

Competition among Companies in the Fast Food Market in the Czech Republic

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Anotace

Cílem článku je vyjádření podstaty a rozsahu změn spotřebitelských preferencí v souvislosti s nástupem nadnárodních oligopolních řetězců zahrnující restaurace s rychlým občerstvením. Metodika zpracování článku spočívá ve vyjádření růstu podílu restaurací rychlého občerstvení ve spotřebitelské poptávce v ČR formou komparace výkonových ukazatelů firem. K nejvýznamnějším restauracím s rychlým občerstvením patří v Česku řetězce McDonald's, KFC, Subway a nově i Parky's, které tvoří základní oligopolní strukturu na daném segmentu trhu. Podíl firmy McDonald's na trhu rychlého občerstvení z hlediska výkonů společnosti tvoří v současnosti 46 % trhu. Stať tedy analyzuje část posledního článku zemědělsko-potravinářské vertikály s jasnými konsekvencemi na poptávku po zemědělských surovinách a po potravinách jako celku. Tato studie byla zpracována na základě podpory interní grantové agentury Provozně ekonomické fakulty ČZU v Praze (Projekt č. 20141025 - Růst podílu restaurací rychlého občerstvení (Fast Food) ve spotřebitelské poptávce).

Klíčová slova

Oligopol, rychlé občerstvení, jídlo, cena, konkurence, spotřebitel.

Abstract

The aim of the paper is to express the nature and the extent of changes in the consumer preferences in the context of the oligopolistic multinational chains of fast food restaurants. The methodology of the paper is based on the analysis of growing market shares of fast food restaurants in the Czech Republic using the performance indicators of companies. Among the largest fast food restaurants in the Czech Republic are McDonald's, KFC, Subway and the new fast food chain Parky's. McDonald's market share in terms of output is currently 46% of the fast food market. The paper therefore analyzes the last part of the agri-food vertical with clear consequence on the demand for agricultural commodities and for food as a whole. This study is supported by the Internal Grant Agency of Faculty of Economics and Management, Czech University of Life Sciences Prague (Projects No. 20141025 – The growing share of fast food restaurants in consumer demand).

Key words

Oligopoly, fast food restaurant, food, price, competition, consumer.

Introduction

Czech people are more and more interested in eating in one of the 26 current fast food restaurants due to the more accelerated lifestyle in the last few decades. McDonald's, KFC, Subway and the new Parky's are the biggest fast food restaurants in the Czech Republic. These restaurants form the oligopolistic structure in the particular market segment. While the American McDonald's has a direct representation in the Czech Republic, KFC operates in the domestic market through the Polish Group AmRest. The Polish Group

AmRest also owns the majority of Burger King fast food restaurants, Pizza Hut, cafes Starbucks, Fresh Point, Rodeo Drive and other fast food restaurants in Europe.

According to the estimations of „Makro“, which is the food chain where both individuals and businesses can purchase raw materials for their restaurants, there are over seven thousand restaurants in the Czech Republic which can be described as „fast food“. This amount of restaurants represents an increase by 35 % compared with 2005 (Incoma, 2013). Evidence is growing that

access to unhealthy food establishments increases consumption of fast-food (Boone-Heinonen et al., 2011) and fast-food consumption is a risk factor for obesity (Anderson et al., 2011, Garcia et al., 2012 and Duffey et al., 2007).

The theoretical aspect of oligopolistic market structures is presented in publications of prominent economists, such as Samuelson (Economics, 2007), Varian (Microeconomics, 1995), and Frank (Microeconomics and Behavior, 1995). New issues on market competition were presented by Schiller in his book Microeconomics in 2004 (Microeconomics, 2004) and by Morrison in his integrated structural approach from 1990 (Market power, economic profitability and productivity growth measurement, 1990).

The behavior of dominant firms in oligopolistic markets is currently scrutinized by the French economist, the Nobel Prize winner in economics for 2014, Jean Tirole. Even in the early 80's of the 20th century there were only a few economists, which had studied the oligopolistic market structure where a small number of companies may affect prices, quantities and qualities of products. The Royal Swedish Academy of Sciences has classified Jean Tirole as one of the greatest economists of our time for his works that have discovered new understandings in problems of regulation of the oligopolistic market with a small number of dominating firms (Horáček, 2014). Jean Tirole does not consider the dominance of firms as a strongly negative phenomenon in markets. Among other things, he proved that the market with dominant firms should not be necessary inefficient and inflexible as it is generally believed in economics (Tirole, Fudenberg, 1986).

„In some sectors there may be one dominant company purely for historical reasons. However, if a certain company enters the market first, it may reach high cost advantages, which may help the dominant firm to deter other companies from entering the industry. For example, assume that there is a very high cost for entry into the market. Then the dominant company may convince a potential entrant that if they attempt to enter into the market, the dominant firm will drastically lower its prices. So a certain company can finally get the dominant position in a certain market.“ (Varian, 1995) „If all oligopolies in a particular market follow the dominant firm's price increases, the result is as if all firms argue on prices for certain products in the given market“ (Schiller, 2004).

