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HOUSING CONSTRUCTION AS A LEADING ECONOMIC INDICATOR

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Abstract:

The construction industry, and especially residential building construction activity, represents a significant part of a country's general economy, directly affecting GDP through construction, maintenance and renovation, as well as indirectly with notarial acts and banking transactions. Indeed, in many economies, residential building activity is at the heart of economic growth and, consequently, acts as a regulator in economic development. The main purpose of this paper is to contribute to the debate on the significance of pursuing a suitable government policy on the real estate market. The research objectives are: a) to review the existing literature regarding the importance of the housing sector in the general economy; b) to "capture" the link between residential construction activity and economic development in Balkan Peninsula, pursuing supplementary research for the country of Albania; and c) to present the results of the aforementioned study in order to draw important conclusions.

Key words: Residential Building Construction; Real Estate Market; Housing Policy; Economic Growth; Balkan Countries

1. Introduction

The research community, covering a large variety of scientific fields such as urban economics, banking and public finance, is well aware of the references to Japan and Sweden in the 1990s. Both these countries experienced a housing bubble, a concept that only gained public awareness a few years ago in 2008 with the collapse of the housing sector in the United States and in Ireland. It was the recent publication of the European Systemic Risk Board (ESRB) in 2016 on "Vulnerabilities in the EU residential real estate sector"- an independent body of the European Union that issues warnings when significant systematic risks are identified which can possibly jeopardize financial stability in the medium term - that once again drew attention to the residential construction. Indeed, it invigorated the debate on the role of the housing sector in economic growth and the consequent importance of drawing up appropriate policy for the real estate market. In

order, it was thought, to pursue a suitable government policy, it is crucial to first comprehend the nature of this particular market in depth. A number of distinguishing features characterize real estate market: indivisibility; durability; heterogeneity; large (financial) size; particular information embodied in property prices; significant management costs; low transaction volume; and difficulty in asset valuing. They are listed in Table 1.

Table 1: Distinguishing Features of the Real Estate Market

Indivisibility	The commercial transaction (purchase or rent) concerns the entire property and not a part of it
Durability	Property, as a construction product, lasts for many years, while its value can depreciate over time
Heterogeneity	Property combines a number of different characteristics such as: the number of rooms; the existence or not of a garage, storehouse or garden; different views; proximity to schools, parks or hospitals; location; etc.
Large (financial) size - illiquid asset	The (financial) size of a property is directly related to its degree of flexibility, which makes it an asset which is either easy or difficult to liquidate.
Embodied (imperfect) information in price levels	The price of a property reflects a wealth of information concerning specific features of the real estate such as: the quality of construction, renovation or expansion; the age of the property; the location; the property transaction volume; the transaction costs; the bilateral negotiations for the determination of the final disposal value; etc. There is a question however as to what extent all the relevant information is mirrored in market prices
Significant management costs	This refers to transactions such as rent collection, collection of building fees, etc.
Low transaction volume	Due to the absence of an exclusive real estate transaction market equivalent to the Stock Exchange, as well as due to the time-consuming and costly procedures that the transaction itself requires.
Difficulty in property valuation-opacity	Property valuation is not carried out in a one specific way. A variety of approaches are used such as: fair value; estimations by appraisers using several methods like comparative data, profit method, hedonic prices, etc.
Rigid Supply	As a result of the scarcity of buildable land or/and time consuming acts such as the issuing of the construction permit, financing and the completion of construction (Hilbers et al.,2008)

The aforementioned characteristics compose a special context that should be taken into consideration when making decisions concerning the particular market. In this paper we highlight the importance of the real estate sector in the overall economy, focusing on the housing component via a corresponding literature review. Then drawing attention to the Balkan Peninsula, we “capture” the link between residential construction activity and economic development for five Balkan countries, engaging in supplementary research for the country of Albania. Our aim is to underline the importance of pursuing a suitable government policy on the real estate market and to highlight the contribution of residential construction itself to national government policy for prudent, balanced and sustainable economic development.

2. Literature Review

In many economies, residential building activity is at the heart of economic growth, either boosting or weakening Gross Domestic Product (GDP), linking the housing market with economic structural components such as labor mobility, consumer expenditure, inflation rates as well as with other components with important effects on economy, such as the banking sector. Furthermore, as with all markets producing goods and/or services, the housing market produces physical structures according to the dynamics of supply and demand. An effective understanding of these market forces, leads to a deeper comprehension of the mechanisms that could reform the overall economic output.

