

O.O. Grankin (*Kharkiv Regional Non-Governmental Organization  
"Student Scientific Business Centre", Ukraine*)

## TRENDS AND PROSPECTS IN DEVELOPMENT OF RUBBER PNEUMATIC TYRES MARKET IN UKRAINE

*The article analyzes the functioning of the rubber pneumatic tyres market in Ukraine. Market capacity is defined as a potential volume of goods realization within a set period of time at the set level of prices. On the basis of the given data it has been determined that the purchasing capacity of Ukraine's population, influenced by GDP, is gradually growing decreasing the market capacity. Thus, it is economically expedient to establish a representative office of the transnational corporation "Yokohama" in Ukraine for further cooperation that would provide an opportunity to fill the state budget by means of greater tax revenues.*

*Keywords: production; official representative office of a transnational corporation; market capacity; market volume; export and import of rubber pneumatic tyres; commodity turnover; purchasing capacity.*

О.О. Гранкін (*Харківська обласна громадська організація  
«Студентський науковий бізнес-центр», Україна*)

## ТЕНДЕНЦІ І ПЕРСПЕКТИВИ РОЗВИТКУ РИНКУ ГУМОВИХ ПНЕВМАТИЧНИХ ШИН В УКРАЇНІ

*У статті проаналізовано діяльність ринку гумових пневматичних шин в Україні. Місткість ринку визначено як можливий об'єм реалізації товару в заданий відрізок часу за заданого рівня цін. На основі цих даних було визначено, що купівельна спроможність населення України, на яку впливає ВВП, поступово зростає, зменшуючи місткість ринку. Таким чином, економічно доцільним є відкриття представництва ТНК "Yokohama" в Україні з подальшим співробітництвом, що надає можливість поповнювати державний бюджет за рахунок сплати більшого об'єму податків.*

*Ключові слова: виробництво, офіційне представництво ТНК, місткість ринку, об'єм ринку, експорт та імпорт гумових пневматичних шин, товарообіг, купівельна спроможність.*

*Форм. 1. Рис. 1. Літ. 15.*

A.A. Grankin (*Харьковская областная общественная организация  
«Студенческий научный бизнес-центр», Украина*)

## ТЕНДЕНЦИИ И ПЕРСПЕКТИВЫ РАЗВИТИЯ РЫНКА РЕЗИНОВЫХ ПНЕВМАТИЧЕСКИХ ШИН В УКРАИНЕ

*В статье проанализирована деятельность рынка резиновых пневматических шин в Украине. Вместительность рынка определена как возможный объем реализации товара в заданный отрезок времени при заданном уровне цен. На основе этих данных было определено, что покупательная способность населения Украины, на которую влияет ВВП, постепенно растет, уменьшая вместимость рынка. Таким образом, экономически целесообразным является открытие представительства ТНК "Yokohama" в Украине с дальнейшим сотрудничеством, которое дает возможность пополнять государственный бюджет за счет большей уплаты налогов.*

*Ключевые слова: производство, официальное представительство ТНК, вместимость рынка, объем рынка, экспорт и импорт резиновых пневматических шин, товарооборот, покупательная способность.*

**Problem setting.** The liberalisation of economic activity in Ukraine over the past 15 years has led to new problems in the field of production and trade. Ukraine's

accession to the WTO poses new challenges for researchers to adjust domestic markets to new economic demands. One of the key problems of this optimisation is a big part of the national economy being in shadow. A way out of this situation might be the involvement of TNCs in the system of national economy. An example of the above cooperation is the increase in the share of official representation of TNCs in Ukraine, for instance the Yokohama company. Of certain interest is the following national market industry as the air rubber tyres manufacturing and its import perspectives. This market is nearly unexplored and requires new forms and approaches to its evaluation, which makes the given research topic particularly important.

**Latest research and publications analysis.** The issues of research and analysis of commodity markets has been the subject of numerous works by Ukrainian and foreign scientists, the most significant of which are the following authors: Antonenko (2005, 2008), Kotler (2007), Danko (2001), Melnyk (2003), Safarova (2009) and others.

