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INFLUENCE OF LINGERING FINANCIAL/ECONOMIC CRISIS ON TRANSPORT DEMAND

1. General remarks

1.1 Lack of funds in general

The present Czech ruling coalition within the election campaign promised „programme of budget responsibility" that has been fulfilled mostly by cuts of public expenses, public investment included, with the excessive emphasis on awareness of heavy indebtedness of the Greece economy and its consequences. But the Czech Republic has been despite of introducing equal and relatively low taxation that lowered on the eve and in the initial stage of crisis in the balance of the state budget the incomes the position in the first third or in the mid of all Member states (states of euro area included) and therefore it does not need to cut expenses that could support sustainable growth and mainly employment- in accordance with all recommendations on the level EU. Due to the second assessment of the health of public finance from the beginning of this year, corrected in spring 2011 in prognosis of development of EU, the Czech Republic has been in the level of deficits of the state budgets together with the Slovenia on the 13th position within EU27, despite of decreased taxation in years 2006 - 2009 on the same position as to the rate of growth of the state debt and on the 6th position with the state debt as decisive indicator of assessment of health of state finance; swift actions toward Maastricht's criteria have been based predominantly on cuts of spending that means postponed periods of faster economic development and employment to the future years after fully balanced budget, but much later.

1.2 Transport infrastructure as a source of funding general budget

The incomes from all taxation concerning especially road transport were more than twice as high as the part of state budget allocated in favour of transport and its infrastructure. The main effort to cover at least small part of investment deficits is oriented on further taxation of direct users of road infrastructure that at present is relatively very high too.

1.3 Changing economic milieu of transport

The strategy „Europa 2020"stressed the crucial importance of small and medium size enterprises (SMEs) for further sustainable development and namely growth of employment.

It has been many times stated the decisive role of SMEs in the past period of fast development of the EU within 2000- 1st half of 2008- before indicative beginning of the financial crisis. There is supposed that after full implementation of ten groups of measures and actions from the Act of small business such development should repeat. In case of repetition of the same pace, with average yearly growth of employment 1,9% in comparison with 0,4% average yearly growth of employment in large enterprises, the 70% share of SMEs on employment in private sector could be even higher.

Despite of well-known global overcapacity of production of cars the survival of predominant part of sector in developed countries was assured by state aid, because of recognised crucial importance of this sector for foreign trade and manufacturing in general, as a vehicle of development of science and technology, with prospects that the development of this sector after the crisis shall continue. It is possible to suppose that the crisis could touch development of this sector in developing countries - with only limited production at the beginning of crisis that naturally during crisis could not develop enough to face escalated competition.

New and used cars are and shall be in this situation so cheap that they could be bought by all citizens that due to the healthy or age limitation could drive cars. The other constraints, as we shall point out, are mainly the quality (capacity included) of transport infrastructure.

1.4. Changing technological and environmental milieu

The road transport has on account of number of motor vehicles despite of development of technology the decisive share on consumption of fossil fuels and therefore emissions of greenhouse gases, the sources of fossil fuels are limited, the extraction is increasable expensive and risky (politically uncertain regions, deep seabed), due to high density of transport on some parts of roads there are high noise emissions.

But the future limitations of sources of energy shall introduce heavy simplification:

Sources of easily available fossil fuels shall be substantially more exhausted; especially the energy forecasts of the EU put emphasis on the electrification of transport in general- using batteries, or fuel cells and batteries in all modes of terrestrial transport with the exception of waterborne transport. The only initial issue is sufficient production of electricity. The crash of nuclear power plant in Japan caused both by earthquake and tsunami begun wave of activities against nuclear energy in general despite the facts that in Central Europe is tsunami rather fantasy and that within Europe there is possible to find sites without danger of seismic activities; it has been pushed into the background the fact that EU with five world powers has been spent billions of euro for financing research project of ITER (International Thermonuclear Experimental Reactor) in Cadarache together with other supplementary projects enabling nuclear fusion instead of fission, with something very similar to renewable source of energy, without emissions, with insignificant nuclear waste, possible stop immediately fusion, and as a source of energy for transport with the necessity to produce (enjoyable) noise to warn that the vehicle is coming.