2.1. House Price Dynamics – the Forces of Supply and Demand in the Housing Market

The factors that determine housing demand can be separated into long-run and short-run factors, with respect to time. More specifically in Box 1, income, house prices, prices of other goods, mortgage interest rates, credit availability, wealth and housing taxation constitute the short-run determinants, while population size, headship rate and migration constitute the determinants of housing in the long-run (Lambiri & Rovolis, 2014, p. 136).

Box 1. The Demand Component in the Housing Market

$$H^d = f(Y, PH, PC, r, Cr, W, T, Pop, HR, MG)$$

Short Run Determinants

Long Run Determinants

where:

Y = Income

Pop = Population size

PH = House price

HR = Headship rates

PC = Price of other goods

r = Mortgage interest

Cr = Credit a.

W = Wealth

T = Housing Taxation

Source: Lambiri & Rovolis (2014), p.136

Corresponding to an increasing demand for residential buildings, supply-side forces act in the long-run to alleviate the present imbalance(Box 2), taking under consideration the existing housing stock, the depreciation rate and the new housing construction, with the latter the result of interaction among house prices, mortgage interest rates and construction costs (Lambiri & Rovolis, 2014, p.137).

Box 2. The Supply Component in the Housing Market

$$H^s = (1-\delta) H^s_{-1} + Q$$

where:

H^s_{-1} = The existing housing stock (stock 'inherited' from previous period)

δ = Depreciation rate

Q = New housing construction

with

$Q = h(PH, CC, r)$

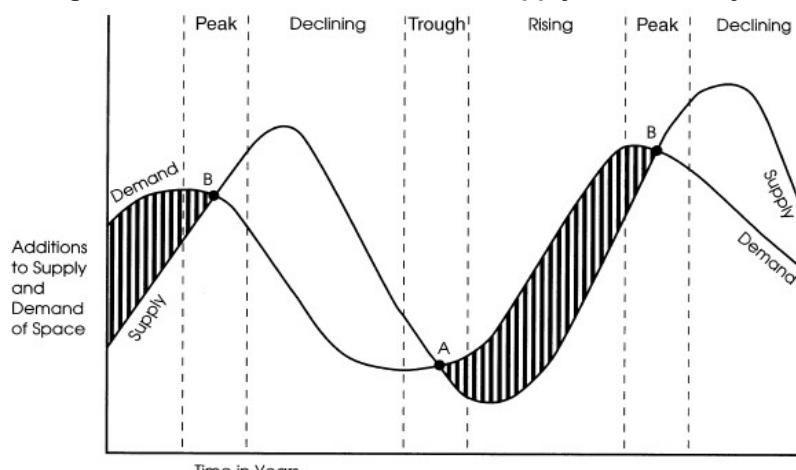
where:

CC = Construction costs including the cost of land for development

Source: Lambiri & Rovolis (2014), p.137

Demand and supply integration results in the production of new construction, the size of which depends on elasticities (Figure 1).

Figure1. Phases of the Real Estate Supply / Demand Cycle



Source: Pyhr, Roulac & Born (1999)

Demand determines the direction of price changes (increases/decreases) while supply rigidity determines the duration of such movements. In the initial stage of the cycle, where prices are shifting due to the push from demand, supply is also triggering this upward trend. A gradual reduction in price levels is only possible if sufficient stock has been built up during the period of price increase (Titman et al., 2011). In general, demand is considered to be particularly "sensitive" to the effects of the business cycle while supply

historically lags behind demand (Muller, 2002). Rigidity of supply comes as a result of the scarcity of buildable land and of time – consuming actions regarding the issue of building permits, financing and the completion of construction (Hilbers et al., 2008). On the demand side, it is important to point out the significance of income elasticities which vary for rentals and household owners (Meen, 2001) being greater than one when using aggregate data (Mayo, 1981) – denoting relocation of households to the suburbs – (Meen, 2001) and below one when using individual data (Mayo, 1981).

2.2. Labor Mobility and the Housing Market

There is strong evidence that the labor market interacts with the housing market through multiple channels. The impact of housing tenure on regional mobility strongly affects the efficiency of the labor market while subsidizing a residential asset can affect work incentives. Regional mobility is less flexible among homeowners and public housing tenants than among private renters, while ownership of a residential property contributes significantly to a person staying longer at the same workplace. Furthermore, the microenvironment of the housing market with regard to the neighborhood affects housing value as well as the labor market outcome. This is because residents of disadvantaged and distressed neighborhoods are more likely to have restricted access to high quality education and health systems, reduced access to transportation and social resources and therefore could more easily be stigmatized when applying for a job. It is obvious that disparities in housing and neighborhoods are closely linked with inequalities in the labor market (Flatau, 2012; Paddison, 2012). Loss of employment opportunities may also force households to relocate to areas with worse social characteristics (low-income, high-unemployment) because of financial constraints and limited housing opportunities (Houston, 2012).