**Unresolved issues.** Certain types of commodity markets in Ukraine are still unexplored, including the one of rubber tyres.

**Research objective** is to identify trends and perspectives of the rubber air tyre market development in Ukraine.

**Key research findings.** Despite the financial instability and negative impacts of the global economic crisis on Ukraine's economy, there is a steady growth in the number of commercial and private vehicles. Thus, the demand for rubber air tyres depends directly upon the automobile transport growth rate, which in our opinion will continue to increase.

The volume of the domestic rubber air tyre market in Ukraine makes up 1190.3 mln USD, comprising the share of domestic production in value terms equal to 348.18 mln USD and in figures – 5331 thousand of rubber air tyres per year. The export share in the market volume makes up 158.5 mln USD, import share reaches 1 bln USD. The rubber air tyres manufacturing dynamics in Ukraine tends to decline: if the domestic production slowdown rate was 5% in 2006 in relation to 2005, in 2007 and 2009 respectively it reached the level of 23% (Statistics Committee of Ukraine).

Currently, the following manufacturers dominate in Ukrainian industry of rubber air tyres: JSC "Rosava", JSC "Dniproshyna", "Research and Implementation Centre "Consima" Ltd, which produce the larger part of the total national volume of domestic rubber air tyres. The turnover of tyres over the 2010–2011 period amounted to 1.1592 bln USD. The sales revenue of rubber air tyres in Ukraine in 2010–2011 virtually didn't change, although there were changes in their monetary value due to the price increases and fluctuations in the dollar rate against Ukrainian hryvna in the post-crisis period (Statistics Committee of Ukraine).

Ukrainian market of rubber air tyres to a considerable degree is affected by imports. This could be confirmed by the trade dynamics in Ukraine for the past 6 years tracing the tendency towards a decline in exports share and an increase in imports, the latter occurring more rapidly. Significant growth in imports is mainly associated with the increasing demand for a premium-class tyres and medium-priced segment with top quality products. Such tyres are hardly produced by domestic manufacturers, basically – by large foreign companies, including the Yokohama Co. The main importers of rubber air tyres in Ukraine are Russia and Belarus. The smaller

market share of imported tyres account for South Korea, Poland, Japan, Hungary, Czech Republic, Finland and other countries. Ukrainian buyers give preferences to the best-promoted brands that apply a consistent approach to the marketing mix of their tyres, thus resulting in greater sales.

No market analysis could be handled without determination of market capacity which represents the possible sales volume in a given period of time at a given price level. To determine the national commodity markets capacity we have applied the concept of "apparent" consumption of products, that is domestic manufacturing of goods, excluding exports and adding imports of similar products, in our case, rubber air tyres (Antonenko, 2005, p. 120). We also used a regression analysis to explore the interdependence between exogenous and endogenous variables at the market of rubber air tyres in Ukraine.

We have developed the rubber air tyre market capacity in Ukraine for the period 2005–2011. The results displaying the above factor data are shown in Fig. 1.

