EUROPEAN
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JEREMIE

JOINT EUROPEAN RESOURCES FOR MICRO-TO-MEDIUM ENTERPRISES

SME Access to Finance in Czech Republic

EVALUATION STUDY

October 2007

This document has been produced with the financial assistance of the European Union. The views expressed herein can in no way be taken to reflect the official opinion of the European Union.

Table of Contents

1. EXECUTIVE SUMMARY

1.1. Statement of Position

In the context of the JEREMIE initiative, the European Investment Fund (EIF) has conducted a draft evaluation on the access to finance situation for Small and Medium-sized Enterprises (SMEs) in Czech Republic, being a key factor of growth and employment in Europe. It has identified major gaps between potential demand in the coming years and existing supply of main financial instruments facilitating access to finance for SMEs, hampering their creation and development. EIF can act as a catalyst in closing these gaps through its know-how in further analysing the market, setting up adequate market-oriented instruments and attracting private lenders and risk capital providers in the framework of JEREMIE (see chapter 1.4).

This draft evaluation was presented to the Czech Government beginning of 2007 and feedback received from the Ministry of Industry & Trade as well as Czech Invest was taken into account for the finalisation of the study. The portfolio of financial instruments proposed is recommended to be set up in a Jeremie Holding Fund structure, providing an important opportunity to the Czech Government to lay the foundations for continued high economic growth, strong development and increased competitiveness compared with other European countries, in the coming years.

1.2. Major Market Failures & Recommended Actions

EIF has identified major market failures in access to finance for SMEs in Czech Republic justifing the use of public support measures according to EU State Aid rules:

- Low provision of micro finance for self-employment and start-ups;
- Low ratio of SME domestic credit and guarantee activities as percentage of GDP;
- Low factoring-to-GDP ratio compared to EU-25 average;
- Low VC activities compared to GDP and other Central European EU member states;
- Low R&D-GDP ratio, poor technology transfer record;
- Low existence of business angels networks.

At this stage, in order to diminish or fill these financing gaps, the following revolving instruments are proposed to be set up in the context of EU Structural Funds 2007-2013 via a JEREMIE Holding Fund structure:

- Micro Loan Guarantee Scheme targeting start up companies: EUR 50 m;
- Social Micro Loan Scheme: EUR 5 m;
- Portfolio Loan Guarantee Scheme to SMEs: EUR 100 m;
- Venture Capital: Early Stage Fund – EUR 80 m; Fund-of-Fund – EUR 40 m
- Technology Transfer Pilot Fund: 10 m;
- Capacity-building and Pool Fund to stimulate investment readiness: EUR 5 m.

Total amount: **EUR 290 m**

Details of the supply and demand analysis of each financial instrument evidencing these market failures and the JEREMIE proposals are given in chapter 3 of this study. After a positive decision of the Czech Government on the implementation of JEREMIE in cooperation with EIF, in-depth discussions with key market players in the debt and equity sector are envisaged during the preparation of the implementation phase. Given the flexibility of the JEREMIE structure, these instruments can be further developed and adapted and new instruments can be introduced, in line with market developments in Czech Republic in the coming years, in order to best correspond to the needs of the SMEs and thus strengthen the Czech economy.

1.3. Strategic Priorities and Policies

For the period 2007-2013, the Czech Republic has been allocated € 26.7 billion of EU Structural Funds in total, € 25.9 billion under the Convergence objective, € 0.4 billion under the Regional Competitiveness and Employment objective, and € 0.4 billion under the European Territorial Cooperation objective. Czech Republic's contribution to complement the EU investment under the National Strategic Framework will be 4.6 billion euros over 7 years. Central Bohemia, Central Moravia, Moravi Silesia, Southwest, Southeast, Northwest and Northeast regions fall under the Convergence objective, while the Prague region is the only one falling under the Regional Competitiveness and Employment objective.

As laid down in the Czech National Strategic Reference Framework (NSRF), one of the priorities on which the EU funding should focus during the coming years is enhancing the competitiveness of the Czech economy. The Czech Operational Programme "Enterprise & Innovation" (OPEI)[1] is the main programming document for the realisation of the policy for economic and social cohesion in the industry sector and an important tool for the realisation of the strategy for the development of small and medium-sized enterprises (SMEs) for the period 2007-2013 approved by the Government of the Czech Republic. It builds on the Operational Programme Industry and Enterprise (OPIE) which ran between 2004-2006 following the Czech Republic's EU accession. The OPEI has been compiled in the context of the main strategic documents of the Czech Republic (Economic Growth Strategy, Strategy of Regional Development, Sustainable Growth Strategy, National Innovational Policy, etc).

An important goal of the OPEI – in compliance with the NSRF and the NDP – is the improvement of the entrepreneurial environment in the Czech Republic as one of the key elements of the future successful development of the Czech economy. A dynamic entrepreneurial environment creates conditions for successful start-ups and development of competitive firms that create new jobs and strengthen economic and social cohesion. Czech businesses still fall short of the EU countries in terms of quality, equipment, efficiency and innovation. The OPEI aims to amend this situation by increasing competitiveness of industry and service sectors, developing enterprises, maintaining and increasing the attractiveness of the Czech Republic for investors, supporting innovation, stimulating demand for R&D results, commercialising R&D outputs, supporting development of an entrepreneurial culture and growing knowledge-based economy through the development of new technologies and innovative products.

[1] Version November 2007; Managing Authority: Czech Ministry of Industry & Trade"

The overall financial framework of OPEI lies at about EUR 3.578 bn, of which approx. EUR 3.041 to be financed out of ERDF (European Regional Development Fund) with a national co-financing rate of 15%. It includes measures under the following Priority Axis:

- Establishment of enterprises (total resources of approx. EUR 93 m)
- Development of enterprises (total resources of approx. 780 m)
- Effective energy (total resources of approx. EUR 286 m)
- Innovation (total resources of approx. EUR 800 m)
- Environment for enterprise & innovation (total resources of approx. EUR 1,267 m)
- Business development services (total resources of approx. EUR 247 m)
- Technical assistance (total resources of approx. EUR 105 m)

Apart from OPEI, there are different others OP setting the strategic framework for measures financed out of ERDF, ESF (European Social Fund) and Cohesion Fund allocations for Czech Republic on national and regional level. Seven regional OPs will be administrated by regional authorities to target specific regional problems, focussing on supporting businesses in the field of tourism and development of business infrastructure.

1.4. Why JEREMIE

The contribution that SMEs deliver to the EU economy is well documented. Across the EU, Member States appreciate this fact and have focused many policy initiatives at this sector. This is further recognised in a communication by the European Commission stating that 'the partnership for growth and jobs depends on Europe's SMEs achieving their potential, as they prove to be crucial in fostering the entrepreneurship, competition and innovation that leads to sustainable growth and development.' Recent data shows that Europe needs to work on the availability of risk capital to SMEs with high growth potential. After a decrease from EUR 4.2 bn in 2001 as a result of the bursting of the technology bubble, European venture capital investment in early stage firms has stagnated at around EUR 2 bn. A 2004 survey has shown that 14% of the 23 m SMEs registered in the European Union need better access to finance.

It is for these reasons that the European Commission has created two main EU instruments to promote entrepreneurship and innovation, and to improve SMEs' access to finance, being the *Competitiveness and Innovation Framework Programme (CIP)* and the *Joint European Resources for Micro to Medium Enterprises (JEREMIE)*, the latter to be financed out of the EU Structural Funds 2007-2013. The future of European competitiveness depends on an integrated, open, and competitive financial market that covers risk capital and debt finance instruments and as part of the JEREMIE initiative, the European Investment Fund (EIF) has been asked to evaluate the specific needs of each EU market to identify market failures and to propose a series of appropriate financially engineered instruments.

With the JEREMIE initiative, the EU Member States will be able to use money from the European Regional Development Fund (ERDF) and the European Social Fund (ESF) for the setting up of financial instruments within a Holding Fund concept to support the creation and expansion of micro, small and medium-sized enterprises (SME) as part of EU regional policy. Using the concept of a Holding Fund, JEREMIE enables each Member State to support the development of venture capital, business angels, technology transfer

funds to link business, universities and research centres, and to improve the availability of micro-credits, loans and guarantees targeted at those who may not have access to commercial credit or need further debt support for their SME. Funding from instruments established through JEREMIE may also be combined with business support and institution-building measures financed by the EU Structural Funds, but the JEREMIE Holding Fund does not offer grant or technical assistance money.

In previous periods, difficulties with the administrative processes have led to sub-optimal levels of fund utilisation. Time-consuming processes have led in certain cases to significant levels of funds earmarked for SMEs, being left unused. Understanding the problems this causes, the Commission foresees that significant improvements can be made via the creation of JEREMIE Holding Funds within the Member States and with full delegation to the appropriate Managing Authority to oversee the implementation of JEREMIE programmes aimed at delivering sustainable financially engineered instruments that improve access to finance for SMEs.

Importantly, each programme will be individually tailored to the needs of each Member State following on from the combined efforts of the EIF and the Member State to evaluate market failures and the appropriate remedies in the context of its Operational Programme. The proposed instruments will efficiently engage the private sector and seek to maximise the leverage effect. The flexibility within the portfolio of JEREMIE instruments in each programme enables a full range of instruments varying from equity and quasi-equity to venture capital, loans or guarantees for the benefit of SMEs in the Member State. Furthermore, the portfolio of instruments used and financial commitments made is flexible enabling alterations in positional allocations to be made during the period.

The benefits to EU Member States from JEREMIE include:

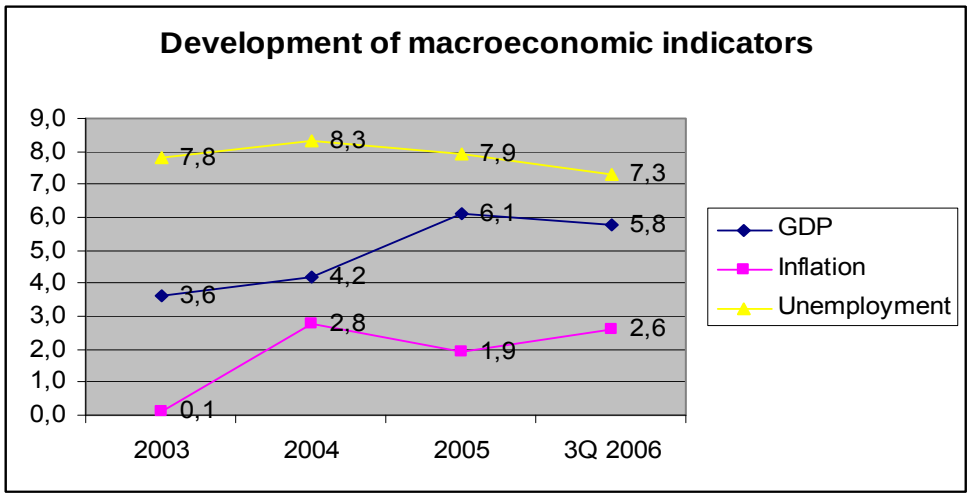
- Disbursement of the funds to a 'Holding Fund' within the Member State. JEREMIE is designed to optimise the use of Structural Funds in the SME context and to simplify the management of financial engineering by the Managing Authority.
- A highly adaptable toolbox of financial instruments[8] that can be managed flexibly over a period of time: during the financial period 2007-2013. In consultation and cooperation with the Managing Authorities of Operational Programmes, the JEREMIE Holding Fund will be able to re-allocate the resources to one or other financial instrument and product, depending on the effective demand.
- The revolving nature of the portfolio of instruments and the partnership approach with the private market will maximise the long-term impact of the Fund and invested JEREMIE resources that are repaid become available for reinvestment. This is applicable, for example, when returns are received on venture capital investments, or micro-loans are reimbursed to micro-finance institutions. Resources are reinvested into the JEREMIE instruments and are used again in favour of SMEs.
- JEREMIE will principally enhance the supply of SME finance in the regions, by bringing product expertise and decision on investment schemes at a local level. It will also contribute to improve the regional financial conditions targeting areas of need. The EIF's international experience will be available to all Member States.