Another channel of interaction between housing and the labor market is related to transport costs. Housing and transport costs are interrelated through the sustainable share of the household budget. Decisions concerning the choice of a less affordable house in the inner city with lower commuting costs, or spending a greater amount of money on housing with higher transport costs must be made. In this case, the trade-off the household makes depends on the type of housing, choices of transport models and distance to work and school. The final mixture of all the above decisions will influence housing price formation and constrain (or not) labor mobility (Dewita et al., 2018).

2.3. Consumer Expenditure and the Housing Market

Aggregation of wealth results in expanded consumption (Goodhart & Hofmann, 2008). The source of wealth is not so important, especially in economies with high levels of liberalization. Financial liberalization has augmented the liquidity of home equity by making its withdrawal easier (Klyuev & Mills, 2007). In this context, housing is considered to be a valuable asset that can improve or worsen the household balance sheet to a remarkable extent. A considerable rise in housing sales prices can boost economic development,

along with the purchasing power of home-buyers (Van der Heijden & Haffner, 2000 · Boelhouwer, 2000).

Potential buyers, being overconfident in their assessments of the housing market, assume that past housing prices reflect only contemporaneous demand and expect increases in the market value after recent house price increases, a prospect that leads to their failure to forecast busts after booms (Glaeser & Nathanson, 2017). This behavior could result in continued spending based on incorrect estimations of the household balance sheet in the early downward period of the real estate cycle.

Although mortgage securitization, a well-known banking “tool” for risk management used in mature financial systems, seems to improve households’ ability to smooth their consumption over time (Gerardi et al., 2010), there is a particularly strong link connecting asset prices and household borrowing. The effect of house prices on borrowing shows heterogeneity across the population, with homeowners with low credit scores and high propensity to borrow on credit cards dealing with the strongest effect (Mian & Sufi, 2010).

2.4. Inflation Rates and the Housing Market

Inflation has an uneven effect on different types of property. Miles (1996) conducting research on commercial real estate in Great Britain covering almost fifty years from 1946 to 1995, classifies different types of property according to rates of return and ranks housing returns in 3rd place, leaving land prices in 5th place and commercial properties in 6th place. This hierarchy is directly linked with the resilience of returns to inflationary pressures.

Property seems to provide a hedge against inflation, particularly in its expected component (Linmach & Ward, 1988) while these hedging characteristics are only revealed in the long-run (Barkham et al., 1996). In terms of ownership more specifically, there is some evidence that residential property provides a hedge against inflation (Stevenson, 1999).

2.5. The Banking Sector and the Housing Market

In many highly developed economies characterized by sophisticated market dynamics and a mature banking system, significant changes in real estate prices have triggered banking distress and consistent economic insecurity. Either focusing on the importance of deviations from the fundamental value of real estate when assessing bank stability (Koetter & Poghosyan, 2010) or on property price growth (Barrell et al., 2010) or on the house price index (Benbouzid, Mallick & Pilbeam, 2018), property prices are considered as early warning indicators for banking crises, necessitating their close monitoring to ensure systemic stability and therefore economic stability as well.

Credit risks in the real estate sector could generate large-scale spill-over effects on other sectors closely linked to it, such as in the construction, iron, coal, and chemical industries which represent major borrowers in one country’s finance system, reflecting a systemic influence on the whole economy (Chan et al., 2016). It is the creditworthiness of the borrowers that reinforces the willingness of banks to provide funding for real estate

purchases, which is directly affected by the development of real estate prices. Real estate prices depend on residential demand which is influenced by the mortgage supply. Due to this circular relationship, credit institutions manage to achieve high returns during the upward phase of the real estate cycle but correspondingly high losses when the market turns (Hott, 2011).

In the residential sector in particular, the existence of a link between credit and housing prices is expressed through housing wealth and collateral effects on credit demand and supply. A constant increase in housing wealth would lead to an increase in housing spending and borrowing, while the use of the asset as collateral for loans enhances the borrowing capacity of homeowners even further (Goodhart & Hofmann, 2008).

3. Policy Development in the Housing Market

“...because housing is often people’s key asset, housing creates immediate and different partisan and policy effects over tax resistance, preferences for cash in hand over social services, orientations towards inflation, and preferences for the party that best protects property or property values regardless of which party that happens to be. Housing creates durable, structural effects on politics...”