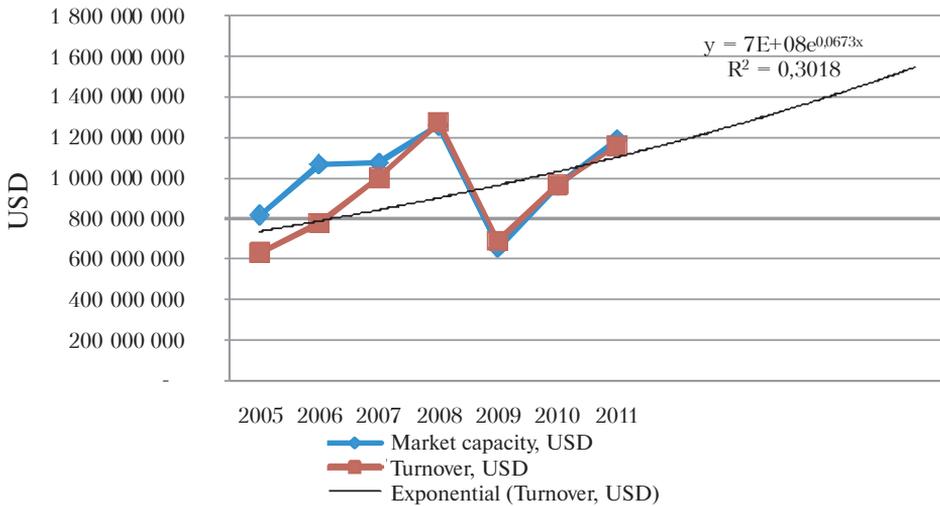


Figure 1. Dynamics of the rubber tyre market in Ukraine, author's calculations

As shows Fig. 1, dynamics of the rubber air tyre market in Ukraine exhibits permanent fluctuations between 2005 and 2011. The given research employs the concepts of market capacity and trade turnover. From 2005 to 2008 a growth rate tendency with regard to both market capacity and the trade turnover could be traced, although the turnover rates in this period were below 200 mln USD. During the global financial crisis the market capacity and trade turnover indices have significantly decreased and reached the level of 650 mln USD. In early 2010 gradual recovery of trade and market capacity started and in 2011 the figures had reached the pre-crisis level. Between 2005 and 2011 the peak level of both indices was observed in 2008 making up above 1.2 mln USD. As can be seen from Fig. 1, the rubber air tyre market is currently saturated, but with due regard to the exponential trend line there are good prospects of increasing the market in the future, therefore import growth in Ukrainian market will positively affect the overall level of its capacity and trade turnover.

We have developed a regression model to identify the factors that might affect the market capacity of rubber tyres in Ukraine ( $M$ ). Endogenous variables in the model are the GDP per capita ( $GDP$ ), the average salary in Ukraine ( $S$ ) and the rubber air tyre turnover ( $T$ ). All the data are represented in value terms (mln USD). As a result of simulation we obtain the following nonlinear regression equation:

$$M = +1,67 T - 22853 GDP - 3127S. \quad (1)$$

The multiple regression equation obtained could be interpreted as follows: the turnover growth is directly proportional to the air tyre capacity expansion in Ukraine; increase in personal incomes negatively affects the Ukrainian market capacity, which to our opinion could be explained by the increasing consumers' purchasing capacity, tyre import rate growth in Ukraine and the insufficiency of domestic production to meet the demand.

The results obtained are highly reliable, since the determination coefficient is 0.90. Checking the model relevance by a Fischer criterion, we determined that  $F_{tabl.} 0,046 \leq F_{crit.} 6.39$ , which shows that the model is relevant.

With the economy growth and increased goods traffic in Ukraine new foreign manufacturers emerge. At present the most dynamic players at Ukrainian market are the brands from South East Asia (Japan, South Korea, China). All leading Asian brands are built upon new technologies. When entering a market they apply active, often aggressive policy which enables greater responsibility of all vendors for the level and stability of materials and tyres quality in particular to be provided to customers.

Since it was established that the rubber air tyre market in Ukraine is saturated, and the purchasing capacity of consumers is growing from year to year, thus reducing the market capacity, the Yokohama company has to make special emphasis on the non-price competitive advantages in the development of formal partnerships and dealership in Ukraine. Examples of such non-price competitive advantages could be official guarantees, brand technical maintenance and support, providing opportunities to store the winter tyres in summer and other benefits the official dealerships or representation offices might offer. Since all the services will be officially registered, that is will be included in each dealership accounting, it will apparently ensure the budget replenishment by tax payments.

Considering the Yokohama company in more detail, it should be noted that the range of products currently manufactured by the company is quite extensive. It includes tyres for passenger cars, crossovers, trucks and buses, assembly lines, components for aircraft and shipbuilding etc. At present the Yokohama company creates a transnational sales network for its tyre division through the following branches: "Yokohama Tire Corporation" (USA), "Yokohama Tire Inc." (Canada), "Yokohama Tyre Australia Pty. Ltd." (Australia), "Yokohama Reifen GmbH" (Germany), and "Yokohama Russia" (Yokohama).

