

Andriy I. Maslo<sup>1</sup>

## DERIVATIVES MARKET DEVELOPMENT IN UKRAINE

*The article identifies the economic essence of derivatives and their types within market economy. Key trends in global derivatives trading are highlighted. Historical stages of derivatives market development in Ukraine are considered. Current state and organizational measures of derivatives market development in Ukraine are discussed.*

*Keywords:* derivatives market; commodity derivatives; financial derivatives; futures; options; stock exchange.

*JEL classification:* G1; G2.

Андрій І. Масло

## РОЗВИТОК РИНКУ ДЕРИВАТИВІВ В УКРАЇНІ

*У статті уточнено економічну сутність деривативів та їх види в межах ринкової економіки. Висвітлено основні тенденції світової торгівлі деривативами. Розглянуто історичні стадії формування ринку деривативів в Україні. Визначено сучасний стан та організаційні напрями розвитку ринку деривативів в Україні.*

*Ключові слова:* ринок деривативів; товарні деривативи; фінансові деривативи; ф'ючерси; опціони; біржа.

*Рис. 7. Табл. 1. Літ. 15.*

Андрей И. Масло

## РАЗВИТИЕ РЫНКА ДЕРИВАТИВОВ В УКРАИНЕ

*В статье раскрыты экономическая сущность деривативов и их виды в рыночной экономике. Освещены основные тенденции мировой торговли деривативами. Рассмотрены исторические стадии развития рынка деривативов в Украине. Определены современное состояние и организационные меры развития рынка деривативов в Украине.*

*Ключевые слова:* рынок деривативов; товарные деривативы; финансовые деривативы; фьючерсы; опционы; биржа.

**Problem setting.** Price risk has become the main feature of contemporary commodity and financial markets. Globalization of world commodity and financial markets leads to rapid changes and uncertain business conditions. The world globalization processes influence international and domestic markets. Under current circumstances, derivatives market provides efficient ways for price risk hedging within market economy. That is why it is important to take into consideration the contemporary state and perspectives of derivatives market in Ukraine.

**Recent research and publications analysis.** The economic essence of derivatives market was explored by W. Acworth (2015), J. Hull (2003), R. Kolb and J.A. Owerdahl (2002), R. McDonald (2008), L. Prymostka (2001), D. Satyajit (2004), M. Solodky and V. Hnylyak (2012) and other foreign and domestic scientists.

However, the present study attempts to show the economic essence of derivatives as risk management tools, the emergence of derivatives market in Ukraine, the volume of trading, the types of exchange derivatives instruments, trends and future prospects of derivatives market in Ukraine.

**The research objective** is to determine the prospects for derivatives market development in Ukraine under the world globalization process.

---

<sup>1</sup> National University of Life and Environmental Sciences of Ukraine, Kyiv, Ukraine.

**Key research findings.** Derivatives market plays an important role in price forecasting and hedging price risks. In scientific literature (Beattie, 2007; Kolb and Owerdahl, 2002: 5–10; McDonald, 2008; Prymostka, 2001: 6–12; Hull, 2003; Satyajit, 2004; Solodky and Hnylyak, 2012: 12–25) derivatives are viewed as the instruments the price for which is derived from underlying assets. The value of derivative is determined by price fluctuations in the underlying asset. The most common underlying assets are stocks, bonds, commodities, currencies, interest rates and market indices.

In general, taking into consideration the type of assets, derivatives can be divided into two categories: commodity derivatives and financial derivatives.

The most common types of derivatives at the global derivatives market are futures, options, forwards and swaps.

According to trading platforms, derivatives can be exchange traded derivatives or OTC-instruments.

Today global derivatives market is a huge financial industry. Derivatives are generally used as hedge instruments or in speculative strategies.

Futures Industry Association (FIA) reports show the increase of global exchange traded derivatives trading in 2014 by 2.8% (Figure 1). FIA statistics is gathered from 75 exchanges worldwide and includes all futures and options traded or cleared by these exchanges (Acworth, 2015).