Schwartz & Seabrook (2009), p.7

Governments throughout the world have a long history of being heavily interventionist in housing markets, promoting or impeding homeownership, notably by preferential or disadvantageous treatment, through fiscal, monetary, prudential and structural policy. The variety of channels which can be used in policy to influence the housing market – prices and turnover – is illustrated in Figure 2.

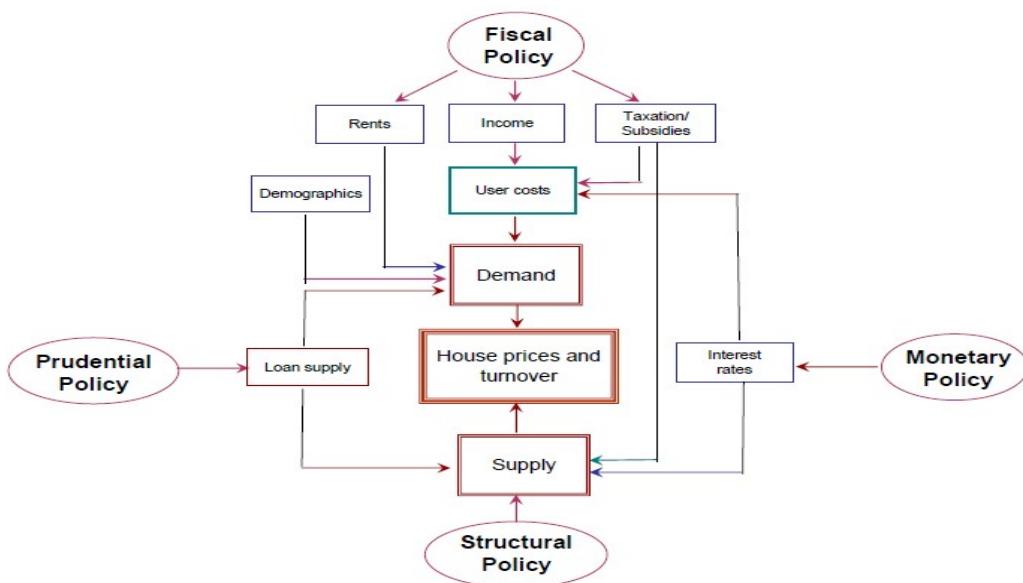
Monetary policy uses the channel of short-term interest rates to influence house prices directly as well as indirectly through its impact on long-term rates and inflationary expectations. The impact is recorded both on the demand side via user costs and on the supply side through the costs of borrowing for developers and builders (Hilbers et al., 2008).

Fiscal policy has a direct effect on rents, disposable income, taxation and subsidies, thus shaping housing prices. Taxation may include real estate taxes – reflecting the tax burden on homeowners, turnover taxes – reflecting the tax burden of transaction costs (when selling / purchasing the asset), interest deductibility – reflecting the tax treatment of home financing, and capital gains and real estate taxes – influencing net gains. All these are included in user costs which partially determine the demand for real estate. Subsidies may affect the cost of renting versus owning thus shaping the homeownership rate, and at the same time may also affect the supply of real estate through building activity. Disposable income may be affected via tax deductibility of certain costs such as interest on residential mortgage loans as well as through changes in the current income taxation (Hilbers et al., 2008). Rental costs are also influenced in the long-run through property taxation, when the supply of new units is highly elastic while demand for housing is relatively inelastic.

Structural policies embody land and zoning policies, competition policies as well as labor market policies, and affect the supply of housing through their impact on construction costs (Hilbers et al., 2008).

Prudential policies consist of the supervisory and the regulatory regime for housing finance, affecting the ultimate loan supply through their impact on cost and ease of financing homeownership (demand side) and construction (supply side). They impose specific capital requirements to lenders and set loan limits to borrowers while defining the legal framework for collateral use with regard to eviction, foreclosure, etc. (Hilbers et al., 2008).

Figure2. Key Policy Relationships



Source: Hilbers et al., (2008)

