

TELCOS & HI-TECH

Helgi's Pocket Guide

December 2012

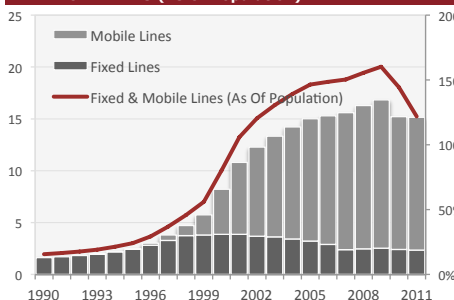


Czech Republic

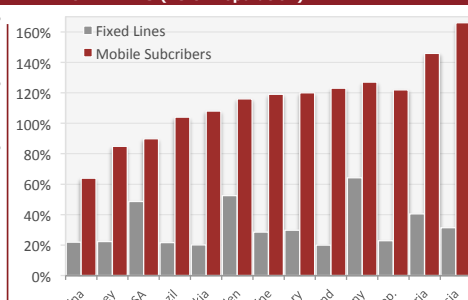
CZECH TELCOS AT A GLANCE	1990	1995	2000	2005	2010
Number Of Fixed Lines (mil)	1.62	2.44	3.87	3.22	2.41
Fixed Line Penetration (As Of Population)	16%	24%	38%	32%	23%
Fixed Lines Per Household	41%	60%	92%	78%	54%
Market Share Of Incumbent Fixed Line Operator				76%	
Mobile Cellular Subscriptions (mil)	0.00	0.05	4.35	11.8	12.8
Mobile Phone Penetration (As Of Population)	0.0%	0.5%	42%	115%	122%
Market Share Of The Largest Mobile Operator					38%
Number Of Fixed Broadband Internet Connections (mil)				0.44	2.27
Fixed Broadband Internet Lines Per Household				11%	51%
Number Of Personal Computers (mil)	0.12	0.55	1.25	2.80	
Personal Computers Per Household	3.0%	13%	30%	68%	
R&D Expenditures (As Of GDP)			1.2%	1.4%	1.5%
High-Tech Exports (As Of GDP)		3.8%	6.1%	10.7%	13.2%



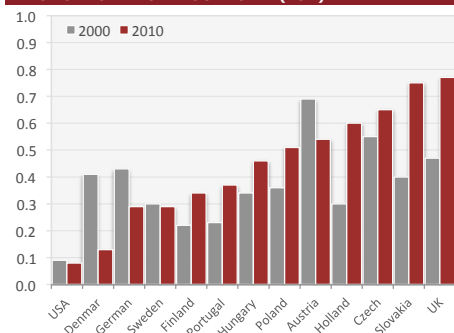
TELEPHONE LINES (As Of Population)



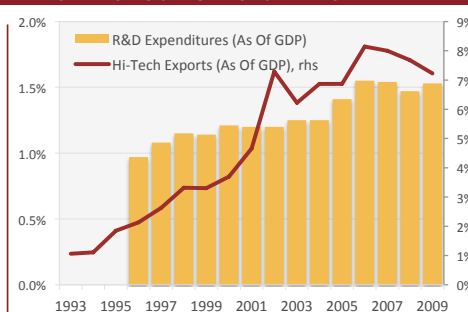
TELEPHONE LINES (As Of Population)



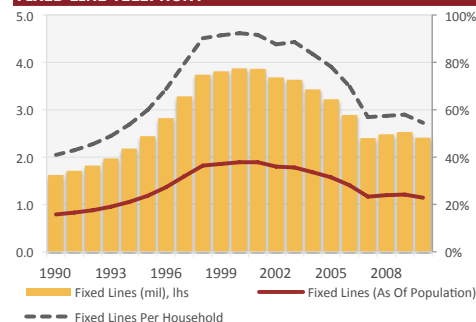
PRICE OF 10-MINUTE LOCAL CALL (EUR)



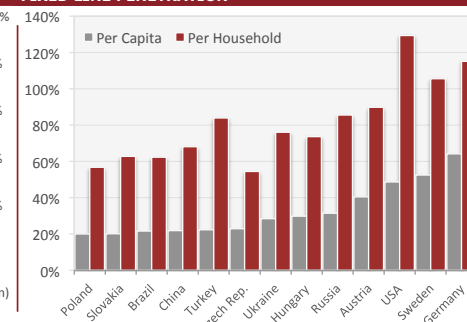
HI-TECH EXPORTS & RESEARCH & DEVELOPMENT