The basic corporate principle of the Yokohama company is creating only top quality products. The latest equipment, advanced technology and highly qualified staff are all part of the system aimed at ensuring the best world quality products – the Yokohama products quality. In support of this the Yokohama company was certified by the quality management system ISO 9001. The company also got the certificate ISO 14001 which recognises the compliance of all its plants in Japan with the inter-

national standards of environmental management. At present the Yokohama company is one of the world's leaders in tyre manufacturing. It should be noted that the company ranks second in Japan, fifth in Russia and sixth in the world.

The company basic activities include:

- wholesale of Yokohama tyres for passenger cars, trucks and sport cars;
- interaction and development of dealer network in Russia and CIS countries;
- technical support, training and consulting of wholesale partners and Yokohama tyres end users;
- development, support and strengthening of the Yokohama brand and the ADVAN in Russia.

The industrial manufacturing of the Russian Yokohama branch produces radial winter tyres from 13" to 18" and the latest model of summer tyres – the "Blue Earth".

**Conclusion.** The Yokohama company is a powerful subject of international economic relations which produces up-to-date high-tech products.

Ukraine is interested in official TNC working transparently and paying taxes.

The regression model demonstrated that the rubber air tyre market capacity in Ukraine is affected by the GDP per capita, average salary in Ukraine and the rubber air tyres turnover.

Thus, there is an economic interest in opening an official representative office of the Yokohama Company in Ukraine, especially of its Russian unit, since this will minimise the logistics costs.

#### References:

- Антоненко Л.А.* Инновационный менеджмент: Учеб. пособие для студентов экономического факультета всех специальностей и форм обучения. – Х.: ХНУ им. В.Н. Каразина, 2005. – 150 с.
- Антоненко Л.А., Верба Д.* Передумови та напрями державного регулювання створення робочих місць у вітчизняній економіці // Україна: аспекти праці. – 2008. – №5. – С. 12–19.
- Бабич В.П.* Государственная промышленная политика: Учеб. пособие для вузов. – Х.: ХНУ им. В.Н. Каразина, 2003. – 315 с.
- Бабич В.П.* Система планирования и экономического стимулирования научно-технического прогресса. – Х.: ХНУ им. В.Н. Каразина, 1978. – 392 с.
- Бабрикова О.В.* Вплив світової фінансової кризи на національну економіку України // Вісник Бердян. ун-ту менеджменту і бізнесу. – 2009. – №1. – С. 27–32.
- Баженов Г.Е.* Повышение эффективности организации системы обслуживания машиностроительного комплекса. – Томск: Том. ун-т, 1990. – 144 с.
- Виробники галузі гумових пневматичних шин, товарообіг шин, об'єми реалізації гумових пневматичних шин в Україні в 2010–2011 рр. // Хімія України, СНД, світу // ukrchem.dp.ua.
- Данько Т.П.* Управление маркетингом: Учебник. – Изд. 2-е, перераб. и доп. – М.: ИНФРА-М, 2001. – 334 с.
- Котлер Ф.* Основы маркетинга: Короткий курс / Пер. з англ. – М.: Вильямс, 2007. – 656 с.
- Малащук Д.В.* Особливості інноваційного потенціалу машинобудування України // Актуальні проблеми економіки. – 2005. – №2. – С. 111–120.
- Мельник М.В., Пантелеев А.С., Звездин А.Л.* Ревизия и контроль: Учеб. пособие / Под ред. проф. М.В. Мельник. – М.: ИД ФВК-ПРЕСС, 2003. – 520 с.
- Симонян Т.В.* Коммуникационные триады маркетинга. – Ростов-на-Дону: СКНЦ ВШ, 2004. – 258 с.
- Статистична інформація, зовнішньоекономічна діяльність, географічна структура торгівлі України товарами, 2001 р. // Державний комітет статистики України // ukrstat.gov.ua.
- Трутнев Э.К., Сафарова М.Д.* Градорегулирование в условиях рыночной экономики: Учеб. пособие. – М.: Дело, 2009. – 368 с.
- Yokohama // [www.yokohama-online.com](http://www.yokohama-online.com).

Стаття надійшла до редакції 7.05.2012.