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## CONSUMER MOODS AS MAIN FACTOR AFFECTING DEVELOPMENT OF UKRAINIAN AUTOMOTIVE MARKET IN 2009-2010

**Resume** *The relevance of the material stated in article, is caused by the situation in the Ukrainian automotive market in 2009, when its decrease stated 77%. Usage of new methods for analysis and forecast of car sales development will provide fundamental realizing of main factors affecting it, and enables understanding of problem in certain companies planning and also governmental regulatory policy in this sphere. Modern methods of forecasting, described in the article, define directions for strategic planning in automotive companies.*

**Keywords:** automotive market, consumer moods, econometric forecasting.

**Аннотация** *Актуальность материала, изложенного в статье, обусловлена ситуацией, которая сложилась в автомобильном рынке Украины в 2009 году, когда его падение составляло 77%. Применения новых методов анализа и прогнозирования развития продаж авто в Украине обеспечит фундаментальное видение основных факторов, которые влияют на него, и позволит более глубоко понять проблему планирования деятельности отдельных предприятий, а также политику государственного регулирования этой сферы. Современные методы прогнозирования, рассмотренные в статье, определяют направления стратегического планирования для предприятий автомобильной сферы.*

**Ключевые слова:** автомобильный рынок, потребительские настроения, эконометрическое прогнозирование.

**Анотація** *Актуальність матеріалу, викладеного у статті, обумовлена ситуацією, що склалася в автомобільному ринку України у 2009 році, коли його падіння становило 77%. Застосування нових методів аналізу та прогнозування розвитку продажів авто в Україні забезпечить фундаментальне бачення основних факторів, що впливають на нього, і дозволить більш глибоко зрозуміти проблему планування діяльності окремих підприємств, а також політику державного регулювання цієї сфери. Новітні методи прогнозування, розглянуті у статті, визначають напрями стратегічного планування для підприємств автомобільної сфери.*

**Ключові слова:** автомобільний ринок, споживчі настрої, економічне прогнозування.

**Relevance of the problem.** Forecast of dependence between income and consumption is made for the period of economic stability. Under unstable and uncertain conditions forecast er-

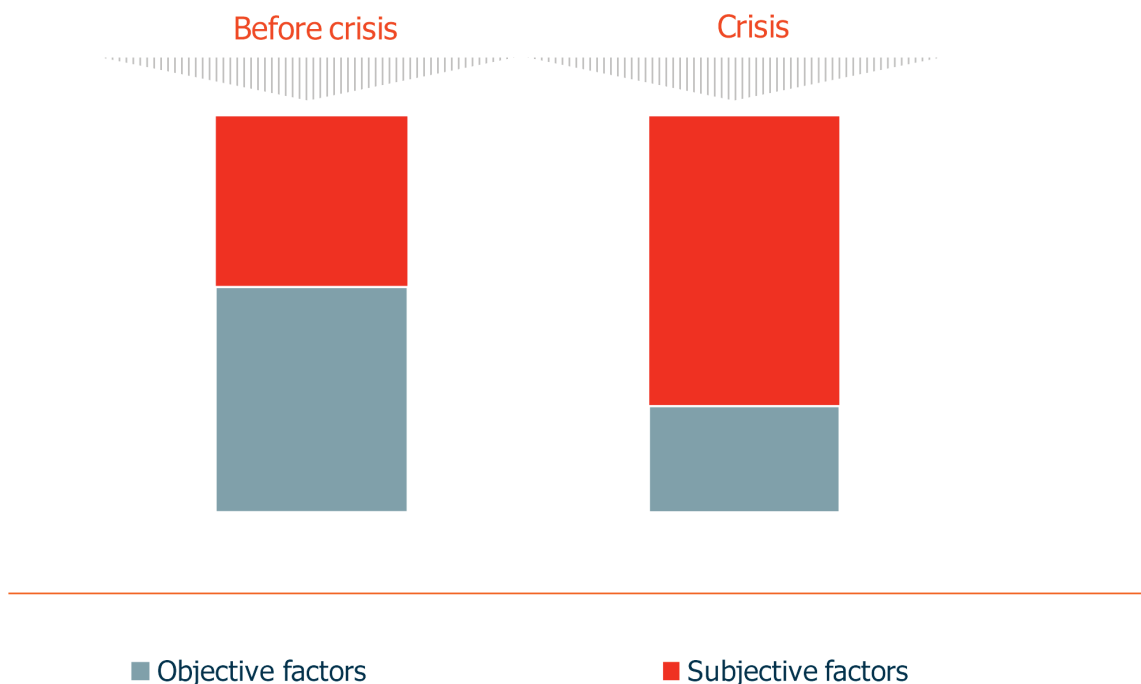
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rors increase, because the objective factors change as well as reaction on them. Simultaneously, when consumers do not have experience of adaptation to current situation, their actions become promiscuous and chaotic, which increases importance of subjective factors (consumer moods and expectations). This means that consumer makes his/her choice according to his/her own evaluation and expectations for the future.

