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Impact of Government Reform on Beef Market

Z. Malá, M. Malý

Faculty of Economics and Management, Czech University of Life Science in Prague, Czech Republic

Anotace

Předložený článek se zabývá simulací dopadů vybraných opatření vládních reforem na trh s hovězím masem v České republice. V úvodní části jsou na základě dostupných zdrojů vymezena a specifikována vybraná opatření současných vládních reforem, která jsou v následné praktické části simulována v modelu dílčí rovnováhy definovaného trhu. Na základě dosažené ekonometrické kvantifikace a verifikace výstupů modelu jsou následně komentovány dopady jak na stranu nabídky, tak i poptávky zvoleného trhu. Analyzovaná vládní opatření jsou zahrnuta v podobě očekávaného zvýšení DPH, pohybu kurzu české koruny, vývoji spotřebitelských příjmů a cenových expektací ve vertikále hovězího masa. Dosažené výsledky predikují domácímu trhu negativní důsledky zejména na straně nabídky, a to v podobě relativně výrazného snížení počtu chovaných kusů, z čehož lze usuzovat na snížení počtu podniků s intenzivním výkrmem nebo přesun jejich orientace na jiné komodity rostlinného charakteru. Straně poptávky by pravděpodobně přinesly uvažovaná opatření krátkodobé snížení cen, ovšem s reálným předpokladem následujícího strmého růstu provázeným snížením kvality masných produktů. Příspěvek vznikl jako součást výzkumného záměru MSMT 6046070906 „Ekonomika zdrojů českého zemědělství a jejich efektivní využívání v rámci multifunkčních zemědělskopotravinářských systémů“.

Klíčová slova

Hovězí maso, dílčí rovnováha, simulace, DPH, Česká republika.

Abstract

The present paper deals with the simulation of the impact of selected measures of government reforms in the beef market in the Czech Republic. The selected measures of government reforms are defined and specified on the base of available resources in the introduction. Subsequently, these measures are simulated by the model of partial equilibrium of defined market in the practical part. The impacts of the measures on both supply and demand of selected market are then commented, based on formal econometric quantification and verification of model outputs. The analyzed government measures are included in the form of an expected increase in VAT, the movement of the Czech crown, the development of consumer income and the price expectancy in vertical of beef. The results predict negative consequences on domestic market, in particular on the supply side, in the form of a relatively significant reduction in the number of pieces of cattle. These can result in reducing the number of enterprises with intensive fattening or in shifting their focus to other commodities of vegetable nature. On the demand side, the analyzed measures are likely to bring short-term price reductions. However, the steep growth accompanied by a reduction in quality of meat products can be reasonable expected in the long run. Pieces of knowledge introduced in this paper resulted from solution of an institutional research intention MSMT 6046070906 „Economics of resources of Czech agriculture and their efficient use in frame of multifunctional agri-food systems“.

Key words

Beef, partial equilibrium, simulation, VAT, Czech Republic.

Introduction

Within the last twenty years, significant changes in food consumption can be seen in the Czech Republic, reflected, among other things, in a decline in the overall demand for animal products. In an attempt to balance the excess of supply over demand, agricultural producers have been forced to decrease numbers of livestock and to thereby reduce their production. The said development has significantly affected the numbers of beef cattle, which thus show a declining tendency on a long-

term basis. In the course of the reference period of 1995 – 2009, they showed a decline of 33%. The above affects the supply of beef meat in the Czech Republic, which is comprised predominantly of domestic production (86%), but, nevertheless, in terms of the structure, a significant decline in the proportion of domestic production can be seen within the reference period, and, on the other hand, a significant increase in the proportion of foreign trade (Čechura, 2010, similarly Svatoš and Smutka, 2010). Abrahámová et al. (2010) adds that the supply of domestic beef meat is comprised primarily of the meat of dairy cows, while better quality meat of meat breeds is exported abroad.

Czech farmers face a number of significant problems that do not contribute to the satisfactory development of the production of beef cattle for slaughter. In this regard, this includes, for example, increases in the export of market beef cattle, which subsequently brings about increases in the import of beef meat, decreases in the consumption of grain feeds in general, as well as decreases in the consumption bulky feeds as compared to an increase in areas of permanent grass growth, a decrease in the utilization of the slaughter capacity of processing businesses and the associated food industry (Malý and Kroupová, 2006).