2. BACKGROUND INFORMATION

2.1. Characteristics of the Economy and Demographics[2]

In the past three years, the **population** of the Czech Republic is constantly rising and stood at about 10.3 m inhabitants mid-2006. Average age of the population is 40 years, almost 6 m people are between 25 and 64 years old. Net migration is positive (+ 3.3%). The economic activity rate[3] rose compared to 2005 by 0.2% to almost 60%. According to the Czech Ministry of Finance the share of people at risk of poverty stood at 10% in 2005. Number of people classified in the "poverty risk" category is given in the table below.[4] The overall unemployment rate was slowly declining in 2005 to 7.9%; the long-term unemployment remained the same as in 2004 at 4.2%. November 2006 Statistics confirm a further decrease in overall unemployment rate to 7.3 %.

The **macroeconomic environment** of the Czech Republic is stable characterised by increasing tendency of economic growth. The Czech Republic is rated A- (Standard & Poor's, Fitch IBCA) and A1 (Moody's). In 2005 and 2006, the GDP rose to about 6%. The following chart gives an overview of the development of key macro-economic indicators between 2003 and autumn 2006:



Source: Czech statistical office, www.czso.cz

[2] Source: Czech Statistical office, www.czso.cz and Ministry of Finance, www.mfcr.cz
[3] Economic activity rate = share of economically active people (total workforce) on total population older 15 years
[4] The share of persons with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income (after social transfers)

The following table gives the year forecasts of important indicators by the Ministry of Finance in %. In general, there are some differences between statistics presented by the Czech Ministry of Finance and the IMF, due to different exchange rate calculation and methodology of computation of base-year:

Year	GDP	Inflation	Unemployment	Current Account Deficit
2004	4.2	2.8	8.3	- 167.3
2005	6.1	1.9	7.9	- 61.7
2006	6.0	2.8	7.2	- 110.0
2007	4.9	3.0	6.7	- 83.0
2008	4.8	n.a.	6.5	n.a.

Source: Ministry of finance, Macroeconomic prediction of the Czech Republic, October 2006, www.mfcr.cz

Comparing national economic performance indicators in 2000 and 2005 with the EU-25 average shows interesting developments:

Indicator	National performance		EU 25 average	
	2000	2005	2000	2005
GDP per capita in PPS (EU25=100)	64	73	100	100
Real GDP growth rate (% change previous year)	3.9	6.1	3.9	1.6
Labour productivity per person employed (EU25=100)	58.5	68.6	100	100
Total employment growth (annual % change)	-0.7	0.1	1.5	0.6
Inflation rate (average annual)	3.9	1.9	2.4	2.2
Unit labour costs (growth rate)	-0.4	-3.5	-0.1	-0.3
Public balance (net borrowing/lending) as % of GDP	-3.7	-2.6	0.8	-2.6
General government debt as a % of GDP	18.2	30.5	62.9	63.4
Unemployment rate (as % of active population)	8.7	7.9	8.6	8.7
Foreign direct investment intensity	4.6	2.3	2.4	0.9
Business investment as % of GDP	24.7	22.6	18.3	17.1

Source: Annual Innovation Policy Trends and Appraisal Report Czech Republic, 2006

- *Real GDP growth rate*: The increase in GDP in 2005 was the highest since foundation of the Czech Republic in 1993. This puts it among the countries with the fastest growing economy in the EU-25. Foreign trade in goods and services had the most positive effect and was the dominant factor underlying this development. The recessing industry, trade and the motor vehicles service sector contributed most to the growth of gross added value. Net export is the dominant factor in GDP growth, contributing 75% to the total GDP growth.
- *Labour productivity*: A steady increase has been recorded since 2000, although the rate remains significantly below the EU-25 average.
- *Total employment growth:* The latest figure from Eurostat is for the year 2004 which shows that employment growth has slowed down. However, due to the improving economic performance, employment rose by 0.4% in 2005 compared to 2004 (according to the Czech Statistics Office).

- *Unit labour costs:* Although the average wage of employees in 2005 rose, the growth rate slowed down, thus reducing the danger of inflation.
- *Public balance (net borrowing/lending) in % of GDP:* The public balance is negative, in spite of steady improvements since 2000. The current public balance comes close to the EU-25 average.
- *General government debt in % of GDP* has only changed slightly since 2000 and amounts to approx. 30% GDP - about a half of the EU-25 average over the same period (above 60% of GDP).
- Since 2001, the *unemployment rate* has been below the EU-25 average, rising slightly from 2002 to 2004, then dropping again in 2005 (to the level of 2003). This trend corresponds to the continuing increase in economic performance in 2005.
- *Business investment as a percentage of GDP* is above the EU-25 average, showing a slight decrease from 2000 to 2004.

Public and private expenditures for **research & development** (R&D) are significantly below the EU average as well as the availability of financial resources for innovation and venture capital. According to the Summary Innovation Index (SII) of the European Innovation Scoreboard (EIS) 2005, the Czech Republic falls into the "catching up" category, which is an improvement in comparison to the previous year when it was classified as a country "falling further behind". In terms of innovation indicators, the Czech Republic has a medium-high position with regard to employment in med/high-tech manufacturing (which is a natural consequence of Foreign Direct Investments, especially in mid- to higher technology manufacturing or services).

The Czech Republic shows an extremely low performance in all indicators related to intellectual property, although they do show a positive trend (especially the indicator on new community trademarks). Other indicators where the Czech Republic performs poorly are broadband penetration, enterprises receiving public funding, business-financed university R&D and early-stage venture capital (which has been an on-going weakness and continues to show negative trends).

From the global point of view, the competitiveness position of the Czech Republic is improving slowly[5]. There were three innovation challenges set[6]: Better cooperation between universities/research institutions and the business sector; more sufficient financing of innovative (risky) businesses and start-up companies; higher patent activity.

Recent data taken from the World Competitiveness Yearbook (WCY) of the IMD, which compares the competitiveness of 60 countries, show the Czech Republic improving its position from 36th place in 2005 to 31st place in 2006 (World Competitiveness Scoreboard 2006).The first National Innovation Policy (2005-2010) was adopted by the Czech government in July 2005. Its strategic objectives are:

- Strengthened research and development as source of innovation,
- Working cooperation between the public and private sector,

[5] Source: European Trend Chart on Innovation, Annual Innovation Policy Trends and Appraisal Report, Czech Republic, 2006

[6] Source: see footnote 10 and Assessment of the priorities and formulations of recommendations for implementation measures towards developing a knowledge economy within the preparation of the National Programming Documents of the Czech Republic for 2007 – 2013.

- Sufficient human resources for innovation,
- Better performance of government and civil service in R&D and innovation.

In total, 48 concrete measures have been defined to achieve these objectives, including the allocation of responsibilities, deadlines and success indicators.

2.2. SME Characteristics and Environment

The SMEs position has been stable in the past seven years; they form a very important part of Czech Republic's economy. They represent 99.85% of all enterprises and create 34.72% of GDP and about 30% of export. SMEs make 61.79% of the total employment, this share is growing. The total value added and outputs of SMEs reaches more than 50%. Their share of total investment in the Czech Republic is relatively high and growing, representing more than 50% in the year 2004[7].

The table below shows the development of number of SMEs according to the categorisation of the European SME definition:

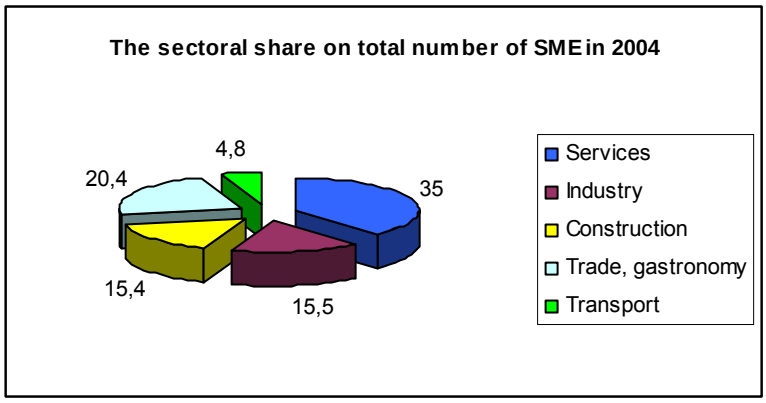
		2003	2004	2005
Micro enterprises (0-9 employees)	N° of enterprises Share of total Employees Contribution to employment	929,000 95.6% 463,000 26%	934,000 95.6% 460,000 25,7%	947,000 95.6% 482,000 26.3%
Small enterprises (10-49)	N° of enterprises Share of total Employees Contribution to employment	36,100 3.7% 656,000 36,9%	35,500 3.7% 647,000 36,1%	35,900 3.8% 652,000 36,2%
Medium-sized enterprises (50-249)	N° of enterprises Share of total Employees Contribution to employment	6,700 0.7% 660,000 37%	7,000 0.7% 686,000 38.3%	6,900 0.6% 675,000 37%
All SMEs	Total number Total employees Contribution to employment	971,800 1.780,000 61.3%	976,600 1.792,000 61.4%	993,700 1.934,000 61.8%
Large enterprises	Total number Total employees	1,930 512,000	2,017 599,000	2,037 632,000

Source: Czech statistical office, www.czso.cz

The table above shows a diametrically share of micro enterprises in the Czech economy. The rate between micro and small enterprises in 2005 was 26:1 and between micro and medium-size was 137:1. The contribution to employment is relatively identical. The number of micro enterprises is increasing.

[7] Source: Conception of SME development in the period 2007 – 2013, April 2006, www.mpo.cz

According to the chart below, in 2004, SMEs were mainly active in the service sector as well as trade and gastronomy:



Source: The economy of SME in 2004, Czech statistical office, www.czso.cz

The following table gives an overview of SME birth and death rates by category during the last years:

	2003		2004		2005	
	Births	**Deaths**	**Births**	**Deaths**	**Births**	**Deaths**
Micro enterprises	64,349	12,435	51,669	31,463	36,394	27,197
Small enterprises	21,460	9,329	15,029	12,231	19,436	8,860
Medium-sized enterprises	15,778	21,764	9,102	5,470	23,525	6,445
Total	101,558	29,675	86,259	49,164	79,355	42,502

Source: Czech statistical office, www.czso.cz

In 2005, nearly 80,000 SMEs have been created while only 42,500 entrepreneurs stopped their business activities. According to the Czech statistical office, a rise has been registered in industry, construction and services compared to the situation of 2004.
In 2006 the analytical report "SME Access to Finance in the New Member States" was published by Eurobarometer, based on research done in April-May 2006. This report provides the following data about Czech SMEs:

- 89% already used any type of financing;
- 47% face the fact that banks do not want to take risks in lending money to them;
- 43% find the bank offers as not suiting their needs;
- 66% would be encouraged to use small loans by lower interest rates, 56% by simpler procedures and 44% by less demanding conditions;
- 44% SMEs would turn firstly to banks if they needed information or advice on financing, 15% firstly to accountants and 13% firstly to external consultants.
- Almost 80 % of Czech SMEs have not yet made use of public subsidies to finance its activities;
- The following financing sources are used: banks (60%), Leasing/renting companies (52%) and private investors (15.2%), public institutions supporting investment (6.6%), private financing companies other than banks (5%) and venture capital companies (1%)[8].