**Main aim of the article.** The author has created a model to forecast the development of Ukrainian car market considering objective and subjective factors. This model showed that the change of objective indicators in the beginning of 2009 defined only 30% in the fall of car market, while another 40% were caused by subjective factors.

Usually, the majority of car market representatives analyzes tendencies and builds forecasts about sales of new cars based on objective indicators. One of the most important indicators in Ukraine is availability of credits. However, even during the times of largest credit expansion, the share of car bought on credit equaled 40% (according to Autoconsulting). The other 60% of cars were bought by Ukrainians with their own money.

As the analyses shows, subjective feelings of people have huge importance, especially during the uncertain period (figure 1). First of all, these are consumer moods, which show subjective evaluation of current situation and expectation for the future.



**Figure 1.** Relative influence rate of factors on new car sales.

Source: calculations by author.

For illustration of consumer moods importance increase, let's examine two opposite periods of Ukrainian car market development:

- The period of intensive growth: 2007 – first half of 2008;
- The crisis, sharp decrease in sales of new cars: beginning of 2009.

**In 2007, car market grew due to car crediting and optimism of Ukrainian consumers**

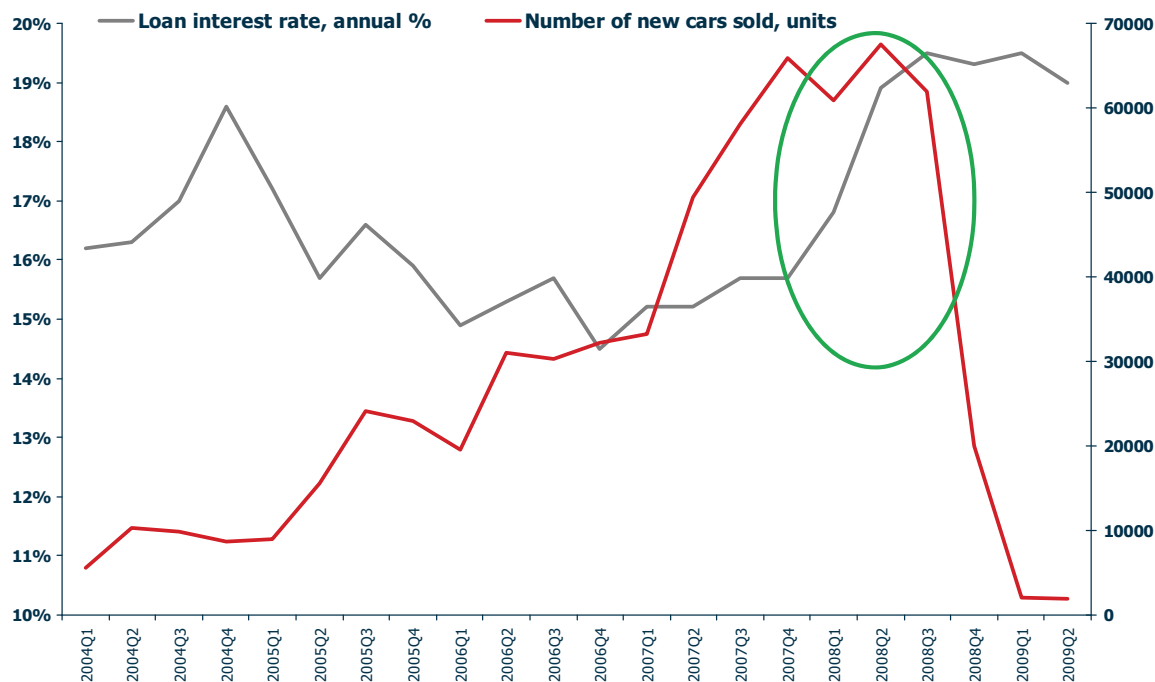
Intensive development of Ukrainian car market during 2007 and beginning of 2008 are explained, to large extent, by incomes of people and availability of car crediting. The incomes of Ukrainian were permanently growing, and the share of cars bought in credit reached its peak, 43%.