4. Residential Real Estate in the Balkan Peninsula

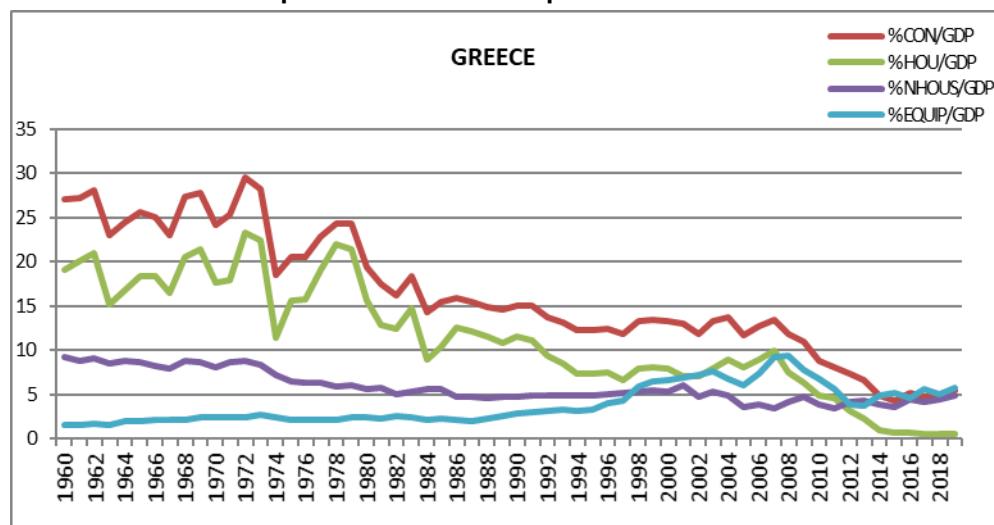
Based on the above, which highlights the importance of the residential sector in the general economy, we will now focus on the Balkan Peninsula, seeking the links between housing construction and economic development. Commenting on investments, through Gross Fixed Capital Formation in construction and equipment for a number of Balkan countries, we will try to identify the effects of the construction sector on economic activity. A further indicative analysis of one Balkan country with a rather high level of investment in housing construction (% of GDP) aims to underline the importance of this particular building activity in economic growth and to make it clear that appropriate policymaking on residential real estate could lead to a more balanced and smoother economic growth.

Due to the above we arrive at the following choice of variables for the descriptive part as well as for the econometric one: Gross Domestic Product (GDP), Gross Fixed Capital Formation: Construction (CON), Gross Fixed Capital Formation: Dwellings (HOUS), Gross Fixed Capital Formation: Non-Residential Construction (NHOUS) and Gross Fixed Capital Formation: Equipment (EQUIP). The sum of CONS and EQUIP forms Gross Fixed Capital Formation for the Total Economy, while the sum of HOUS and NHOUS forms CONS. All variables are expressed in logarithms (log). The data set is annual, and comes from the database of the European Commission for Economic and Financial Affairs. It is measured in millions of Euros at constant prices. The relatively small size of the sample for most of the countries is due to the limited availability of Gross Fixed Capital Formation data. The countries selected are: Albania; Bulgaria; Serbia; Slovenia; and Greece. The choice was based on data availability. The indicative econometric analysis regards the country of Albania, and is based on the significant level of housing building activity as a percentage of GDP, looking for a long-run and/or short-run relationship between HOUS and GDP. The econometric analysis involves estimating a Vector Error Correction Model (VECM).

4.1. Gross Fixed Capital Formation for Selected Balkan Countries

In this section we present and comment on the investments made in the construction sector and for equipment. Variables concerning Gross Fixed Capital Formation are expressed as a percentage of GDP.

Graph 1. Gross Fixed Capital Formation – Greece

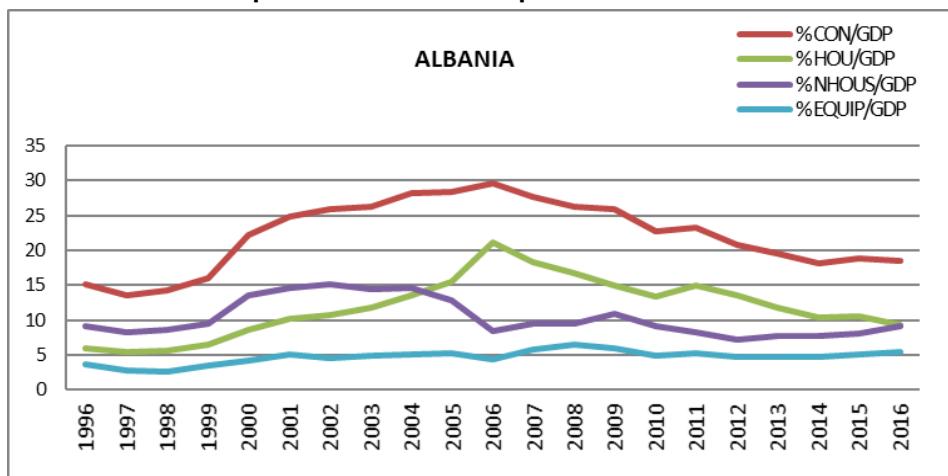


Greece (Graph 1) has dominant construction activity compared to equipment, with the first to show unambiguous signs of decline diachronically while the latter shows an upward trend that meets construction activity in recent years. By far the aggregated construction is determined by housing construction, clearly drifted by the decrease in residential building. Non-residential contraction shows a slight decline over time, with also

a weak recent increase. It is worth mentioning that the highest rate of construction to GDP was almost 30% in 1972, with housing recording over 23%. These signs denote the significant impact of residential building activity on economic growth.