[8] Source: Flash EB N° 184 – SME' s access to Finance in the NMS, July 2006

The following table gives information on SMEs investment activities:

2005	SME investment (tangible, intangible, incl. land) (million EURO)			
	Corporate body 0-249 employees	Individuals 0-249 employees	Total SMEs	SME investment share in total in Czech Republic
				%
Industry	2 254.0	246.1	2 500.1	32.65
Construction	282.4	54.0	336.3	64.76
Merchandise	1 209.5	196.6	1 406.1	72.26
Restaurants	187.0	95.6	282.6	93.68
Transportation	473.2	211.0	684.3	30.24
Finance	188.6	15.0	203.5	37.04
Services	2 809.4	389.8	3 199.2	90.45
Agriculture	558.5	83.8	642.3	88.29
Total	**7 962.6**	**1 291.8**	**9 254.4**	**52.88**

Source: Ministry of Industry and Trade, based on data from Czech Statistical office

Definition:

Individual (according to § 7-17 of the Act N° 40/1964 Coll. as amended, Civil Code) is defined as any individual with legal identity, who has trade license to do business under its personal identification number and is not defined as Corporate body. (in practice 1-5 employees)

Corporate body (according to § 18-21 of the Act N° 40/1964 Coll. as amended, Civil Code) are those established by written contract or Memorandum of Association. They start existing after registration in Trade register (or other defined by law) under unique trade name with defined company seat. Corporate bodies are: corporations of individuals or corporate bodies, purpose corporations of assets, units of municipal authorities and other subjects as defined by law.

2.3. Regional Characteristics

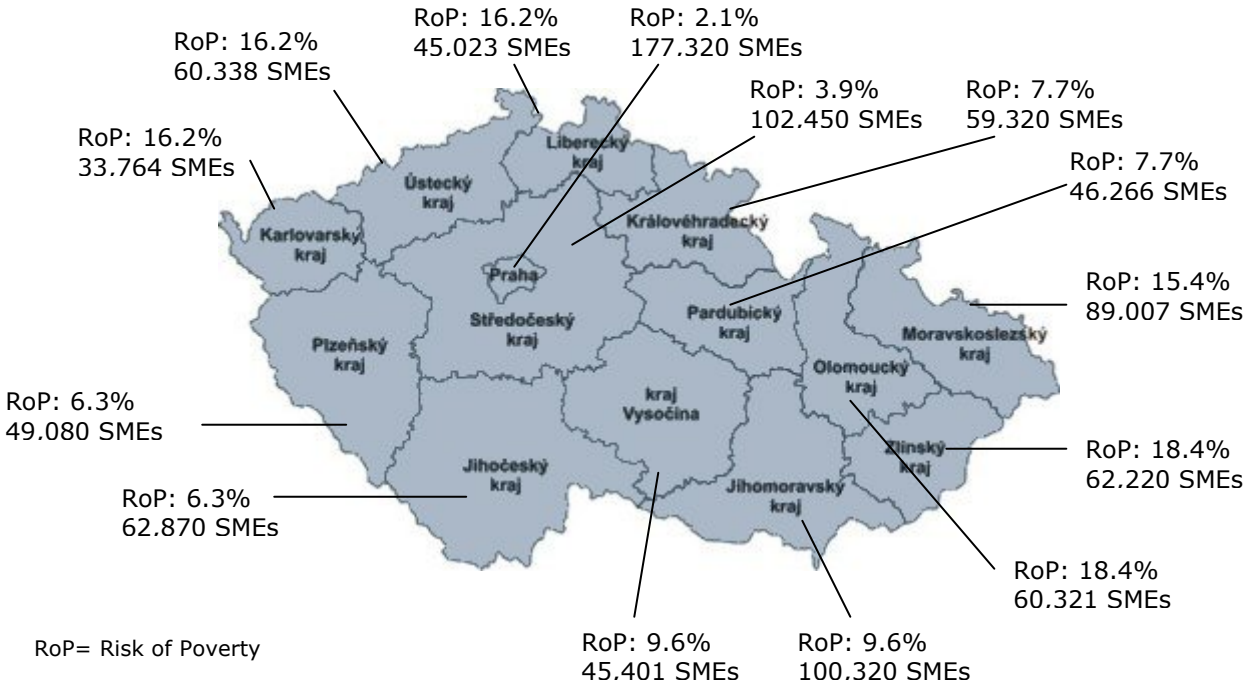
The Czech Republic is divided in eight NUTS II[9] regions listed in the table below:

Self-governing District	Region/NUTSII	Self-governing District	Region/ NUTSII
Praha	Prague	Liberecký kraj	North-East
Středočeský kraj	Central Bohemia	Královehradecký kraj	
Jihočeský kraj	South-West	Pardubický kraj	
Plzeňský kraj		Kraj Vysočina	South-East
Karlovarský kraj	North-West	Jihomoravský kraj	
Ústecký kraj		Olomoucký kraj	Central Moravia
Moravskoslezský kraj	Moravia-Silesia	Zlínský kraj	

Source: CopiRisco CZ, a.s.

[9] Definition: NUTS (Nomenclature des unités territoriales statistiques). NUTS I – Czech Republic, NUTS II – regions, NUTS III - districts

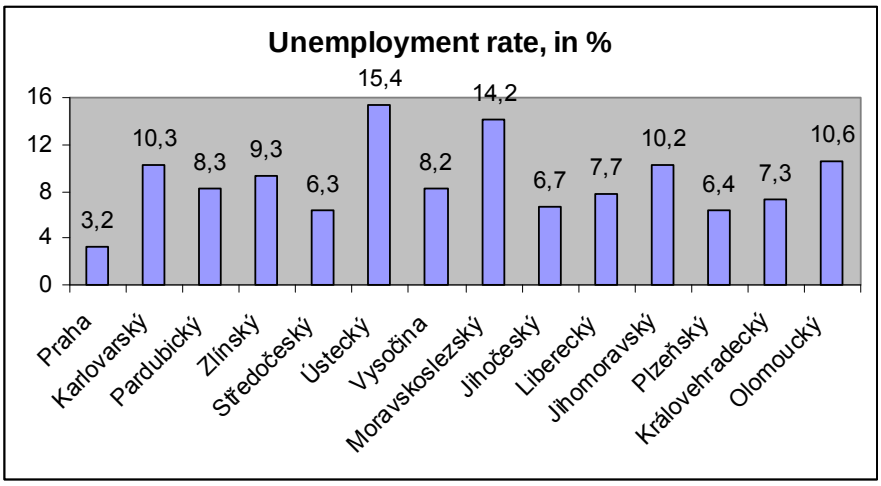
The map below shows that regional SME statistics and shares of population at risk of poverty vary substantially:



RoP= Risk of Poverty

With regard to the economic characteristics of the regions, the Czech Republic can be considered as two regions – Prague and the rest of Czech Republic. Prague's share of GDP reaches over 200% of the average; the other regions created on average 86.4% of GDP of the Czech Republic in 2004. The most economically active region beside Prague is the region of Central Bohemia, benefiting from its neighbouring position with Prague and creating 93.6% share on Czech GDP. The least economically active region is Central Moravia with 80.1 % share on GDP.

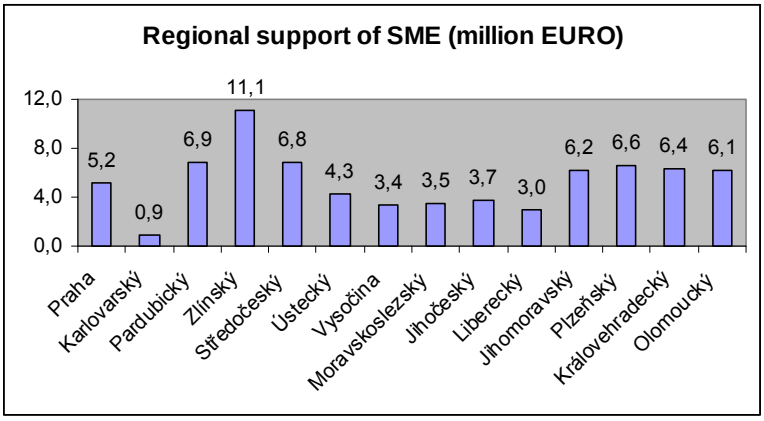
The following chart shows the unemployment rate in the single regions in 2005:



Source: Ministry of Labour and Social Affairs, as at 31.12.2005, www.mpsv.cz
Note: Average unemployment in the Czech Republic in 2005 was 7.9 %

According to the "Report on SME Development and its Support in 2005", published by the Czech Ministry of Industry and Trade in May 2006, the SMEs received the following public

support (state budget 66%, EU 12%, private financial sector 22%) in the respective regions:

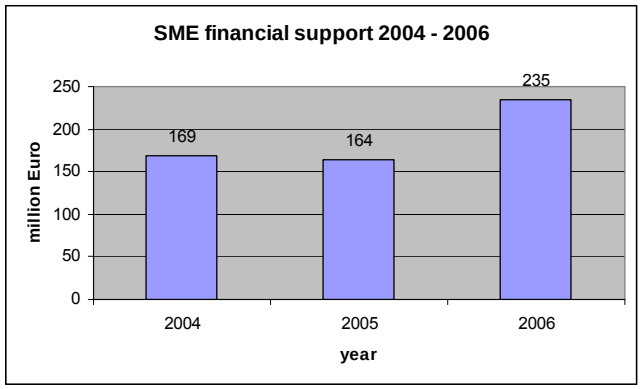


2.4. SME-Supporting Institutions & Programmes

2.4.1. Institutional Structure

Public SME support is realised by the Ministry of Industry and Trade (MIT), Ministry of Regional Development (MRD) and Ministry of Social Affairs (MSA) through their respective Operational Programmes. Existing programmes are often implemented by state owned agencies or banks, i.e. Czech Invest, Czech Trade, Českomoravská záruční a rozvojová banka (ČMZRB), Design centrum ČR, Česká exportní banka (ČEB) and Evropská garanční a pojišťovací společnost (EGAP).

The chart below summarizes total public SME support between 2004 and 2006. In 2005, 8,000 SMEs were supported with allocated EUR 0.23 bn, of which EUR 0.15 bn from state budget, EUR 0.03 bn from EU Phare and Structural Funds[10] and EUR 0.05 bn from the financial market[11].



Czech Invest

The investment and business development agency was established under the MIT in 1992. Its main purpose is to support the competitiveness of Czech enterprises, mainly in the manufacturing industry and innovation sector and attracting direct foreign investment. Czech Invest provides its services free-of-charge, such as information

[10] Pre-accession and regional aid
[11] Source: Report on SME development and its support in 2005, www.mpo.cz

assistance, handling of investment incentives, business property identification, location of Czech suppliers, aftercare services, business infrastructure development. As at December 2006, Czech Invest approved grants to 913 projects (mainly SMEs) amounting in total to EUR 221 m. Credit agreements have been concluded for 1,624 projects with a total amount exceeding EUR 72.3 m. These projects are financed up to 50% from EU Structural Funds and from the state budget, the rest through own company resources[12].

Czech Trade

The Czech agency for trade support was established in 1997 as national pro-export organisation of the MIT. Its main purpose is to develop international trade and cooperation of enterprises in the Czech Republic with the foreign business subjects and to improve Czech export activities. It also realises own services as well as development programmes within the OP Industry and Enterprise of the MIT. 89% of businesses supported by Czech Trade were SMEs. Within the programme "Marketing" 303 projects were supported between 2004 and 2006 for a total amount of over EUR 16 m. Within the programme specialised on "Export Consultancy" 59 studies were devised amounting in total to almost EUR 1 m[13]. The scheme of financing projects is similar to the scheme used by Czech Invest[14].

ČMZRB - Czech-Moravian Guarantee and Development Bank

Českomoravská záruční a rozvojová banka a.s. was established in 1992 and has the following shareholders: Czech Republic represented by the MIT, Ministry of Finance and Ministry of Regional Development (72% of shares) as well as commercial banks, such as Komerční banka, a.s., Česká spořitelna, a.s. and Československá obchodní banka, a.s..

