

# Does the Share of Housing Rental Sector Predate Unemployment?

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## 1. Introduction

The aim of this paper as well as other papers published on the similar topic, is to start discussion whether there exists any relationship between share of rental sector and unemployment. The basic idea to search this relationship came from Oswald<sup>1</sup>, who introduced the relationship between home ownership and unemployment. He explains that main problem of European unemployment is caused by the structural (un)balance of the housing market. The home ownership increases unemployment rate. The reason for his argumentation is the costs and risks involved in owning a home compare to renting. The less mobility of home owners cause the higher unemployment. He recommends to revive private rental housing as treatment for reducing of unemployment. His surveys show that unemployment rates had risen most quickly in the nations with the fastest growth in home ownership. In his paper he compares the statistical data from 1990s and 1960s to confirm his arguments.

There have been done some researches under the condition of Czech Republic to confirm or to refuse his postulate. The research results are not uniform. There is not clear result if the Oswald postulate work as it was confirmed in some other European countries (Switzerland, Spain) for instance.

## 2. Data and Methods

To confirm or refuse Oswald's postulate I modified the approach how to inspect the expecting relationship between home ownership and rental housing. The idea was to analyze the relationship using the combination of official statistics and published advertisements in daily press. There was investigated the daily press from 20's and 30's of 20<sup>th</sup> century in Czechoslovakia. Especially there were inspected the adverts in section Real Estates. The data come from the year 1919 to the 1937. As the main source of data was Lidove Noviny daily press decided. Lidove Noviny was during the 20's and 30's one of the most demanded daily newspapers. Its edition covered the largest Czech part of then Czechoslovakia. During the two months of work in Moravian Land Library there were carefully inspected 312 newspapers from which 108 belong to the area of interest of the research. There were all the advertisements regarding to the real estate market observed. The information were carefully to the software recorded. There were collected at around 5000 valuable information from which 2269 belong to the area of interest of research. To reduce the seasonal fluctuation, the data were as average

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<sup>1</sup> I even started to think and to develop this topic after the lesson and discussion with students of O.M.Beketov University several years ago. The topic of lesson organized by Olena Panova and Olena Dymchenko was "Housing in Czech Republic". The students were asking me why so many families in Czech Republic comparing to the situation in Ukraine rent their flats instead of own. It was interesting to search their opinions from the point of different mentality. The data presented leads them to an opinion that only in poor countries the families live in rental flats, why in rich countries the families live in their own flats, which is diametrically opposed to Oswald's conclusions.

in each year recalculated. The information concerning of the unemployment from the Czechoslovak Statistical Yearbook 1938 was taken.

The information regarding of unemployment was by the Czechoslovak statistical office properly investigated and recorded. There were recorded the data each month of the year. The indicators of unemployment were in their absolute number expressed. Unfortunately, it had not been the rate of unemployment created yet. As it was by the Czechoslovak Statistical Office announced, the methodology of calculation of unemployment people was in 1925 changed. The data was related to the all the Czechoslovakia (Czech, Moravia, Silesia, Slovakia and Ruthenia).

To determine dependencies the basic and advance statistical methods were used. To find the correlation between the real estate indicators and unemployment the Pearson correlation coefficient was used. Once the main relationship was discovered, the data were estimated by the ordinary least squares (OLS). To calculate all the dependencies of the research the excel software was used.

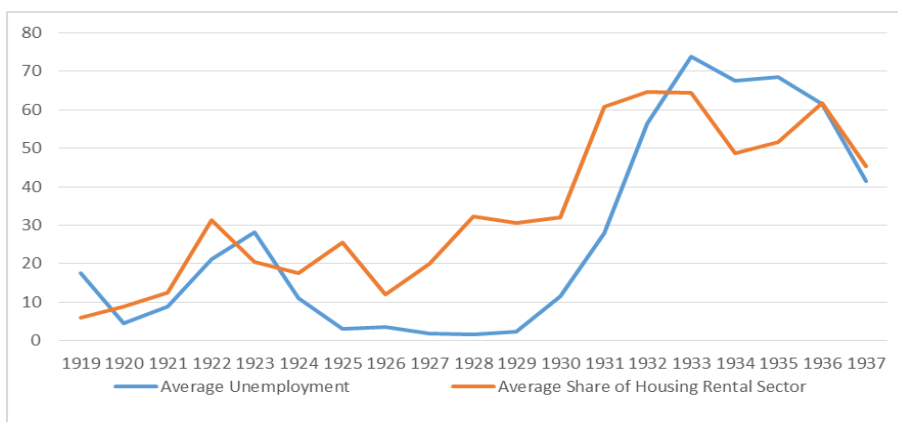
### 3. Results and Discussion

By the analyzing of advertisements in contemporary press of 20's and 30's I determined the basic segments of real estate market which is the subject to the research. The most typical real estate segments are:

1. family houses ready for sell,
2. flats ready for rent,
3. residential homes ready for sale,
4. farmhouses ready for sale.

