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Bachelor thesis

FOREIGN TRADE COMMODITY STRUCTURE, CASE STUDY OF THE CZECH REPUBLIC IMPORT

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Declaration

I hereby declare that I have worked on my Bachelor Thesis titled "Foreign trade commodity structure, case study of the Czech Republic import" solely and completely on my own and that I have marked all quotations in the text. The literature and other material I have used are mentioned in the References Section of the Thesis.

Prague, 30th April 2009 **…….**

Marek Bubeník

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Foreign trade commodity structure, case study of the Czech Republic import

Komoditní struktura zahraničního obchodu, případová studie importu České republiky

Summary

Foreign trade offers higher possibilities than it would be capable to realize only with use of single country territory. It brings wider selection of products, allows higher possibilities for production and serves also as a secure diplomatic relations.

The main target of this thesis is to analyse Czech import and its commodity structure. First part is devoted to basic definitions, tools and organizations engaged in foreign trade, this part is as literature overview and should help to understand how foreign trade works.

Second part is dedicated to analysis of the Czech Republic natural resources, production, foreign trade, import and its structure between years 1999-2008.

Souhrn

Zahraniční obchod nám nabízí možnosti, kterých by Česká republika nebyla schopna dosáhnout při využití jen svého území. Přináší větší výběr zboží a umožňuje tím více možností pro domácí výrobu, také prohlubuje diplomatické vztahy.

Hlavním cílem této práce je analyzovat český import a jeho komoditní strukturu. Teoretická část je věnována základním definicím, nástrojům a organizacím zahraničního obchodu. Tato část by měla pomoci porozumět cílům zahraničního obchodu.

Praktická část je věnována analýze přírodních zdrojů, výroby, zahraničního obchodu, importu a jeho struktury v České republice mezi lety 1999-2008.

Key words

Foreign trade, Czech Republic, Import, export, trade balance, goods, commodity structure, territorial structure, European Union, GDP

Klíčová slova

Zahraniční obchod, Česká republika, import, export, obchodní bilance, zboží, komoditní struktura, teritoriální struktura, Evropská unie, HDP

Content:

1. Introduction

Before 1989 the Czech Republic was one of the COMECON - Council for Mutual Economic Assistance members. All parts of industries were nationalized and the movement of goods was centrally planned in five years plans and directed from Moscow. Currency was non-convertible and eastern countries were the only available trading partners. Free trade was unknown idea. In 1989, trade with the former Communist countries accounted for 56 percent of total foreign trade. This share has declined markedly since then.

Today the Czech Republic is a developed country in central Europe, which was separated from Slovakia and became an independent nation in 1993. It belongs to one of the most stable and prosperous countries of post-Communist states. Instead of the COMECON the Czech Republic became a member of organizations which really supports and allows free trade as WTO, OECD and European Union and its membership is also connected with corresponding growth rate with these member states. The country has fully implemented the Schengen agreement and therefore, has abolished border controls by completely open its borders with all of its neighbours, such as Germany, Austria, Poland and Slovakia, on December 21, 2007. The foreign trade with the european states accounts for 90 percent of foreign trade in 2008 and has been growing rapidly with China.

This thesis is focused on foreign trade and commodity structure of import during 1999-2008, the time when free trade and currency convertibility was really possible.

2. Objectives and Methodology

2.1 Objectives

The purpose of this thesis is not only to outline the main development trends of the Czech foreign trade and its commodity structure of import in the matter of time, commodity and institutional aspects in 1999-2008, but also to point out how the Czech Republic foreign trade and its commodity structure of import is affected by foreign exchange, price of crude oil, accession to European Union, seasonality and other factors.

2.2 Methodology

This thesis is divided in a theoretical and a practical part. The theoretical part starts with a basic division and definitions of foreign trade, fundamental theories and basic understanding which are helpful to handle this thesis. Then the thesis continues with history, economic situation and relations in the foreign trade of the Czech Republic.

The practical part is focused on the foreign trade and commodity structure of import of the Czech Republic and its development. The commodity structure is observed in time series and basic statistical computations are used. An important part of the practical part is dedicated also to observing the influence of the Czech accession to EU, foreign exchange and price of crude oil and its influence on commodity structure of import. Commodity groups are divided according to Standard International Trade Classification (SITC). It is an internationally recognized foreign trade data classification system. The methodology for collecting data follows the rules of Czech Statistical Office.

Numerical data was collected mainly through online application called “Database of foreign trade” on the websites of the Czech statistical office. This application serves for detailed prospection of single commodity groups in time lines. Then data was processed in Microsoft excel and combined with the other collected data for the purpose of calculations and graphs creation. Data used in this thesis are in current prices (except in figure 1). Other data was collected from literature, journals and internet resources.

Between tools and methods used to analyse foreign trade in this thesis belong SWOT analysis and analysis of time series. It includes computations and methods as inter-annual changes, percentual changes, proportions on total share, comparative method, openness of economy, balance of trade, periodical changes, seasonal indexes and others.

3. Literature overview

3.1 Definition of foreign trade

"Foreign Trade is the exchange of goods and services between nations. Goods can be defined as finished products, as intermediate goods used in producing other goods, or as agricultural products and foodstuffs. International trade enables a nation to specialize in those goods it can produce most cheaply and efficiently. Trade also enables a country to consume more than it would be able to produce if it depended only on its own resources. Finally, trade enlarges the potential market for the goods of a particular economy. Trade has always been the major force behind the economic relations among nations."[1]

3.2 Basic division of foreign trade

Export

To send goods or services across national frontiers for the purpose of selling and realizing foreign exchange.[2]

Import

To deliver goods or services or cause something to be deliver from another country, usually for commercial or Industrial purposes.

Trade deficit and surplus

An excess of imports over exports is a trade deficit. An excess of exports over imports is a trade surplus.[3]

[1]Microsoft® Encarta® Online Encyclopedia 2008, <http://encarta.msn.com>, „Foreign Trade," > [cit. 2009-03-20]
[2]Business dictionary: <http://www.businessdictionary.com/definition/export.html> [cit. 2009-03-20]
[3]Economist: <http://www.economist.com>, „Deficit" > [cit. 2009-03-20]

3.2.1 Import and Export division:

Territorial structure

Is division according to country, union or organization from and to where is the good exported or imported.

The largest trading partner of the Czech Republic is the European Union, which accounts for 3/4 of the total foreign trade volume of the Czech Republic. The largest trading partner among EU member states is the Federal Republic of Germany, which represents nearly 35% of the total Czech foreign trade volume. The Czech Republic seeks further diversification of its foreign trade territorial structure in order to limit the Czech economy's dependence on only a few markets, the economic cycles of which might negatively affect the Czech Republic.[4]

Commodity structure

Is division according to commodity which are exported or imported.

The present foreign trade commodity structure of the Czech Republic corresponds fully to that of a developed economy, with the greatest share of exports represented by machinery and transport equipment, followed by other commodities and industrial products.[5]

[4]Czech.cz:<http://www.czech.cz/en/economy-business-science/general-information/foreign-trade/foreign-trade-territorial-structure?i> [cit. 2009-03-20]

[5]Czech.cz:<http://www.czech.cz/en/economy-business-science/general-information/foreign-trade/foreign-trade-commodity-structure?i=3> [cit. 2009-03-20]

3.3 Goals of foreign trade - Foreign trade theories

Several different theories have been proposed to predict patterns and of trade:

3.3.1 Mercantilism

Various theories of international trade had been used over the last 250 years. However during the 16th and 17thcenturies mercantilism appeared. It prioritized exports and discouraged imports and trading countries generated wealth and power by exporting manufactured goods in exchange for gold.[6]

Mercantilism became rigorous theoretical doctrine with its influence on Adam Smith and his theory of absolute advantage.

