The present significance of commodity exchange trading in the conditions of the current world economy

Novodobý význam burzovního obchodování komodit v podmínkách soudobé světové ekonomiky

O. Rejnuš

Mendel University of Agriculture and Forestry, Brno, Czech Republic

Abstract: The paper discusses the importance of commodity exchange trading while placing a special emphasis on the increasingly close interconnection between commodity markets and financial instruments markets. The aim of the paper is to prove that at present, commodity markets cannot be seen as strictly separate from markets trading in financial instruments, as there are increasingly close links between the two, which effectively lead to the transfer of financial resources invested in the financial market into the real economy. The paper analyses the most significant ties that already exist between the commodities and financial investment instruments in the financial and capital market, as well as the links that are very likely to come into existence in the near future. In the concluding part, there is a summary of the reasons that will necessarily lead to a further world-wide development of commodity exchange trading and a prediction of the lines along which this development is likely to take place.

Key words: commodities, commodity exchanges, speculation, hedging, futures, collective investment funds, structured products, commodity exchange indexes, underlying assets, commodity derivatives, investment certificates, structured bonds

Abstrakt: Článek se zabývá významem burzovního obchodování komodit se zvláštním zaměřením na postupně stále těsnější vzájemné propojování komoditních trhů s trhy finančních investičních instrumentů. Jeho cílem je prokázat, že v současné době již nelze komoditní trhy striktně oddělovat od trhů finančních investičních instrumentů, protože mezi nimi existují stále těsnější vazby, jež se ve svých důsledcích projevují v převádění peněžních prostředků investovaných na finančních trzích do reálné ekonomiky. V příspěvku jsou analyzovány nejvýznamnější vazby jež mezi komoditami a finančními investičními instrumenty peněžního a kapitálového trhu již existují, jakož i vazby, jejichž vznik lze v blízké budoucnosti s největší pravděpodobností očekávat. V závěru jsou následně shrnuty důvody, jež nutně povedou k dalšímu celosvětovému rozvoji komoditního burzovnictví, přičemž je zároveň provedena i predikce hlavních směrů tohoto vývoje.

Klíčová slova: komodity, komoditní burzy, spekulace, hedging, futures, fondy kolektivního investování, strukturované produkty, komoditní burzovní indexy, podkladová aktiva, komoditní deriváty, investiční certifikáty, strukturované dluhopisy

Economic theory distinguishes two "basic" types of investment. In the first place, there is the "financial investment" that can be defined as an investment in various kinds of "financial investment instruments". Next, there is what is referred to as the real investment which is represented by the purchase and temporary possession of tangible (real) assets, a significant part of which are commodities.[1]

Although the validity of this basic classification of investments can still be established in both theory

[1] Commodities can be in this case seen as "changeable goods" – which can be standardised and therefore even traded without their physical presence in public commodity markets (these are, most frequently, commodity exchanges).

Supported by the Ministry of Education, Youth and Sport of the Czech Republic (Grant No. MSM 6215648904 "The Czech Republic in the processes of integration and globalisation and the development of the agriculture and service sector in the new conditions of the integrated European market").

and practice, the line between financial and real investments is currently much fuzzier than it was until relatively recently. This situation results from the unremitting effort to find new methods of funding (and new ways of investing alike), which is giving rise to more and more financial investment instruments that are in various ways related to real assets. In addition, it is here where commodities are gaining a particularly high importance.

In view of the fact that the connection between commodities and financial investment instruments is not a mere coincidence and that its theoretical significance is further complemented by its considerable economic value, the aim of this paper is to analyse the individual types of the links both in terms of their theoretical substance and their economic implications. The analysis focuses, above all, on the ties existing between commodities and the "basic" (classic) types of securities, as well as the connection between commodities and securities issued by collective investment funds. Subsequently, it examines the links between commodities and various kinds of "structured products" that have been constructed as a novelty only over the last few years. In this context, the paper also tries to pinpoint the root cause of the current boom of financial investment instruments with increasingly close ties to commodities. The questions discussed here are whether this trend is only a passing fad or whether it is likely to persist in future, how important is the role played in this process by commodity exchanges, and what course of development commodity exchange trading is likely to take in terms of the world economy.