FIXED LINE TELEPHONY

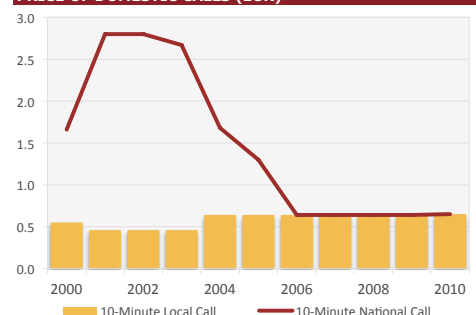


FIXED LINE PENETRATION

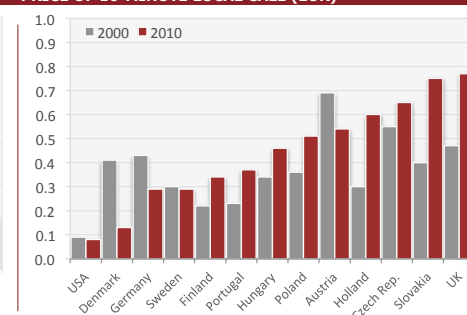


The fixed line business peaked at the turn of the century, when the penetration of fixed lines reached nearly 38% of the population. Since then, it has been replaced by mobile telephony. Having said that, the overall penetration of telephone lines (both fixed and mobile) has been rising, to around 1.6 lines per person in 2010.

PRICE OF DOMESTIC CALLS (EUR)

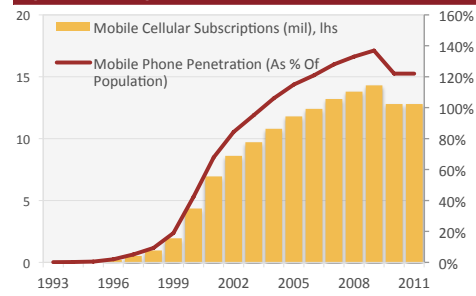


PRICE OF 10-MINUTE LOCAL CALL (EUR)

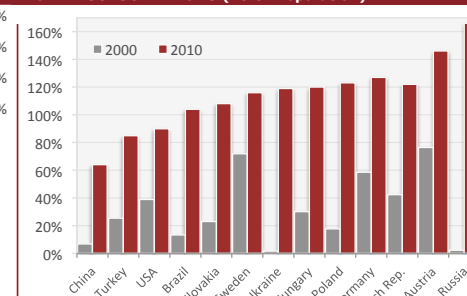


Slow deregulation and weak regulators are among the reasons why Central Europeans pay so much for their phone bills. According to Eurostat, Czechs pay among the highest prices for fixed and mobile calling in the European Union. Shame.

MOBILE TELEPHONY



MOBILE SUBSCRIPTIONS (As Of Population)



Czechs love mobile phones. In 2011, there were 1.2 mobile phones (or subscriptions) per person on average, one of the highest figures worldwide.

Source: World Bank, National Statistical Office, United Nations, OECD, Helgi Analytics calculation



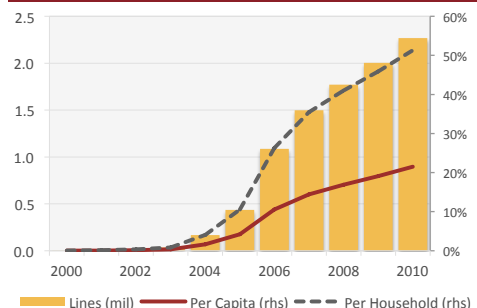
www.HelgiAnalytics.com

Source: World Bank, National Statistical Office, United Nations, OECD, Helgi Analytics calculation