So the more disadvantages of road transport will disappear; the only important disadvantage could be the poor developed transport infrastructure- not only in favour of smooth traffic, but because of too high rate of accidents. Because the driver is according to the Highway Code obliged to adjust the velocity of vehicles to the quality of the carriageway and conditions of traffic operation, it has been supposed that the driver is guilty for 95% accidents. But without adequate quality is very hard neither to use short range radars as a prevention against crash into a vehicle driving in front nor to use devices to follow lanes and not to cross them as a failure of driver.

All these issues were very urgent when there the effort has been concentrated mostly on motorways and speedways, but the same is valid for the roads of lower class.

Table 1: The total length of road network of the Czech Republic at the end of 2009.

Total road and motorway network	**nearly 55 720 km**
Of which European road network type E	2 603 km
Motorways in operation	nearly 720 km
Expressways	nearly 370 km
Other roads	nearly 54 990 km
Of which 1st class roads	about 6 200 km
2nd class roads	about 14 622 km
3rd class roads	nearly 34 170 km
Local roads	nearly 74 920 km

The length of operated railway lines was 9 578 km.

In connection with shift more competency on regional level the roads of 2nd and 3rd class were in 2000 transmitted into the administration of regions, the local roads are in care of communities, with the decisive funding from the budget within the framework of legally established division of tax revenues between state and regions. The income of regions and municipalities is with some exception of local taxation in fact in hand of ministry of finance and government.

1. What does mean the decisive role of SMEs for sustainable development and employment

2.1. Local and regional administration

The role of SMEs in development was described in part 1.3. Their successful operations and development – state aid included – is because of saturation of local and regional markets very closely linked with municipalities. In the Czech Republic after the reform of the public administration that should approach administration closer to citizens there are 8 regions, instead of 82 districts 387 municipalities with delegated empowerment of state administration and about 6250 communities in total.

We tried to verify some presumptions concerning the lingering crisis on example of only one region: Central Bohemian Region that has after the reform of state administration with annulled previous 82 districts the greatest number of municipalities with delegated powers of state administration. The size of sample is visible in the next table 2.

Table 2. Number of municipalities with delegated empowered state administration status.

Region	Number of municipalities
Jihočeský (South Bohemian) kraj	37
Jihomoravský (South Moravian) kraj	34
Karlovarský kraj	14
Královéhradecký kraj	35
Liberecký kraj	21
Moravskoslezský kraj	30
Olomoucký kraj	20
Pardubický kraj	26
Plzeňský kraj	34
Středočeský kraj	55
Ústecký kraj	30
Vysočina	26
Zlínský kraj	25
Celkem	387

2.2. The Central Bohemian Region as pattern for assessment sample

The recent crisis has accelerated changes of the structure of national economies to better cope with the demand heavy influenced by globalisation. We would like to point at some dilemmas connected with above mentioned structural changes in economy and social relations in the Czech Republic and specific features concerning regional aspects of expected development.

Successful operations and development of SMEs – state support included – is because of saturation of local and regional markets very closely linked with municipalities.

The lowest level of state administration – at the same time with mandatory statistics, financial and demographic reporting are on the above mentioned 387 municipalities with delegated empowerment of state administration. Their share on total population is between 40% and 50%, on employment is substantially higher than 50%. And the statistics of municipalities with no delegated competencies is rather poor. So both of practical reasons and enough high probability of sample we shall try to derive some findings from such chosen pattern.