3.3.2 Adam Smith Theory

In 1776 the Scottish economist Adam Smith, in The Wealth of Nations, proposed that specialization in production leads to increased output. Smith believed that in order to meet a constantly growing demand for goods, a country's scarce resources must be allocated efficiently. According to Smith's theory, a country that trades internationally should specialize in producing only those goods in which it has an absolute advantage—that is, those goods it can produce more cheaply than can its trading partners. The country can then export a portion of those goods and, in turn, import goods that its trading partners produce more cheaply.[6]

Adam Smith´s theory of absolute advantage induced two consecutive theories:

3.3.3 David Ricardo Theory

Half a century later, the English economist David Ricardo modified this theory of international trade. Ricardo's theory, which is still accepted by most modern economists, stresses the principle of comparative advantage. Following this principle, a country can still gain from trading certain goods even though its trading partners can produce those goods more cheaply. The comparative advantage comes if each trading partner has a product that will bring a better price in another country than it will at home. If each country specializes in producing the goods in which it has a comparative advantage, more goods are produced, and the wealth of both the buying and the selling nations increases.[1]

[6] TANNER, L. Essentials of international trade. 1st edition, 2008, Praha:CZU-PEF, s. 9-10, ISBN: 978-80-213-1859-5

3.3.4 Hecksher-Ohlin Theory

Hecksher-Ohlin theory contradicts David Ricardo´s theory of comparative advantage by stating that the differences in productivity are based on different nations factor endowments such as land, labour and capital. Different nations are provided with different factor endowments which imply differences in the factor costs. The more productive a factor, the lower is its cost.[6]

The Hecksher-Ohlin theory assumes that countries will export such types of goods and services which will intensively apply those factors that are locally productive, while other goods and services which will intensively apply those factors that are locally productive, while other goods and services will be imported that will apply factors that are locally rare.[6]

Both theories, David Ricardo´s theory of comparative advantage and Hecksher-Ohlin theory advocate free trade.

3.3.5 Paul Krugman New Trade theory

Although most economists support free trade, in the 1970s a growing number of them became increasingly puzzled by the large differences between the predictions of free trade theory and real-world trade flows. Their solution to this puzzle is known as new trade theory.

One mystery was that trade was growing fastest between industrial countries with similar economies and endowments of the factors of production. In many new industries, there was no clear comparative advantage for any country. Patterns of production and trade often seemed matters of chance. Trade between two countries would often consist mostly of similar goods, for example, one country would sell cars to another country from which it would import different models of cars.

One explanation, associated in particular with Paul Krugman of the Massachusetts Institute of Technology, drew on Adam Smith's idea that the division of labour lowers unit costs. Economies of scale within firms are incompatible with the perfect competition assumed by traditional trade theory. A more realistic assumption is that many markets have monopolistic competition. When a monopolistically competitive market expands, it does so through a mixture of more firms (greater product variety) and bigger firms, with bigger-scale economies. Free trade expands market size beyond

national borders and so allows firms to reap bigger economies of scale, to the benefit of consumers, workers and shareholders.[7]

3.4. Organizations engaged in international trade development

COMECON – Council for Mutual Economic Assistance
GATT – General Agreements on Tariffs and Trade
WTO – World Trade Organization
CEFTA – Central European Free Trade Agreement
EU – European union

3.4.1 COMECON - Council for Mutual Economic Assistance (1949–91)

An economic organization set up by the Soviet Union in response to the Marshall plan and OEEC. It originally consisted of the Soviet satellite states of Eastern Europe (Albania was expelled in 1961), but was later joined by Mongolia (1962), Cuba (1972) and Vietnam (1978). Yugoslavia had a 'special' but non-member status. Comecon was the economic equivalent of the cominform and imposed economic uniformity on Soviet satellites: all had Five Year Plans, the nationalization of industry, the collectivization of agriculture and all took their orders from Moscow. Through it the USSR tried to create a self-sufficient regional economy, separate from the capitalist global economy. The foreign trade of all its members was heavily directed towards the Soviet Union and each other: Bulgaria's trade with Russia and Eastern Europe rose from 12 per cent in 1937 to 92 per cent in 1951. Hungary's from 13 per cent to 67 per cent, Romania's from 18 per cent to 79 per cent and Czechoslovakia's from 11 per cent to 60 per cent. Trade outside comecon was discouraged, the currencies of its members were non-convertible and they did not take part in Gatt. This was not an alliance of equals: Soviet exports of raw materials and machinery to members were well above world market prices, whereas the Soviet satellites had to sell their goods to the USSR cheaply.[8] The final Comecon council session took place June 28, 1991 in Budapest, and led to an agreement to disband within 90 days.

[7] Economist.com, <http://www.economist.com/research/economics/> „New trade theory", [cit. 2009-03-20]

[8] Blackwellreference.com,<http://www.blackwellreference.com/public/tocnode?id=g9780631209379_chunk_g97806312093794_ss1-22> [cit. 2009-03-20]

3.4.2 Gatt – General agreements on tariffs and agreements

Gatt was an agreement which regulated tariffs and trade restrictions on selected commodities. Objective of these regulations was to encourage free trade. Czechoslovakia was one of founding members of this treaty and was member since 1948. In 1995 the Gatt was replaced by new World Trade Organizations.

3.4.3 WTO – World Trade Organization

„The World Trade Organization (WTO) is the only global international organization dealing with the rules of trade between nations. At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations and ratified in their parliaments. The goal is to help producers of goods and services, exporters, and importers conduct their business."[9]

The Czech Republic has been a WTO member since 1 January 1995.

3.4.5 Cefta – Central European Free Trade Agreement

States of Visegrád four declaration founded Central European Free Trade Agreement in December 21, 1992 in Krakow. This declaration removes tariff and non-tariff barriers to trade to encourage free trade during transitional period. One of the Cefta objectives is preparation to accession to European Union. All four founding members became a member of European Union after 11 years in 2004 and left Cefta. Current members are mostly states of Eastern Europe.

3.4.6 EU - European Union

European Union is economical and political union between 27 democratic European countries.

„Frontier-free travel and trade, the euro (the single European currency), safer food and a greener environment, better living standards in poorer regions, joint action on crime and terror, cheaper phone calls and air travel, millions of opportunities to study abroad are so far results of EU."[10]

[9] World Trade Organization, <http://www.wto.org/english/thewto_e/whatis_e/whatis_e.htm> [cit. 2009-03-20]
[10] Europa.eu, <http://europa.eu/abc/panorama/index_en.htm>, [cit. 2009-03-20]

Main bodies of the European Union:
The European Parliament (representing the people of Europe);
The Council of the European Union (representing national governments);
The European Commission (representing the common EU interest).

„EU countries account for an ever smaller percentage of the world's population. They must therefore continue pulling together if they are to ensure economic growth and be able to compete on the world stage with other major economies. No individual EU country is strong enough to go it alone in world trade. The European single market provides companies with a vital platform for competing effectively on world markets."[11]

Economic and monetary union (EMU)

„On 1 January 1999, 11 countries adopted the euro, which thus became the common currency of Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain. (Greece joined them on 1 January 2001). From this point onwards, the European Central Bank took over from the EMI and became responsible for monetary policy, which is defined and implemented in euro."[12]

The Benefits of the Euro

Citizens: price transparency; easier travel with no currency exchange; lower interest rates.
Businesses: no exchange rate transaction costs; full benefits of the single market; financial market integration.
Macroeconomics: price stability (low and stable inflation); exchange rate stability; low interest rates.
Global: greater diversity and currency choice; enhanced stability (even amid adverse world events that would have caused exchange rate turmoil pre-euro).
Political: milestone step in European integration; enhanced global role.