RESULTS AND DISCUSSION

Until recently, commodities were traded only as the "standard real assets". In view of their tangibility the trading was understandably more often than not restricted to what is referred to as the "commodity derivative trading", where the settlement of an agreed deal often comes with a considerable delay.[2] This means that exchange trading usually takes on the form of forward dealings, such as futures, because the instant exchange commodity deals are mostly rather insignificant.[3]

Traditional views of the importance and economic benefits of commodity exchange trading are the following:

– Commodity exchanges aggregate the demand and offer of the individual types of commodities and create transparent market prices by setting exchange rates.
– As commodities are not only production outputs but also material inputs for further production, it is very natural that their tangibility makes them tradable mainly on futures exchanges (Rejnuš 2002). These enable traders to carry out various hedging strategies quite easily, by which they can safeguard themselves against price swings in a relatively long term.
– And since commodity exchanges enable speculation, they attract the attention of speculators. These, by buying their real investment assets here (in this case, commodities), contribute to the increase in the amount of open positions and raise the liquidity of the commodity exchange market.

Even though commodities are generally regarded as real assets, they have a good deal in common with financial investment instruments. The closest links between the two can be seen in the case of precious metals (this concerns especially gold, silver, platinum), which, thanks to their ability to gain a considerable value in relatively small amounts while keeping physical stability and therefore being easy to store, serve as certain value depositories. Consequently, these commodities, regardless of their physical character, are regarded by economic theory as the investment instruments of the financial market (Rose 1992).

Apart from precious metals, there is naturally a wide range of other types of commodities that are not instruments of the financial market. They are, however, part of the economic system, and as such, they and financial investment instruments are connected in a variety of relations. These aspects, as it is going to be discussed later, can have a different character both in relation to the basic kinds of securities (this refers mainly to shares and partly to debentures) and also in terms of the relationship to the securities of the collective investment funds or to various types of what is called "structured products".

[2] It depends on the laws of the individual countries and on their legal definition of "forward dealings". The expression "forward dealings" is usually used to talk about trade agreements where the interval between the negotiation and settlement ranges from 15 days up to a month.

[3] Besides exchange forward dealings – "futures" there can be of course considerably rarer dealings in the form of options.

Analysis of the relation between commodities and the basic (classic) types of securities

Basic (classic) types of securities are, in particular, shares and debentures, the most important common characteristic of which is the fact that the development of their market prices (rates) is not "directly" dependent on the development of the prices of any other investment instruments of the financial and capital market. This means that their market prices (or "rates" if they are tradable on an exchange) develop mostly according to the specific type of the security in question (i.e. according to its qualities or rights ensuing from its possession) and according to the current (or expected) development of the issuer's economic situation. It is clear that the development of the prices (rates) is like that of the rest of the financial investment instruments affected by the current development in the corresponding financial market and the trends marking the entire economic system.

These securities have, however, certain links to real assets – in this case to commodities – and the main factor here is whether the securities under discussion are shares or debentures (especially coupon bonds):

– *The links between commodities and company shares*

The ties existing between commodities and shares have essentially a traditional character. They concern mainly shares of those companies that produce the particular commodities because it is clear that the producers' profitability is always dependent on the development of the market prices (rates) at which the companies' commodities are sold or traded, and the volumes of their sales. More specifically, if the market prices (rates) of the commodities traded on commodity exchanges (as it has been already mentioned, we are referring here mainly to futures exchanges) increase as a result of a growing demand and the number of open positions also goes up, the expected profits of the companies taking part in their production will rise. The value of their assets will consequently increase, which will have a positive impact on the conditions of their external trading.