We started our research of links of SMEs and municipalities on the example of Central Bohemian Region. This region could serve as a sample the Czech NUTS II – it accounts 13,5 % municipalities-from the statistics large enough to represent with high probability all the municipalities with relocated competency of state administration. But it is the region that encircled Prague. There could be an issue connected with the proximity of the capital Prague. Prague is the NUTS II that according to the last Eurostat's assessment ended on 6th place with 172% of average GDP per capita in EU, but commuters' product included, similar to the capital of Great Britain Inner London where it ranked 1st place with 343% of GDP per capita, but produced too by commuters. The geographical position of the Central Bohemian Region could in some way limit growth on its own territory (according to the Eurostat report moves the Central Bohemian Region to 74% of average GDP EU per capita.

2.3. Employment and the most visible changed trends of economy during the crisis

We have used yearly statistics of settlement; employment, that could be divided by sectors; unemployment; sectorial numbers and structure of business units. To express influence of magnitude of municipalities described by number of population 31st December 2007 we divided the sample of 55 Central Bohemian municipalities into 5 quintiles according the number of population to the 31.12.2007, because there is necessary to take due course to the size of the community; the lower quintile with steps 5000 inhabitants and the last quintile over 200001 inhabitants. As to the employment and unemployment in comparison with settled population, eventually of settlement, there is possible to note the very low mobility depict in moving home to reach jobs. It is much easier to reach job instead of changed native parish. It could be influenced by some troubles with new flats and generally housing. Some localities with greater growth of population have been chosen by their citizens because of new housing districts for wealthy people that do not want to live in cities, because they prefer more naturally environment, more fresh air and at the same time could yearly use of cars for some families´ members. In case of find job out of the municipality of settlement there is an alternative in commuting.

The dominant part of growth of jobs is connected with SMEs, but the growth has not been so high as to compensate unemployment. Till now the new jobs in new business units in general only decreased rate of unemployment.

Table 3. Development of employment and unemployment within the quintiles 2007 - 2010.

Inhabitants 31. 12. 2007	Number of muni	Employees x)			Difference 2007/2009 %	Unemployed				Difference 2007/2009 %
		31. 12. 2007	31. 12. 2008	31. 12. 2009		31. 12. 2007	31. 12. 2008	31. 12. 2009	31. 12. 2010	
1 - 5000	19	20 765	20 255	18 630	-10,28	1 350	1 492	2 475	2 548	88,74
5001 - 10000	17	39 063	39 846	37 266	-4,60	1 925	2 169	3 932	3 946	104,99
10001 - 15000	6	33 936	34 492	33 247	-2,03	1 703	1 975	2 831	3 095	81,74
15001 - 20000	8	72 720	72 050	68 814	-5,37	3 319	3 401	5 471	5 868	76,80
More than 20001	5	121 170	117 948	113 577	-6,27	47 744	48 850	54 887	56 000	17,29
Total	55	287 654	284 591	271 534	-5,60	56 041	57 887	69 596	71 457	27,51

x) Data during the preparation of this topic not available

As we have remarked, the recent (or present) crisis has speed up the structural changes in size of enterprises in favour of SMEs, but at the same time has change the structure of sectorial activities – again mostly expressed by trends of sectorial division of development. In the next Table 4 there is the present sectorial division.

We have used again data to 31.12. 2007 as a base; (these data are the last yearlong data before crisis), 31.12 2008 (with the indicative start of financial crisis on the 1st July 2008), to 31.12.2008, 31.12.2009 and now 31.12.2010.

There is predominance of real estate motilities. It could be not only distinct picture of unfinished changes in properties connected with restitutions of property, with interrupt continuity of familiar tradition in occupation, slowdown of ties to native estate, changes in jobs, but probably even speculations with land.

Changes in other sectors are mostly connected with day-to-day life: local building industries, shopping, accommodation and catering. The demographic development should mostly tend to lesser number of school facilities that copies either the changing numbers of pupils, or tendency to improve the quality of education by lesser school classes, facilities for health and social care.

Table 4. List of statistical sectors.