On the other hand, as our calculations show, the other important factor was that general subjective expectations of Ukrainians were optimistic. During this period, Ukrainian consumers optimistically evaluated their own well-being and economic situation in the country. This was exactly one of the reasons, which facilitated willingness to take the credits.

### Consumer moods restrain development of car market in 2009

In the first quarter of 2009 occurred a 70% fall of new cars sales in comparison with the first quarter of 2008. In addition, the share of credits taken for cars decreased from 40% in the first quarter of 2008 (61 000 cars) to 5% in the first quarter of 2009 (2 500 cars). It's worth mentioning, that among those 40% of people, who took a credit for a car in 2008, were people who could afford to buy a car by their own money. Consequently, significant decrease in crediting could explain the fall of car market only by 58 500 cars, which is 38%.

Usually, growth of credit rate is followed by stiffening of credit taking. In Ukraine, the rate begin increasing significantly in the second quarter of 2008 – from 15,5% to almost 20% (figure 2), so, the condition of taking the credit became harder. Nevertheless, the sales of new cars remained stable.



**Figure 2.** Conditions of car crediting and sales of new cars

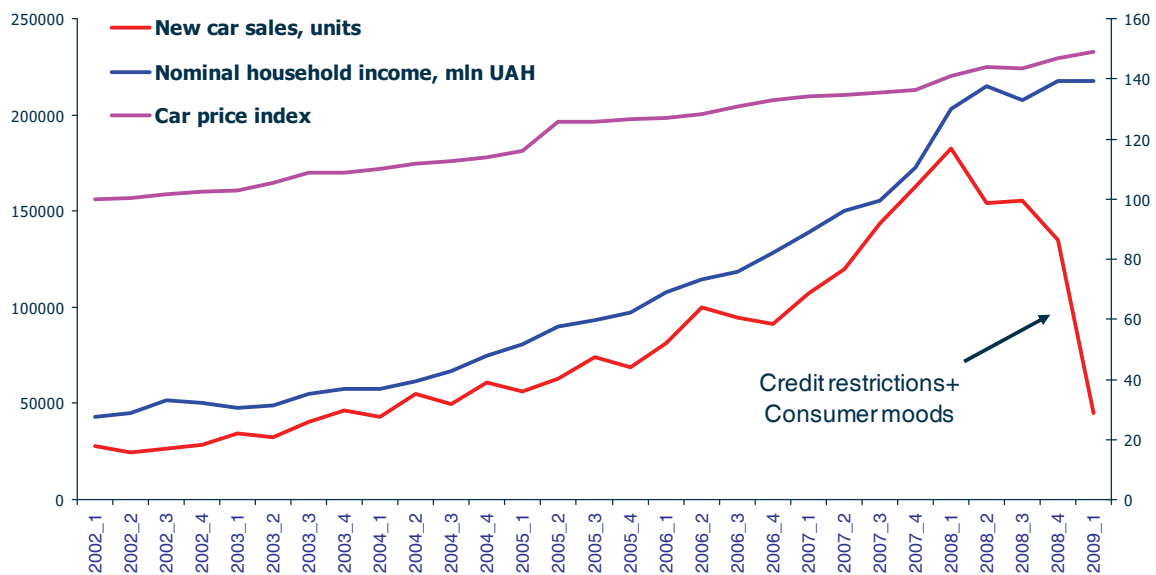
Source: sales of credited cars – Autoconsulting, credit rates – National Bank

So, this is one more effect that builds consumer moods. The people were optimistic and were continuing taking credits for buying cars even under stiffening conditions. Only in the fourth quarter of 2008, when the consumer moods reached the lowest margin on global level, the sizes of credited cars failed almost to zero. At the same time, credit rate remained the same as in the second quarter of 2008. But almost full stop in car crediting occurred only in the first quarter of 2009.

The other objective factor – income of Ukrainians – increased nominally in the first quarter of 2009 in comparison with the first quarter of 2008 by 4,8% (according to National Statistics Committee) (figure 3).

Significant influence had devaluation of hryvnya, however, in the beginning of 2009 the majority of market players didn't raise the prices; conversely, there was huge discount for previous years' cars, which in big amount were waiting in stores of car dealers. This is also shown by car

price index, which is calculated by National Statistics Committee. In the first quarter of 2009, it increased only by 24% in comparison with the first quarter of 2008 (figure 3).