Euro adoption

Convergence criteria
Each EU country must meet the five convergence criteria in order to adopt euro currency:

[11] Europa.eu <http://europa.eu/abc/12lessons/lesson_1/index_en.htm>, [cit. 2009-03-20]
[12] Europa.eu, <http://europa.eu/abc/12lessons/lesson_7/index_en.htm>, [cit. 2009-03-20]

Price stability: the rate of inflation may not exceed the average rates of inflation of the three member states with the lowest inflation by more than 1.5 %;

Inflation: long-term interest rates may not vary by more than 2 % in relation to the average interest rates of the three member states with the lowest inflation;

Deficits: national budget deficits must be below 3 % of GDP;
public debt: this may not exceed 60 % of GDP;

Exchange rate stability: exchange rates must have remained within the authorised margin of fluctuation for the previous two years.

Euro adoption in the Czech Republic

Euro adoption in the Czech Republic should be discussed in November 2009.

„Finance minister Miroslav Kalousek hope, that the Czech Republic fix a term for year 2013 or 2014."[13]

„Jiří Rusnok said that, it is unthinkable, that the Czech Republic accept euro currency in 2014. He doesn't believe to will of Czech politicians straighten public finance. Term of accession to monetary union will be after 2015. Government have to declare term of accession this November."[14]

On March 25th 2009 Czech government loosed confidence and discussion about euro accession is indefinitely postponed.

3.5 Types of restriction in foreign trade:

Tariffs (custom duty) – A tax that must be paid when particular goods are imported to country
Quota – a limit placed by the government on the amount of imports and exports of a particular article or commodity
Embargo – an official ban on trade with another country (prohibition of import)
Foreign currency regulation – determine range of currency convertibility towards foreign countries
Non-tariff barriers – discrimination of price offers and standards

[13] E15 - 15minut pro Ekonomiku a Byznys, e. 308 (2009-2-9), p. 2, Prague: Mladá 2009, Own translation
[14] E15 - 15minut pro Ekonomiku a Byznys, e. 317 (2009-2-20), p. 8, Prague: Mladá 2009, Own translation

Main arguments advocating restrictions in international trade:

1) The self sufficiency argument
2) The infant industry argument
3) The diversification of stability argument
4) The low-wage argument

The self sufficiency argument – Governments tend to protect industries that are essential to the nation's defence. For example the USA subsidizes its merchant marine. Without these subsidies, shippers would use only foreign ships to transport their merchandise, and the American merchant fleet would go out of business. But shipping, it is argued, would be vital to US armed forces in time of war, and so it is in the nation´s interest to protect the merchant marine.[15]

The infant industry argument – Industries which have a potential comparative advantage, but which are as yet too underdeveloped to be able to realise this potential. They are usually too small yet to have gained economies of scale, workers are as yet inexperienced, and there is a a lack of back –up facilities (communications, specialist research, etc.), so without temporary shielding from the severe competition of more mature and more efficient foreign firms they would have no chance to survive.[16]

The diversification of stability argument – When a nation leans entirely on a single crop or product, there is always the danger that a crop failure or a fall in price of their key product will bankrupt the nation. To prevent such a catastrophe governments support the creation of new industries which should lead to greater diversification of the economy. [16]

The low-wage argument – Perhaps the most frequently heard argument in favour of restriction s says that domestic firms and workers must be shielded from the ruinous competition of countries where wages are low. It suggests that domestic better paid workers are in danger of getting lower wages or peraps even losing their jobs. Therefore, it is up to the government to place restrictions on the goods produced by cheap foreign labour. [16]

[15] ČAPKOVÁ, H. English for economists. 2006, Praha, Ekopress s.r.o. ISBN 80-86119-52-1

3.6 Foreign trade and economic indicators

3.6.1 Gross Domestic Product (GDP)

„GDP is the total market value of all final goods and services produced in the economy in a given period of time, usually one year."[16]

„Gross Domestic Product (GDP) is a useful economic indicator of the performance of the economy in a given country or economic area. Is allows not only for a yearly comparison of the country's economic situation but also facilitates comparisons with other countries or regions."[17]

The indicator shows domestic production including the service sector, imports and exports, general consumption and public expenses. The entry of a large investor or a willingness on the part of consumers to spend is positive economic stimuli.[18]

3.6.2 Nominal vs. real gross domestic product

Nominal GDP
„Nominal GDP is the GDP figure without adjustment in price."[17]

Real GDP
„Real GDP is a measure of output produced by an economy valued in the prices of the base year. To find the real level of output, real GDP, divide the current (nominal) level of output, money GDP, by the GDP price deflator index number for the current year."[17]

3.6.3 GDP computation

There are lot of possibilities how to count GDP. For purpose of this thesis is the most useful expenditure method. Expenditure method covers sum of expenditures for personal consumption, gross private investment, government purchases and net export (difference between import and export).
Formula: GDP = I +G + (X – M)

[16] MAITAH, M. Macroeconomics. p.27-43. 2009, Praha, CZU PEF. ISBN 978-80-213-1904-2
[17] Czech.cz,<http://www.czech.cz/en/economy-business-science/general-information/gross-domestic-product-gdp?i=4>[cit. 2009-03-25]

3.6.4 Openness of nation´s economy

The openness of a nation´s economy lies in its participation in international economic relations which are represented by the movement of goods and services, factors of production, and financial assets between residents of various national economies.[19]

The rate at which an economy opens up is usually expressed by the ratio of exports of goods and services to GDP. There may be various causes for a low rate of openness of some countries expressed by this indicator: in the case of developed countries, a large domestic market may have the decisive (though not the only) role, in the case of developing countries high costs and low competitiveness on world markets.[18]

4. The Czech Republic

This chapter is more practical and is divided into three parts, from global to more detailed one. First part "Foreign trade" is focused on the whole trade, where for example total export and import are compared. Further part "Import" is interested in analysis of the Czech Republic conditions, natural resources, it is like reasons why we need import and analysis of import. The most detailed part is "Commodity structure of import" there are single commodity groups analysed according to SITC.

4.1 Foreign trade of the Czech Republic

4.1.1 Economy openness

Dependence on international trade can be expressed by openness of a nation's economy, it is ratio of total commodity and services export to gross domestic product. Result express participation in international economy by movement of goods and services, factors of production and financial assets.

Table 1: Economy openess of the Czech Republic 1999-2007

Thousand million Kč, current prices									
Year	1999	2000	2001	2002	2003	2004	2005	2006	2007
GDP	2081	2189	2352	2464	2577	2814	2984	3216	3530
Export	1154	1387	1537	1484	1592	1975	2155	2462	2830
Econ. Openness	55,5%	63,4%	65,3%	60,2%	61,8%	70,2%	72,2%	76,6%	80,2%

Data: Czech Statitical Office, Own computation

[18] HELÍSEK, M.: Makroekonomie. Základní kurs. 2. přepracované vydání. 2002, Slaný, Melandrium. ISBN 8086754189

From the table is evident that share of total goods and services export on gross domestic product significantly increasing through the time. In 1999 ratio of export to GDP was 55%, in 2007 it was 80%, and difference is 25% in 9 years. After stagnation between years 2000 – 2003 was the most significant change 9% rise in year 2004 which is the year of accession to European Union. It shows that the Czech Republic economy had to undergo through many changes and foreign trade play crucial role and still more important role in its development. Openness of the economy is one of the highest in the EU.

4.1.2 Relations of export and import

Following table shows relation between export and import goods and services, turnover and balance of trade these are the basic indicators of foreign trade.