The bank supports SME development mainly by providing guarantees and preferential credits using finances from the state budget, structural and regional funds. Some programmes are realised solely by the ČMZRB, i.e. Záruka, Trh and Progres; some realised as part of the MIT´s OP Industry and Enterprise/OP Business and Innovation programmes, i.e. Kredit, Start. In 2005, ČMZRB supported about 2,500 SMEs with a total amount of EUR 82 m. Major support programmes (43%) were provided for small enterprises and the major amount of finance (41%) was provided for medium enterprises. The programme START is drawn by 99% by self-employed (0 employees), mainly trade companies (created 33% in 2005), accommodation services (21.8% in 2005) and industry (22.3%). These programmes are working on a repayable system. The principal of the loan is payable according to specified conditions; the interest is a grant[15].

Design Centre Czech Republic

This organisation was established in 2003 by the MIT with the aim to effectively promote the use of design in industry, trade and services. This organisation realises national programmes supporting SMEs. Between 2005 and 2006, 182 projects were supported in a total amount of EUR 300,000. Projects are financed up to 20% from the national budget and the rest through company resources[16].

[12] Source: www.czechinvest.org
[13] Data extracted form the CzechTrade´s Annual report, 2005
[14] Source: www.czechtrade.cz
[15] Source: www.cmzrb.cz
[16] Source: www.designcentrum.cz

Czech Export Bank

ČEB is a specialised banking institution, directly and indirectly fully state-owned, for the financial support of exports. It was set up in 1995 and is one of the pillars of the government's pro-export policy system. The ČEB's mission is to provide official support for exports through the provision and financing of export credits and other services connected with export. ČEB thus supplements the services offered by the domestic banking system by financing export operations that require long-term financing at interest rates and in volumes that are not available to exporters on the banking market under the current conditions. This allows Czech exporters to compete on international markets under conditions comparable to those enjoyed by their main foreign competitors. In 2005, the financial allocation for SMEs remained as in 2004 – about EUR 25 m. These programmes are working on a repayable system. The principal of the loan is payable according to specified conditions and the interest is a grant[17].

Export Guarantee and Insurance Company

EGAP was established in 1992 as fully state owned credit insurance company oriented on insuring export credits against territorial and commercial risks connected with export of goods and services of the Czech Republic. EGAP provides its services indiscriminately the enterprises' size, legal form or exporting amount. 73.3% of all clients are SMEs. 11,700 SMEs were interested in insurance products in total amount EUR 7.6 m of total gross insurance. These programmes are working on a repayable system. The principal of the insurance or guarantee is payable according to specified conditions and the interest or guarantee fee is a grant for the company[18].

2.4.2. Activities and Programmes 2004-2006[19]

ČMZRB

In 2005, ČMZRB realised the following national SME programmes:

- Záruka (Guarantee) – financial preferential guarantees for SMEs;
- Trh (Market) – multipurpose SME support programme providing preferential credits for small enterprises and interest-free credits for starting businesses in Prague, newly realised also by subordinated credits. The support was oriented on establishing certification actions;
- Progres (Progress) – support for dynamically developing SMEs through subordinated credits; in 2005,
    - 117 loans with interest rate 1% p.a. in total amount EUR 25.6 m
    - 40 loans with interest rate 3% p.a. in total amount EUR 14.2 m
    - 4 loans with interest rate 4% p.a. in total amount EUR 0.67 m

In general, ČMZRB spent in 2005 EUR 82 m for SME support. The major part was provided for small enterprises (43% of total support amount); medium sized enterprises received 30% and micro enterprises 27%. Most support headed to the Moravian–Silesian region (24% of guarantees, 13% benefits and 7% preferential credits) and Prague (7%

[17] Source: www.ceb.cz
[18] Source: www.egap.cz
[19] Source: Detail summary on SME support programmes in 2005, www.mpo.cz

guarantees, 15% benefits and 17% preferential credits). Most support was provided to the industry (30%), construction (35%) and trade (16%).

In the context of the OP Industry and Enterprise 2004 – 2006, ČMZRB was administrating applications for:

- Credit Programme – Preferential loans for small enterprises (up to 49 employees) development projects that have at least 7 years history. Maturity period is up to 8 years at a fixed interest rate of 3-4% p.a. SMEs can receive loans from EUR 7,140 – 250,000.
- Start Programme – Preferential interest-free loans for SME start-ups. Maturity of these loans is up to 6 years. SME can receive EUR 3,570 – 30,000.

Czech Invest

Czech Invest realised in 2005 as part of the above-mentioned national programmes the following SME supporting activities:

- Poradenství (Consultancy) – consultancy and educational programmes for starting or expanding SMEs, realised in cooperation with regional consultancy centres and Business Innovation Centres.

In 2005, the total amount of EUR 920,000 supported SMEs through this programme. About 1,700 consultancy projects were financed and 518 grants were provided for educational projects. Major receiving region was South Moravia.

Czech Invest was administrating the OP Industry and Enterprise 2004–2006 and will administrate the OP Business and Innovation 2007–2013.

Czech Trade

Czech Trade realised in 2005 as part of the above-mentioned national programmes the following SME supporting activities:

- Aliance (Alliance) – creating SME alliances and supporting them entering foreign markets;

About EUR 275,000 EURO supported in 2005 63 applicants - mainly small enterprises (62%) in the region South-East and Central Moravian region.

Czech Trade was administrating applications in the OP Industry and Enterprise 2004–2006 for:

- Marketing programme – support for marketing activities of SME in foreign markets in the form of a grant for SMEs with at least 2 years history. SMEs can receive EUR 3,570 – 30,000.

Design Centre Czech Republic

- Design support for SMEs; in 2005, 114 enterprises were supported through EUR 303,000, mainly in South Moravia and Prague.

6th EU Framework Programme for Research and Technological Development

- Support of SMEs during years 2005-2007.

In 2005 in total 6 projects were supported through EUR 32,000, of which four in Prague and two in Central Bohemia.

Ministry of Industry and Trade (MIT) Programmes

- Research and Development Programme

In 2005, MIT supported in total 277 projects presented by SMEs through EUR 32 m. Total support of R&D projects including MIT was EUR 65.2 m.

- In cooperation with Czech Invest, various activities were conducted, e.g. the support of industrial zones, technological facilities

The following table shows all activities in the context of the OP Industry and Enterprise 2004 – 2006:

Programme	Number of supported SMEs	Amount EURO provided
Prosperity	9	11 799 929
Real estate	56	70 232 643
Training centres	38	9 039 786
Clusters	16	2 801 750
Credit*	406	956 428
Marketing	303	16 691 036
Development	216	105 814 964
Start*	381	216 428
Innovation	38	32 314 179
Renewable resources	39	43 861 357
Energy savings	24	9 492 571

Source: Czech Invest, www.czechinvest.org, data as at 2006

Ministry of Regional Development (MRD) Programmes

- Regional programme supporting development of industrial businesses in NUTS 2 region North-West and Moravia-Silesia – 2005: EUR 2 m
- State programme of tourism – EUR 3.82 m for SMEs in 2005
- Joint regional OP – infrastructure and business support – EUR 2.15 m in 2005

  Replaced in 2007-2013 by seven separate Regional OPs administered by regional authorities to better target more specific problems of concerned regions. SMEs will be mainly supported in tourism activities (both infrastructure and services) and partly in business infrastructure development (mainly focused on using brownfields, investment in its infrastructure and support of private and public sector cooperation).

Multi-annual EU Programme for SMEs, 2001-2005 (MAP)

MAP projects are realised via Euro Info Centres (consultancy, seminars, trainings, conferences), via EIF through venture capital funds and guarantees and via MIT. Successor programme in 2007-2013 is CIP.

Ministry of Social Affairs (MSA) Programmes

MSA provides minor programmes to support the development of human resources in SMEs as well as to boost employment.

ČEB and EGAP Programmes

EGAP is supporting mainly SMEs in the field of commercial credit insurance. The reason is the activity of the supported SMEs in consumption goods, materials and spare parts

where short term credits are used. ČEB is providing exporting SME with short and long term export credits, partly with state grant, which covers losses.

International Financial Institutions

EBRD is operating in the Czech Republic since 1991. As of 31 August 2005 the Bank had committed totaling over EUR 1 bn in 50 direct and 39 regional projects which attracted a further EUR 3.6 bn from sponsors and co-financiers. In 2005, EBRD investments in the Czech Republic amounted to over EUR 50 m.

The EU/EBRD SME Finance Facility, a joint programme of the European Comission and the EBRD, supporting the development and growth of SMEs by facilitating their access to finance, was launched in 1999. This programme covers 11 countries and allocated over EUR 1.1 bn[20].It operates through financial intermediaries (Czech banks, leasing companies and Equity Funds, e.i. Komerční banka, Česká spořitelna, Raiffeisen bank, SG Equipment Finance, Deutsche Leasing, Raiffeisen Leasing, S Morava Leasing or Czech Private Equity Fund, GIMV Czech and Slovak SME Fund or Raiffesien EU Enlargement Fund) and enables Czech financial institutions to provide micro loans to Czech SMEs with amounts up to EUR 25,000. As at 2005, Česká spořitelna received EUR 30 m finance loan, Komerční banka EUR 20 m, Raiffeisen EUR 10 m. Leasing companies received EUR 5 – 30 m. Further information of products according to Czech banks or leasing institutions can be found in the relevant sub-chapters of chapter 3.

European Investment Bank – Until end of 2006, EIB has provided EUR 790 m in form of credit lines to partner financing institutions in Czech Republic. These Global Loans for SMEs were often accompanied by the European Commission's SME Finance Facility intended to strengthen the financial intermediaries' capacity to target SMEs. The EIB's Global Loan activity is expected to continue to play an important role in the Bank's business over the coming years. EIB Partner Banks in Czech Republic are the major commercial banks mentioned in chapter 3.3.

European Investment Fund – In December 2006, EIF has committed guarantee activities amounting to EUR 134.5 m in Czech Republic through MAP, of which EUR 80 m with Česká spořitelna and EUR 54.5 m with CMZR.

[20] Source: www.ebrd.com

3. SUPPLY AND DEMAND ANALYSIS – MARKET FAILURES AND RECOMMENDATIONS

3.1. Methodological Framework

There are many difficulties involved in the task of understanding the areas of market weaknesses or gaps in the access to finance to SMEs. The primary challenges are in the form of data availability and the feasibility of measuring the gap between current supply and potential demand for financially engineered instruments. In fact, some respected Academics have even concluded that the task is unachievable in that demand is immeasurable until the supply appears or on the basis that 'laissez-faire economics' implies that supply always equals demand. Nevertheless, a practical methodological framework has been adopted to assess the overall issues in any marketplace which is captured in the graphical model at the end of this sub-chapter.