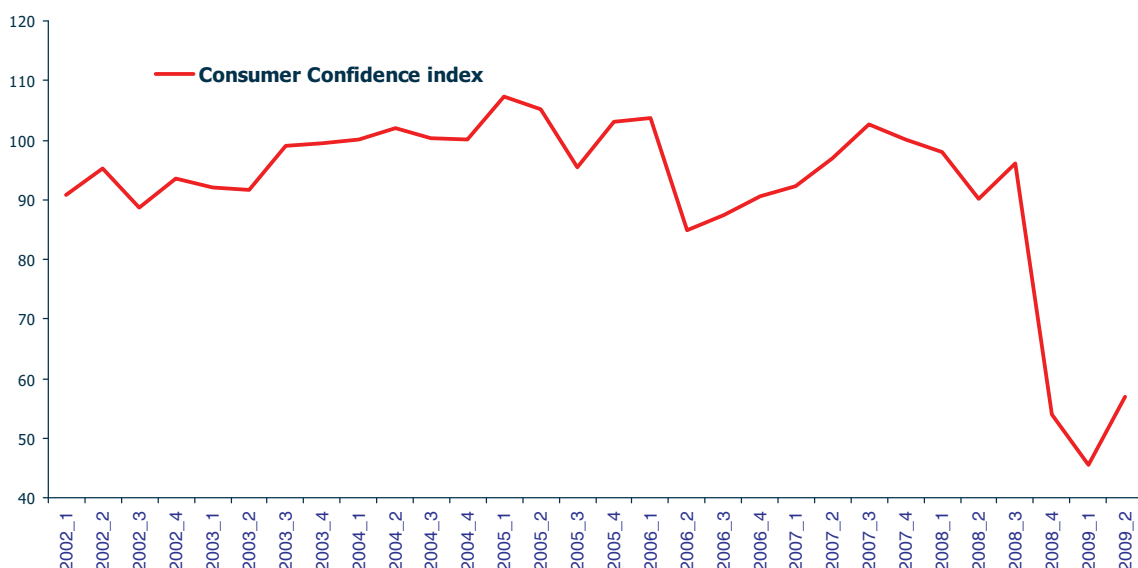


**Figure 3.** Connection of market dynamics with “objective” indicators

Sources: sales of new cars – Autoconsulting, nominal household’s income, car price index – State Statistics Committee

Consequently, the question is if objective factors, which are credits and devaluation of hryvnya, were the only ones which caused the fall of Ukrainian market.

For Ukrainian consumer a car is a “strategic purchase,” which needs significant financial investments for buying itself, as well as covering of service maintenance, fuel, and insurance costs. That is the reason why people, especially during the crisis, are driven by their subjective expectations.



**Figure 4.** Consumer Confidence index

Source: ICPS

In the beginning of 2009, consumer moods and the evaluation of the future economic situation in the country reaches the lowest level during the last 10 years (figure 4). Despite lots of

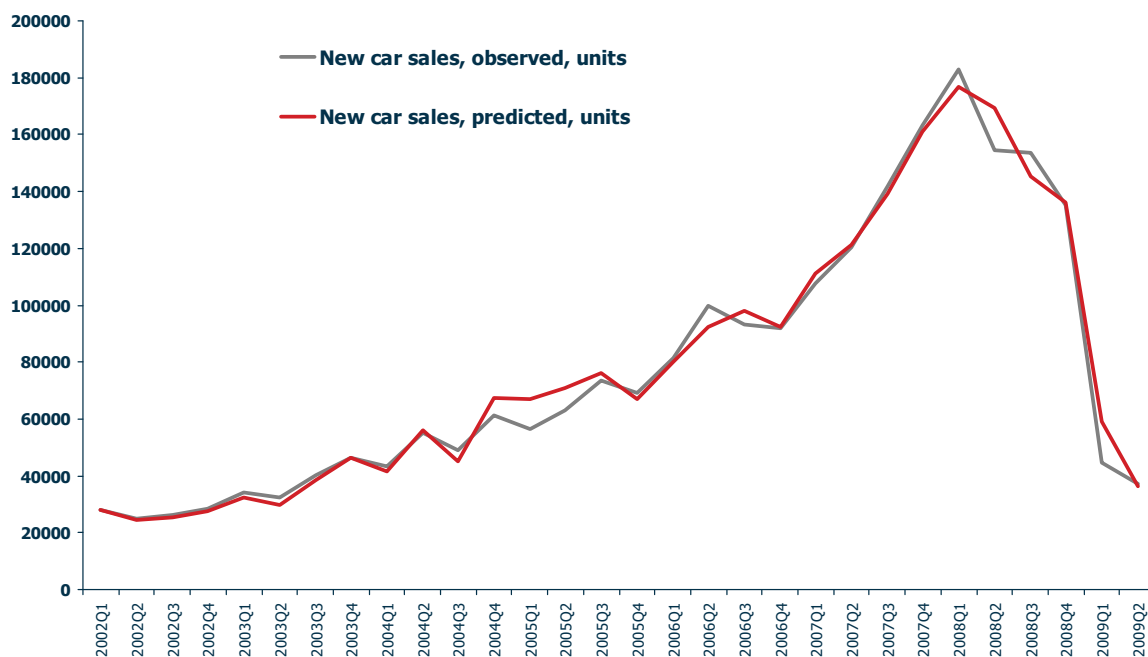
advantageous offers from car dealers, people don't hurry to buy cars. We consider that Ukrainians are restrained by subjective evaluation, uncertainty about their future ability to repay, and unfavorable situation in the country.