Material and methods

The paper obtains the relevant data on fast food chains' profit, which is followed by the comparative analysis of firms and by the comparison of the general equilibrium model (consumer-company) for the analyzed companies. One of the aims of the paper is the expression of the nature and of the extent of changes in the consumer preferences in the context of the oligopolistic multinational chains, particularly on the example of the entrance a new company in the relevant market. The research also determines whether any of the analyzed companies on the market has a dominant position on the market or whether all firms are perfect competitive. The paper therefore analyzes the last part of the agri-food vertical with clear consequence on the demand for agricultural commodities and for food as a whole.

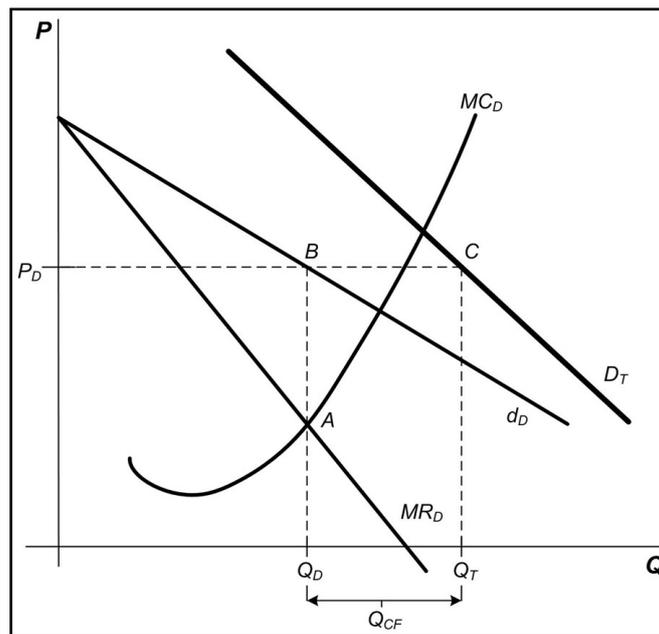
The model of the competitive behavior of fast food restaurants

Oligopoly with a dominant company is an oligopoly market model where a strong (dominant) company occurs, for which it is advantageous to give up part of the market to weaker competitors at so called competitive fringe (edge). However, these small and middle-sized companies at competitive fringe are not able to influence the market in any fundamental way by their decisions about the amount of production or price. On the bigger part of the market, which it keeps, the dominant company then behaves as a monopoly.

We assume that companies at the competitive fringe behave the same way as perfectly competing companies; they can sell any volume of production for the price established by the dominant company and the demand curve after their output is therefore horizontal, given the established price.

Determination of optimal output (Q_D) and price (P_D) of a dominant company is represented by the following Figure 1.

The offer of companies of the competitive fringe is composed of the horizontal distance between market demand curve (D_1) and the curve of demand for production of the dominant company (d_D). The equilibrium point of the dominant company (A) is found in the intersection of its curves of marginal costs (MC_D) and marginal incomes (MR_D); based on the “golden rule of profit maximization”, the dominant company derives its optimal output (Q_D) and optimal price (P_D).



Source: Samuelson, Nordhaus, 2007

Figure 1: Oligopoly with a dominant company.

At this price, companies at competitive fringe offer output (Q_{CF}) originating as the difference between overall output of a sector (Q_T) and offered amount of production of the dominant company (Q_D).

The large firm is assumed to determine the price in the market and the firms in the competitive fringe act as price takers. Therefore, the large producer sets its price by maximizing profit subject to its residual demand curve (Tasnádi, 2010). Since these small (alternatively middle-sized) companies – due to their size - do not have yields from volume of production, their cost conditions are worse compared to the dominant company, and therefore they cannot offer production for lower price than the dominant company is selling for. If they sold production for a price higher than the dominant company, considering the substitutability of their products, the companies of competitive fringe would risk decrease in sales with large part of their customers (in favor of the dominant company's products).

In the model of oligopoly with a dominant company, price of production is determined at a lower level and volume of output is bigger than in monopoly. It is the consequence of oligopolistic competition, although limited; therefore even in this case the price of output stays higher than average costs ($P = AR > AC$), so oligopoly is realizing higher than normal gain, that is clean economic profit.

If the price for which dominant company is selling allows companies at competitive fringe to create clean economic profit, extend their production at the expense of the dominant company, one of these companies can later replace the dominant one on its place of price leader. The leader is usually the biggest company in a sector of fast food restaurants (for example McDonald's), with the lowest costs, long tradition, well-known brand, etc.

The model of oligopoly that assumes changing companies in the role of price leader is in economic theory called a model with barometric company; it expresses certain instability in a sector as a result of efforts to redistribute markets, movements of prices, and etc. The described model is based on the article of authors Severová L., Kopecká L., Svoboda R., Brčák, J (2011).

Tools of analysis

For the analysis of fast food chains are used fixed base indexes, chain base indexes, regression analysis and forecast of the analyzed companies' indicators. The article compares the main indicators of companies, its growth trends within the Czech Republic and outside the country. Among other indexes, which are used in the article, is return on sales. The index is presented in the further analysis.

Return on sales

Return on sales (ROS) is also known as operating margin, operating profit margin and operating income margin. Behind various names of the index, its calculation presents net profit as a percentage of sales revenue. Managers of companies usually find “return on sales” metric very useful, because profits and sales in absolute values are less comparable among industries. Hence, ROS is one of the indicators of profitability and is often used to compare the profitability of companies and industries of different sizes. ROS can be calculated as the ratio of operating profit divided by sales, presented in percent (Best, 2005). The formula is written as follows:

$$ROS = \frac{\text{operating profit}}{\text{sales}} * 100,$$

where *operating profit* is net profit after tax and sales present revenues of the company.