In Albania (Graph 2) construction activity as a percentage of GDP is noticeably higher than that of equipment, with both of its components recording high percentages. Specifically, the highest percentage of residential activity is more than 21% in 2006, while that of non-residential building is almost 15% in 2002. The first construction component shows a decline after 2006 with the second one moving to a more balanced and upward tendency over recent years. Data indicates that the construction sector plays a pivotal role in the Albanian economy.

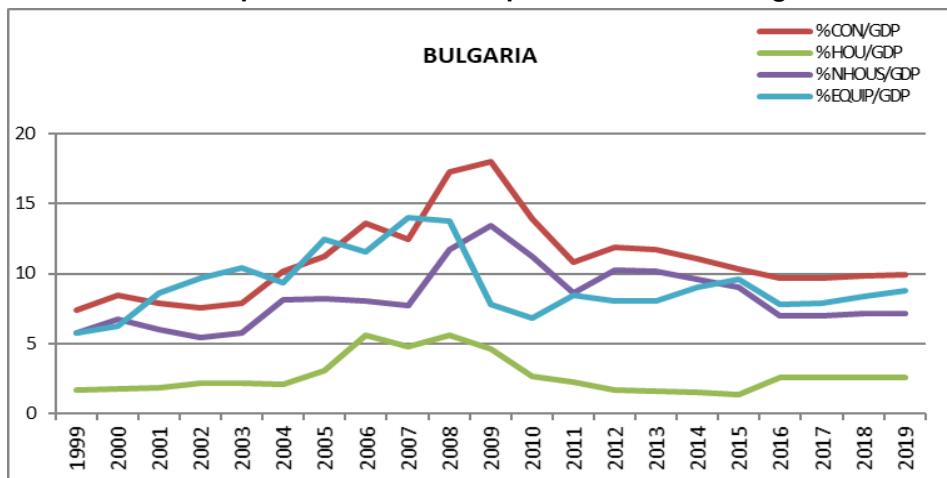
Graph 2. Gross Fixed Capital Formation – Albania



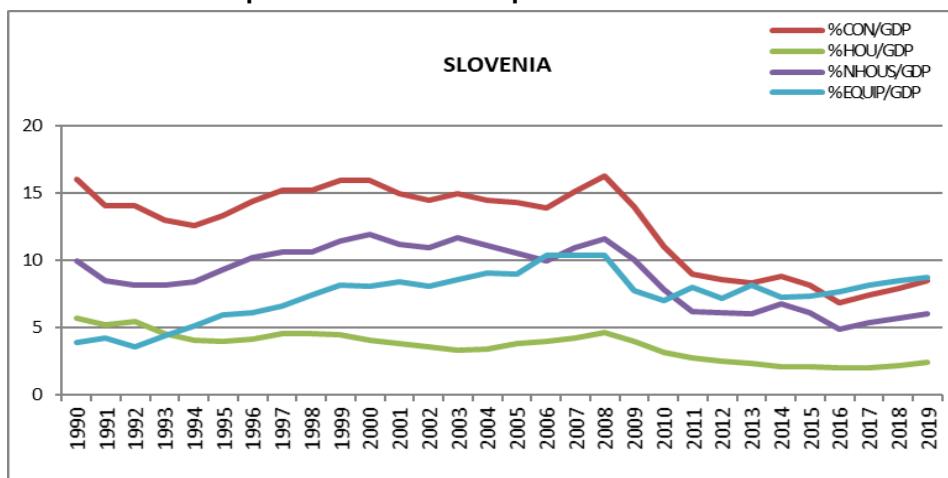
In contrast to the countries mentioned above, in Bulgaria housing records low percentages of GDP (Graph 3). The highest rate is approximately 4.8% in 2007, a score however lower than the minimum score of non-housing building activity (5.4%) and equipment (5.7%). Non-housing construction records the highest percentage of GDP in 2009 (almost 13.5%) drifting upwards total construction activity with a maximum of 18% in the same year. Equipment reaches peak levels in 2007 at approximately 14%. The above data demonstrate the predominant role of non-residential building activity and equipment to Gross Fixed Capital Formation.

Similarly, in Slovenia (Graph 4) non-residential construction substantially leads total construction activity, with housing construction recording low scores. Equipment and non-residential building reach their highest percentages in 2007 (10.4%) and 2000 (11.9%) respectively, representing the two most important components of Gross Fixed Capital Formation.