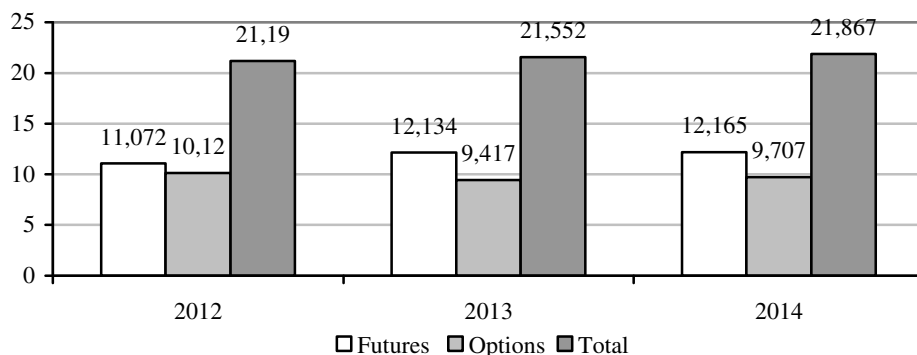


Figure 1. Global Exchange Traded Derivatives Volume, bln contracts (Acworth, 2015)

Table 1. Structure of global derivatives trading, mln contracts (Acworth, 2015)

Categories	2013	2014	% change
Individual Equity	6,390	6,493	1.6
Equity Index	5,382	5,828	8.3
Interest	3,331	3,268	-1.9
Currency	2,496	2,119	-15.1
Agriculture	1,210	1,400	15.7
Energy	1,315	1,160	-11.8
Non-Precious Metals	0,646	0,873	35.0
Precious Metals	0,434	0,371	-14.5
Other	0,347	0,355	2.2
Total	21,551	21,867	1.5

In terms of categories, trading in equity index futures and options showed the most increase (Table 1). Volume in this category rose by 8.3% to 5.83 bln, equivalent to nearly 26.7% of the global market. Another important area was agricultural future and options. The volume in this category rose by 15.7% to 1.40 bln, equivalent to 6.4% of the global market. Currency trading moved in the opposite direction, falling by 15.1% to 2.12 bln (Acworth, 2015).

It should be noted, that in recent years the key trend in the world derivatives market was the transition of derivative trade from OTC-market to exchanges and clearing houses. As W. Lukken (2015) states: "The changes taking place around the world to transform the OTC market are profound and will make exchanges and clearing houses even more important than they already are. There is great value in the exchange and clearing house model for price discovery and risk management".

However, globalization and exchanges mergers also require liberalization of regulatory requirements and increased investors' protection.

In contrast to the global derivatives market annual growth, derivatives market in Ukraine needs to be improved in the nearest future.

In accordance with Ukrainian legislation "derivative" is a standard document certifying the right and/or obligation to purchase or sell securities, commodities or financial assets in the future for such conditions. The law has established a standard form of derivatives: derivatives include forward contract, futures, option, and swap (Tax Code of Ukraine, 2.12.2010, # 2755-VI).

Today the system of derivatives market regulation in Ukraine has not yet required legislative acts for commodity derivatives market. The situation with regulation of financial derivatives market is under reformation. The government agency of financial derivatives market regulation in Ukraine is National Securities and Stock Market Commission (NSSMC). Each year NSSMC improves the related, legislative acts, however, a law on financial derivatives market regulation in Ukraine still has not been yet ratified.

Derivatives market in Ukraine has short history (Figure 2). The first derivatives were traded at agricultural organized market in 1995. Like abroad, the first derivatives in Ukraine were exchange-traded agricultural contracts. The specific feature of this type of commodity derivatives was government support of agricultural forwards trading.

Since the beginning of domestic commodity exchange market reform back in 1991, the total number of commodity exchanges has increased enormously. In 2014, according to Ukrainian State Statistics Committee, more than 580 commodity exchanges (excluding stock exchanges) were registered as compared to 64 commodity exchanges in 1992 (General Report on the Activities of Exchanges in Ukraine of Ukrainian State Statistics Committee, 1992–2014). Huge numbers of commodity exchanges cannot provide the quality of domestic commodity exchange market functioning. Dynamics and structure of commodity exchange market in Ukraine show the biggest increase of agricultural trading.

Annual growth of commodity exchange trading during more than last 10 years was reached by agricultural trading. It should be noted that high level of agricultural trading was supported by government regulation (Decree of the President of Ukraine, 29.06.2000, # 832). With the purpose to increase commodity exchange trading the Government implemented legislative norms of grains export contracts registration at

the accredited commodity exchanges, later including the state-owned commodity exchange – Agrarian Exchange (Figure 3).