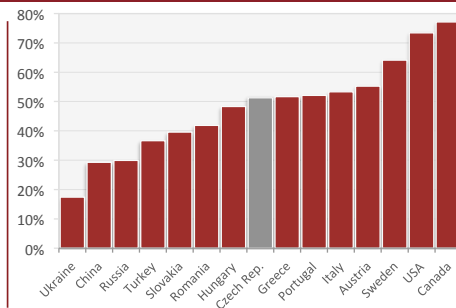


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FIXED BROADBAND INTERNET

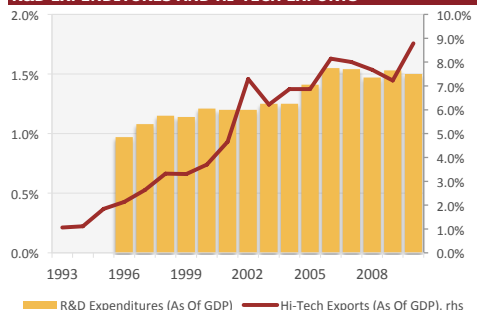


FIXED BROADBAND INTERNET (As Of Households), 2010

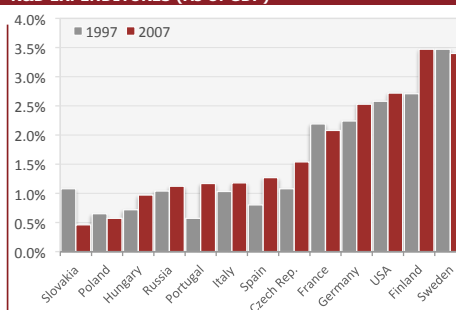


Similarly to the developed world, internet penetration, quality and speed have improved dramatically over the last decade. From nothing 10 years ago, virtually every second Czech household has a fixed broadband connection now, while 70% of the population is estimated to be using the internet, according to the World Bank's figures.

R&D EXPENDITURES AND HI-TECH EXPORTS

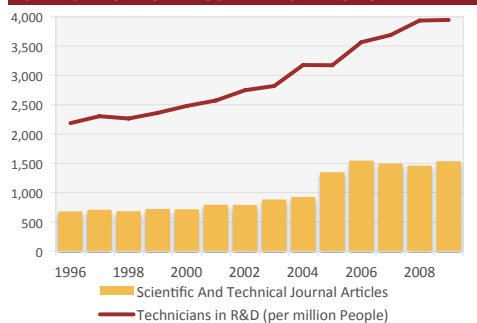


R&D EXPENDITURES (As Of GDP)

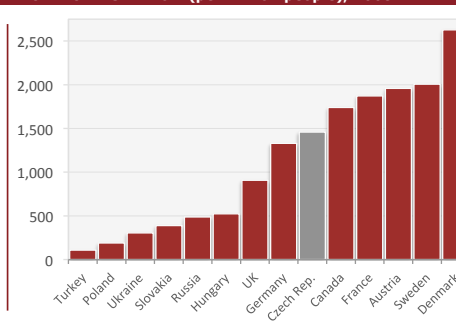


The Czech economy is one of the most open in the world, with the sum of exports and imports accounting for 145% of GDP. Widespread privatisation and the arrival of foreign companies have helped introduce and expand value-added products. The share of hi-tech products has doubled to 8% of GDP over the last 10 years. Research and development expenditures are among the highest in Central Europe.

R&D TECHNICIANS AND SCIENTIFIC ARTICLES



TECHNICIANS IN R&D (per million people), 2008



Czechs still benefit from a solid education system; however, the quality of Czech students has been falling in the last decade. This, together with a strong presence of foreign companies, translates into a relatively high level of research and development activity. The positive trend is seen historically as well, as when the number of technicians in research and development is compared to a number of Western European countries, for example.

Source: World Bank, National Statistical Office, United Nations, OECD, Helgi Analytics calculation

POPULATION		2003	2004	2005	2006	2007	2008	2009	2010	2011
Population	mil	10.21	10.22	10.25	10.29	10.38	10.47	10.51	10.53	10.50
Population (As % Of World Population)	%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.15%	0.15%	0.15%
Persons Per Household	persons	2.49	2.49	2.49	2.49	2.46	2.42	2.41	2.38	2.35
Share Of Population (0-14 Years Of Age)	%	15.6%	15.2%	14.9%	14.7%	14.4%	14.2%	14.1%	14.0%	14.1%
Share Of Population (15-64 Years Of Age)	%	70.5%	70.8%	71.0%	71.2%	71.4%	71.5%	71.4%	71.1%	70.7%
Share Of Population (65+ Years Of Age)	%	13.9%	14.0%	14.0%	14.1%	14.2%	14.3%	14.5%	14.8%	15.2%
Median Age	years	38.2	38.4	38.7	38.8	39.0	39.1	39.3	39.4	39.6
Old Age Dependency Ratio	%	19.7%	19.7%	19.8%	19.8%	19.9%	20.1%	20.4%	20.9%	21.5%
Youth Dependency Ratio	%	22.1%	21.5%	21.0%	20.6%	20.2%	19.8%	19.7%	19.7%	19.9%
Life Expectancy, both sexes	years	75.2	75.7	75.9	76.5	76.7	77.0	77.1	77.4	77.4
Life Expectancy At 65, both sexes	years	15.7	16.1	16.3	16.8	17.0	17.3	17.2	17.4	17.4
Total Fertility Rate	children	1.18	1.23	1.28	1.33	1.44	1.50	1.49	1.49	1.49
Urban Population As Of Total	%	73.8%	73.8%	73.7%	73.7%	73.6%	73.6%	73.5%	73.5%	73.4%