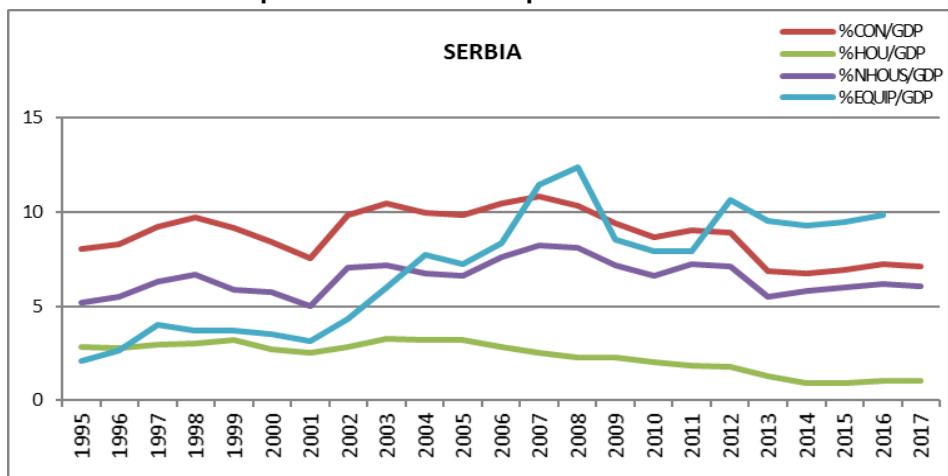
Graph 3. Gross Fixed Capital Formation – Bulgaria



Graph 4. Gross Fixed Capital Formation – Slovenia



Graph 5. Gross Fixed Capital Formation – Serbia



In Serbia (Graph 5), residential construction displays a constant decline, especially after 2003, showing a sluggish increase over the last two years. Non-residential construction is higher in 2007, exhibiting signs of recovery from 2014 to 2017. The significance of equipment to the final structure of Gross Fixed Capital Formation increases after 2001, showing a general upward trend, with more rough fluctuations however. It is indicative that from 2007-2009, and after 2012, investment in equipment is higher than construction, with 2008 its peak (12.4%). Total construction moves smother than equipment, recording the highest growth rate in 2007 (10.8%).

It is demonstrated that housing construction in Bulgaria, Slovenia and Serbia is relatively low, while non-residential construction is dominant in general construction activity, possibly indicating the significance of infrastructure for the national economy. Investment in equipment also plays an important role in the shape of Gross Fixed Capital Formation. In order to better comprehend the results, we should also take into consideration the political and economic history of these post-socialist societies, since they had a very specific legacy in both welfare and housing provision, as well as a special social and economic structure.

Although it also experienced a communist period, Albania directed a large amount of investment into the construction industry, both in housing and in non-housing building activity, displaying high levels of investments as a percentage of GDP in both sectors. Similar results, with significant levels of construction activity as a percentage of GDP, come from the Greek property market analysis.

Due to experiencing high levels of investment in housing construction (% of GDP), Albania was chosen for a further indicative analysis that aims to underline the importance of dwelling investment in economic development.

4.2 .Residential Construction and Economic Growth

Is There Any Link? The Case Study of Albania

As a preliminary step we determine the order of integration using the Augmented Dickey Fuller test. The results indicate that the series are not stationary in level but are stationary at the first – difference level, allowing the implementation of cointegration test. After choosing the optimal lag-length, we proceed to determine the existence of cointegration using the Johansen test. We estimate a Vector Error Correction Model, testing for a possible relationship both in the long-run and in the short-run. The estimated model passes the standard diagnostic tests for normality and heteroscedasticity.

According to the standard information criteria (Akaike information criteria, Schwartcz information criteria, Hannan-Quinn information criteria, final prediction error, sequential modified LR test statistic), one (1) lag is selected (Table.2).

Table 2. Selection Order Criteria

lag	LL	LR	df	p	FPE	AIC	HQIC	SBIC
0	3.13475				.003	-.1335	-.123756	-.035475
1	67.6444	129.02*	4	0.000	2.4e-06*	-7.25229*	-7.22305*	-6.95821*
2	67.8209	.35287	4	0.986	3.9e-06	-6.80245	-6.75373	-6.31233
3	70.9007	6.1597	4	0.188	4.7e-06	-6.6942	-6.626	-6.00803
4	73.4972	5.1928	4	0.268	6.4e-06	-6.52908	-6.44138	-5.64685

Implementation of Johansen test (Table. 3) shows cointegration of first order, according to trace statistics as well as to max statistics. This allows the estimation of a Vector Error Correction Model, looking for the long-run / short run behavior of the variables.