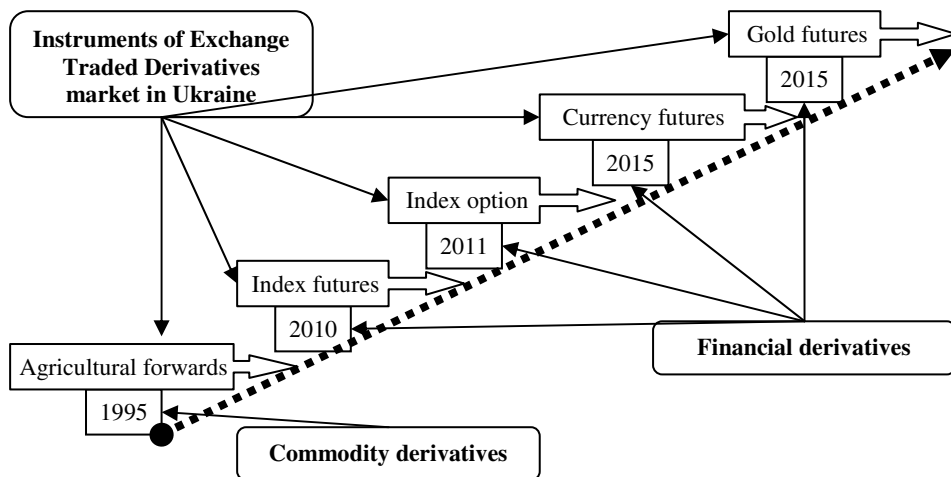


Figure 2. Historical Stages in Derivatives Market Development in Ukraine, compiled by the author

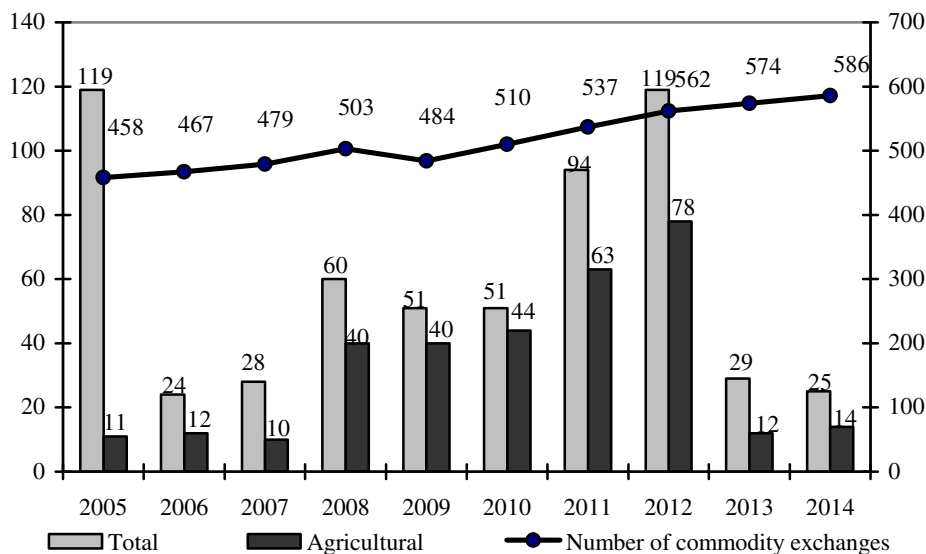
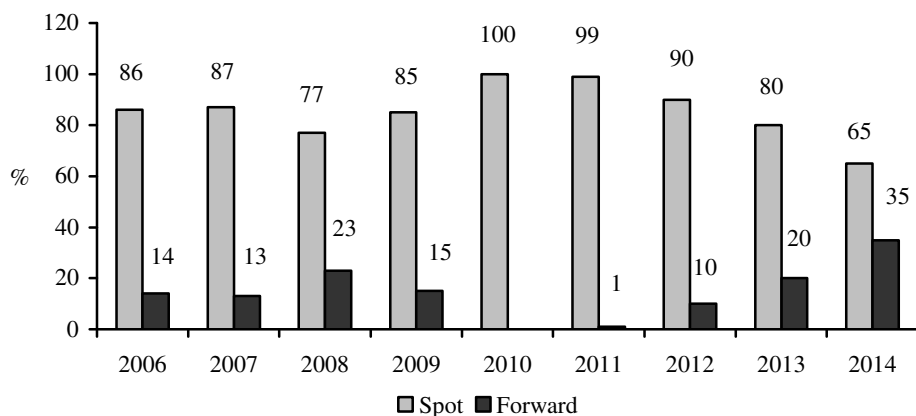