Table 1 presents calculations of the ROS index for McDonald’s in years 2005-2012 in billions CZK. We observe an increase in the value of index in the analyzed years. Return on sales presents the growth of the profitability of the company.

Data for AmRest Group (which includes chain stores such as KFC and Burger King) were found only for the year 2009 and 2010. Return on sales index of AmRest Group was higher than the same indicator of McDonald’s in 2009. In 2010

return on sales index of AmRest Group decreased and was significantly lower than the same indicator of McDonald’s. Table 2 represents calculations of the return on sales index for the AmRest Group within the Czech Republic.

Results and discussion

Competition of fast food restaurants in the Czech market

There is a new trend of international and European oligopolies in the food markets, which occurs due to the gradual globalization of economies. These international oligopolies affect consumer preferences and economic competition internationally. One of the examples of such oligopolies can be fast food restaurants and fast food chains. McDonald’s, KFC, Subway and the new fast food chain Parky’s belong to the biggest fast food restaurants in the Czech Republic. They form the oligopolistic structure in the particular market segment. Although, it is not a business with high margins, the majority of companies prosper for a long time and all of them have positive economic profits. For example, McDonald’s as the most representative restaurant in the Czech Republic has not showed any single drop in the operating profit for the last few years. The competitive chain KFC has also positive economic profit. However, a profit

Year	Sales (billions CZK)	Operating Profit (billions CZK)	Return on Sales (%)
2005	2.282	0.062	2.717
2006	2.576	0.013	0.505
2007	3.203	0.044	1.374
2008	3.777	0.117	3.098
2009	3.871	0.137	3.539
2010	3.800	0.152	4.000
2011	3.998	0.177	4.427
2012	4.167	0.181	4.344

Source: McDonald’s annual reports; own calculations

Table 1: McDonald’s return on sales in the Czech Republic, 2005-2012 (billions CZK).

Year	Sales (billions CZK)	Operating Profit (billions CZK)	Return on Sales (%)
2009	1.60	0.070	4.375
2010	1.58	0.005	0.316

Source: AmRest Group’s annual reports; own calculations

Table 2: AmRest Group’s return on sales in the Czech Republic, 2009, 2010 (billions CZK).

of the company fluctuates significantly while revenue of the company grows stable for the period of the company's existence in the Czech market.

- The total amount of revenue of the two largest fast food chains **McDonald's** and KFC was four billion Czech crowns in 2013. After calculating the revenue of McDonald's franchise branches the total amount of revenue of both fast food chains had raised to six billion Czech crowns. For the comparison of indicators, the net profit of the American fast food chain McDonald's has declined in the first quarter of 2014 by 5.5 percent to 1.2 billion dollars; the operating profit has declined by one percent to 1.94 billion dollars while revenues have increased by one percent to 6.7 billion dollars (McDonald's, 2014).

Graph 1 shows the development of sales of McDonald's since its arrival on the Czech market in 1992 till 2013. We can observe an obvious trend of steady growth in sales of McDonald's, which although had slowed due to the economic recession, but sales had not diminished at that period of time. The growth of sales might be caused by a change in the consumer preferences, because of the fact, that customers preferred cheaper meals at fast food restaurants compared to more expensive restaurants in the fear of the impact of the recession on their incomes.

The following equation describes the linear trend of sales:

$$y = ax + b,$$

where y represents sales, x represents a current year, b is the point of the intersection with the vertical axis (y or sales) and a is the incremented value of sales during the given period of time or the regression coefficient, which represents the rate of change of y ; or the slope of the regression line. For the given data we can derive the linear trend for McDonald's sales as:

$$y = 0,2056x - 0,2031,$$

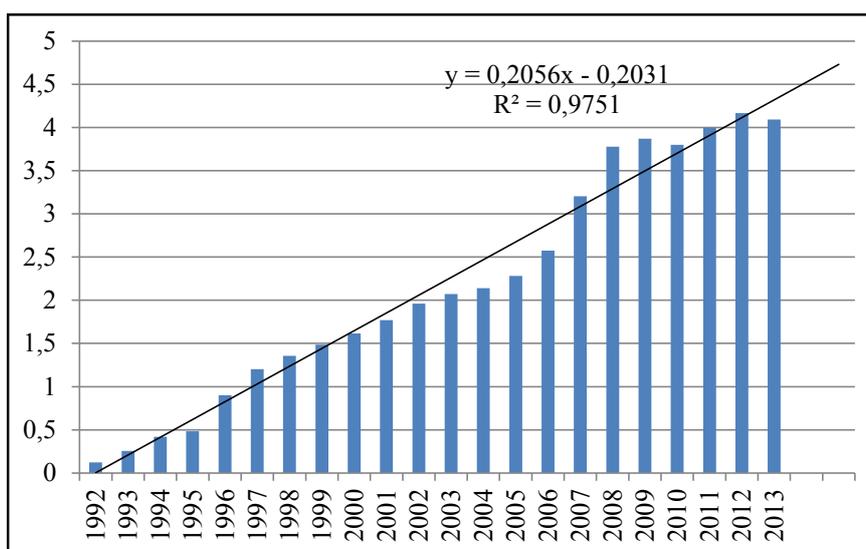
where the regression coefficient equals to 0.2056, i.e. year-to-year prediction growth is 0.2056. The value of the reliability of the approximation (a number from 0 to 1, showing the correlation between the values of the trend line to the actual data) is equal to 0.9792 (R^2). This number indicates a strong correlation between the calculated numbers with the data.

