenues.

The problems addressed in this thesis cover only some of the major issues related to the Ukrainian housing market in general. The solutions proposed in this thesis are not enough to correct the overall housing market environment, consequently, these should be seen as a portion of a much larger needed set of reforms. It will take the Ukrainian government considerable time to put into effect policies similar to those proposed in this thesis and the challenges of being able to do so are significant due to corruption and geopolitical considerations. Ukraine is trapped it what might be called the 'Russian orbit' – a set of countries that Russia uses to counter the encroachment of NATO to its borders. The re-annexation of Crimea points to a disregard for sovereignty. Donbass was not a question of 'if', but 'when' Russia would exercise its military options. The territories controlled by Russia backed separatists and the conflicts around them will be a source of political and economic instability. Under these conditions, the focus on any housing market reforms may well be instead diverted to efforts devoted to preserving the nation from a foreign takeover.

7. Summary

The purpose of this thesis was to take a deeper look into the Ukrainian housing market, understand its problems and find or synthesize possible solutions. My primary motivation for writing this paper is a period in my life when my father bought me an apartment in Kyiv and I, having no experience dealing with Ukrainian housing market bureaucracy and corruption, had to do all the paperwork to become a legal owner of the property. I failed multiple times before I succeeded and experienced a lot of issues, I researched in this paper first hand. Due to the reasons explained in the paper, obtaining primary data about the Ukrainian housing market is virtually Impossible, therefore the main sources for this thesis were theoretical works of scientists and researchers and secondary statistics. In the process of research, it was discovered that some problems undermining the development of the housing market in Ukraine are more trivial and easily solvable than it was hypothesized. However, some of the problems turned out to be deep-

seated and systemic. This thesis definitely shows that even though the problems of the Housing market in Ukraine are serious and very damaging, there are possible solutions that can be effective in solving or at least mitigating those issues.

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