Figure 3. Dynamics of commodity exchange trading values and the total number of commodity exchanges in Ukraine (General Reports on the Activities of Exchanges in Ukraine of Ukrainian State Statistics Committee, 2005–2014)

After cancellation of this norm of registration in 2013 the value of commodity exchange trading decreased. In comparison with 2012, the total value of commodity exchange trading in 2014 decreased by 78% to nearly 25.6 bln UAH. A significant decline was caused by the reduction of agricultural trading value. So, in 2014 the

value of agricultural exchange trading was only 14 bln UAH, which is 82% less as compared to 2012 (General Reports on the Activities of Exchanges in Ukraine of Ukrainian State Statistics Committee, 2005–2014).

Main types of contracts traded at domestic commodity exchanges, which are engaged in agricultural sale, are spot contracts (Figure 4).



*Figure 4. Structure of commodity exchanges trading in Ukraine, %*  
(General Reports on the Activities of Exchanges in Ukraine of Ukrainian State Statistics Committee, 2005–2014)

Situation at Ukrainian commodity derivatives market has not changed since that. Today the government agency Agrarian fond is using forward contracts in agricultural intervention program. In the past 10 years, Ukrainian commodity exchanges have not implemented any futures or options on commodity assets.

The main reasons behind the low level of commodity derivatives market development are:

- the absence of developed domestic agricultural spot and forward markets;
- low level of agricultural market infrastructure functioning, especially warehousing;
- absence of required regulation for commodity derivatives trading;
- absence of Government Agency for commodity derivatives market regulation;
- large number of commodity exchanges, most of which are not functioning;
- low requirements for commodity exchanges, the related technologies and instruments;
- absence of licensing and certification of commodity brokers etc.

All the abovementioned that require solving the problems for efficient functioning of commodity derivatives market in Ukraine.

In 2010, Ukrainian Exchange introduced the UX index futures and in 2011 – the UX index option. These financial derivatives are used by investors only with speculative purpose. UX index includes a small number of Ukrainian shares – 10 most liquid equities (Annual Report of Ukrainian Exchange, 2014).

According to (Annual Reports of NSSMC, 2011–2014), the volume of financial exchange traded derivatives trading decreased sharply. Introduced in 2014, financial derivatives trading in Ukraine have shown a remarkable fall in value (-55%). At the

same time, the value of exchange trading at 10 domestic stock exchanges rose to 620 bln UAH, mainly because of increased debt instruments trading (Figure 5). The most important reason for this situation is the geopolitical instability in the eastern part of Ukraine and the related increased economic and financial risks.

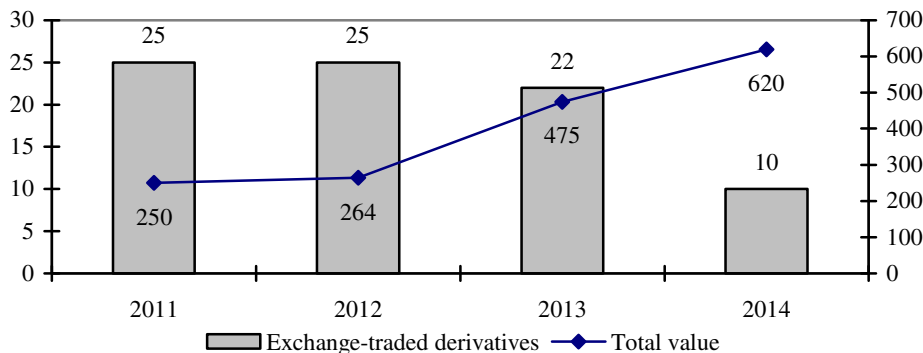


Figure 5. Dynamics of exchange-traded derivatives and the value of stock exchanges trading in Ukraine, bln UAH (Annual Reports of NSSMC, 2011–2014)

Under these circumstances, Ukrainian Exchange (UX) stays the only one derivatives exchange. UX alone accounts for more than 98% of financial derivatives trading. UX is the first financial derivatives exchange in Ukraine established in October 2008. Today Ukrainian Exchange is the leading stock exchange at the domestic derivatives market. Financial derivatives market in Ukraine was launched in May 2010. Currently 4 types of financial derivatives are available for trading (index futures and option, currency futures and gold futures).