The prediction based on the linear trend shows: by the end of 2014 sales of McDonald's will be 2.67 billions of CZK and in 2015 sales will achieve 2.88 billions of CZK.

Table 3 represents sales of McDonald's in the Czech Republic (in billions CZK) from 1992 to 2013. It characterizes the development of McDonald's sales using a fixed base index number (1992 = 100) and a chain base index number. The fixed base index number we calculate as:

$$\text{Fixed base index} = \frac{S_n}{S_{base}} * 100,$$

where S_n are sales of the current year and S_{base} are sales of the base year (1992).



Source: McDonald's, 2014; own calculations

Graph 1: McDonald's sales in the Czech Republic, 1992-2013 (billions CZK).

The chain base index value is calculated as:

$$\text{Chain base index} = \frac{s_n}{s_{n-1}} * 100,$$

where s_n are sales of the current year and s_{n-1} are sales of the previous year.

For example, Table 3 shows that the value of the fixed base index in 2013 had 33.8 times raised from the base year 1992 (the growth was 3282 %); the value of the chain base index for 2013 represents the decline in sales from 2012 to 2013 (the decline of sales between 2012 and 2013 was 5.7%). We can see from the Table 3, that the fixed base index does not applicable for the following data in the long period of time (over 2 decades). Hence, the chain base index can be used for the analysis of the development of McDonald's sales.

By comparing the revenues of both companies (McDonald's, KFC) we can evaluate their share on the oligopolistic market. It should be noticed that the fast food market in the Czech Republic also includes other smaller chains (Subway, Parky's, etc.), which offer close substitutes to the dominant

companies' products. The fast food market has a large number of small, specialized sellers, which are focused on the national cuisine (Thai, Chinese, Arabic, and etc.). They do not affect the market's revenues significantly. These small sellers belong to the analyzed oligopolistic market's so called „competitive fringe”.

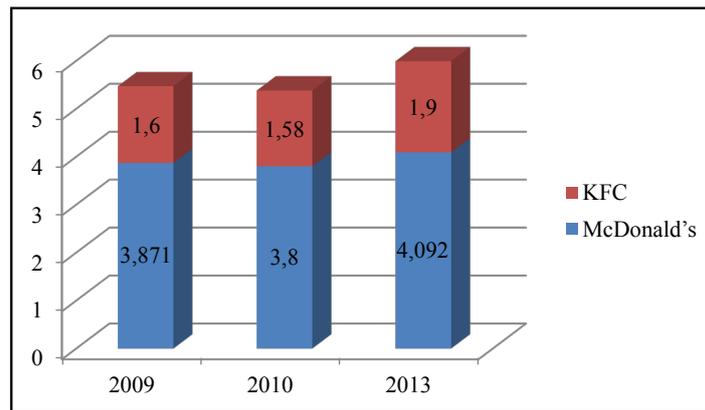
The following graph (Graph 2) expresses the competition between McDonald's and KFC in the previous few years in terms of their sales.

According to the Graph 2, McDonald's has been acquiring the decisive position in the fast food market (burgers, wraps, and etc.) during the given years. That is why, the company is considered to be the dominant firm in the market. The relative share of sales of the company had been changing from 3.8 billion CZK and 1.58 billion CZK in 2010; to 4.1 billion CZK and 1.9 billion CZK in 2013. McDonald's reported it had reached 46 % from the total fast food market in 2014. The company has been reaching the dominant position in the market for a long period of time; KFC as a medium-sized company and other small

Year	Sales (billions CZK)	Fixed base index (1992=100)	Chain base index
1992	0.121	100	-
1993	0.255	211	211
1994	0.419	346	164
1995	0.482	398	115
1996	0.899	743	187
1997	1.202	993	134
1998	1.356	1121	113
1999	1.485	1227	110
2000	1.617	1336	109
2001	1.77	1463	109
2002	1.961	1621	111
2003	2.073	1713	106
2004	2.14	1769	103
2005	2.282	1886	107
2006	2.576	2129	113
2007	3.203	2647	124
2008	3.777	3121	118
2009	3.871	3199	102
2010	3.8	3140	98
2011	3.998	3304	105
2012	4.167	3444	104
2013	4.092	3382	98

Source: McDonald's annual reports; own calculations

Table 3: McDonald's sales in the Czech Republic, 1992-2013 (billions CZK).



Source: Annual reports of companies

Graph 2: The Comparison of sales of McDonald's and KFC in the Czech Republic in 2009, 2010 and 2013 (billions CZK).