Table 2: Export and Import relations

Thousand million Kč, current prices

Years	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Export goods	909	1121	1270	1254	1371	1723	1869	2145	2479	2465
Export services	245	266	268	230	221	252	286	317	351	382
Import goods	975	1242	1386	1326	1441	1736	1810	2079	2359	2362
Import services	204	212	210	210	210	237	251	271	294	300
Turnover	1884	2363	2656	2580	2812	3459	3679	4224	4838	4827
Balance of trade	-66	-121	-116	-72	-70	-13	59	66	120	103

Data: Czech Statitical Office, Own computation

From previous table Economy openness was found that the Czech Republic is still more open to foreign trade. In table Export and Import relations is possible to see impact of openness on growth of single parts of foreign trade.

Export of goods increased during ten years by 171%, growth of exported services was quite lower just 56%, share of services on export continuously declining in 1999 it was 27%, in 2008 it was only 15%. The most significant growth was 26% in year 2004 (after accession to EU). The most important trading partner was Germany, then Slovakia, Austria and Poland.

Import of goods has increased by 142% since 1999 to 2007. Growth of imported services was slower only 47%, share of services on import also continuously declining in 1999 the share was 21% and in 2007 it was just 12%. The most significant growth was 27% in year 2000 and 20% in year 2004. The most important trading partners were Germany, Russia, Slovakia and there is still stronger influence from China.

Turnover shows that growth of foreign trade with goods increased by 156% in last 10 years, minor decline was in years 2002 and 2008. Decline was caused by contemporary financial crisis.

Balance of trade also called net export has changed significantly. There was negative balance of trade between years 1999 – 2004. Formerly deficit was caused mainly by Russian import of crude oil and natural gas, but growing export to European countries overcame growth of import. Positive balance of trade grew until 2008, when the financial crisis with the growing deficit of China cause decline in balance of trade.

Both export and import had similar development. Great changes, declines and growth during the same time period showed high mutual connection of import and export.

4.2 Import

4.2.1 SWOT Analysis of the Czech Republic import

Strengths

Rising openness of economy and good international relations

Member of European Union, WTO and OECD, low taxation and free movements of goods in Schengen area

Geographical position in middle Europe and common borders with developed countries

Developed infrastructure

High demands on exports

Small country, which is not able to produce everything and to be self-sufficient

Participation of domestic carriers support our economy

Weaknesses

World financial crisis, global decline of faith in other companies, declining of the whole foreign trade

Import with high value added

Relatively low expenses, it can be hard to be competitive for others

Foreign carriers

Opportunities

Enlargement of the European Union, new potential members as Croatia, the Macedonia, Turkey and Ukraine would open new huge market with cheaper commodities

Successful continuation of the WTO program called Doha Development Round, with objectives to support global trade and decrease barriers in international trade.

Better awareness of foreign countries about domestic market, good name of our country in EU

Price relations incline to EU

Threats

Protectionism, protection of contemporary market because of financial crisis, setting of barriers in international trade

Import of commodities can endanger domestic producers

4.2.2 Natural resources in the Czech Republic

The Czech Republic is small country with relatively small amount of resources. Between most important natural resources in our country belongs black and brown coal, uranium, crude oil, natural gas and minerals. Most of them must be imported due to insufficient reserves.

Coal

Coal can be divided on black and brown coal. These are mined in Mostecko and Sokolovsko region near cities Kladno, Ostrava and Teplice. Coal is then used for production of steel and cement, in thermal power stations for producing electricity, chemical industry as a raw material, and in households for heating. In 2008 output was around 60 million tonnes. Reserves in coal mines will be depleted in 30-60 years. Coal as a fuel in thermal station generates 50% of the Czech electricity.

Crude oil

Crude oil is extracted in Beskydy and South Moravia regions by two companies Česká naftařská společnost, Ltd and Moravské naftové doly (MND). In 2008 their output accounted for 4% of domestic consumption. In future they are interested to mine

crude oil near protected areas by Unesco in south Moravia. In this region are deposits for 8-10 years if they will mine around 30,000m^3 of crude oil. World real reserves of crude oil should stand for next 45 years.

Natural gas

The biggest trading companies are RWE Transgas and EON. Extraction of Natural gas in South Moravia is by company Moravské naftové doly and has less than 1% share of total consumption. Industry is biggest consumer, using it mainly as a heat source to manufacture goods. The real reserves won't be depleted within 70 years. Natural gas helps to generate about 17% of the Czech electricity.

Other

There are deposits of metallic ores, lead and zinc ores are mainly in Bohemia region and northeast. Uranium is mined in northern Bohemia and gold deposits can be found in Mokrsko region and central Bohemia.

4.2.3 The Czech Republic production and major Czech importers

Production in the Czech Republic have crucial role for imported commodity structure. Most of the industries and producers need commodities, which are not available or available in favourable price on our territory.

The Czech Republic has long tradition as a heavy industry producer its common to reserves of brown coal and other mineral resources. Main sectors of production are engineering, metallurgy, electro industry, production of transport vehicles, chemical and textile industry. Most of these productions are highly demanding on material input

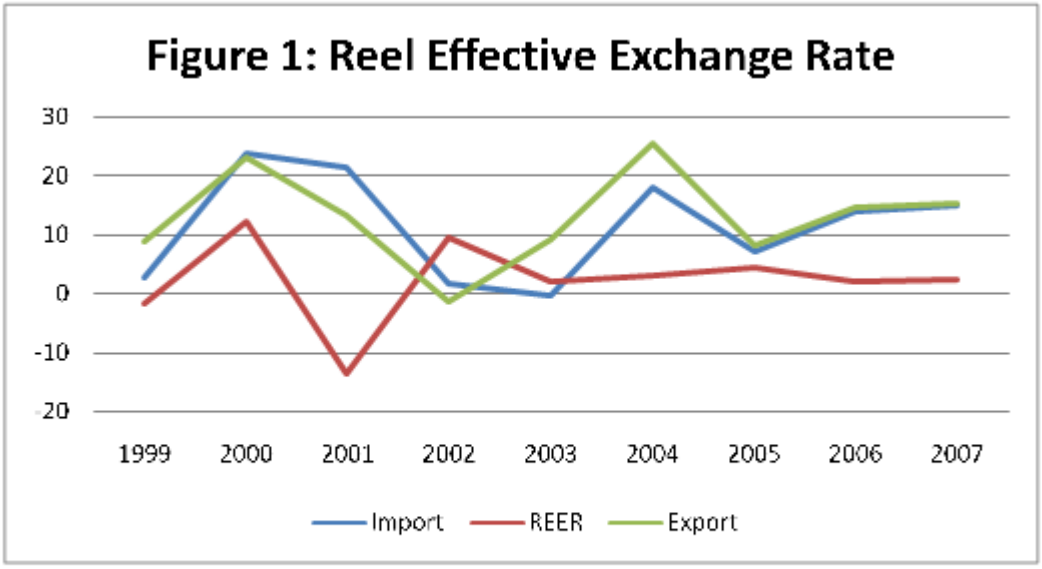
Between top 60 importers in 1997 were mainly companies interested in engineering (Moravia Steel, Metalimex, Ferona, OKD, Siemens…), in car manufacture (Škoda, Tatra, Opel, Mercedes, Renault, Avia). Significant role had power engineering (České plynárenské podniky, Česká rafinérská, ČEZ, České produktovody a ropovody), metallurgy (Nová huť), chemical (Chemapol, Chemopetrol) and telecommunication industry (Telecom, Eurotel, Radiomobil). Most of these companies can be found also in the list of the biggest exporters.[19]

[19] NEUSTADT, A. Facts on foreign trade of the Czech Republic. 1998, Třebíč, MPO, CZSO and Czechtrade. ISBN 80-7223-070-0

Next chapter deal with commodity structure of import, there can be seen impact of domestic production.

4.2.4 Exchange rate effect

Exchange rate effect can be measured by REER – Real effective exchange rate, it expresses weighted average of our currency related to other major currencies mainly euro and dollar currency, it is like how strong or competitive is our currency on currency market and it demonstrate for how much we will buy and sell to and from abroad. On the following table is expressed how real effective exchange rate influences development of foreign trade.