An unpleasant factor is also the constant decline in the consumption of beef meat, which has its impulse primarily in price development, as the Czech consumer is considerably sensitive to the price of beef meat (Malý and Malá, 2011 or Palát et al., 2012). Within the analyzed period, beef meat became the most expensive meat commodity, which was reflected in the partial shift of consumers to cheaper types of meat. In regard to the said development, the so-called rate amendment of the Act on Value Added Tax (VAT), approved by the Chamber of Deputies on 6 November 2011, can also be negatively reflected within the subsequent period. The said amendment increases the reduced rate of VAT from 10% to 14%, effective from 1 January 2012. Further, it also brings about the unification of the reduced and basic rate at a level of 17.5% effective from 1 January 2013. However, it is likely that, in the course of the year 2012, the unification of rates will continue to be discussed and the alternative of the unification of rates at a level of 19% is also realistic.

The goal of the presented article is to simulate the development of the beef meat market under the presumption of a change in the rate of value added tax, as well as other determinants of supply and demand functions – prices on all levels of the vertical, consumers' income, as well as the rate of the Czech crown.

Material and Methodology

For the purpose of the fulfillment of the above objective, the partial equilibrium model of the beef meat market quantified by Malý and Malá (2011) was utilized. The said model displays three levels of the product vertical. The basic level is comprised of agricultural producers, who are included in the said model as entities offering live animals for the purpose of slaughterhouse processing. The production behavior of the said entities is presumed as dependent on the price that was effected on the market within the previous period, but also on the currently valid price. The said variables explain the numbers of beef cattle from which the production of beef meat in live weight was subsequently derived.

The associated level of the vertical is represented by slaughterhouses, or meat processing plants including slaughterhouse processing, the product of which is jointed meat, which goes through the distribution chain to consumers. The supply from processors thus reflects not only the utilization percentage, but also the existence of derivative meat products (meat products and intermediate products), which are not further reflected within the presented model, however. The beef meat market is modeled as open, and thus the overall supply of beef meat on the consumer market is comprised of the sum of jointed meat acquired through domestic production and the import of foreign production. In the import function, the decisive effect of the import price and the exchange rate of the crown against the dollar is anticipated.

The demand side on the consumer market is comprised primarily of domestic consumption of beef meat, which is quantified at a household level in the said model. The explanatory variables of the consumption function are thus the consumer price of beef meat and the consumer's income. The overall demand is supplemented by the export of beef meat dependent on the dominance of the export price over the domestic processor price. In the described model, created inventories were also included on the demand side.

The quantified model, a detailed description and verification of which can be found in the publication of Malý and Malá et al (2011), had the following form:

$$\hat{S}_t = 5.1967 * CZV_{t-1}^{0.1856} * CZV_t^{-0.1906} * S_{t-1}^{0.8862} \quad (1)$$

$$\widehat{VZHM}_t = 0.00005 * S_t^{1.6877} \quad (2)$$

$$\widehat{PM}_t = 0.5239 * VZHM_t \quad (3)$$

$$\widehat{IM}_t = 116634.5 * IC_t^{-0.2465} * K_t^{-1.45} * IM_{t-1}^{0.4631} \quad (4)$$

$$\widehat{SPD}_t = 80.1634 * SPCH_t^{-0.8610} * PR_t^{0.3328} \quad (5)$$

$$\widehat{DS}_t = 2916117 * SPD_t \quad (6)$$

$$\widehat{EX}_t = 4465.56 * \left(\frac{ECK_t}{CPVV_t}\right)^{0.7056} * T^{0.7529} \quad (7)$$

$$PM_t + IM_t = DS_t + EX_t + Z_t \quad (8)$$

where:

S_t…numbers of beef cattle in head in the period t,

$VZHM_t$…weight of animals for slaughter in tons in the period t,

CZV_t…price of beef meat with the agricultural producer in CZK/t in the period t,

PM_t…production of beef meat in tons in the period t,

IM_t…imported amount of beef meat in tons in the period t,

$SPCH_t$…consumer price of beef meat in CZK/t in the period t,

IC_t…import price of beef meat in USD/t in the period t,

K_t…exchange rate of CZK/USD in the period t,

SPD_t…consumption of beef meat in the average household in tons in the period t,

PR_t…income of the average household in thousands of CZK/year in the period t,

DS_t…total domestic consumption in tons in the period t,

PD_t…average number of households for the period t,

EX_t…exported amount of beef meat in tons in the period t,

ECK_t…export price of beef meat in CZK/t in the period t,

CPV_t…price of beef meat at the processor level in CZK/t in the period t,

Z_t…inventories of beef meat in tons in the period t.