To confirm Oswald's postulate I was searching especially housing rental sector, where I expected to be sensitive for unemployment. The development of the average share of rental sector and average unemployment is in figure 1 shown. No matter what the relationship can be visually indicated in figure 1, the relationship was confirmed even by the Pearson correlation analysis (see the table 1). The statistical analyses confirmed the relationship between unemployment and share of rental sector.

Figure 1: Housing Rental Sector and Unemployment



Source: own processing

The results show another interesting situation. The correlation was inspected from the point of time shifts. The range of time period is four years. It starts with comparison of unemployment two years before the indicated share of rental sector and ends with comparison of unemployment two years after indicated share of rental sector.

Table 1: Time Shifts

Unempl	T-2.0	T-1.5	T-1.0	T-0.5	T0.0	T+0.5	T+1.0	T+1.5	T+2.0
Rentals	T0.0	T0.0	T0.0	T0.0	T0.0	T0.0	T0.0	T0.0	T0.0
P. corr.	0,419	0,461	0,563	0,638	0,750	0,769	0,805***	0,790	0,787

Source: own processing Notes: \*\*\*, \*\* and \* symbols imply statistical significance at the level of 1%, 5% and 10% respectively.

The obtained results show the most significant positive correlation between the segment of flats for rent and unemployment in time period T + 1.0 (0,805). In order to deeply investigate the existence of relationship, a dynamic econometric analysis was performed. There was by OLS model inspected the variables for given level and time period of unemployment where the Pearson correlation coefficient was the most significant. It is shown the most significant relationship was indicated at the level of 1% of statistical significance in time period T+1.0 year (see table 1, column 8). The dependency of the relationship was justified from 64%.

**3.1 Explanation of relationship**

The detected relationship between time shift unemployment and share of rental segment leads me to the deeper explanation of tenant 's and landlord 's behavior. Both of sides of tenant agreement are highly motivated by the law of the profit. Both of them want to reach the highest profit from agreement. If the tenants do not expect they will find in short time new comparable job, they have to move from their flats. Whereas they do not want to raise a losses from staying in the flats they will start to negotiate with the landlords to finish the rental agreement. Their main motivation is to finish the lease agreement just in time they finish their job, because only the situation ensure the minimization of tenant's losses. That is why the tenant is motivated to inform the landlord in advance that he wants to move from the rental flat. The notice period plays an important role in the decision making. If the tenant is informed by employer in advance the employment contract terminates, the tenant can start to negotiate immediately with the landlord to finish the lease agreement. It is typical, the law says, the notice period for the lease and job contract is 3 months.

On the other side, the landlord is highly motivated by the law of profit as well. If the landlord is informed in advance, he must respect the notice period agreed in lease contract as well as tenant. That seems to be the key factor for the further analysis. The landlord wants to eliminate any profit loss possibility the flat will stay vacant in future. Especially in condition of general expectation of unemployment rise. In such condition landlord will start to seek new tenant immediately, no matter the flat is still occupied. The occupied flat, is announced to be vacant in advert in newspapers, which increase the amount of all announcements in rental segment and can be used as indicator for future unemployment in result.

Such behaviour of landlords to announce the flat will be vacant, allow to indicate the possible rise of unemployment in advance. I expect, if there will be identified the rise of vacant flat compare to other real estates for sale, in next period will rise the unemployment.

#### **4. Conclusion**

The results of research confirm the possible relationship between rental sector and future level of unemployment. The findings confirm, that the rental sector is highly sensitive to the level of unemployment. The main likely reason for the assumption consist in behavior of tenants and landlords. Both the groups watch their own interests to reach as higher benefit from lease agreement as they can. The search shows the detection of unemployment can be in sufficient advance done.

The main result of research is the verification of assumption, that the share of the rental sector determines the future level of unemployment.

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