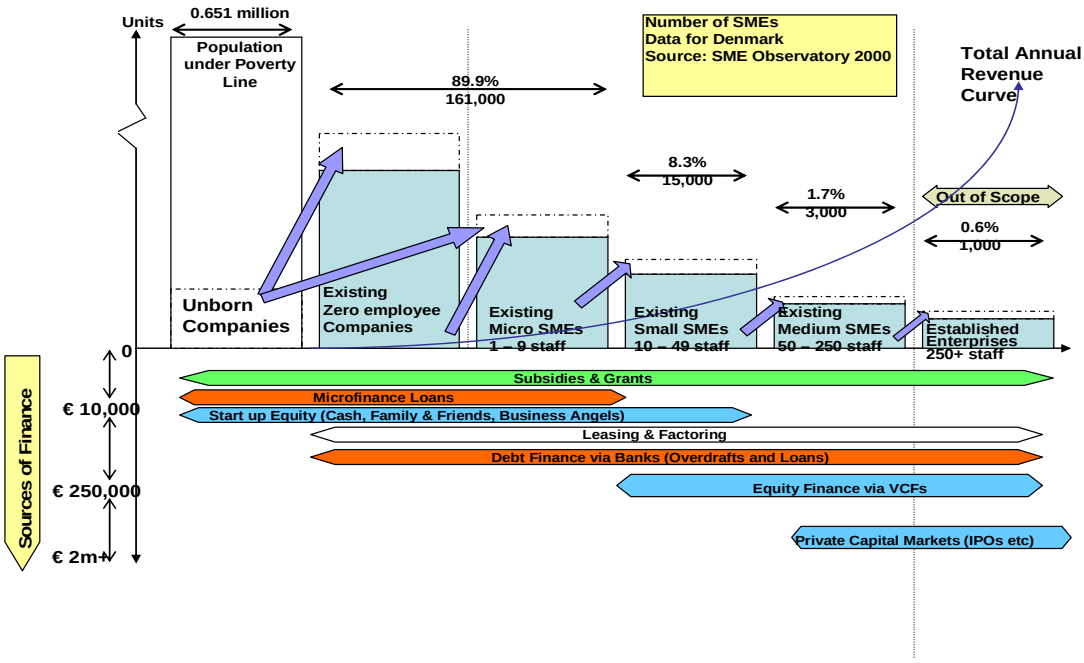
The approach seeks to understand whether gaps or market weaknesses exist based upon the following principles:

- Demographic trends within the SME environment and in each market segment are used to estimate the future potential size of market space and potential demand.
- The variety of sources of supply are measured or estimated using the latest available statistical data from industry sources such as EVCA and national data sources as appropriate.
- The trends and shifts in these sources of supply are then reviewed together with the current levels of public support to identify evidence of market failures, gaps or absences.
- From this, proposals are made for generic financial engineering instruments that comply with the rules of JEREMIE and specifically target the identified market weaknesses or failures with the justification of the size of the funding based upon either a macro (top down) view of the market or the bottom-up, practical view of the instrument in question. These proposals are made on the basis of the EIF's wide experience of guarantee and equity instruments across Europe and reflect the standards of best practice in the market.
- An estimation of the sensible 'tranche approach' is then given for the Holding Fund with proposed management structures and the total Holding Fund size, estimated for budgetary planning purposes.

The approach adopted follows a set of practical principles to understand whether gaps or market weaknesses exist in each segment of the SME market in each country. It is worth to note as an example that for the first market segment in the area of the 'socially excluded population' (microfinance), the method used is as follows: The latest available data for the section of the overall population regarded as 'at risk of poverty' is taken as the base population for the segment. Then using historical information for the number of people that have created an enterprise per 1,000 inhabitants, this percentage rate is applied to the segment population. This gives an overall estimate of the potential demand size in this segment.

For the three other groupings (micro, small and medium SMEs) overall statistics for each segment is presented with a review of factors affecting demand in each case. For these segments, an analysis of the trends in the provision of key sources of supply of finance is undertaken at macro-level before deeper analysis of the main elements of supply in each individual segment is undertaken to understand the key aspects of market weakness or failure that may exist.

From this point, practical proposals are made targeting known weaknesses whilst respecting the aspects of financial engineering and self-sustainability at the core of the JEREMIE initiative. The proposals need to be viewed as a flexible portfolio of instruments that combine to address the weaknesses in the economy but may be varied according to the dynamics of the situation across a period. Below, the model created for Denmark is given as illustrating example:



3.2. Micro Finance

Micro lending is an important tool to create incentives for the set up and development of SMEs, especially in the micro segment. In essence, the programmes should respond to the need for financial products and services which are either not available from commercial banks or provided under terms which the loan applicant can hardly accept.

Supply

The main micro finance supply source in Czech Republic seems to be the before-mentioned programme START of **ČMZRB** and the South-Moravian Innovation Centre.

The table below lists the main features of the START, OP Business and Innovation:

Form of support	Preferential non-interest-bearing line of credit	
Financing maximum	90 % of total expected costs of the project	
Minimum amount	EUR 3,570	
Maximum amount	Individual	EUR 26,785
	Corporate body with 1 partner	EUR 26,785
	Corporate body with more partners	EUR 53,571
Maturity	Max. 7 years, up to one year grace period	

Source: CzechInvest, www.czechinvest.org

In 2006, CMZRB provided 733 micro loans with a total volume of EUR 11.6 m and an average loan size of EUR 15,820. In 2007-2013, up to EUR 45 m can be provided in the framework of this programme.

The **South-Moravian Innovation Centre (JIC)** provides micro finance to SMEs to finance their innovation projects in the preparatory and realisation phase in the form of credit. The provided amount of finance ranges from EUR 8,928 to EUR 26,780 with maturity between one and three years from closing date of the credit contract. It is possible to postpone the due date by maximum one year. The credit is provided with fixed interest rate not exceeding the usual credit interest rate in commercial banks. In 2006, JIC provided 23 micro loans with a total volume of EUR 360,000 and an average loan size of EUR 15,600. In 2007-2013, about EUR 1.5 m can be provided for micro loans.

There are not many **commercial banks** supporting SMEs with microfinance. Conditions seem to be difficult and not many SMEs have good chances to receive finance. EBRD is providing special EU/EBRD SME Finance Facility programme to support Czech financial institutions provide such micro finance in amount up to EUR 25,000. For example, **Česká spořitelna, a.s.** received EUR 20 m in 2000 and another EUR 10 m from this programme in 2003 to provide micro and small credits to entrepreneurs. It is provided even for the start-up SMEs in form of investment and working capital. The amount ranges from EUR 3,570 to EUR 153,570. **Komerční banka** received a EUR 20 m credit line in 2004 for SME-oriented programmes, preferably in the form of micro credit, up to EUR 125,000. Currently, KB provides EU Profi Úvěr, with simplified and shortened approval process up to EUR 140,000. **Raiffeisen Bank** received EUR 10 m in 2003 to provide micro finance products for Czech SMEs up to EUR 25,000. Raiffeisen currently provides these products, co-financed by EBRD: Overdraft facilities and investment credits, both up to EUR 50,000 with flexible due date[21]

Demand

Self-employment is an important way of getting out of social welfare dependency. Based on the number of population aged 25-64 (6 m) at risk of poverty, estimated in chapter 2.1 at 10%, being 600,000 people, we can estimate the potential demand for micro loans devoted to self-employment business creation. Through consultation with international experts in the field of microfinance, it is assumed that about 60% of this population can be considered as potential business creators. Within this subgroup, around 3% can be expected to start entrepreneurial activity if suitable sources of finance

[21] Source: www.ebrd.com and relevant banks – www.csas.cz, www.kb.cz, www.rb.cz

are available. Therefore, the number of at-risk-of-poverty people classified as likely entrepreneurs stands at 10,800 people. Assuming that an average loan size in the micro finance sector to start being self-employed could stand at EUR 10,000[22] a total demand of EUR 108 m is theoretically possible.

About 947,000 **micro enterprises** existed in Czech Republic in 2005. The share of those investing and the average investment size does not seem to be recorded by the Czech Statistical Office; we only got data on the share of all SMEs investing by sector, which lies at about 50% on average (see chapter on SME characteristics). If only 6% of the existing micro enterprises would invest EUR 12,000 (which is not an unrealistic assumption compared to other Central European EU member states), a potential demand for micro finance from existing micro companies of about EUR 680 m could be assumed. Comparing birth and death rates of micro enterprises in 2005, a positive balance of only about 10,000 newly created micro enterprises was recorded. This figure could increase if more appropriate means of finance would be provided in the coming years.

In general, a developing economy, requiring higher investment levels from companies, will have growing demand for capital by SMEs, thus micro lending activities to existing enterprises can be expected to expand.

Market failure & JEREMIE Recommendations

Comparing the existing supply of micro finance in Czech Republic and the theoretical demand of existing micro companies and potential self-employed for adequate means of finance shows a market failure in both segments, leading to a financing gap. In order to address these market failures, it is proposed to implement the following schemes in the framework of the JEREMIE portfolio:

Micro Loan Guarantee Scheme targeting start-up companies

In order to develop a guarantee instrument which addresses the market failure, a deeper analysis of the market and its players during the finalisation period of this report is recommended. The instrument could be linked to a new start up loan programme designed in cooperation with commercial banks and with characteristics tailor made to better address the needs of start up companies such as low collateral requirements, possibility of grace period, advantageous interest and costs. Another option could be a refinancing facility, which would however offer less leverage.

The lenders would manage the client relation and retain a portion of the risk, the remainder to be covered by the guarantee scheme (e.g. on a 20:80 basis). In order to increase the uptake of the start up loan and to ensure lean procedures for the granting of the guarantee, the guarantee scheme could be implemented as a portfolio guarantee, i.e. all the start up loans granted by the participating and in compliance with certain pre-agreed eligibility criteria would be "automatically" covered.

Subject to further analysis and interview with key market players, an initial budget allocation of **EUR 50 m** for a micro loan guarantee scheme out of ERDF is recommended.

Social Micro Loan Scheme

Support to self-employment making the beneficiaries gain independence from social welfare subsidies. A loan scheme could target individuals having less access to

[22] Compared to micro loans offered, which are more targeting existing small enterprises

mainstream banking services, e.g. specific segments of the unemployed and those at risk of poverty, and encourage them to start self-employment. EIF's proposal would be to start the programme with a pilot project amounting to **EUR 5 m.**

Further research is required in the context of modelling the JEREMIE business portfolio to design the appropriate financial instrument to address the market failure.

3.3. Debt Financing

Supply

Commercial Banks

In terms of the number of banks and their ownership, the sector has been stable in structure for several years now. More than 96% of the sector's total assets are directly or indirectly controlled by foreign banks; in total 24 banks (including 6 building societies) and 12 foreign bank branches were operating in the Czech Republic as of December of 2005 (see table below). In 2005, the total assets of the banking sector rose by EUR 11.5 bn to EUR 107 bn. The continuing growth in lending, above all to households, was particularly significant. Loans to households showed annual growth of almost 34%. Loans to corporations rose by 14.3%. Capital adequacy ratio for banks with licences at 30 Sept 2006 stood at 11.3%, decreased from 14.5% in 2003.

Bank classification
(in particular groups are banks in the alphabetical order)

A.	**LARGE BANKS (total assets of more than CZK 100 bn)**	**D.**	**FOREIGN BANK BRANCHES**
1.	Česká spořitelna	1.	ABN AMRO Bank
2.	Československá obchodní banka	2.	Bank of Tokyo-Mitsubishi UFJ
3.	HVB Bank	3.	CALYON BANK CZECH REPUBLIC
4.	Komerční banka	4.	Commerzbank
B.	**MEDIUM-SIZED BANKS (total assets of CZK 15 bn to CZK 100 bn)**	5.	Deutsche Bank
1.	BAWAG Bank CZ	6.	Fortis Bank SA/NV
2.	Citibank	7.	HSBC Bank
3.	Česká exportní banka	8.	ING Bank
4.	Českomoravská záruční a rozvojová banka	9.	Oberbank
5.	GE Money Bank	10.	Privat Bank
6.	Hypoteční banka	11.	Raiffeisenbank im Stiftland
7.	Raiffeisenbank	12.	Všeobecná úverová banka
8.	Volksbank CZ	13.	Waldviertel Sparkasse von 1842
9.	Živnostenská banka	**E.**	**BUILDING SOCIETIES**
C.	**SMALL BANKS (total assets of less than CZK 15 bn)**	1.	Českomoravská stavební spořitelna
1.	eBanka	2.	HYPO stavební spořitelna
2.	IC Banka	3.	Modrá pyramida stavební spořitelna
3.	J&T BANKA	4.	Raiffeisen stavební spořitelna
4.	PPF banka	5.	Stavební spořitelna České spořitelny
5.	Wüstenrot hypoteční banka	6.	Wüstenrot - stavební spořitelna
		F.	**BANKS UNDER CONSERVATORSHIP**
			***

Zdroj: ČNB; web pages; http://www.cnb.cz/cz/banking_supervision/banking_sector/; state as of October 2006;

19% of SMEs use commercial credits, mainly small and medium-sized enterprises, as micro enterprises are not very attractive to the commercial banks. A comparison of overall loan volume and average loan size figures of major commercial banks operating

in Czech Republic is quite difficult as the banks are applying substantially different SME definitions.