For the simulation of changes in the price of the agricultural producer, the above model was supplemented with a price function with explanatory variables in the form of average production costs, SAPS rates and subsidies preceding the said category within the years 1995-2003. The said function was modeled in power form and quantified by way of the common method of least squares, applied to its linearized version. The acquired estimate was statistically (t-test, F-test) as well as economically verified (Breusch-Pagan test, Lagrange Mulitiplier autocorrelation test, CUSUM test, Jarque-Bera test). Further in regard to the said tests - GREEN (2008).

The price of the agricultural producer quantified in the manner as described above subsequently entered into the power function of the price of the industrial producer, as an explanatory variable. The effect of further variables was abstracted by way of the trend. The function was statistically verified in the same manner as in the previous case. However, the relationship of the price on the individual levels of the vertical required a supplementation of the econometric verification in the form of Hausman and Sagar test (see Green, 2008).

The last considered price level was the consumer price, which was explained, in the power function, by the price of the industrial producer and the import price. The verification of the said function was identical to the above verification of the function of the price of the industrial producer.

Data for estimates of the said functions and for the simulation calculations were obtained from the Situational and Outlook Reports published by the Ministry of Agriculture of the Czech Republic and arranged within a time series for the period of the years 1995 – 2009. A further data source was also the statistics of family accounts, maintained by the Czech Statistical Office, from which data on the average consumption of beef meat, weighted consumer prices and the income of ten groups of households of employees within the above period were drawn. The acquired data were further extrapolated, with the use of the linear trend function. For the simulation of changes in income, the prediction of the inflation rate conducted by the Ministry of Finance of the Czech Republic was utilized. Data on the prediction of the rate of the crown against the dollar were also drawn from the Ministry of Finance of the Czech Republic.

Under the presumption of the full shift of value added tax to the consumer, an increase in the reduced rate of VAT to 14% will bring about a decline in consumption of 3%, if the basis is the year 2009, and thus with the maintenance of the tax base and the disposable income at the level of the year 2009. The consumption of beef meat would thus decline by 4.48 thousand tons of live weight and 2.42 thousand tons of slaughtered weight. With the maintenance of the imported amount as stated above, the surplus production could be exported,

which is, however, a rather unrealistic presumption in view of the situation on the market of the European Union as well as on the world market. According to the quantified function of export, the said increase would require a growth in the export price by 12.5%, or a decline in the processor price by 11.1%. The change in import is also unrealistic, which would, in the given case, require an increase in the rate of the crown against the dollar to 47 CZK/USD, or a five-fold increase in the import price. If production were to decline by such volume, it would be accompanied by a decline in the overall numbers of beef cattle by 5.8% as compared to the level of the year 2009.

With the linear extrapolation of the tax base, based on prices adjusted for VAT rates, i.e. by the 5% rate until the end of the year 2007, by 9% from 2008 until the end of the year 2009, and by the 10% rate from the year 2010, and with the linear extrapolation of the disposable income of individual income groups, a decline in overall consumption by 2.3% can be anticipated, with an increase in the rate of VAT to 14% in the year 2012, as compared to the year 2009. As a result of a change in the tax rate, a decline in the domestic consumption to 145.96 thousands of tons of live weight and 78.84 thousands of tons of slaughtered weight in the year 2012 can thus be anticipated. The trend functions from which the said extrapolations of explanatory variables were conducted, were based on annual data from the years 1995-2010. The coefficients of determination of the said functions attained values within the interval of <0.8013; 0.9853>.