Year	Sales of McDonald's (billions CZK)	Sales of KFC (billions CZK)	Fixed base index (2009=100) of McDonald's	Fixed base index (2009=100) of KFC	The ratio of sales (McDonald's/KFC)
2009	3.871	1.6	100.00	100.00	2.42
2010	3.8	1.58	98.17	98.75	2.41
2013	4.092	1.9	105.71	118.75	2.15

Source: Annual reports of companies; own calculations

Table 4: The ratio of sales and the fixed base indexes for McDonald's and KFC in the Czech Republic in 2009, 2010 and 2013 (billions CZK).

fast food sellers (about 7,000 companies) form a competitive fringe in the oligopolistic fast food market. The dominance of one firm will not prevent KFC or other firms (e.g. Subway) to occupy that position in future in the given market segment. In the case of the sector's instability in the country that could be caused by changes in consumer preferences, the barometric model of oligopoly with a dominant firm may arise, where the dominant position is rotated by firms in the given market structure.

McDonald's has 93 restaurants in 2014 in the Czech Republic and other restaurants are prepared to be open in the next few years. Management of the chain plans to open new branches near railway and bus stations with smaller sizes of restaurants, with limited number of offers and with extended number of take away offers (McDonald's, 2014). McDonald's, in particular, has traditionally focused on a strategy centered around high accessibility (Jekanowski, Binkley and Eales, 2001). This strategy is rooted in the philosophy that the overall number of transactions per capita in a specific market increases as the number of McDonald's restaurants increases (Samuels, 1996).

Table 4 shows the ratio of sales between two companies. We can observe that McDonald's ratio is bigger during the given period of time and it decreases. The fixed base indexes for KFC increase faster than the fixed base indexes for McDonald's. It proves the possibility that KFC could occupy the dominant position in the market in the case of the sector's instability. To calculate chain base indexes for both companies we should know sales of KFC for the given period of time. We have found sales of KFC only for the years 2009, 2010 and 2013. Hence, it is not possible to calculate chain base indexes for both companies in the given period of time due to the lack of information.

- **Parky's** company placed its fast food restaurants nearby railway stations like McDonald's, where it sells its meals (hot dogs) containing sausages from "Kostelecké uzeniny", which is the company, that belongs to Andrej Babis - the billionaire and the Finance Minister in the Czech Republic. "Kostelecké uzeniny" in collaboration with its strategic partner Parky's plans to open dozens of stalls. These stalls will offer hot dogs in the country. The main part of the business will be the production of sausages manufacturer with its traditional production from 1917.

The company has proved several stalls pilot projects, which were opened in 2013, nearby the main railway stations in Prague, Kolin and Olomouc. The Smíchovský's stall was closed because it was less profitable than others. However, new stalls would be added to the existing ones in the near future. For example, one of the new stall is opened in the ski area "Snowhill Herlíkovice" in Krknoše (Kütner, 2014).

„Kostelecké uzeniny" had struggled with losses in the recent years. The new project might be one of the ways, how to return the company back to successful profits. Expansion of the company is planned in the whole country, but first changes would be held in the most attractive location of the country.

The Parky's project, which was launched by „Kostelecké uzeniny", is now entering the next phase from mobile food stalls to normal restaurants. The company has successfully tried several different concepts and now uses a franchise model not only for stalls, but also for so-called "shop-in-shop chains" or sales in already existing restaurants. By the end of 2014, there could arise a dozen of new "shop-in-shop chains", but it also depends on the contractual partners of the company (Parky's, 2014).

- **KFC** also tries to increase its market share in the Czech market. The fast food chain belongs to the American company Yum Brands together with other restaurant chains such as Pizza Hut and Taco Ball. KFC has more than 60 restaurants in the Czech market. The company is focused on the sales' growth not only by establishing new restaurants, but also by increasing the attractiveness of existing ones. Management of the company plans to invest in the reconstruction of the oldest (first opened) and the most congested restaurants

during the year. It is interesting to mention that the Agrofert Group, which belongs to one of the richest Czechs Andrej Babis, prosper due to the popularity of KFC's chicken meals, because a large portion of chicken comes from the poultry farm Vodňanská drůbež, which in turn belongs to the Agrofert Group (KFC, 2014).

While American McDonald's has a direct representation in the Czech Republic, competitive KFC is presented in the domestic market by the Polish Group AmRest. The Polish Group AmRest also owns the majority of Burger King fast food restaurants, Pizza Hut, cafes Starbucks, Fresh Point, Rodeo Drive and other fast food restaurants in the Czech Republic.

Table 5 and Graph 3 shows operating profits of the largest fast food chains in the Czech Republic from the year 2005 to 2012. Fixed base indexes and chain base indexes are used for the further analysis. The operating profit of McDonald's had increased in comparison with the base year 2005. Chain base indexes have increased over time; and the highest rise in the chain base index was measured in 2007. The operating profit of AmRest Group fluctuates in the given period of time. The fixed base index presents an increase in profits in comparison with the base year 2005. The chain base index of AmRest Group increases in 2006, 2009 and 2011; and decreases in 2007, 2008, 2010 and 2012.