1.3 mln exchange-traded derivatives contracts were traded at Ukrainian Exchange in 2014. The total number of derivatives traded at UX decreased sharply last year (-63%) (Annual Report of Ukrainian Exchange, 2014). In the structure of UX derivatives trading options has only a small part (Figure 6). Most of stock market domestic participants lack experience in options hedging and speculative strategies.

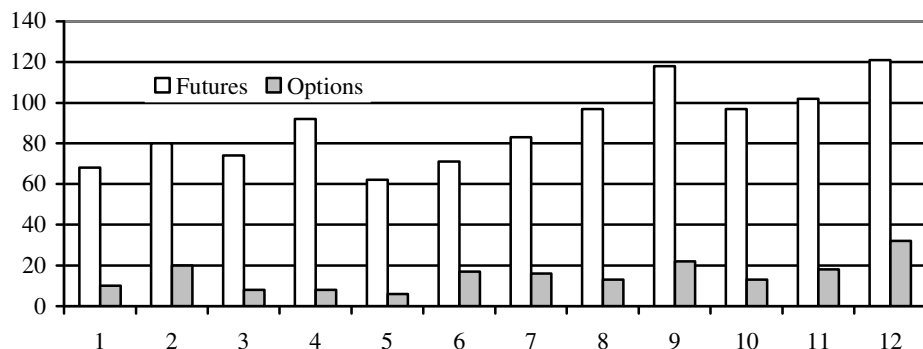


Figure 6. Monthly dynamics of futures and options trading at UX in 2014, ths contracts (Annual Report of Ukrainian Exchange, 2014)

Under financial and political instability, Ukraine Exchange started to trade currency and gold futures from the beginning of 2015 (Annual Report of Ukrainian

Exchange, 2014). Today currency and gold futures are the new product development that will help attract more attention to the financial market. Most importantly, Ukrainian Exchange is becoming an interesting market for domestic participants.

On the other hand, one of the biggest export-oriented agricultural country in the world – Ukraine has not commodity exchange traded derivatives market. Thus, the present state of the domestic derivatives market in Ukraine needs to be improved through the implementation of required organizational measures (Figure 7). Overall, organizational measures on the domestic derivatives market development include 3 levels:

1. Improvement of derivatives market regulation.
2. Transformation of derivatives market organization structure.
3. Formation of derivatives market infrastructure.

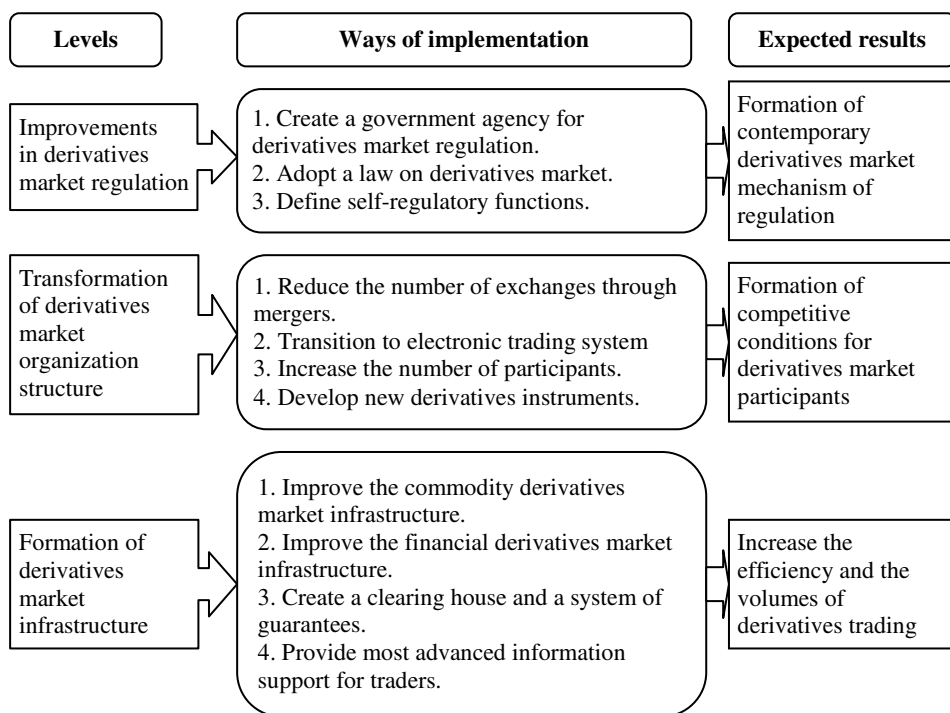


Figure 7. **Organizational Measures of Derivatives Market Improvements in Ukraine, author's**