If we consider an increase in the rate to 17.5%, the base 2009 allows for the definition of a decline in consumption by 5.5%, i.e. to a level of 141.18 thousand tons of live weight and 76.26 thousand tons of slaughtered weight. If the decline in consumption will be accompanied by a decline in production, the above would mean a decrease of overall numbers of beef cattle by 8.5% as compared to the situation in 2009. Alternatively, the said production could be exported. However, an increase in export by the said amount would only occur in the case of an increase in the export price by 23.3%, or in the case of a decline in the processor price by 18.9%.

The potential unification of rates at a level of 19% then brings about a decline in consumption of 8.6% with the base at a level from the year 2009, i.e. by 9.86 thousand tons of live weight and 5.33 thousand tons of slaughtered weight. If the above is accompanied by a decline in domestic production, it will require a decrease in numbers by 9.6% as compared to the year 2009.

If, within the simulation calculations of the impact of changes in the rate of VAT, we also consider a change in income, corresponding to the inflation predicted by the Ministry of Finance, at a rate of 3.2% in the year 2012, 1.6% in the year 2013, and 2.1% in the year 2014, the effect of the increase in the reduced rate of VAT will be modified. The mere increase in disposable income by 3.2% causes a rise in consumption of 1.05%, ceteris paribus, as compared to the year 2009. An increase in the disposable income by 1.6% would then bring about a rise in consumption of 0.52%. For completeness, the change in consumption in the case of a 2.1% increase in disposable income can be added, which represents a 0.68% increase as compared to the year 2009, ceteris paribus. Specific changes in consumption in the case of a change in income as well as the rate of VAT is set out in Table No. 1.

Besides the change in the rate of VAT, a change in the rate of the Czech crown against the dollar can also be expected. According to a prognosis by the Ministry of Finance of the Czech Republic a rate of 17.7 CZK/USD can be anticipated in 2012. The strengthening of the crown will likely stimulate an increase in the volume of import by 11.3% as compared to the year 2009, ceteris paribus. If an increase in import brings about a decline in domestic production, there will be a further decline in the numbers of beef cattle, by 4.3%, ceteris paribus. Together with the change in VAT to 14%, overall numbers of beef cattle will thus fall by 7.4% as compared to the year 2009.

However, a linear extrapolation of the import price and the volume of import for the year 2012, supplemented with a change in the rate, presumes a lower increase in import, by only 2.3%. From the predicted values supplemented with a change in the

		Income change		
		3.2%	1.6%	2.1%
	14.0%	-2.02%	-2.5%	-2.4%
VAT	0,0%	-4.5%	-5.02%	-4.9%
	19.0%	-5.6%	-6.1%	-5.9%

Source: Own calculation

Tab. 1. Change of consumption as a result of change of income and VAT with base in 2009.

rate of VAT, we can thus assume a smaller change in the numbers of beef cattle, by only 5.4%. In order for the said change to be absorbed by consumption, i.e. in order so that the declared decline in the numbers of beef cattle does not occur, the average disposable income would have to increase by 24.5%, which is, in view of the predicted development of the national economy, unrealistic.

For the year 2013, a further strengthening of the crown is predicted, to 17.4 CZK/USD, which will bring about a rise in the volume of import by 14.1% as compared to 2009 under the condition of ceteris paribus. However, with the substitution of the extrapolated values of the import price and the imported amount, only a 3.5% increase in the volume of import can be quantified. The supplementation of the said change in rate with an increase in the rate of VAT to 17.5% thus brings about a decline in the numbers of beef cattle by 8.9% as compared to 2009.

Changes in import can be analyzed not only in view of the exchange rate, but also in view of the volatility of the import price. If the fluctuation of the import price around the level of the year 2009 in the amount of the decisive difference is presumed, a 9.2% increase in the volume of import in the case of a decline in the import price and a 6.3% decline in import as a result of growth in the import price can be expected. An increase in volatility to double the decisive difference deviation is associated with a decline in import of 10.9% in the case of growth of the import price, and with a rise in import of 25.3% in the case of a decline of the import price.

Volatility can also be seen in the case of the export price, which, however, unlike the import price, is greatly variable. On average, the export price in CZK/t deviates from the average amount by CZK 16138. The range of export volumes is then much broader than was stated in the case of import. The fluctuation of the export price by a decisive difference around the value of the year 2009 thus brings about a decline in export of 10.2% in the case of a decline in the export price and an increase in export by 19.3% in the case of an increase in the export price.