– *Potential ties between commodities and debentures*

As far as debentures are concerned (more often than not coupon bonds represent these), their links with commodities tend to be of a different sort. For example, their interest rate (coupon payments) might be derived from the development of the market prices (rates) of some commodities.[4] Although the ties in this case are considerably weaker, commodity prices can to a certain extent influence the demand for debentures, the interest rate of which is affected by them.

Analysis of the ties existing between commodities and securities of the collective investment funds

As securities of the collective investment, funds can be regarded as shares of the investment funds and investment certificates of the shares funds. In both cases, it is particularly important that the development of the securities' prices[5] depends, in the first place, on the development of the assets that make up the portfolio of a particular fund. As more and more portfolios based on commodities are involved, it is only natural that the rise (or decline) in the prices directly influences the value of the shares and investment certificates of the funds in question.

The closest ties between market prices of commodities and prices of collective investment securities are manifested mainly in the open-end shares funds, the administrators of which are obliged to buy investment certificates from the investors at what is referred to as the "current price". This price corresponds to the value of the fund assets apportioned to the given investment certificate.[6] It logically follows that if the market prices (rates) of commodities go up, the market value of the portfolios of the corresponding shares funds will go up as well. This will also make the fund more attractive and raise the investors' demand for its investment certificates. In view of the fact that collective investment funds are bound by a strict investment strategy laid down in their statutes, their administrators must not make new investments but through buying new commodities for the newly

[4] The quoted method of payment of interests on the debentures is provided for e.g. by the legislative of the Czech Republic, specifically by the Law No. 190/2004 Coll. concerning debentures – see Section 16, subsection d).

[5] In the case of open-end shares funds, these are mainly the "current prices" at which the particular investment company is obliged to buy back the investment certificates; in the case of investment and closed-end shares funds, the prices in question are the "market prices", or "rates" should the certificates be traded on an exchange.

[6] This logically concerns closed-end shares funds and (closed-end) investment funds too, however, the ties here are not so strong since the fund administrators are not obliged to buy the certificates back.

acquired money. Since they mostly invest in forward contracts such as futures, they frequently contribute by these purchases both to the increase in prices (rates) of the specific commodities and the increase in the amounts of open positions (it goes without saying that in the case of falling commodity prices in the commodity markets, the opposite is true).

In spite of the fact that collective investing aimed at commodities has been going on for a number of years, some innovations can be observed here, especially in terms of the structure of the individual funds' portfolios. A relatively recent novelty is the launch of what is referred to as "commodity-only funds". Their benchmark is not only the rate of the individual commodities but the comprehensive commodity indexes[7], the structure of which is usually copied by the administrators of the funds' portfolios.

Analysis of the characteristics of the selected types of structured products with commodities as their underlying assets

As a result of the unremitting search for new investment possibilities and new ways of external company funding, more and more types of investment instruments are coming into existence on the international scale. Although these are mostly financial investment instruments, they are more and more often related to various real assets, among which commodities are gaining a substantial ground.

In this regard, we are at the moment speaking mainly about "structured products" (often referred to as "*advanced derivatives*"), which combine the features of the "classic" securities – debentures in particular, with the qualities of derivative instruments (or even with some properties of collective investment securities). It is a relatively new group of financial investment instruments with a practically unconfined potential of new constructions. These instruments were first issued and put into circulation during the last decade of the twentieth century, and the volume at which they are spreading is currently assuming unprecedented proportions. In spite of the fact that they are financial instruments with the properties of derivatives, they tend to be issued and put into circulation through the primary market. And although their underlying assets are usually financial assets, they can be derived from the selected commodities, especially those that are traded on exchanges, or from commodity exchange indexes (or from what is referred to as "commodity baskets").[8]

At present, there is a wide variety of structured products being issued; however, the relevant products in this case are mainly investment (structured) certificates and structured bonds.