We can derive the linear trend for McDonald's operating profit as:

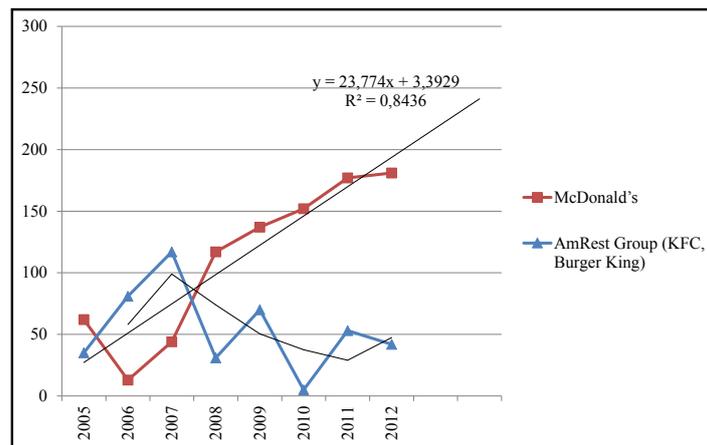
$$y = 0.0238x + 0.0034,$$

where the regression coefficient equals to 0.0238, i.e. year-to-year prediction growth is 0.0238. The value of the reliability of the approximation is equal to 0.8436 (R^2). This number indicates

Year	McDonald's	Fixed base index (2005=100) of McDonald's	Chain base index of McDonald's	AmRest Group (KFC, Burger King)	Fixed base index (2005=100) of AmRest Group	Chain base index of AmRest Group
2005	0.062	100.00	-	0.035	100.00	-
2006	0.013	20.97	20.97	0.081	231.43	231.43
2007	0.044	70.97	338.46	0.117	334.29	144.44
2008	0.117	188.71	265.91	0.031	88.57	26.50
2009	0.137	220.97	117.09	0.070	200.00	225.81
2010	0.152	245.16	110.95	0.005	14.29	7.14
2011	0.177	285.48	116.45	0.053	151.43	1060.00
2012	0.181	291.94	102.26	0.042	120.00	79.25

Source: Annual reports of companies; own calculations

Table 5: Operating profits of the largest fast food chains in the Czech Republic, 2005-2012 (billions CZK).



Source: Annual reports of companies; own calculations

Graph 3: Operating profits of the largest fast food chains in the Czech Republic, 2005-2012 (billions CZK).

a strong correlation between the calculated numbers with the data.

The prediction based on the linear trend shows: in 2013 the operating profit of McDonald's should be 0.217 billions CZK and in 2014 the operating profit should achieve the value of 0.241 billions CZK. The data are predicted for the year 2013 and 2014 due to the lack of information for the given years.

The linear trend function for AmRest Group's operating profit is:

$$y = -0,0046x + 0.075,$$

where the regression coefficient equals to -0.0046, i.e. year-to-year prediction decline is 0.0046. The value of the reliability of the approximation is equal to 0.1068 (R^2). This number indicates low correlation between the calculated numbers with the data. Another function should be found in order to characterize the development of the operating profit correctly. We can use a median-median linear curve fit or other possible regression functions (polynomial, multiple linear, logarithmic, exponential, and etc.).

The prediction based on the linear trend shows: in 2013 the operating profit of AmRest Group should be 0.0335 billions CZK and in 2014 the operating profit should achieve the value of 0.0288 billions CZK. The data are predicted for the year 2013 and 2014 due to the lack of information for the given years.

While the operating profit of McDonald's grows, the operating profit of AmRest Group decreases over time in the Czech market. McDonald's has a strong position in the market, which grew even

in the period of recession in 2008. The Polish AmRest Group loses its market position in the Czech market. It can be caused by the consumer preferences, by the different amount of restaurants, by lower prices or by a stronger advertising policy of competitive firms. For example, a Czech citizen consumes about 80 kg of meat per year, 40 kg of that belongs to a pork meat, 25 kg to a poultry meat and 15 kg to a beef meat according to the Czech Statistical Office. It means that from 80 kg of meat 69 % belongs to pork and beef meat and only 31 % to poultry (Czech Statistical Office, 2014). That is why we can state that Czech people prefer meat to poultry. As for the number of restaurants, McDonald's has more than 90 restaurants while AmRest Group owns only 70 restaurants in the Czech market (McDonald's, KFC, Burger King, 2014). Therefore, McDonald's has more options for selling its meals. And finally if we compare prices of chains, we can admit that the price of the cheapest sandwich (Hamburger) in McDonald's is 20 Czech crowns while the price of the cheapest sandwich in KFC (Longer) is 30 Czech crowns and the price of the cheapest sandwich in Burger King (Hamburger) is 39 Czech crowns for the 25th of September, 2014. Therefore, McDonald's is still cheaper for a consumer than other fast food restaurants. (McDonald's, KFC, Burger King, 2014)

- **Subway** is another fast food chain, which operates in the Czech market. Subway is a fast-food franchise chain. It was founded in 1965 by Fred De-Luca. The company still belongs to its founder and it operates in 101 countries. Subway is a stronger international player than McDonald's

in terms of the number of restaurants in the world. While Subway has 39 700 restaurants, McDonald's owns only 35 000. However, McDonald's has higher revenues than Subway in terms of the worldwide viewpoint (Subway, 2014).

American Subway plans another significant expansion in Europe. Europe and North America are currently the strongest and fastest growing markets for the company, and most likely these continents will remain to be significant for the company's profit. Subway prepares to open approximately one thousand restaurants in the old continent during 2014. The Prague's Subway office will play an important role in the expanding of businesses as far as it controls franchises in Central and Eastern Europe. For example, Subway in Prague will control franchises in Ukraine and in the Baltic states. More than 4 000 restaurants were opened in Europe in the last few years and the 4 001st restaurant was opened in Romania in 2013. However, the first country for the company's expansion in Europe remains the United Kingdom. As for the Czech Republic, the company will continue the expansion in the country. Subway plans to open more than twenty restaurants during the following year and plans to find new potentials for a growth in the Czech market.