Changes in the price of double the decisive difference are associated with even more substantial changes in the volume of export, with a 32.9% increase in export and with a 26.5% decline in the volume of export.

The volume of export is not dependent only on changes in the export price, but is also influenced by the level of the processor price. In regard to the said price category, it is useful to analyze the effect of price shocks. The maximum price jump can be quantified as the proportion of the maximum price to the average price effected within the period of the years 2004-2009. This shock achieves a value of 3%. The said change in the CPV would bring about a decline in export by 4.7% as compared to 2009, ceteris paribus. On the other hand, the maximum price decline, quantified by way of the proportion of the minimum price and the average price effected within the period of the years 2004-2009, would imply an increase in the volume of export by 14.3%, without a change in the export price (as compared with the year 2009). If we take into consideration the effect of the strengthening of the crown in 2012, we can, in the case of the extrapolation of the processor price as well as the export price in dollars, anticipate an increase in export of 16.9% as compared to the level in 2009. If we further take into consideration the impact of a change in the volume of import in the case of the said change in the rate and the impact of a change in the consumed amount as a result of an increase in the reduced rate of VAT, we can expect a slight increase in production, by 0.8% as compared to the year 2009. However, it is necessary to add that the said changes in the rate (17.7 CZK/USD, income (increase of 3.2%) and VAT (14%), with the maintenance of all other variables at the level of the year 2009, would bring about a surplus of domestic production in the amount of 2.3 thousand tons of live weight.

A change in the price of the agricultural producer will also have an effect on the said development. However, the development of the numbers of beef cattle, affecting the level of production of beef meat, is, for the analyzed period of the years 1995-2009, characterized by a decline in the numbers of beef cattle as well as by a decline in the production of beef meat. The numbers of beef cattle for the analyzed period fell by 33.5%, production decreased by 44.0%, while the price increased by 21.1%. The said development implied values of the parameters of the function of the numbers of beef cattle that show a negative elasticity in relation to price changes. Any anticipated increase in the price of the agricultural producer thus implies a decline in the numbers of beef cattle.

The price of the agricultural producer is significantly affected by the amount of the average production costs and the subsidy policy, and thus the price function with explanatory variables in the form of average production costs, SAPS rates and subsidies preceding the said category within the years

1995-2003, was also quantified. The results of the estimate including the statistical and econometric verification are set out in Table No. 2 and in Graph No. 1.

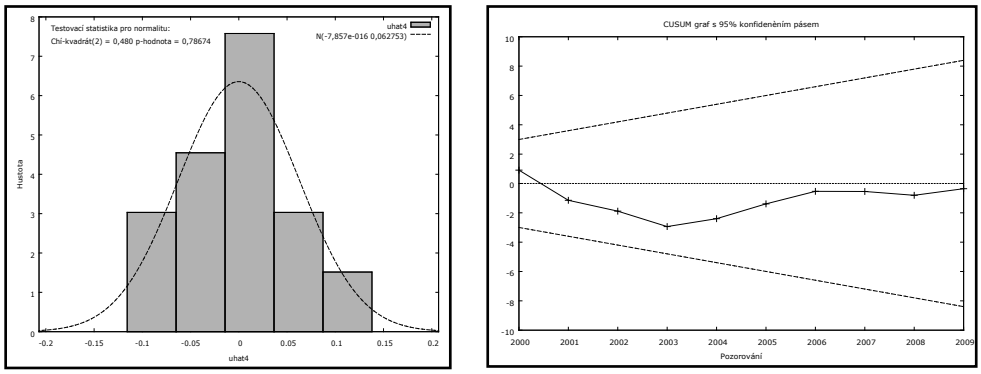
According to the said function, SAPS lower the price of the agricultural producer. If we then presume the maintenance of the SAPS rate in the year 2012 at the level of the year 2011, i.e. at a level of 4,686.5 CZK/ha, we can anticipate a decline in the price of the agricultural producer by 2.6% as compared to the level of the year 2009 in the case of the maintenance of the average costs at the level of the year 2009, and by 1.8% in the case of an increase of the average costs by the level of the predicted inflation.