– *Investment (structured) certificates*[9]

Investment certificates can be defined as financial investment instruments combining some characteristics of "classic" debentures and derivatives, whose underlying assets may be not only various financial assets but also commodities (Rejnuš 2006). Typical features of investment certificates usually include the pre-specified term of their payment, while the holders are entitled to demand the payment of what is referred to as the current value of the certificate, which is usually derived form the current value of its underlying assets. Apart from the above-mentioned certificates, there are also "*open-end certificates*"[10] where the term of payment is not determined (Svoboda, Rozumek 2005).

Investment certificates tend to be issued by reputable, universally recognised financial institutions. These institutions mostly quote the certificates themselves on the pre-established exchanges and, at the same time, trade the certificates outside the exchanges. It follows that the risk connected with the investment in these investment instruments does not depend so much on the potential loss of their liquidity but, much more importantly, on the type of the underlying assets (into which the issuers of investment certificates invest their profits, thus safeguarding themselves as well). Their development also affects the current rate of the particular certificates and (if these are limited in time) also the price that will be paid by the issuer when the payment is due.

The underlying assets of investment certificates can be of a very diverse nature; however, at present they are most often represented by shares, stock exchange indexes or a variety of "shares baskets" that are constructed individually by the particular issuers (referred to as *basket certificates*), or from

[7] The Activest–Commodities Fund set up by the investment company Activest can exemplify this. The benchmark of this fund is Dow Jones – AIG Commodity index.

[8] It is an underlying asset in the form of a commodity exchange index which is created by the issuers themselves.

[9] Even though these are officially called "structured" investment certificates, the world of investment trading has reduced their name to "investment certificates".

[10] The American terminology often refers to them as the ETF – Exchange Traded Funds"; in Czech, they are often called quite misleadingly "index assets".

various currencies, debentures, etc. As already mentioned, a wide range of cases has already appeared where investment certificates were derived from tangible underlying assets, which are more often than not commodities. The most frequent commodities used for these purposes are precious metals, other kinds of ”industrial” metals, oil or some commodities of agricultural nature. This does not involve, as it might be expected, only investment certificates that are limited in time (or payable), but also “*open- end certificates*” derived from the selected commodity exchange rates.[11]

– *Structured bonds*

Structured bonds are issued chiefly by important banking houses for a specified period of time given by the issue conditions, usually not exceeding two years. Their underlying assets tend to be mostly, shares (or stock exchange indexes) but they can also take the form of other assets, including commodities (Rejnuš 2006).

Unlike “classic” debentures, structured bonds have typically at least two possible ways of payment. It is either clearly specified under which circumstances which of the two ways of payment will be used, or it is stated that the issuer will chose the way of payment when this is due. It is only up to the issuers what kind of structured bonds they will create and offer to the prospective investors (and how they safeguard themselves against the potential losses[12]). All the above-mentioned ways of payment, if applicable, must be always laid down in the conditions and terms of issue.

Even though the products are actually debentures, the predetermined terms of their payment make the question of their interest rate clearly quite inessential. Since the profits coming from the investments in these structured bonds depend chiefly on the value of their underlying assets upon maturity, the value of the underlying assets at any point of their service life is similarly important, as their current value is a decisive factor in the process of setting their prices for an early sale to the issuers.[13] In contrast, the interest rate is very important and relatively high, if the choice of the particular way of payment lies with the issuer.[14]

Structured bonds are often publicly traded, nevertheless, their tradability is not a necessary condition for their existence. If they are traded on an exchange, the issuers secure their quotation. They quote it either themselves, or through an authorised security broker. Additionally, the issuers themselves through their own bank branches offer the sale of the securities or their redemption. Here the transactions are often tailored to meet the customers’ specific requirements.

Structured bonds are investment instruments that so far have mostly had shares or stock exchange indexes as their underlying assets. On the other hand, there are other kinds of underlying assets that are starting to emerge, too. There are reasonable grounds to believe that it is only a question of time before the constructions of structured bonds spread on financial markets. Their underlying assets probably will not be individual commodities (given their tangible character) but comprehensive exchange indexes (or commodity baskets) payable by money.