As part of EIF Guarantee instrument activities in the Czech Republic, **Česká spořitelna** provides the product **Investment credit 5 PLUS**. This product is also aimed at start-up SMEs with maximum 100 employees to finance in/tangible assets. Credits are provided as either mid-term or long-term, with maturity of 3-10 years. Launched in 2004, 864 credits were provided amounting to EUR 60 m in total at the end of 2005.

The activities conducted through the **EU/EBRD SME Finance Facility** are described in chapter 3.2, as they represent both microfinance and debt financing products.

SME support provided under the OP Industry and Enterprise via **ČMZRB** in the programme "KREDIT" is in the form of preferential (subordinated) credit directed at SMEs with maximum 7 years of existence. The table below shows the major features of the programme. However, the programme will not be available under the new OP Business and Innovation.

Form of support	**Preferential credit (1-2)/ Subordinated credit (3)**		
Type 1-3	1	2	3
Minimum/maximum amount of provided credit in EUR	7,140 – 71,400	71,400 – 178,570	17,800 – 250,000
Maturity up to	5 years	6 years	8 years
Postpone possibilities	-	-	5 years
Fixed interest rate p.a.	4%	4%	3%
Up to amount of total project costs	90%	80%	50%

Source: ČMZRB, www.cmzrb.cz

In 2005, ČMZRB provided through the programme PROGRES (Progress):

- 117 loans with interest rate 1% p.a. in total amount EUR 25.6 m,
- 40 loans with interest rate 3% p.a. in total amount EUR 14.2 m,
- 4 loans with interest rate 4% p.a. in total amount EUR 0.67 m.

Average loan sizes: EUR 71,428 – EUR 0.9 m.

Guarantee is a commonly offered product by the Czech **commercial banks**. Conditions on providing guarantees are flexible. Some banks set rules, such as minimum and maximum guarantee limit with SME history (i.e.: e-Banka sets minimum guarantee amount on EUR 21,000, HVB Bank on EUR 7,140). They vary and again, they are more-the-less subject to individualisation according to SME history, needs and conditions. Guarantees are provided for example by Živnostenská banka, a.s., Komerční banka, a. s. and Československá obchodní banka, a.s.

More rigid rules are offered by **ČMZRB** in the programme Záruka (Guarantee). In table bellow are volumes of provided guarantees by ČMZRB in 2005. These guarantees are provided on bank credits (up to 80% of the credit security), leasing (up to 70% of the purchase price of the leased product) or tender offers (guarantee amount EUR 3,500 – EUR 179,000). Guarantee distribution according to regions: 14.2% of ČMZRB guarantees were provided in Moravia-silesia region, 13.3% in Pilsner district (South-West region).

The following table shows the volume of provided guarantees in 2005:

SME	Number	%	m EUR	%
Guarantees on bank credit and leasing				
0-9	131	22.8	27.9	23.0
10-49	258	44.9	43.9	36.1
50-249	185	32.2	49.8	40.9
TOTAL	**574**	**100.0**	**121.6**	**100.0**
Guarantees on tender offers				
0-249	**251**	**-**	**4.3**	**-**
Guarantees total				
0-249	**825**	**-**	**125.9**	**-**

Source: ČMZRB, www.cmzrb.cz, Annual report 2005

Demand

In the context of a Eurobarometer survey published in July 2006 on "SME Access to Finance in the New Member States", about 200 companies were interviewed in Czech Republic on their access to finance situation. It is remarkable that the situation of SMEs seems to be the less positive in Czech Republic (together with Hungary). According to the survey, 60% of the SMEs turn to banks in order to obtain financing, although only 44% have a positive attitude to gain access to finance through banks. The table below shows average amounts of loan applications in Czech Republic compared to the other new EU member states:

Amount of loans	% of applying companies	NMS average
< 25,000 EURO	41.6	52.8
25,000 – 100,000 EURO	29.6	24.1
> 100,000 EURO	15.8	14.7

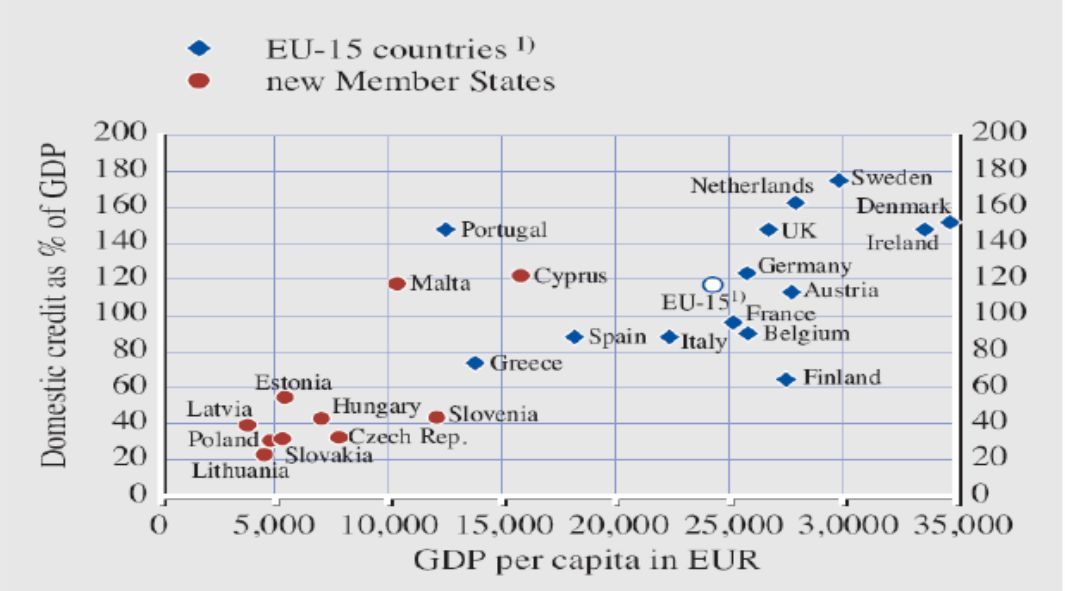
Source: Flash EB N° 184 – SME's access to Finance in the NMS

The SMEs consider difficulties in obtaining bank loans for the following reasons:

- Banks request too much information (61.1%)
- The administration of the bank loan application is very demanding (58.2%)
- Loan granting procedures are too long (55.1%)

In 2005, the total number of SMEs in Czech Republic stood at about 994,000 and an increase can be assumed according to the economic growth in the country. In general, banking activities remain the major source of external financing for SMEs. Comparing the financial and economic development of Czech Republic with other European countries shows a clear demand for increased activities in countries with rising GDP[23], as shown by the chart below:

Chart 14 Financial versus economic development in 2003: Bank credit versus GDP per capita



Sources: European Commission and IMF.
1) Excluding Luxembourg.

The share of those investing and the average investment size does not seem to be recorded by the Czech Statistical Office; we only got data on average investment share of all SMEs which lies at about 50% (see chapter on SME characteristics). Compared to other Central European EU member states, the share of investing small and medium-sized enterprises could be assumed to stand at approx. 60% and 80% respectively with average investment sizes between EUR 80,000 and EUR 400,000. Resulting from this assumption, a substantial theoretical demand seems obvious in the coming years.

Another strong indicator for a potential demand is a strong death rate in parallel to a relatively weak birth rate, as stated in the table comparing birth and death rates of SMEs in chapter 2.2. A stronger positive balance between birth and death rates of SMEs in Czech Republic can be assumed with better access to finance.

Market failure & JEREMIE Recommendations

Although a considerable debt financing activity for SMEs exists in the country, a substantial part of the demand is not being satisfied. This is also visible from the data on domestic credit as percentage of GDP, which show Czech Republic on par level with some surrounding countries, but behind some of the best performing new EU member states.

[23] Chart source: AECM: European SMEs and the way they are financed – Loan guarantee schemes", 2006

With such an impressive growth ratio, Czech Republic is clearly in need of more credit facilities. The supply-demand gap analysis above shows a certain market failure in the debt financing sector and the existing guarantee volumes in the country are very low compared to the amount of debt financing provided to SMEs.

Subject to further analysis through interviews with key market players in this field, the implementation of a portfolio guarantee scheme is proposed to address this market failure. It reflects the "revolving" aspect of the JEREMIE portfolio and has a high potential in terms of leverage as well as visibility for the Czech government. It also presents a lean structure allowing for the outsourcing of certain activities, such as the monitoring of the guaranteed loans. More in particular, a **Portfolio Loan Guarantee Scheme** would increase and strengthen the co-operation with the financial institutions operating in the Czech Republic as they would maintain the main contact with the final beneficiaries and could use the guarantee also to expand their activities in the SME segment; furthermore, it would enhance SME access to finance and lower the overall cost of financing and it would permit to reach a high number of final beneficiaries throughout the country. According to the results of the further study of the market in this field, an assessment of the possibility of ERDF use for more structured transactions, like a securitisation window could be conducted. Furthermore, the coverage of leasing instruments if considered necessary could be envisaged.

An overall initial budget allocation of **EUR 100 m** for this scheme out of ERDF is recommended. It will be of paramount importance to involve the major SME-oriented banks operating in the Czech Republic during the structuring phase in order to set up a structure that on one hand enhances SME access to debt finance and on the other corresponds to the expectations of the lenders in terms of quality of the guarantee and procedures required, and provides an appropriate return to the JEREMIE Holding Fund.

Depending on the envisaged portfolio composition in terms of final beneficiaries and operations covered, as well as the estimated absorption capacity, typically a leverage of 10-15 is possible for an SME guarantee fund.

Further research is required in the context of modelling the JEREMIE business portfolio to design the appropriate financial instrument to address the market failure.

3.4. Leasing

Supply

According to Leaseurope, the European Federation of Leasing Company Associations (www.leaseurope.org), the total amount of leasing activities in Czech Republic amounted to EUR 3.99 bn in 2005, which represents a 17.5% growth rate compared to 2004. The penetration rate, defined as new business divided by investment lay at 17.2% in 2005. This is more than in Poland and Slovakia, but considerably less than in Slovenia and Hungary. The growth rate 2004/05 lies above the European average (13.75%); whereas the penetration rate approx. corresponds to the average of 17.45%. In 2005, leasing activities represented approx. 4.06% of GDP which is only topped by Estonia, Hungary and Slovenia. According to the Czech Leasing Association (http://www.clfa.cz/), the major players in the leasing sector in terms of volume were ČSOB Leasing, a.s., CAC LEASING, a.s., ŠkoFIN s.r.o. and VB Leasing CZ, s.r.o. in 2005.

Demand

According to the Flash Eurobarometer N° 184 on SME's Access to Finance in the NMS already cited before, leasing companies are in the second place to which Czech SMEs turn to obtain financing - more than 30 % of all financing in the Czech Republic are in the form of leasing. Almost 65 % of Czech enterprises have already used leasing. In general, leasing is the preferred type of financing used by SMEs in EU-15, gradually replacing traditional debt financing. A continued growth in demand for leasing in Czech Republic can be expected in the coming years.

Market failure & JEREMIE Recommendations

Given the leasing market's rapid growth in Czech Republic, the existing market competition and the sufficient funds available for leasing institutions from their parent companies, no specific instrument is proposed in the JEREMIE context, as no obvious evidence of a market failure can be observed.