Table 3. Johansen Tests for Cointegration

5%					
maximum					
rank	parms	LL	eigenvalue	statistic	critical value
0	6	56.171281	.	30.9484	15.41
1	9	70.999328	0.79004	1.2923*	3.76
2	10	71.645477	0.06575		
5%					
maximum					
rank	parms	LL	eigenvalue	statistic	critical value
0	6	56.171281	.	29.6561	14.07
1	9	70.999328	0.79004	1.2923	3.76
2	10	71.645477	0.06575		

As shown in Table 4, there is a long-run causal effect in the GDP equation at a 1% level without however the housing component causing GDP in the short-run. Respectively, we infer causality from GDP to HOUS in the long-run at 1% level but no causality running from GDP to housing in the short-run.

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Table 4. Estimation Results for the Long-Run / Short-Run Dynamics

D_logGDP	
L_ce1	-0.0966*** (0.0153)
LD.logGDP	0.113 (0.106)
LD.logHOUS	-0.0206 (0.0306)
_cons	0.0357*** (0.00513)
D_logHOUS	

L._ce1	-0.435*** (0.117)
LD.logGDP	0.975 (0.813)
LD.logHOUS	-0.00897 (0.235)
_cons	-0.00792 (0.0394)
<i>N</i>	19

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The non-existence of short-run causality between the two components (housing and GDP) is also shown in Table 5, according to Wald tests.

Table 5. Estimation Results for the Short-Run Dynamics – Wald Tests

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( 1) [D_logGDP]LD.logHOUS = 0
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chi2( 1) = 0.45
Prob > chi2 = 0.5014
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( 1) [D_logHOUS]LD.logGDP = 0
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chi2( 1) = 1.44
Prob > chi2 = 0.2302
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5. Conclusion

The aim of this paper is to highlight the importance of the residential sector in the general economy in order to underline the significance of pursuing a suitable government policy on the real estate market to achieve prudent, balanced and sustainable economic development.

A corresponding literature review confirms the linkage between the housing market and economic structural components such as labor mobility, consumer expenditure, and the inflation rate, along with other components that have an important effect on the economy such as the banking sector. A further analysis on the supply and demand dynamics of housing construction, led to a deeper comprehension of the mechanisms shaping residential construction.

Drawing attention to Balkan Peninsula, we comment on the investments in residential and non-residential construction and equipment in the following five Balkan countries: Albania, Bulgaria, Serbia, Slovenia and Greece.

Housing construction in Bulgaria, Slovenia and Serbia is relatively low, while non-residential construction is dominant in general construction activity, possibly denoting the significance of infrastructure in the national economy, meeting current national needs. Investments in equipment are also respectable. Due to their history as post-socialist societies, with legacy of social welfare and housing provision, they formed special economic and social structures in the transition period. This information should be taken into consideration during policymaking.

On the other hand, Albania, a country which is also in a post-communist period, has directed a large amount of investment into the construction industry, both in housing and in non-housing building activity, recording high levels of investments (% of GDP) in both sectors. An analysis of the Greek property market painted a similar picture, concerning the significant levels of construction activity (% of GDP). A supplementary econometric analysis of Albania, indicative of a country with a strong link between residential construction and economic development, confirmed the long-run relationship connecting the above variables.

At this point, it is crucial to approach policymaking on real estate as a focal point for economic growth. Taking into account the distinguishing political and economic features of a country, the possible existence of a long-run and/or a short-run relationship between variables such as economic growth, construction activity and other relevant economic measures, along with the implementation of proper fiscal, monetary, prudential and structural policies, there is a high probability of achieving balanced and smooth economic growth.

For economies which direct a remarkable amount of investment to the construction sector, the appropriate policy could decelerate intense growth rates, especially during the upward phase of the business cycle and near its peak. This could limit the economic implications of a rough decline and smooth the “burst”. Furthermore a proper policy on the real estate market could possibly anticipate the creation of real estate bubbles.

For economies with anemic economic growth, the real estate market and specifically the residential sector could become the driving force for the economy due to its broad interaction with all the different sectors that relate to it directly as well as indirectly with its output (notarial acts, banking transactions, but also offering services of architects, interior decorators and many other professionals).

These direct and indirect impacts of the residential sector on the economy, justify the leading role housing construction plays in economic development.

The present study has been presented at the 11th International Conference “The Economies of the Balkan and the Eastern European Countries in the Changing world”, EBEEC 2019, that has been held in Bucharest, Romania from May 10th to 12th 2019 (<http://ebeec.teiemt.gr/>)

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