The said change will affect the development of the price of the industrial producer, the price function of which in power form along with the statistical and econometric verification is set out in Table No. 3 and Graph No. 2.

	Parameter	Standard Error	t-value	p-value
Const.	14.0883	0.353265	7.488	0.0000209
SAPSt	-0.11053	0.0410814	-2.691	0.0227
ACt	0.246759	0.0892937	2.763	0.02
R2	0.459639			
F (2,10)	7.046705			0.012317
CUSUM test	-0.112616			0.912807
LMBP	1.79922			0.406728
LMAR1	0.0133287			0.910623

Source: Own calculation

Tab. 2. Results of estimation of farm price function in power form.



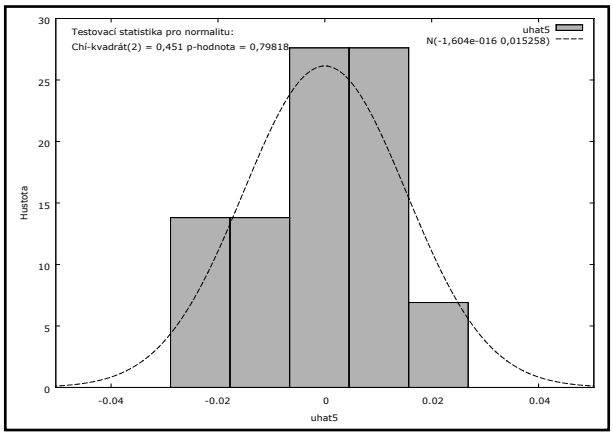
Source: Own calculation

Graph 1. Normality of residue and CUSUM test of farm price function.

	Parameter	Standard Error	t-value	p-value
Const.	9.691	0.261871	8.673	0.000
CZVt	0.608051	0.0757513	8.027	0.000
T	0.102888	0.00523749	19.64	6.44E-86
R2	0.971526			
F (2,10)	229.3843			0.000
Hausman test	0.0104709			0.918497
Sagar test	7.07634			0.00781086
Pesaran-Taylor test	1.175756			0.24
LMAR1	14.223487			0.00545

Source: Own calculation

Tab. 3. Results of estimation of producer price function in power form.



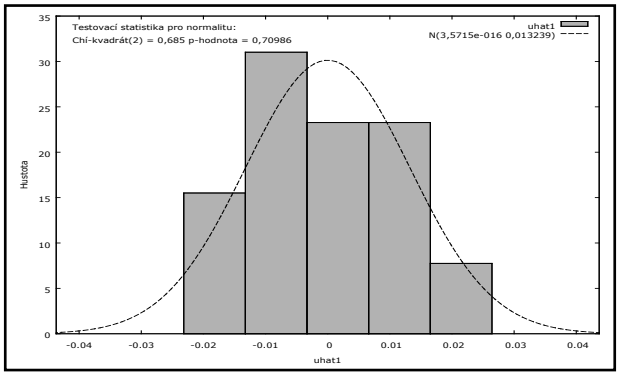
Source: Own calculation

Graph 2. Normality of residue of producer price function.

	Parameter	Standard Error	t-value	p-value
Const.	14.4743	0.268053	35674,0000	2.07E-23
CPVt	0.370702	0.0756126	4.903	0.000
ICt	0.0410828	0.0113351	3.624	0.0003
R2	0.946688			
F (2,10)	251.9037			0.000
Hausman test	0.0736609			0.786079
Sagar test	4.52231			0.10423
Pesaran-Taylor test	0.768833			0.441993
LMAR1	0.168356			0.692346

Source: Own calculation

Tab. 4. Results of estimation of consumer price function without VAT in power form.



Source: Own calculation

Graph 3. Normality of residue of consumer price fiction without VAT.

The actual decline in the price of the agricultural producer by 1.8% as compared to the year 2009 will cause a decline in the price of the industrial producer by 1.1%. As a result of changes of other factors affecting the level of the processor price, its increase by 0.7% as compared to the level for the year 2009 can be expected in the year 2012.

A change in the processor price will also affect the last level, i.e. the consumer price, by 0.3% ceteris paribus, see the estimate of the price function of the consumer price without VAT in Table No. 4.