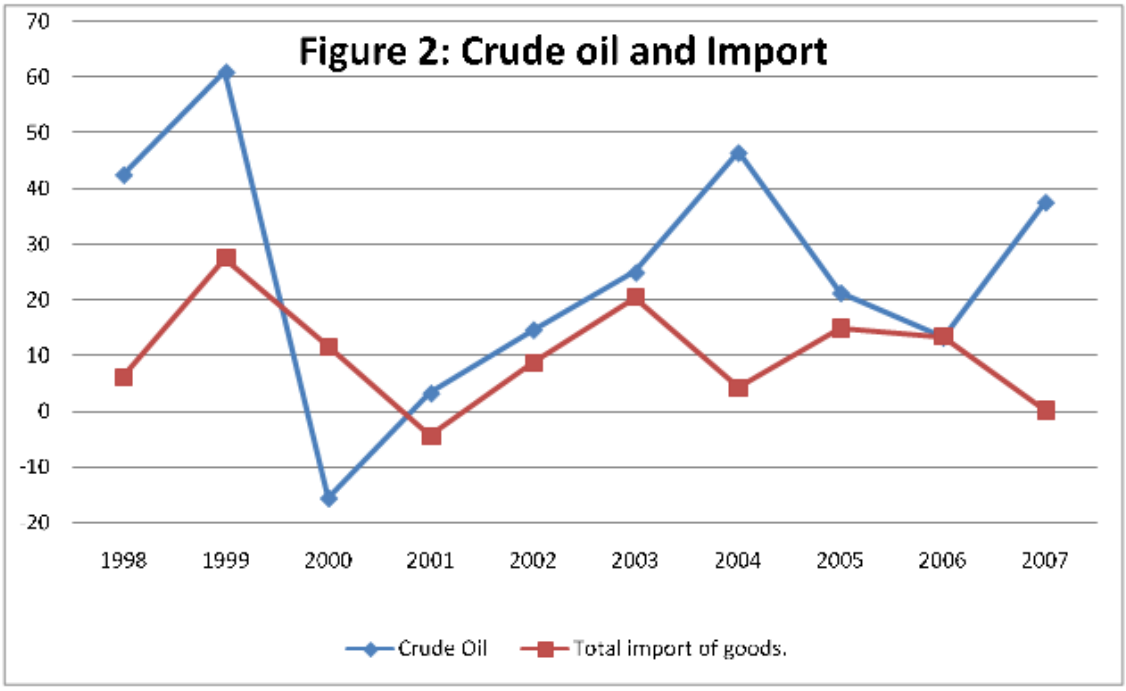
Percentage annual changes, fixed prices
Source: Czech Statistical Office, Own computation

Normally development of import should with local stronger currency increase, because local importers can buy goods cheaply. On the table we can see that the situation is mostly opposite. Behaviour of export is normal when local currency is strong as for example in year 2002 for foreigners is local goods more expensive and demand is decreasing. It results in smaller growth of export in comparison of previous year.

Main reason why it seems that import is not affected by changes in currency exchange rate is very strong dependency on export.

4.2.5 Crude Oil

Crude oil is one of the most important imported commodities, development of its price has effect on the whole foreign trade. Next table shows relationship between annual changes in price of crude oil and the total import of goods.



Percentage interannual changes, Current prices
Source: Energy Information Association: Own computation

Table 3: Crude Oil - Mediterranean (Russia, Urals) Spot Price FOB (Dollars per Barrel)										
Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Crude Oil - USD	17,02	27,4	23,15	23,92	27,44	34,3	50,25	60,97	69,1	95,08

Source: Energy Information Association, Own computation

Crude oil is imported mainly from Russia in dollars currency. From the graph it can be seen that when the price of crude oil was relatively low fewer than 30 dollars per barrel the import of goods was almost independent on the price of crude oil. After year 2004 when price exceed 30 dollars per barrel import of goods started to be significantly dependent on price development of crude oil. It means also dependency on development of CZK/USD exchange rate.

4.3 Commodity structure of Import

4.3.1 Development of single commodity groups

This part is focused on structure development of single commodity groups. Commodity groups are divided in 10 groups according to SITC classification.

Food and live animals – SITC 0

Basic information

Into the group Food and live animals belong products as fruit and vegetable, tropical fruit, coffee, cocoa, tea and spices, these products are not favourable to be produced in our climate. Products are designated for common people and purpose of import is to increase variety of food products on local market. Food products remain on our territory and are consumed there is not further increasing of value added of imported goods. Higher import of food can be dangerous for local producers.

A next product which belongs to this group is feed for animals and live animals. These are useful in agriculture business and later with value added are exported or consumed in our territory.

Development of import and proportionality

Year 1999 – 32% Fruit and Vegetable, 15% Coffee, Tea, Cocoa, Spices and products from them, 11% feed for animals. Total import accounted for 45,931 million CZK.

Year 2004 – 30% Fruit and Vegetable, 12% Coffee, Tea, Cocoa, Spices and products from them, 11% feed for animals, 11% Meat and meat products. Total import value was 72,150 million CZK.

Year 2008 – 26% Fruit and Vegetable, 16% Meat and meat products, 12% Coffee, Tea, Cocoa, Spices and products from them, 10% Dairy products and eggs. Total import value was 102,934 million CZK.

Share of fruit and vegetable on total import decreasing, share of meat products rapidly increasing.

In year 2003 Ministry of Agriculture of the Czech Republic create quality mark Klasa, which should increase marketability of registered goods (All goods have Czech origin). According to research between consumers in 2009, every second buyer would prefer to buy marked good. According to this research there could be decline in number of

imported food products, because of preferences of Czech consumers to buy Czech product, but there is not any considered change since quality mark Klasa was settled. On the contrary import growth rate is faster.

Seasonality

Season impact on food and live animals import between years 1999 and 2008 is not significant. Only difference is between first and fourth quarter, which ranks average of seasonal variety. (Average seasonal variety from all SITC groups between 1st and 4th quarter is 15%.) The strongest quarter was 4th quarter with 110% of import; the weakest quarter was 1st quarter with 94% of import. Difference between these quarters is 16%. This difference is caused mainly by bigger consumption of food, because people are usually hungrier during winter and also celebrate Christmas day which is connected with enormous food consumption.

Trading partners

Most of the imported food and live animals come from Germany, Poland and Slovakia

Beverages and Tobacco – SITC 1

Basic information

This group include tobacco, cigarettes, cheroot and alcoholic and non-alcoholic beverages. Properties are similar like in previous group. Goods serve mainly to satisfy pleasure of domestic people. Beverages and tobacco belongs between least imported commodity groups according to volume. Czech people are satisfied mainly by domestic production of alcoholic beverages. Consumption of tobacco products in Europe is decreasing because of smoking prohibitions in certain areas and price increase of tobacco products.

Development and product proportionality

Year 1999 – 34% Tobacco, 30% Cigarettes 14% Spirits and 10% Wine. Total import accounted for 7,858 million CZK.

Year 2004 – 23% Wine, 22% Cigarettes, 19% Spirits, 17% Tobacco and 15% non-alcoholic beverages. Total import accounted for 10,534 million CZK.

Year 2008 – 28% Wine, 24% non-alcoholic beverages, 17% Cigarettes, 16% Spirits and 10% Tobacco. Total import value was 12,415 million CZK.

Although alcohol consumption is connected with tobacco consumption, their long-term import value development is opposite.

Seasonality

There are seasonal variances in 1st quarter 14% decline and in 4th quarter 14% increase in comparison with average seasonal variety. Total difference of seasonal variance between 1st and 4th quarter is 28%, one of the largest.

Crude materials, inedible, except fuels – SITC 2

Basic information

Between crude materials are counted fibres, metal ores, rubber, cork and wood. These materials are imported mainly for industrial production.