TELECOMMUNICATION & INTERNET		2003	2004	2005	2006	2007	2008	2009	2010	2011
Telecommunication Revenues	USD mil	4,000	4,439	4,882	5,396	6,489	8,430	7,008		
Telecommunication Employees	persons	23,260	20,334	17,141	20,223	20,028	20,837	19,453		
Number Of Fixed Lines	mil	3.63	3.43	3.22	2.89	2.40	2.48	2.53	2.41	
Fixed Line Penetration (As Of Population)	%	36%	34%	32%	28%	23%	24%	24%	23%	21%
Fixed Lines Per Household	%	0.89	0.83	0.78	0.70	0.57	0.57	0.58	0.54	
Market Share Of Incumbent Fixed Line Operator	%			76%						
Mobile Cellular Subscriptions	mil	9.7	10.8	11.8	12.4	13.2	13.8	14.3	12.8	12.8
Mobile Phone Penetration (As Of Population)	%	95%	106%	115%	121%	128%	133%	137%	122%	122%
Market Share Of The Largest Mobile Operator	%	47%		41%	42%	40%	39%	38%		
Price Of 10-Minute Local Call	EUR	0.46	0.64	0.64	0.64	0.64	0.64	0.64	0.65	
Price Of 10-Minute Inland Long-Distance Call	EUR	2.67	1.68	1.30	0.64	0.64	0.64	0.64	0.65	
Price Of 10-Minute International Call To USA	EUR	3.70	4.19	2.36	2.32	2.32	2.32	2.13	2.34	
Number Of Fixed Broadband Internet Connections	mil	0.03	0.17	0.44	1.09	1.50	1.77	2.00	2.27	
Fixed Broadband Internet Lines (As Of Population)	%	0.3%	1.6%	4.3%	11%	14%	17%	19%	22%	
Fixed Broadband Internet Lines Per Household	%	0.8%	4.1%	11%	26%	35%	41%	46%	51%	
Share Of Population Using Internet	%		0.0%	10%	15%	24%	34%	36%	35%	48%
Number Of Personal Computers	mil	2.10	2.45	2.80						
Personal Computers Penetration (As Of Population)	%	21%	24%	27%						
Personal Computers Per Household	%	51%	60%	68%						

HIGH TECHNOLOGY AND RESEARCH		2003	2004	2005	2006	2007	2008	2009	2010	2011
R&D Expenditures (As % Of GDP)	%	1.3%	1.3%	1.4%	1.6%	1.5%	1.5%	1.5%		
Researchers In R&D Per mil People	persons	1,550	1,598	2,365	2,560	2,703	2,870	2,755		
Hi-Tech Exports (Current USD)	USD mil	5,927	7,829	8,934	12,081	14,440	17,304	14,252	17,469	
Hi-Tech Exports (As % Of Total Exports)	%	10.5%	10.9%	10.7%	12.2%	11.7%	11.9%	12.2%	13.2%	
Hi-Tech Exports (As % Of GDP)	%	6.2%	6.9%	6.9%	8.1%	8.0%	7.7%	7.2%	8.8%	
Patent Applications (Non-Residents)	patents	2,954	629	244	195	192	142	92	114	
Patent Applications (Residents)	patents	625	623	586	641	716	712	789	868	
Scientific And Technical Journal Articles	articles	2,820	3,178	3,172	3,566	3,690	3,936	3,946		
Secure Internet Servers	servers	229	316	425	660	1,081	1,569	1,946	3,349	4,083
Secure Internet Servers (Per 1 mil People)	servers	22	31	42	64	105	151	186	318	387
Technicians In R&D (per million People)	persons	883	926	1,348	1,544	1,496	1,458	1,533		
Trademark Applications (Direct Non-resident)	apps.	1,530	1,042	973	984	1,006	816	658	651	
Trademark Applications (Direct Resident)	apps.	8,885	9,365	9,279	9,553	9,156	8,267	7,234	7,793	
Trademark Applications (Total)	apps.	18,629	17,049	16,284	15,706	14,714	13,106	11,047	11,048	
Trademark Applications (Madrid)	apps.	8,214	6,642	6,032	5,169	4,552	4,023	3,155	2,604	

Source: World Bank, National Statistical Office, United Nations, OECD, Helgi Analytics calculation. For more details, description and explanation of particular indicators, please, visit www.helgilibrary.com