The first group of organizational measures is aimed at the formation of contemporary derivatives market mechanism of regulation. In this case, it is important to choose the regulation model, combined for both commodity and financial derivatives market as in the EU, or separate for commodity and financial derivatives markets similar to the USA. Both systems of regulation have proved being quite efficient.

The second group of organizational measures is aimed at the transformation of derivatives market organization structure. The important goal of this process is to continue the formation of competitive conditions for participants of the domestic

derivatives market. As world practice shows, one of the perspective ways of derivatives market development is the reduction of commodity and stock exchanges numbers through mergers. Electronic system of trading allows exchange mergers with global exchange-traded platforms. Such experiences is successfully applied in developing countries and it allows increase the quantity of participants and the variety of derivatives instruments.

The third level of organizational measures can improve the formation of derivatives market infrastructure. The central role is here given to clearing system formation. Efficient functioning of the derivatives market in Ukraine needs a sound system of guarantees. Clearinghouse should be established with participation of the National Bank of Ukraine.

And last but not the least, most of organizational measures need to be implemented in accordance with the world experience and the current state of the domestic economic system.

**Conclusions.** The derivatives market in Ukraine has not yet realized its full potential. Ukrainian derivatives market has been limited to 4 types of derivatives – index futures and options, currency and gold futures. However, it is not enough, considering the variety of instruments at the global derivatives market today. The development of derivatives market in Ukraine depends on economic reforms held in Ukraine; the improvement of stock market infrastructure, including depository and clearing systems; liberalization of legislation base; increasing investment attractiveness; improving conditions for foreign investors; continuing pension reforms; increasing liquidity; implementation of new derivatives contracts, including commodity instruments.

#### References:

- Податковий кодекс України від 02.12.2010 № 2755-VI // zakon.rada.gov.ua.
- Про невідкладні заходи щодо стимулювання виробництва та розвитку ринку зерна: Указ Президента України від 29.06.2000 № 832, втратив чинність від 13.08.2013 // zakon.rada.gov.ua.
- Загальні звіти про діяльність бірж в Україні за 1992–2014 роки // Державний комітет статистики України // www.ukrstat.gov.ua.
- Примостка Л.О.* Фінансові деривативи: аналітичні та облікові аспекти. – К.: КНЕУ, 2001. – 263 с.
- Річний звіт Української біржі за 2014 рік // fs.uk.com.ua.
- Річні звіти НКЦПФР за 2011–2014 роки // www.nssmc.gov.ua.
- Солодкий М.О., Гниляк В.О.* Біржові товарні деривативи: теорія, методологія, практика: Монографія. – К.: Аграр Медія Груп, 2012. – 238 с.
- Acworth, W.* (2015). 2014 FIA Annual Global Futures and Options Volume: Gains in North America and Europe Offset Declines in Asia-Pacific // Futures industry magazine // fimag.fia.org.
- Beattie, A.* (2007). The Barnyard Basics of Derivatives // www.investopedia.com. Definition of Derivatives // economictimes.indiatimes.com.
- Hull, J.C.* (2003). Options, futures and other derivatives. 5 ed. University Toronto, Prentice Hall, Englewood Cliffs. 780 p.
- Kolb, R.W., Owerdahl, J.A.* (2002). Financial Derivatives. 3rd ed. John Wiley&Sons Inc. 323 p.
- Lukken, W.* (2015). Global trends in derivatives markets // www.futuresindustry.org.
- McDonald, R.L.* (2008). Fundamentals of Derivatives Markets, Northwestern University Publications. 544 p.
- Satyajit, D.* (2004). Derivative Products and Pricing. 3rd ed. 1200 p.

Стаття надійшла до редакції 20.07.2015.