Development and product proportionality

1999 – 24% fibres, metal ores 22%, cork and wood 11%, rubber 10%. Total import value was 31,047 million CZK.

2004 – 35 % metal ores, 19% fibres, rubber 11%, cork and wood 9%. Total import value was 52,916 million CZK.

2008 – 40% metal ores, rubber 14%, 12% fibres, cork and wood 9%. Total import value was 61,678 CZK.

Seasonality

Variances are noticeable only between 2nd and 3rd quarter and they are not significant. In the 2nd quarter 4% decline and in the 3rd quarter 4% increase. Maximal difference is 8%.

Mineral fuels, lubricants and related materials - SITC 3

Basic information

The group includes crude oil, natural gas, electricity, coke and briquettes. These resources play crucial role in every industry and are basic elements of power engineering. The Czech Republic has very small reserves of crude oil and natural gas and its production is not self sufficient. Crude oil prices have been volatile in the past and are likely to continue to be volatile in the future. Most of supplies come from Russia and although new oil pipeline was built from Ingolstadt, Russian supplies of crude oil covered about 60% of domestic consumption in 2006. Natural gas from

Russia covered 79% of domestic consumption in 2006. Almost 25% of natural gas volume is consumed during transportation. There were several troubles with delivery both crude oil and natural gas from Russia, mainly because of their problems with Ukraine and maybe also because of planned construction of radar base (political problems). Russia is not able to guarantee that there won't be problems with delivery in future, how to solve energetic problems was one of the topics during Czech chairmanship of EU in 2009.

Development of import and proportionality

1999 - 64% Crude oil and crude oil products, 31% Natural gas. Total import value was 65,321 million CZK.

2004 - 64% Crude oil and crude oil products, 27% Natural gas. Total import value was 122,146 million CZK.

2008 – 59% Crude oil and crude oil products, 30% Natural gas. Total import value was 249,596 million CZK.

Seasonality

There is largest difference between 1st and 4th quarter. During 1st quarter is proportion of import 9% lower in 4th quarter 8% higher. Maximal difference of imported value between quarters is 17%.

Animal and vegetable oils, fats and waxes – SITC 4

This group of import don't have notable impact on commodity structure. Share on total import form only 0.19% in year 2008.

Chemicals and related products – SITC 5

Basic information

This group cover products as chemicals, paints, fertilizers, plastic materials and pharmaceutical products. Most of imported products are for chemical, pharmaceutical industry and for plastic processing.

Development of import and proportionality

1999 – 30% Plastic materials, 22% Drugs and pharmaceutical products, 12% Chemicals. Total import value was 119,746 million CZK.

2004 – 34% Plastic materials, 25% Drugs and pharmaceutical products, 10% Chemicals. Total import value was 194,833 million CZK.

2008 – 33% Plastic materials, 26% Drugs and pharmaceutical products, 10% Chemicals. Total import value was 245,861 million CZK.

Seasonality

Variances are noticeable between 1st and 2nd quarter. In the 2nd quarter 4% increase and in the 1st quarter 5% decrease. Maximal difference is 9%.

Manufactured goods classified chiefly by material – SITC 6

Basic information

This group include leathers, papers, cloths, iron, steel, nonferrous metals and metallic products. Mainly import of products for engineering and textile industry. Group SITC 6 has second biggest proportion on total import.

Development of import and proportionality

1999 – 19% Iron and steel, 19% Metallic products, 18% Cloth, 11% Nonferrous metals, 10% Paper products. Total import value was 205,008 million CZK.

2004 23% Iron and steel, 22% Metallic products, 14% Cloth, 12% Nonferrous metals, 10% Paper products. Total import value was 360,757 million CZK.

2008 – 30% Iron and steel, 21% Metallic products, 10% Cloth, 13% Nonferrous metals, 9% Paper products. Total import value was 473,384 million CZK.

Seasonality

Variances are noticeable between 1st and 2nd quarter. In the 1st quarter 6% decrease and in the 2nd quarter 4% increase Maximal difference is 10%.

Machinery and transport equipment – SITC 7

Basic information

Into the group Machinery and transport equipment belong products as power-generating machinery, general industrial machinery, office machines and automatic data-processing machines, Telecommunications and sound-recording and reproducing

apparatus, Electrical machinery, apparatus and appliances road vehicles. This group have largest proportion on total import.

Development of import and proportionality

1999 – 15% industrial machinery, 9% office machines, 8% telecommunications and sound-recording equipment, 26% electrical machinery and 20% road vehicles. Total import value was 383,286 million CZK.

2004 – 13% industrial machinery, 11% office machines, 8% telecommunications and sound-recording equipment, 27% electrical machinery and 21% road vehicles. Total import value was 739,947 million CZK.

2008 – 12% industrial machinery, 15% office machines, 14% telecommunications and sound-recording equipment, 21% electrical machinery and 20% road vehicles. Total import value was 990,978 million CZK.

Seasonality

Seasonality variances are 1st quarter 7% decline, 2nd quarter is average of seasonal variance, 3rd quarter 5% decline and 4th quarter 12% increase. The most significant change is 19% between 4th and 1st quarter.

Miscellaneous manufactured articles – SITC 8

Basic information

Miscellaneous manufactured articles are mostly products, which don't have any specific attribute for categorization to other groups. Biggest proportion have products as professional scientific instruments, clothing categories and furniture, other products are mostly unspecified.

Development of import and proportionality

1999 – 16% professional scientific instruments, 13% clothing accessories, 10% furniture. Total import value was 112,167 million CZK.

1999 – 15% professional scientific instruments, 15% clothing accessories, 10% furniture. Total import value was 190,676 million CZK.

1999 – 15% professional scientific instruments, 14% clothing accessories, 10% furniture. Total import value was 251,446 million CZK.

Seasonality

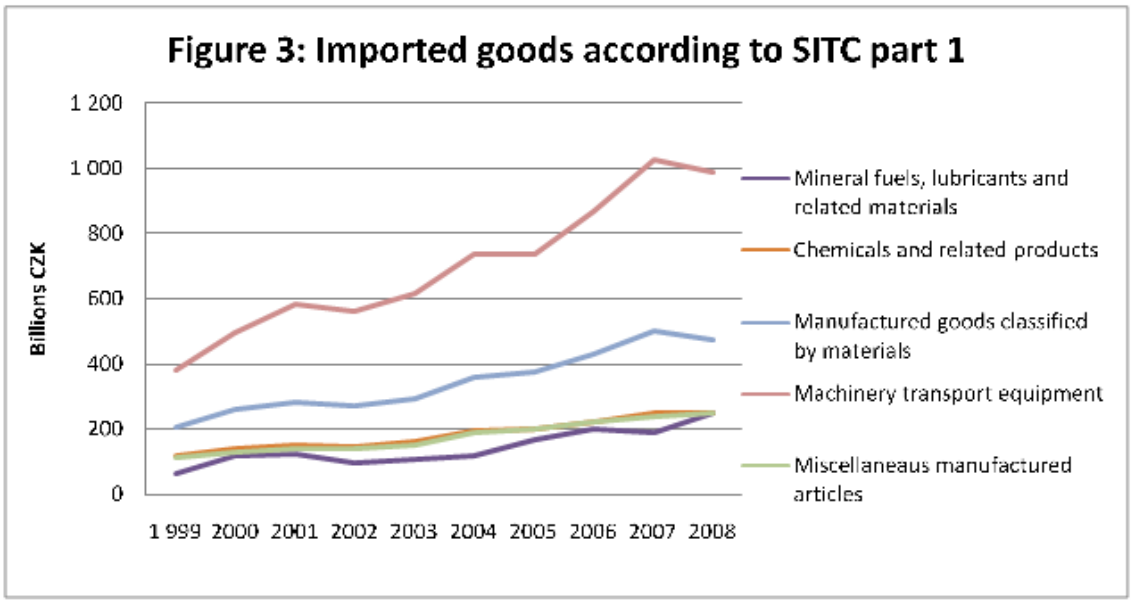
There are seasonal variances in 1st quarter 8% decline and in 4th quarter 12% increase in comparison with average seasonal variety. Total difference of seasonal variance between 1st and 4th quarter is 20%, one of the largest.