Code	Name	Code	Name
F-STAVEB	Engineering	I-MAOBCH	Trade, repair and maintenance of motor vehicles, retail sale of. fuel
K-POZDOP	Ground and pip transport	H-VEOBCH	Wholesale and brokerage (motor vehicles excluded)
Q-NEMOVI	Real estate activities	G-MOTVOZ	Retail –motor vehicles excluded, repair of products for personal consumption
V-VERSPR	Public administration, defence and. social security	X-ZSVPECE	Heath/,social care, veterinary
W-VZDELA	Education	U-PODNIK	Other business act.
Z-ODPROF	Act. of trade union, proffess. and similar organisations.	AA-REKULT	Leisure, culture, sport. activities.
AB-OSTAKT	Other business act.	L-POMDOP	Secondary and auxiliary act. In transport, travel agencies
S-VYTECH	Computers act.	J-USTRAV	Accommodation, meals
Y-ODPADV	Waste, w. water, sanittaion etc	B-VYDTIS	Publish.&,printativities, copy of media
P-POMFIN	Auxiliary act. connected with fin. Brokerage		

2.4. Issues of support of public bodies

In all documents dealing with development of SMEs as backbones of the future development has been stressed the necessity of public aid. Such aid concern not only funding, but there is not too much activities without any funding. And as it illustrates the next Table 5, the financial position of communities with delegated powers, in the Central Bohemian Region the perspective without substantial changes situation could be rather dark.

Table 5. Yearly budget deficits of communities with delegated powers in the Central Bohemian Region 31. 12. 2007- 31. 12. 2010 (deficit in 1000 Kč).

Inhabitants 31.12.2007	Number of muni	31. 12. 2007		31. 12. 2008		31. 12. 2009		31. 12. 2010	
		number	deficit	number	deficit	number	deficit	number	deficit
1-5 000	19	5	15 313	6	31 533	15	89 223	5	59 441
5 001-10 000	17	1	2 646	3	10 7712	13	323 724	9	95 485
10 001-15 000	6	4	170 548	1	4 001	4	187 673	4	142 137
15 001-20 000	8	2	81 823	2	13 270	4	299 838	7	295 700
more than 20001	5	2	107 239	0		4	279 802	2	466 465
Total	55	14	374 569	12	374 569	40	1 180 260	27	1 059 228

In the Table 5 there could be in quite limited cases either some small methodology changes, or insufficient informative capacity, with possible restructuring of old loans into new to change repayments of debts into payment of interests.

3. Consequences for transport and transport infrastructure

Developed local social and economic activities need development mostly in addition to the present situation more well developed local and regional transport, supported by the high quality of transport infrastructure not only on trans-European and national wide, but regional and local level too.

Local and regional transport could in some degree replace or be replaced by other social economic activities and there is necessary complex evaluation, what is less costly from the social level of view and could be better funded and co-finance.

Following recent development it looks to be trend toward individualization of transport demands that could not be fully acceptable. From the point of view of social costs there should be some measures towards collective transport using high quality integrated transport systems, that should in dependence on purpose of traveling (commuting) and naturally travel distances (time taken by travel) integrate services with the concentration of passengers in well-equipped nodes with easy and comfortable changes of transport means with lesser capacity to reach higher occupation and lower consumption of energy, for transport means with higher usable capacity to save energy and save some capacity of transport infrastructure by lesser vehicles with higher capacity, using all possibilities of telematics.

Abstract

The recent crisis has accelerated changes of the structure of national economies to better cope with the demand heavy influenced by globalisation. We would like to point at some dilemmas connected with above mentioned structural changes in economy and social relations in the Czech Republic and specific features concerning regional aspects of expected development, concerning present general issues and add some newly occurred that could be very difficult to bridge without betterment of the present road network of the higher level and in connection of it of huge development of roads of lower classes.

Literature

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3) *Indicators of statistics of towns and villages*- Czech Statistical Office 2008 MOS.

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5) *Yearly statistics 2007, 2008, 2009, 2010 of communities with relocated competency of state administration:*

   a. settlement
   b. employment
   c. unemployment
   d. employment by sectors
   e. revenues and expenses of communities with relocated competency of state administration

6) *Yearly statistics of financial position of communities*- The Czech Ministry of Finance.