CONCLUSION

The analysis shows that commodity exchange trading is gaining ground in the current economy and that this trend is likely to continue in future. Summing up the reasons leading to this statement, we can produce the following:

– Most importantly, there is a growing interest in the investment in real assets, where commodities as standardised (and therefore suitable for trading) assets are gaining a significant importance. This is caused by the fact that commodities possess some qualities that financial investment instruments do not have, for example resistance to inflation, etc. In the view of these facts, we can expect that the increased interest in investment in commodities is not a mere passing fad but that it will continue in future, raising the volume of dealings closed on commodity exchanges.

– Further, it is understandable that collective investment funds in particular, which are currently

[11] These are specifically GSCI (Goldman Sachs Commodity Index), RICI (Rogers International Commodity Index), etc. (Magazine FOND Shop 2005).

[12] The issuer usually invests at least some money obtained through the sale of the structured bonds in their underlying assets.

[13] The question of a potential early redemption by the issuer must also be provided for in the terms and conditions of the issue.

[14] The high interest rates in these cases are offset by the risk that once the debenture is due, the issuer will naturally decide for the most profitable (cheapest) method of its payment.

the most important institutions changing money of small investors into physical capital, will not (and usually must not) invest financial resources entrusted to their care in low quality (in this case illiquid) assets, running the risk of a relatively easy manipulation of their rates. Consequently, they are only looking for (and will have to look for in the future as well) those kinds of assets that are traded on prestigious commodity exchange markets.

– The development of structured products, the underlying assets of which are commodities, is not feasible without well-functioning commodity exchanges, either. This is due to the fact that only exchanges quote the transparent rates that can form the foundation for the necessary commodity exchange indexes (or commodity baskets) usable as their underlying assets. In future, we can also expect a steady rise in the number of various structured products[15]. And commodities will be certainly involved in the trading of many of them.
– If we proceed on the assumption that the creation of links between commodities and financial investment instruments contributes to the transfer of financial resources invested on financial markets in their sale (or in further development of their production) and if we at the same time consider that the commodities under discussion are quite exclusively commodities that are tradable on the exchange, we can argue that commodity markets have favourable implications even for this field. And as there are reasonable grounds to suppose that this trend will continue even in the time to come, it is inevitable that the importance of commodity exchange trading will increase accordingly.

To conclude, we can express an assumption that in future, commodity exchange trading will extend not only through the growing size of the traded physical volumes but also due to the increasing number of the types of commodities tradable on the exchange. With regard to the ongoing globalisation of the world economy, we can also suppose that the future extension of exchange trading is less likely to be realized through new exchange markets than through the existing exchanges that will subsequently merge in a gradual process of integration.

REFERENCES

FOND SHOP (2005), vol. IX (10).

Rejnuš O. (2002): The significance of commodity exchanges for trade in agricultural products in the Czech Republic, and prospects of their future development. Agricultural Economics – Czech, *48* (10): 467–472.

Rejnuš O. (2006): Peněžní ekonomie – Finanční trhy. 2. vydání. CERM, Brno; ISBN 80-214-3235-7.

Rose P.S. (1992): Money and capital markets, Fourth edition, IRWIN, 1 Boston; ISBN 0-256-08300-2.

Svoboda M., Rozumek D. (2005): Investiční certifikáty. Komise pro cenné papíry, Praha; ISBN 80-239-5317-6.

Arrived on 1st August 2006

Contact address:

Oldřich Rejnuš, Mendel University of Agriculture and Forestry in Brno, Zemědělská 1, 113 00 Brno 2, Czech Republic
tel: +420 545 132 405, e-mail: rejnus@econ.muni.cz

[15] Even in the current financial markets we can come across some different kinds of structured products (e.g. the "warrants") as well as a variety of other investment certificates and structured bonds that are much more complex than the constructions described in this paper.