Commodities and transactions not classified – SITC 9

This group of import don't have notable impact on commodity structure. Share on total import form only 0.08% in year 2008.

4.3.2 Development in time lines

Time development of commodity groups is figured on the following graphs. Graphs are divided in two parts, because there are huge proportional differences on total import. If it would be on one graph, commodity groups with lower proportion on total import wouldn't be visible. One part comprise commodities with higher share on total import, it is five groups with share of 92% on total import. Second part figure commodity groups with lower impact on foreign trade, share on total import is only 8%.



Source: Czech Statistical Office, Own computation

Machinery equipment and manufactured goods have the highest proportion on total import. Import of these commodities is mainly because of high demands of production industry and low level of domestic resources. Demand for these groups indicates high

technical level of production. On the graph is visible how the imported commodities has grown more dynamically after accession to European Union in year 2004, and slowdown of commodity groups as machinery transport equipment and manufactured goods in year 2008, because of financial crisis. Especial development of these two groups is very similar. During ten years all of these groups achieved about 250% accrual. Growth rate of all groups is very similar, differences in total amount between them rise, but the proportion on total import remains the same. Only group which has little different development is the group mineral fuels, lubricants and related materials. It is caused by many different aspects and properties of this group. Mineral fuels, lubricants and related materials are mainly imported from Russia and they react on development of Czech/Dollar currency, other fact is that the price of natural gas and crude oil which are the main components of this group have volatile changes in its price. Other groups are mainly imported from developed countries, mainly European Union and are affected mainly by changes in Euro currency.

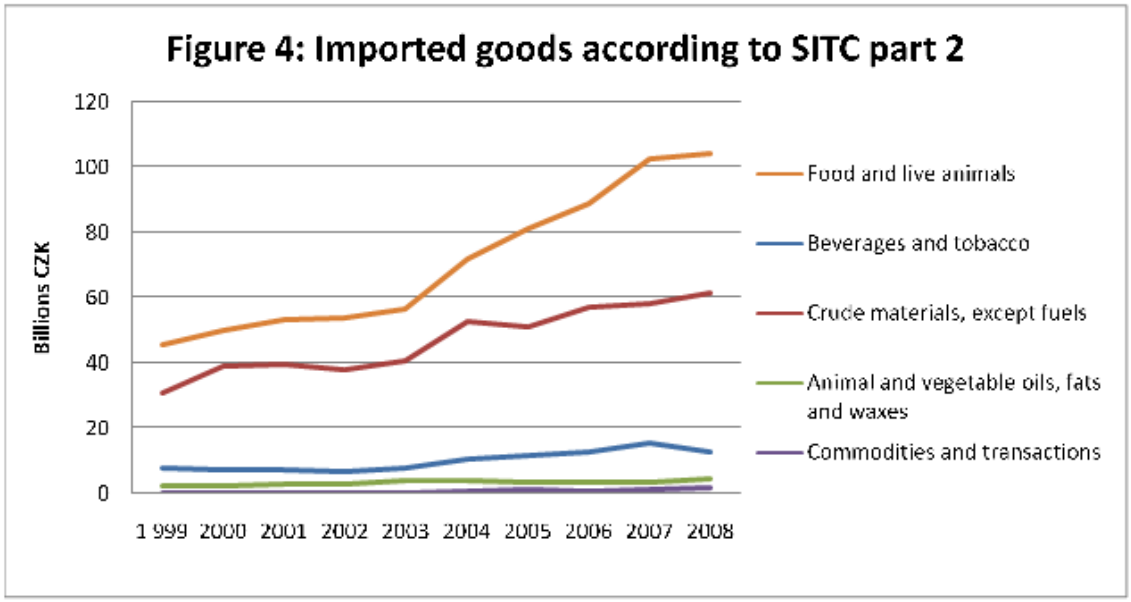
Share of following groups on total import:

Year 1999 - machinery transport equipment (39,4%), manufactured goods (21,1%), chemicals (12,3%), miscellaneous (11,2%) and mineral fuels (6,7%).

Year 2004 - machinery transport equipment (42,3%), manufactured goods (20,6%), chemicals (11,1%), miscellaneous (10,9%) and mineral fuels (7%).

Year 2008 - machinery transport equipment (41,3%), manufactured goods (19,8%), chemicals (10,3%), miscellaneous (10,5%) and mineral fuels (10,4%).

Remain commodity groups according to SITC can be seen on next graph.



Source: Czech Statistical Office, Own computation

Development of commodities with lower share on total import is more various, than in previous one. There is visible change after accession to European Union in 2004 and in the case of group food and live animals great increase, which is reduced in 2008 because of financial crisis but still remains to growth. Group crude materials, except fuels are more similar to development of commodities on previous graph, it is commodity designated mainly for industrial use and is affected by the development of domestic production and export. Group beverages and tobacco started to growth after accession to EU but its proportion on total import stay still one of the lowest.

Share of following groups on total import:

Year 1999 – food and live animals (4,7%), crude materials except fuels (3,2%), beverages and tobacco (0,8%), animal and vegetable oils, fats and waxes (0,26%) and commodities and transactions (0,03%).

Year 2004 – food and live animals (4,1%), crude materials except fuels (3%), beverages and tobacco (0,6%), animal and vegetable oils, fats and waxes (0,24%) and commodities and transactions (0,05%).

Year 2008 – food and live animals (4,4%), crude materials except fuels (2,6%), beverages and tobacco (0,5%), animal and vegetable oils, fats and waxes (0,19%) and commodities and transactions (0,09%).

Reason for decline of total import share in these groups is caused mainly by fast growth of previous commodity groups with major share on the foreign trade.

5. Conclusion

In 1989, trade with the former Communist countries accounted for 56 percent of total foreign trade. Nontariff barriers were especially high, reflecting total controls on trading transactions. The dismantling of central planning resulted in large changes in trade and foreign trade with former communist countries rapidly declined since then. Today the Czech Republic is a member of WTO, OECD and European Union, these organizations tries to liberate free trade and eliminate all barriers on free movement of goods. The foreign trade with the european states accounted for 90% of foreign trade in 2008. Opennes of czech economy raised from 55% to 80% between 1999 and 2007.

The Czech Republic has a long tradition as a heavy industry producer thanks to reserves of brown coal and other mineral resources. The main sectors of production are engineering, metallurgy, electro industry, production of transport vehicles, chemical and textile industry. Most of the production is in private hands and is highly demanding on material input. The foreign trade significantly contributes to economic development. Without foreign trade it is impossible to satisfy high demands of local industry.

Historically, the Czech foreign trade has developed similarly, principally involved the import of raw materials, oil and gas. Both export and import had similar development. Great changes, declines and growth during the same period of time showed high mutual connection of import and export.

Growth rate of import is lower than export rate, which is caused by higher orientation of domestic market on industry with its value added being higher as engineering and car production than on textile, agricultural and nutritional industry. Since 2005 the balance has been positive. The positive balance of trade grew until 2008, when the financial crisis with the growing deficit of China caused a decline in balance of trade.

Currency exchange rate had an opposite impact than the theory expected. Commodities from the European countries (mostly CZK/EUR currency) used for domestic production are imported even when they are more expensive. The main reason Is that they are necessary for high demanding production and without them it is not possible to export goods with value added, it is inevitable to import them. Mineral fuels and goods for domestic consumption have a normal development. Mineral fuels are imported largely from Russia for CZK/USD currency. The strength of our currency has a positive effect on import mineral fuels but the development of world prices of crude oil has quite a bigger effect.