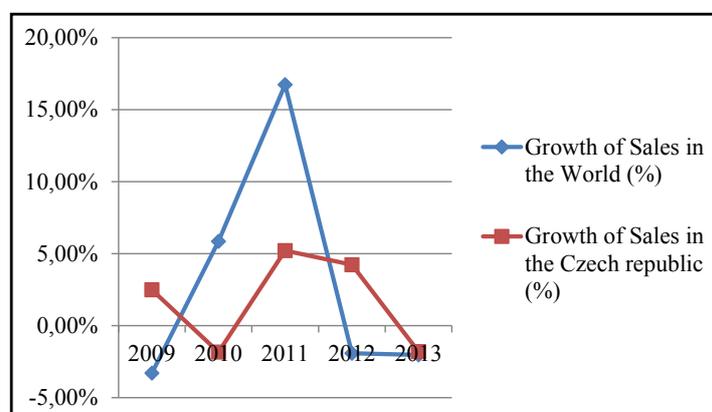
The company produces new products twice a year. Regions are partially free to choose products from the general offer, although basic meals are similar in every restaurant in the world. New products are tested in each region before they will be included in general offers. For example, Subway tested whole grain bread and avocado's sandwiches in Morava in 2013. The latest product is an American flatbread, which has strong filling tastes that make a pleasant surprise for a common

customer. The Subway's franchise owners are not completely independent in their decisions; there are certain restrictions and limited standards in a number of cases. They should also have sufficient starting capital and they should be personally involved in the running of a restaurant.

McDonald's Comparison of sales in the world

McDonald's operate restaurants in over 100 countries and it owns more than 35 000 restaurants in the world. The company's total revenues consist of sales by company-operated restaurants and fees from restaurants operated by franchisees. The world's revenues of the company are divided geographically into the U.S. region, Europe, APMEA (Asia Pacific, Middle East, Africa) and other countries. Company-operated sales achieved 18 875 millions of dollars in 2013. They are generally bigger than franchised revenues, which are only 9 231 millions of dollars for the same year. For the company-operated sales, the most profitable region is Europe (8 138 millions of dollars). As for the franchised revenues, the most profitable region in the world is the U.S. with 4 339 millions of dollars.

The average growth of sales in the world for the company is 3.06 %, while the average growth of sales in the Czech Republic is 1.66 % for the years 2009-2013. If we compare the growth rate we will observe fluctuations during the analyzed period. The most successive year for company's sales was year 2011. Sales of the company had decreased after 2011. The following Graph 4 presents comparison of total sales growth of the company between the Czech Republic and the world.



Source: Annual reports of companies; own calculations

Graph 4: McDonald's growth of sales in the Czech Republic and in the world, 2009-2013 (%).

Big Mac: the McDonald's Most Famous Burger and the Economic Indicator

The Big Mac is a sandwich with two slices of grilled beef, American cheese, iceberg lettuce, pickles, onions and the Big Mac's sauce. The Big Mac is well known all over the world. But the history of its creation is not so popular. The Big Mac had two other names before its final title. The first was the „Aristocrat“, however it was difficult to pronounce for customers and this name did not succeed in the market; the second name was the “Blue Ribbon Burger” or in other words, the „premium burger“. This name either did not succeed, and only the young secretary of McDonald's came up with the current name “Big Mac”. The author of the Big Mac's recipe is Jim Delligatti, one of the first franchisees of McDonald's founder Raye Kroc. The recipe was created in 1967 in the restaurant Ross Township in Pennsylvania. The sandwich quickly became popular in restaurants all over the United States. McDonald's opened the Big Mac Museum in the restaurant in North Huntingdon, Pennsylvania on the occasion of its 40th birthday in 2007. The museum was opened personally by the author of the Big Mac's recipe, who was 89 years old at that time.

As McDonald's states: “If you order the Big Mac, you will always get a sandwich consisting of two slices of grilled beef, American cheese, “special sauce” (a variant of Thousand Island dressing), iceberg lettuce, pickles, and onions, served in a three-part sesame seed bun. Only boneless front cuts of beef are used in order to produce hamburger's beef slices. Meat is frozen, and only in McDonalds it is barbecued without additional thawing. Meat is grilled under 70 ° C, therefore it is healthy, and at the same time it does not lose its juiciness. After the careful grilling which brings the robust flavor of the meat, it is lightly salted and peppered.” (McDonald's, 2014).

The Big Mac is known worldwide and is often used as a symbol of American capitalism. Economists have also used it as a reference point for comparing the cost of living, currencies and the purchasing power of populations in different countries. So called the Big Mac Index is used because it is widely available and is comparable across markets. This Big Mac index is published every year in economic journals. Economists monitor prices of Big Macs in each country and then derive, whether the local currency is undervalued or overvalued against dollar. For example, a customer will find the cheapest Big Mac in Kiev,

Ukraine, mainly because of the extremely weak domestic currency. While in Oslo a customer will find the most expensive burger in the world. The price of the Big Mac in Oslo is 7.76 \$ per unit, while the price of the Big Mac in Kiev is 1.63 \$ per unit.