With the addition of the change in VAT, it will mean an increase in the consumer price by 3.9% as compared to the level of the year 2009.

Overall, the said changes will bring about an increase in the volume of export by 8.8%, an increase in the volume of import by 11.3%, and a decline in the

consumed amount by 0.4% as compared to 2009. Overall numbers of beef cattle in view of the said changes will decrease by 0.3%, which will bring about a decline in the production of beef meat in live weight by 0.6%.

Discussion

The presented results of the simulation of the impact of changes in the value added tax rate on the level of consumption of beef meat, and potentially the entire market equilibrium in regard to the said commodity, is based on the assumption of the complete shift of the tax into the price of the said goods. That is also proven by empirical studies, e.g. Besley and Rosen (1999), Viren (2009). This assumption applies in their study also Syrovátka (2011) and Rumánková et al. (2012). David (2012) even assumes higher price increase than is the increase in VAT. An increase in consumer prices as a result of a change in the value added tax rate is also anticipated by the Czech National Bank (2011), but, nevertheless, according to its study, the shift of the tax into the price is not full. According to its estimates, an increase in the lower rate of VAT from 10% to 14% will be reflected in the rate of growth of food prices by 0.6 of a percentage point, and the subsequent increase to 17.5% will bring about further rates of growth of the prices of food products by 0.3 of a percentage point. However, in reality, according to a report by the Czech National Bank (2012), the increase in the rate of VAT was reflected in a 2.4% increase in the prices of food products, in advance, in the fourth quarter of 2011. A partial shift of value added tax into the price of beef meat would lead to a lesser decline in demand than the presented results presume, which would of course also affect other simulated values obtained from the partial equilibrium model. It would therefore be appropriate to further analyze the size of the shift of value added tax into the price of beef meat, and to adjust the simulations conducted with the use of the model described above based on the ascertained results.

Comprehensively, the presented results of the simulations of changes in the main determinants of supply and demand on the beef meat market can be summarized as follows. Within the short-term period of the positive prognostic horizon, a decline in domestic production as well as domestic consumption of beef meat and increasing volume of exports as well as imports of beef meat are anticipated. Based on the above, it can be assumed that the trend of the export of quality meat of meat breeds to foreign markets and the satiation of the domestic demand with lower quality meat will continue to exist. The decline in the supply of domestic production on the domestic market is also anticipated by Abrahámová et al. (2010). The deepening foreign trade deficit in beef meat and the decline of domestic production is also envisaged by the prognosis of the European Commission (2006).

Conclusion

On the basis of the achieved outputs, we can assume the real negative effects of the contemplated scenarios within the beef meat market. The effects described above will, in the final outcome, affect primarily the supply portion of the vertical, which will have to once again (as compared to the previous period of the nineties and the turn of the millennium) deal with the relatively significant decline in demand. Because the current numbers can be, even despite increases in the category of cows without market production of milk, considered marginal for the securing of reasonable food self-sufficiency, the anticipated development on the market will mean a necessary decline in numbers and the beef meat market will be exposed to similar pressure as in the current situation on the pork meat market, where, according to the representatives of the Agricultural and Food Chambers of the Czech Republic, more than half of pork meat for processing is imported from abroad. Therefore, the said effects necessarily bring along with them the liquidation of herds, the reduction in the number of businesses with intensive animal production, the likely shift of their orientation to purely plant production, with all other implications and consequences. For the consumer side, the achieved results can bring about short-term positive effects in the form of a reduction in prices on the basis of a domestic production surplus and the subsequent reaction of producers with a significant reduction of raised head associated with the import of very cheaply priced jointed meat from abroad. However, we can further expect the substitution of beef meat in intermediate meat products or meat-butchery commodities with cheaper types of meats, which will, however, very likely be reflected in the decline of the quality of meat products in the Czech Republic, which is already the subject of discussions.

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Corresponding author:
Ing. Zdeňka Malá, Ph.D.
Department of Economics, Faculty of Economics and Management,
Czech University of Life Sciences in Prague, Kamýcká 129, 165 21 Prague 6- Suchdol, Czech Republic
Phone: +420224382303, E-mail: malaz@pef.czu.cz

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