Food and live animals, animal and vegetable oils, these are commodity groups imported mainly for domestic consumption. Their total share on the whole import is only about 8%. It is caused by lower price in the comparison to material costs need for industrial production. In the case of beverages the consumption of domestic production is high. Although their output has increased throughout the time, the total share on import has declined, because of faster growth of other commodity groups. Seasonality is significant especially between the first and fourth quarter of year. The fourth quarter is typical by increase in imported goods caused by higher consumption during fourth quarter together with the Christmas celebrations.

The imported commodities such as crude materials, manufactured goods, machinery transport equipment and chemicals serve mainly for manufacturing industry, domestic production and subsequent export with value added. Their total share on import account for over 80%, the biggest share belongs to groups machinery transport equipment and manufactured goods and their share has increased throughout the time in comparison to import of chemicals. The industry of chemicals, however wasn't affected by financial crisis in 2008, so much therefore its proportionality is going to be the same like before. The seasonality is mainly visible in transport machinery equipment again during fourth quarter which is because of a higher demand for goods by companies aiming for reduction tax base.

Changes in commodity structure of import were very small mainly, in the range of the tenths of percentual units only. Major alteration is in quantity imported and territorial changes. The highest growth is visible after the accession to European Union. Dynamic of import growth and changes is highly dependent on dynamics of export development.

The future development of foreign trade is probably going to decline because of the financial crisis. On the other hand new the most modern factory Hyundai started its car production in November 2008, so it is expected that the proportion of imported commodity groups such as transport machine equipment and manufactured goods is going to strengthen and enlarge the difference against the other groups. Other changes can occur after the European Union enlargement and acceptance of Euro currency in the Czech Republic, which is quite improbable to happen in the near future because of the government demission and the unfulfilled convergence criterion.

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World Trade Organization: <http://www.wto.org>

7. Supplements

Table 4: Seasonal analysis of imported commodities				
Thousands CZK, current price	Total import 1999-2008			
Quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Food and live animals	167 468 142	176 223 641	172 746 070	194 821 956
Beverages and tobacco	21 579 900	25 810 578	24 550 532	28 502 938
Crude materials, inedible, except fuels	116 538 063	122 846 713	112 910 716	118 889 001
Mineral fuels, lubricants and related materials	329 925 683	355 644 816	372 547 221	392 377 111
Animal and vegetable oils, fats and waxes	7 846 259	8 570 939	8 428 623	9 543 490
Chemicals and related products, n.e.s.	435 684 904	478 700 087	453 848 810	464 200 904
Manufactured goods classified by materials	812 509 677	895 055 517	853 493 665	881 965 800
Machinery transport equipment	1 632 109 302	1 757 876 031	1 660 446 854	1 958 580 339
Miscellaneaus manufactured articles	409 098 957	428 406 816	445 099 946	495 711 281
Commodities and transactions, n.e.c.	1 536 776	2 322 912	1 915 107	2 509 133
Total	3 934 297 667	4 251 458 059	4 105 987 551	4 547 101 953

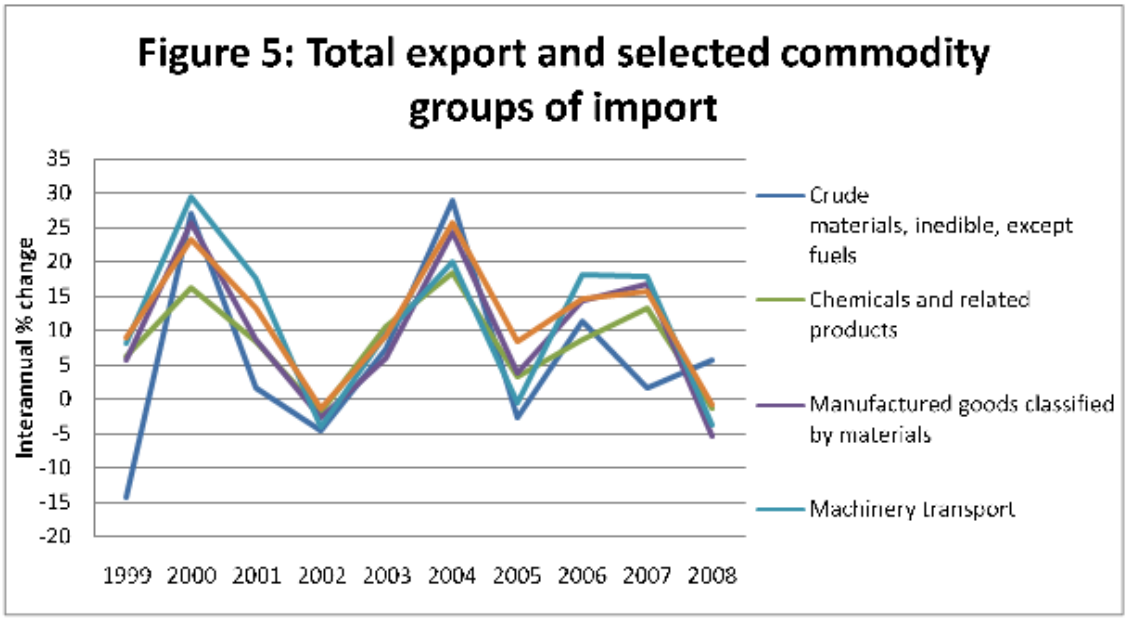
Source: Czech Statistical Office, Own computation

Table 5: Seasonal variance of imported commodities				
Thousands CZK, current price	Seasonal variance			
Quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Food and live animals	-10 346 810	-1 591 311	-5 068 882	17 007 004
Beverages and tobacco	-3 531 087	699 591	-560 455	3 391 951
Crude materials, inedible, except fuels	-1 258 060	5 050 590	-4 885 407	1 092 878
Mineral fuels, lubricants and related materials	-32 698 025	-6 978 892	9 923 513	29 753 403
Animal and vegetable oils, fats and waxes	-751 069	-26 389	-168 705	946 162
Chemicals and related products, n.e.s.	-22 423 772	20 591 411	-4 259 866	6 092 228
Manufactured goods classified by materials	-48 246 488	34 299 352	-7 262 500	21 209 635
Machinery transport equipment	-120 143 830	5 622 900	-91 806 278	206 327 208
Miscellaneaus manufactured articles	-35 480 293	-16 172 434	520 696	51 132 031
Commodities and transactions, n.e.c.	-534 206	251 930	-155 875	438 151
Total	-275 413 641	41 746 752	-103 723 757	337 390 646

Source: Czech Statistical Office, Own computation

Table 6: Seasonal indexes of imported commodities				
Thousands CZK, current price	Seasonal Index			
Quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Food and live animals	0,94	0,99	0,97	1,10
Beverages and tobacco	0,86	1,03	0,98	1,14
Crude materials, inedible, except fuels	0,99	1,04	0,96	1,01
Mineral fuels, lubricants and related materials	0,91	0,98	1,03	1,08
Animal and vegetable oils, fats and waxes	0,91	1,00	0,98	1,11
Chemicals and related products, n.e.s.	0,95	1,04	0,99	1,01
Manufactured goods classified by materials	0,94	1,04	0,99	1,02
Machinery transport equipment	0,93	1,00	0,95	1,12
Miscellaneaus manufactured articles	0,92	0,96	1,00	1,12
Commodities and transactions, n.e.c.	0,74	1,12	0,92	1,21
Total	0,93	1,01	0,98	1,08

Source: Czech Statistical Office, Own computation



Source: Czech Statistical Office, Own computation