Final Analysis

1. The advent of fast-food restaurants in the 90's of the 20th century after the arrival of McDonald's, KFC and other famous fast food brands has become one of the symbols of the modern meals. Nowadays, there are many of chains that offer burgers and sandwiches, as well as individual hot dogs' sellers in the Czech Republic. However, hot dogs' chain is a new trend in the country that was lacking before.
2. McDonald's market share in terms of output is currently 46% of the market. If market shares of a company exceed 40 % of the relevant market, the company achieves the dominant position in this market according to the Office for the Protection of Competition in the Czech Republic (2001). Therefore McDonald's has the dominant position in the Czech relevant market.
3. Although Subway is the market leader in the United States of America, it is still not a major player in the Czech market. It loses its market power in terms of the amount of restaurants, as well as in a customer's loyalty compared with the existing chains McDonald's or KFC.
4. The Parky's is a company owned by Andrej Babiš, one of the richest Czech people in the world. It focuses on a specific segment of the market - sales of meals nearby railway stations. Sales of hot sausages at railway stations have a long tradition in the Czech Republic. Furthermore, railway stations are not so popular among big fast food chains, what reduces a competition for Parky's. A small size of restaurants economizes costs and on the other hand provides meals for a large number of customers. A typical customer of Parky's passes through the station and wants to eat quickly and cheaply. That is why, Parky's can replace old and cheap station's restaurants that were traditional stop for many passengers of railway and bus stations in the past.

5. In terms of profits for the two main players in the fast food market (McDonald's and KFC) it can be stated that the Czech chain of McDonald's has a long-term profit growth, as it was showed by the increasing linear trend in the graph (see Graph 1). McDonald's profit grew even in the period of the economic recession, but just at a slower rate. The reason of the growth might be the fact that products offered by McDonald's (especially hamburgers) are relatively cheaper substitutes for more expensive meals in common restaurants. Moreover, a customer service in fast-food restaurants is quick and thus saves time and increase the capacity of a restaurant. It also proved that especially children prefer eating at fast food restaurants: "Factor analysis explored preference of unhealthy foods by children. Results of hypotheses testing revealed a strong dependence relating to techniques of pester power, accommodating their requests and transact the purchase." (Balcarová, Pokorná, Pilař, 2014)
6. The growing consumer interest is also evidenced by the survey of "Edenred", which gives meal vouchers called "Ticket Restaurant". For example, 11.9 % of its customers had ordered meals in fast food restaurants in 2009, while 13 % of its customers had ordered meals in fast food chains in 2012.
7. Return on sales is an indicator of profitability and is often used to compare the profitability of companies and industries of different sizes (Best, 2005). Return on sales calculated for McDonald's has showed the growth of the company's profitability for the years 2005-2012. Return on sales index of AmRest Group was higher than the same indicator of McDonald's in 2009. In 2010 return on sales index of AmRest Group decreased and was significantly lower than the same indicator of McDonald's. Return on sales index has proved that McDonald's prevails in profitability compared to other companies in the industry.
8. McDonald's total revenues consist of sales by company-operated restaurants and fees from restaurants operated by franchisees. The world's revenues of the company are divided geographically into 4 regions: the U.S., Europe, APMEA (Asia Pacific, Middle East, Africa) and other countries. Company-operated sales are generally

bigger than franchised revenues for years 2008-2013. For the company-operated sales, the most profitable region in 2013 was Europe with 8 138 millions of dollars. As for the franchised revenues, the most profitable region in the world was the U.S. with 4 339 millions of dollars in 2013. The average growth of McDonald's sales in the world is generally higher than the average growth of sales in the Czech Republic for years 2009-2013, which highlights that McDonald's is more successive in the world than in the Czech republic in terms of sales for the given years.

9. KFC as a major competitor of McDonald's is trying to attract new customers. It tries to product the similar products (Twister and ChickenMcWrap) and decrease prices. However, McDonald's benefits from its initial dominant position in the Czech market from 1992 offering well-known and deeply loved products. The significant position of McDonald's is supported by the constant product innovation and by images of its stores.

Conclusion

Multinational fast food chains appeared in the Czech Republic just after the creation of a market economy in the country. One of the first international fast food chains was McDonald's and its successful entry on the market contributed to the dominant position of the firm in the analyzed sector (currently McDonald's has 46 % of the total market segment). Fast food restaurants are used by people in order to save time. They are opened for 24 hours per day; as a consequence people use them for meetings with friends or for businesses' meetings. We can mention a new social function of fast food restaurants which helps to strengthen their market position. They have relatively low prices which are preferred in a period of economic recessions and in periods of low salaries. Therefore fast food restaurants still hold a position of dominant firms in the sector.

It is important to mention, that competition increases and new firms get into the market, so fast food chains fight for every customer. It is reflected not only in advertising and price policies, but also in investments, discounts offers and in other possible ways. Fast food chains have prospered in the Czech Republic for a long period of time and a further growth is possible in this segment

of the market. Despite the fact, that bankruptcy of small and middle sized restaurants have increased, especially in small towns of the country; fast

food chains still keep the dominant position in the market.

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