However, leasing guarantees might be useful in certain cases and it is thus recommended that the country's guarantee fund includes leasing guarantees in its operations. In terms of allocation of financial resources in the framework of the Operational Programme for 2007-2013, it is estimated that the resources proposed for the loan guarantee scheme should be sufficient to enhance the guarantee activity for leasing transactions.

3.5. Factoring[24]

Supply

According to T. Morávek, CEO of ČSOB Factoring and chairperson of the Association of Factoring Companies (AFS ČR), factoring, as a way of financing and managing cash flow, still remains relatively unknown in the Czech Republic[25].

EIF commissioned International Factors Group[26] to conduct a study on the factoring activities in all European countries. For Czech Republic, the following supply information can be summarized:

Currently 9 factoring companies exist in Czech Republic compared to 7 in 2001. 85% of provided factoring products are in the form with recourse. Czech banks started to provide factoring services internally as they were still looking for new ways how to finance SME based on positive sentiment because of growing economy. The average amount of factoring turnover (assigned receivables in a year) per client is estimated at EUR 2.8 m (60–80% realised by SME clients) and the average amount of factoring financing (borrowed amount at year end) per client at EUR 600,000.

The main players in the market in terms of volume were in 2005 Factoring Ceské sporitelny, TRANSFINANCE a.s., CSOB Factoring a.s. and NLB Factoring a.s.; overall activities amounted to EUR 2.85 bn. One of ČLFA members, NLB Factoring, will as at end of 2006 bring out to the market two new factoring instruments for SME - Small Factoring

[24] EIF and IFG Analysis on Factoring, 2005
[25] Czech Business Weekly, article of 2 October 2006, http://www.cbw.cz/phprs/2006100217.html
[26] http://www.ifgroup.com; international factoring association with around 84 factoring members & 15 sponsors in 50 countries

and Micro factoring. Conditions of these two products are given in the annex to this report.

Currently, there are no regulations towards Factoring in the country and no significant incentives on impediments are currently in place. The following table compares the estimated shares of factoring business in 2005 in Czech Republic, Slovakia and Poland:

	Czech Republic	**Slovakia**	**Poland**
Domestic	75 %	69.77 %	91 %
Import	5 %	2.56 %	6 %
Export	20%	27.67 %	3 %

Source: EIF and IFG Analysis on Factoring, 2005

The penetration ratio (ratio factoring turnover 2005 / GDP of the country) lies at 2.86 in Czech Republic, compared to 2.34 in EU-10+2, 5.96 in EU-25+2 and 6.2 in EU-15, so there is still substantial room for improvement, but Czech Republic lies above the average of its Central European neighbours.

The table below compares the average growth rate of the last five years with selected other European countries/country groups:

	Growth rate in %
Czech Republic	22%
Slovakia	30.4%
Poland	9%
EU-10+2	28%
EU 25+2	12.2%

Demand

Czech Republic is still expecting a growth of about 5% to 10% annually as the Czech economy is predicted to growth in the rate of 5-7%. Furthermore, a growing demand for non-recourse factoring is expected. There is also strong demand from specific sectors of economy – e.g. construction. The average growth rate lies above EU-25+2, but below EU-10+2 and well below Slovakia, which can be considered as emerging market for factoring.

Market failure & JEREMIE Recommendations

Given an average penetration rate and a moderate growth rate in the coming years, an urgent need for public intervention given a proven market failure cannot be observed.

However, an instrument supporting factoring in Czech Republic in the framework of the JEREMIE initiative could be developed if requested.

3.6. Venture Capital (VC)

The availability of risk capital in all its variants is a critical resource for a modern and adaptive economy. The effective exploitation of new knowledge requires a commercialisation process that is conditional on informed, skilled and risk accepting investors both as individuals (Business Angels) and professionals (Venture Capitalists).

Supply

Early stage venture capital financing is very low in the Czech Republic and is following a negative trend since 2001. Seed and start-up capital only amounts 4% of the EU 25 average in 2004. One of the main venture capital influencing factors are the reluctance of the management of many companies to lose control over the company after the entry of the investor's capital, as well as an insufficient preparedness of most companies for venture capital investments and the relatively high investment threshold27. One of the challenges for the CVCA is to create a system of statistics reports. Until now, investors had a relative discretion on the level and format of reporting. Only very little information about invested deals is available which makes it difficult to quantify the existing supply of venture capital activities in Czech Republic.

An integral part of the sector of SMEs is financing from an early stage to expansion financing of existing companies through Venture Capital or Business Angels. CVCA (Czech Venture Capital Association) presently formally includes some 30 subjects operating in accordance with the principles of Private Equity ("PE") and Venture Capital funds ("VC") (ref. tolist is in chapter 5.2). However, according to CVCA Chairman Jaroslav Horák, the number of active players in the Czech VC market has been steadily decling in recent years – from 18 funds active in the country in 2001 to 11 as per today - with mostly the smaller ones (less able to attract foreign capital) exiting the market. He added that the Czech private equity market nonetheless has reached its peak volume in 2005, with EUR 100 m invested, though he indicated that this figure is skewed by four larger buyout transactions. In the preceding years, the number had remained relatively stable in the EUR 20-30 m range (75% if which is, on average, invested in buyouts).

Nearly all PE funds operating in the Czech Republic are members of the CVCA. The investment criteria of these funds, excludes investments in the seed and start-up stages of SME development. Even investments through the expansion stage are limited given the minimum investment size of c. EUR 1 m for most funds. Consequently, the majority of realized transactions are management buyouts or buy-ins and replacement or secondary purchase transactions.

Currently, there is a rising supply of PE money from mostly foreign funds with targeting even start-up companies. However, most of these funds are orienting to ICT sector only or applying investment criteria, which do not match with entrepreneurs demand (especially minimum size of one individual investment).

Still, there is lack of money flowing into VC industry from pension funds and insurance companies. The source of fund capital for VC industry mostly comes form HNWI (High Net Worth Individual) via their investment companies. However, these investors are rarely organised and do not cooperate with local or international institutions. Some of these investors are associate members of the CVCA.

Czech venture capital Funds are not transparent for tax purposes, i.e. revenues derived by funds are subject to tax at the level of the fund. Dividend income from a Czech company is excluded from the tax base of funds, as it is subject to a 15% final withholding tax. There is no separate capital gains tax in the Czech Republic. The capital

[27] European Trend Chart on Innovation, Annual Innovation Policy Trends and Appraisal Report, Czech Republic, 2006

gains from the sale of shares are generally taxable at the standard corporate tax rate. The standard corporate tax rate for funds is 5%.

The result from each sale of shares should be calculated separately, since capital losses are not tax deductible and may not be set off against capital gains in current or future periods. The only exception is losses from the sale of participation in joint stock companies, where such participations are revaluated by their fair value.

Talking to VC investors, one of the obstacles mentioned was the absence of a local investor base, after the progressive exit of multilateral development banks and other international development-oriented institutions (e.g. USAID), as well as the difficulty in creating financial leverage during transactions, through the use if junior debt, project and acquisition financing, mezzanine financing. Indeed, Czech banks are reluctant to bear the risk, preferring to invest in senior debt and loans financing working capital needs (mostly secured through account receivables).

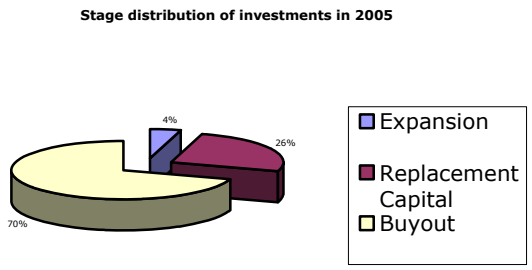
The following table gives details on VC activities in Czech Republic:

Fund	Established in CZ	Volume of investment m EURO	Min-max investment	N° of investments since inception of fund until 3rd quarter 2006
AIG New Europe Fund	1.6.2006	342	not published	8
Baring Communications Equity	11.9.1997	67	1 – 15 m EURO	5
Cash reform	11.9.1992	12	not published	6
Charles Investment Partners, L.P.	12.4.2000	27	3 - ∞ m EURO	4
CSPEF	1.1.1999	23	2-4 m EURO	4
Czech Direct Equity Fund I. L.P.	11.9.1998	53	3-10 m EURO	3
Czech Top Venture Fund B.V.	14.5.2003	11	0,75 – 3 m EURO	1
DBG Eastern Europe II LLP	1.1.2003	66	not Publisher	not published
Erste Private Equity Limited, managed by Erste Bank	2.3.1995	45	1-5 m EURO	not published
European Renaissance Capital II	3.6.1993	45	0 – 4 m EURO	not published
Fond rizikového kapitálu, spol. s r.o.	1.1.1995	3.5	0 – 20 m EURO	11
Genesis Private Equity Fund	9.4.2003	34.2	1-3 m EURO	4
GIMV Czech and Slovak SME Fund	28.7.2000	12	0-1 m EURO	3
GIMV Czech Ventures	28.7.2000	14.5	0-3 m EURO	1
Raiffeisen Private Equity Management	30.11.1999	74	3-15 m EURO	5
Regionální podnikatelský fond	23.6.1994	10	5-10 m EURO	15
Riverside s.r.o	7.6.2001	22	5 – 50 m EURO	not published
Českomoravský podnikatelský fond	23.6.1999	10	not published	1

Source: Česká venture kapitálová asociace, www.cvca.cz

In addition, there are other subjects concentrating on Private Equity that are not members of CVCA. Most funds, however, are limited by a whole range of conditions (the minimum amount of investment is, for instance, often set at EUR 2 - 3 m) that can be met only by medium-sized companies with several years of history. Small companies and especially start-ups have, therefore, only a very limited opportunity to acquire financial means from Private Equity funds, or Venture Capitalists. If we compared the situation in Central Europe, we would find out that unlike Slovakia (Seed Capital Company s.r.o.), Hungary or Poland, the Czech Republic had no state-owned and/or state-managed fund supporting SMEs.

The following graph shows the stage distribution of the investments in 2005:



Source: CopiRisco CZ

Details on the private equity raised in 2004 and 2005 in the country are given in the table below:

PRIVATE EQUITY RAISED BY SOURCE (in thousand EUR)	2004		2005	
	Amount	%	Amount	%
Independent Funds Raised in Year	0	0,0	105 627	65,0
Amount Raised by Captives	2 666	55,1	882	0,6
Subtotal New Funds Raised	2 666	55,1	106 509	65,6
Realised Capital Gains	2 173	44,9	55 953	34,4
Total Funds Raised	4 839	100,0	162 462	100,0
PRIVATE EQUITY RAISED BY TYPE OF INVESTOR				
Corporate Investors	0	0,0	100 000	93,9
Private Individuals	0	0,0	0	0,0
Government Agencies	0	0,0	0	0,0
Banks	2 666	100,0	0	0,0
Pension Funds	0	0,0	0	0,0
Insurance Companies	0	0,0	0	0,0
Fund of Funds	0	0,0	0	0,0
Academic Institutions	0	0,0	0	0,0
Capital Markets	0	0,0	0	0,0
Not Available	0	0,0	6 509	6,1
Subtotal New Funds Raised	2 666	100,0	106 509	100,0
Realised Capital Gains	2 173	-	55 953	-
Total Funds Raised	4 839	-	162 462	-
GEOGRAPHICAL BREAKDOWN OF PRIVATE EQUITY RAISED				
Domestic	4 839	100,0	0	0,0
Other European Countries	0	0,0	162 462	100,0
Non-European Countries	0	0,0	0	0,0
Total Funds Raised	4 839	100,0	162 462	100,0
EXPECTED ALLOCATION OF FUNDS RAISED				
High-Tech Early-Stage	0	0,0	0	0,0
Non High-Tech Early-Stage	0	0,0	0	0,0
High-Tech Expansion/Development	0	0,0	32 492	20,0
Non High-Tech Expansion/Development	0	0,0	64 985	40,0
Venture Capital	0	0,0	97 477	60,0
Buyout	0	0,0	64 985	40,0
Other	4 839	100,0	0	0,0
Total Funds Raised	4 839	100,0	162 462	100,0

Source: CopiRisco CZ, a.s.