In June-July of 2009, car dealers started offering credit programs to people. However, it doesn't cause significant raise of sales. 16% of growth in July comparing to June is rather explained by the season changes. The proof for that could also be the 77% fall of new cars' sales in July 2009 comparing to July 2008.

Consequently, we can conclude that negative expectations of Ukrainian consumers restrain them not only from buying a car for their own money, but also from taking the credits, as long as they aren't sure in their ability to pay this credit off.

To prove our hypothesis about importance of consumer moods for car market, we analyzed connection between main objective (incomes, availability of credits, car prices, dollar rate, etc.) and subjective factors (consumer moods) in sales of new cars. For example, modeling a situation where consumer moods in the first quarter of 2009 remain the same as in the third quarter of 2008. Taking into consideration objective factors, the sales should reach approximately 100 000 of new cars. This could cause 30% fall. From our point of view, the other 40% were resulted by consumer moods.

As our research has shown, only consideration of both objective and subjective factors could most accurately explain consumer behavior (figure 5).



**Figure 5.** Real and modeled data on new car sales.

Source: real data on sales – Autoconsulting, calculations are made by the author.

The model showed as a result new car sales at the level of 171 000 units in 2009, the real result was 169500 units. This consequents an error of 3%, that it an extremely nice result and proves almost perfect quality of the model. The result of sales for 2010 is about 150 000 units.

Understanding the Ukrainian automotive market will be stagnating further, we got to the conclusion that sales might reach the level of 2008 only in 2014. Having analyzed the situation through segments we can say which ones will be the most prosperous and perspective. Actually they are more mass segments B, C, D, Compact SUV, Middle SUV (which have become

very popular recently). We can conclude which automotive companies will be more interested in Ukrainian market and how should they plan their activity throughout the nearest 5 years. Among such companies are:

- Nissan Motor
- Renault
- Toyota Motor
- Honda Motor
- Mitsubishi
- Fiat
- General Motors
- Ford
- Volkswagen
- Suzuki.

All these companies are actually importing cars to Ukraine, so the sales are object to import and excise taxes. In our opinion 10% import tax existing at the moment should be reduced to at least 5%. That enables a little recovery of sales, and due to economy of scale Ukrainian budget income will get more money. Also understanding very sensitive price elasticity on cars of mass segment, we can propose increasing excise tax and other payments only for expensive cars costing more than 50 000 USD. This segment of cars is less sensitive for price and its growth will not affect sales significantly. Consequently Ukrainian government will get additional income.

As a conclusion to all research conducted, we can draw out the following points:

- 1) forecast of dependence between income and consumption is made for the period of economic stability;
- 2) only consideration of both objective and subjective factors could most accurately explain dynamics of automotive market development;
- 3) credit restrictions are very significant for Ukrainian consumer, though they are not the initial ones;
- 4) during 2010 automotive market in Ukraine will continue to stagnate, it might reach the level of 2008 only in 2014;
- 5) mass segment car producers have higher potential for development in Ukraine during nearest 5 years;
- 6) Decrease of import and excise taxes for medium segment cars and increase for premium segment (price more than 50 000 USD) will lead to additional income for Ukrainian budget.

#### **List of used sources**

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