MACROECONOMIC ROUND-UP		2003	2004	2005	2006	2007	2008	2009	2010	2011
GDP	USD bil	95.3	114.0	130.1	148.3	180.5	225.4	197.2	198.9	217.0
GDP Growth	%	3.8%	4.7%	6.8%	7.0%	5.7%	3.1%	-4.5%	2.5%	1.9%
GDP Per Capita	USD	9,336	11,157	12,706	14,446	17,467	21,627	18,806	18,910	20,579
Industrial Production Growth	%	1.6%	10.4%	3.9%	8.3%	10.6%	-1.8%	-13.6%	10.3%	6.9%
Retail Sales Growth	%									
Government Budget Balance (As % Of GDP)	%	-4.9%	-3.2%	-3.7%	-2.4%	-0.7%	-2.2%	-5.8%	-4.8%	-3.1%
Public Debt (As % Of GDP)	%	20%	29%	28%	28%	28%	29%	34%	38%	41%
Unemployment Rate	%	7.8%	8.3%	7.9%	7.1%	5.3%	4.4%	6.7%	7.3%	6.7%
Gross Average Monthly Wage	USD	638	759	847	951	1,124	1,405	1,256	1,289	1,407
Foreign Debt (As % Of GDP)	%	37%	40%	36%	39%	42%	37%	45%	48%	
Imports (As % Of GDP)	%	60%	62%	62%	64%	66%	62%	55%	63%	69%
Exports (As % Of GDP)	%	59%	63%	64%	67%	68%	64%	59%	67%	73%
Current Account Balance (As % Of GDP)	%	-6.3%	-5.2%	-1.3%	-2.5%	-4.4%	-2.1%	-2.5%	-3.8%	-3.0%
Foreign Exchange Reserves (Including Gold)	USD bil	27.0	28.5	29.6	31.5	34.9	37.0	41.6	42.5	40.3
Foreign Exchange Reserves (As % Of Imports)	%	47%	40%	37%	33%	29%	26%	38%	34%	27%
Foreign Direct Investments	USD bil	2.0	5.0	11.6	5.5	10.6	6.6	2.9	6.1	5.4
Foreign Direct Investments (As % Of GDP)	%	2.1%	4.4%	8.9%	3.7%	5.9%	2.9%	1.5%	3.1%	2.5%
Foreign Direct Investments (As % Of CA Deficit)	%	33%	83%	704%	149%	134%	137%	59%	80%	84%
Workers' Remittances, Received (As % Of GDP)	%	0.5%	0.7%	1.1%	1.1%	1.1%	0.9%	1.0%	1.0%	0.8%
Portfolio Investments (As % Of GDP)	%	-1.2%	1.7%	-2.6%	-0.8%	-1.5%	0.0%	4.4%	3.9%	0.2%
Development Assistance (As % Of GDP)	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

INFLATION, FOREX & INTEREST RATES		2003	2004	2005	2006	2007	2008	2009	2010	2011
Inflation, CPI (Average)	%	0.1%	2.8%	1.8%	2.5%	2.9%	6.4%	1.0%	1.5%	1.9%
Long-Term Interest Rate (10-Year Gov. Bond Yield)	%	4.1%	4.8%	3.5%	3.8%	4.3%	4.6%	4.8%	3.9%	3.7%
Short-Term Interbank Interest Rate (3-Month)	%	2.3%	2.4%	2.0%	2.3%	3.1%	4.0%	2.2%	1.3%	1.2%
Interest Spread To USD, 10-Year Gov. Bond	%	0.1%	0.5%	-0.7%	-1.0%	-0.3%	1.0%	1.6%	0.7%	0.9%
Interest Spread To USD, 3M IBOR	%	1.1%	0.8%	-1.5%	-2.9%	-2.2%	0.8%	1.3%	0.8%	0.8%
FX Rate To USD (Average)	per USD	28.2	25.7	23.9	22.6	20.3	17.0	19.1	19.1	17.7
FX Rate To EUR (Average)	per EUR	31.8	31.9	29.8	28.3	27.8	25.0	26.4	25.3	24.6

Source: World Bank, National Statistical Office, United Nations, OECD, Helgi Analytics calculation. For more details, description and explanation of particular indicators, please, visit www.helgilibrary.com

ABOUT HELGI ANALYTICS

Helgi Analytics is a consulting company based in the Czech Republic. The company mainly provides consultancy in the area of financial services and real estate and focuses primarily on the region of Central and Eastern Europe.

Helgi Analytics also runs a web application called Helgi Library, which is a database/library offering data and analyses on more than 95% of the world's economy and population. The Library aims to bring interesting statistical data and analyses to a wide audience under affordable conditions. If you wish to get more details, please visit www.helgilibrary.com or contact us at info@helgianalytics.com.

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