Demand

Almost 97% of Czech enterprises have not yet made use of venture capital[28].

It is estimated that the market should reach EUR 130-150 m, at current levels of economic activity. Although this is not far above the current level, the level of investment in 2005 was significantly skewed by four transactions, accounting for EUR 100 m on a total EUR 109 m. The "core" underlying number seems to be more in the EUR 25-30 m, at best (e.g. EUR 16 m in 2004). A figure of EUR 130-150 m for the "core" investment number (i.e. cleansed from large "statistically outlying" investments)– would imply a

[28] Flash EB N° 184 – SME' s access to Finance in the NMS

level of private equity amounting to 0.12% of GDP, better in line with possible benchmarks in the region (Hungary: 0.16%, Estonia: 0.12% or Belgium's 0.16%.

Market Failure & JEREMIE Recommendations

Based on our estimates of potential demand for private equity, the current yearly equity gap in the Czech market should be approximately EUR 100 m per annum, on the basis of 2005 figures. This number would need to be extraopolated over the coming 7 years, factoring in the growth of the Czech economy, but alo the likely evolution of supply – which typically would tend to progressively catch up with demand.

One of the potential solutions is to set up an **Early Stage Fund** with investment criteria matching SME demand (see below Investment Criteria). The fund could receive public funding, possibly through the JEREMIE mechanism, but private funding should be sought, possibly from strategic investors and, more generally, players that have a stake in and wish to be associated to the healthy development of innovative SMEs in the country. Such a "national" fund could be established in conjunction with the City of Prague, which also aims to improve the access to equity investments by SMEs in the region of the capital. This could also be done throught the JEREMIE mechanism, provided that the fund would invest a portion at least equal to the share of the City of Prague in the fund's total commitments.

Although it ought to be privately (and independently) managed, it is essential for such a publicly backed fund to establish an effective cooperation with all the Czech institutions involved in the support of SMEs. Cheifly among those would be CzechInvest, which has been active in enhancing access to finance for Czech enterprises. Others might encompass regional development structures, SME/entrepreneurs' associations, etc.

Such a fund ought to exceed a minimum threshold of critical mass, to allow it to operate at an economically sustainable scale:

- Operationally: the size of the team as well as the reach and visibility of the fund need to be commensurate with the targeted market;
- Financially; as management fees need to cover the remuneration of team of high professional calibre).

Consequently, the size of the fund probably ought to be no less than EUR 60m – **up to EUR 80m**. Indicatively, the investment criteria for such a fund might be:

- Minimum deal size (EUR 100,000) and average investment over the lifetime of an investment (i.e. through successive financing rounds) of EUR 1.5m.
- Maturity of company (seed, start-up, expansion stage)
- Equity investment
- Business plan (including financial plan)
- Market potential
- Product
- Management
- Investment horizon (3-5 years)
- Exit (trade sale, MBO, IPO)
- Return (IRR 30%+, cash multiple min. 2x)

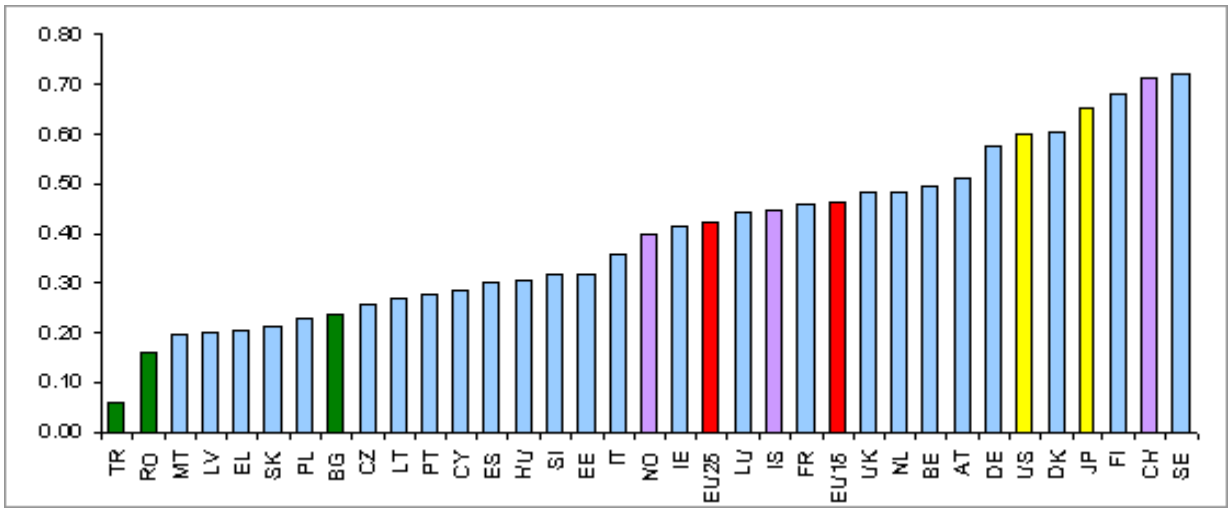
In addition, the Czech authorities ought to consider the option establishing a **fund-of-funds** of approximately **EUR 40 m**, that would aim to invest in 8-10 new (independent) venture capital funds intent on investing in the Czech Republic, or, alternatively, a co-investment scheme of similar size, whereby a public fund would invest along pre-vetted ("certified") venture capital funds in Czech SMEs.

Further research is required in the context of modelling the JEREMIE business portfolio to design the appropriate financial instrument to address the market failure.

3.7. Technology Transfer[29]

Supply

According to the Summary Innovation Index (SII) of the **European Innovation Scoreboard** (EIS) 2005, the Czech Republic falls into the "catching up" category. Compared to previous years, this represents an improvement, as it was considered as "falling further behind" before[30]. However, this performance lags significantly behind the EU-25 average. The following chart shows the Czech Republic's position on the Innovation Scoreboard in 2005 compared to other European countries:



In general, the Czech Republic has a relatively low share of research and development **(R&D) expenditure in relation to the total GDP**. In advanced countries, this share amounts to 2-3%, whereas in Czech Republic it only amounted to 1.27% in 2004. Traditionally, the bigger the company is, the more budget for R&D is obviously available.

In general, **investment by domestic private investors** is insufficient, and the factor which has had a particularly negative impact is the low share of **foreign resources in R&D** funding which was no more than 3.7% in 2004, i.e. half of the EU-25 average. One of the main underlying causes has been the restructuring of industry which is to be finalised. There is a dominating concentration of research capacities in Prague and most public spending in R&D expenditures. Competitiveness and employment in many Czech regions is influenced by the lack of the research and development capacities.

[29] See chapter 5.2 for supporting data

[30] European Trend Chart on Innovation, Annual Innovation Policy Trends and Appraisal Report, Czech Republic, 2006, http://trendchart.cordis.lu/scoreboards/scoreboard2005/index.cfm

In total about 25 **Business Innovation Centres** exist in the Czech Republic. Some of them are full or associated members of the European Business Net (EBN). These mainly provide consultations on SME projects – on the processing of the projects and on their financing. Some of these offices also provide finance gathered from various activities. These are good source of finance to micro companies.

The **South-Moravian Innovation Centre (JIC)** is an NGO running the Innovation Incubator, established by Brno University of Technology, South-Moravian district and the county borough Brno to fulfil measures of the South-Moravian district's Regional Innovation Strategy. The JIC also established a Micro-Credit Fund, which collects finance resources to provide SMEs with micro-finance to realise their innovation projects. The Fund is financed form its activities, from the South-Moravian district, state budget, EU programmes and private sources both from JIC members or other private bodies.

The **Science and Technology Parks Association (STPA**) belongs to the founding organisations of the Association of Innovation Entrepreneurship of the Czech Republic. The Association started its activities in 1990 and since that time it actively participates in the activities of science and technology parks. A table summarizing existing science and technology parks in the Czech Republic is given in Annex.

The Czech Republic has an inadequate infrastructure in the area of **technology transfers**. Only four centres exist which are truly operational. Even though the establishment of science and technology parks was receiving support in the past period, with approx. 30 facilities set up, the services provided by these parks still have not attained the same level and the same quality as those of the advanced countries – transfers of technologies and knowledge, or launching new start-ups or spin-offs.

The development of **innovation clusters** and their support are still in a preliminary stage in the Czech Republic. Real innovative clusters, capable of boosting the potential of the SMEs to launch their own research projects as well as to be able to commission research and development work tailored to their needs, to access affordable training for their professional and executive staff and to engage in long-term cooperation with the research establishments and universities, are almost non-existent in the Czech Republic. A serious problem faced by some Czech universities and research institutions as well as by businesses is their insufficient involvement in **international research and innovation** networks and. Outside the large centres (especially Prague, Brno, Ostrava) it is extremely difficult not just to boost this capability to a comparable level but also to set up and launch new regional innovation systems.

International benchmarking of the Czech Republic in research, development and innovation revealed the following main barriers in generating and exploiting knowledge[31]:

Human resources:

- Low number of university graduates and PhD students,
- Low participation in life-long learning,
- Low number of researchers, particularly in the business sector.

R&D financing:

- Low investments in research by private sector,

[31] "International Benchmarking of the Czech Republic in Research, Development and Innovation", Ministry of Regional Development

- R&D expenses are the main innovation expenditures only in a low number of companies,
- High share of basic research expenditures (40% of public funds),
- Low expenditures in experimental development.

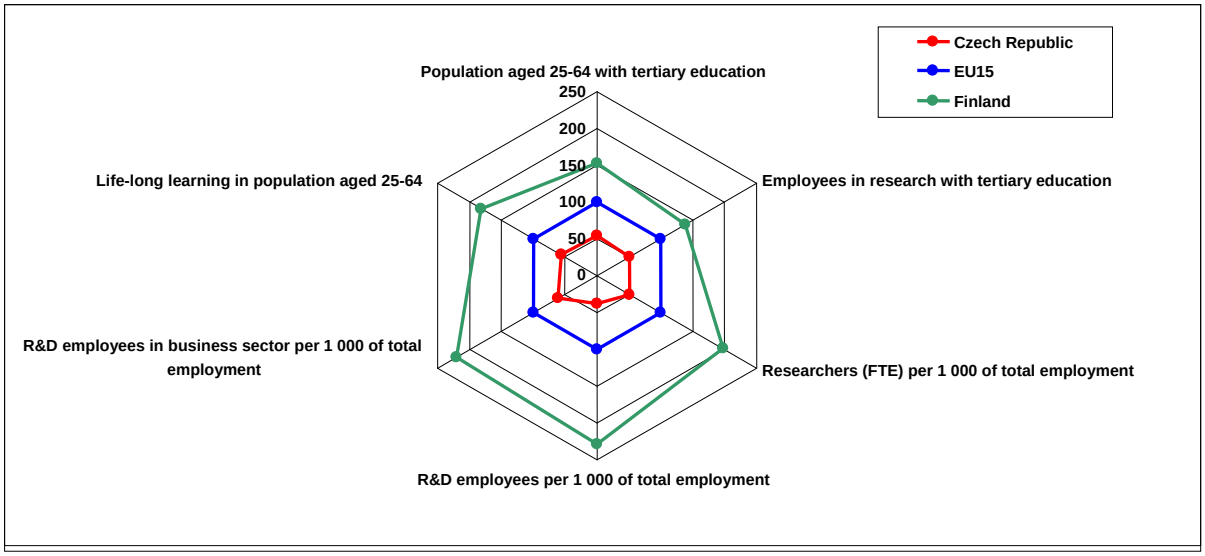
R&D results:

- Low number of scientific publications,
- Very low number of EPO and USPTO patents.

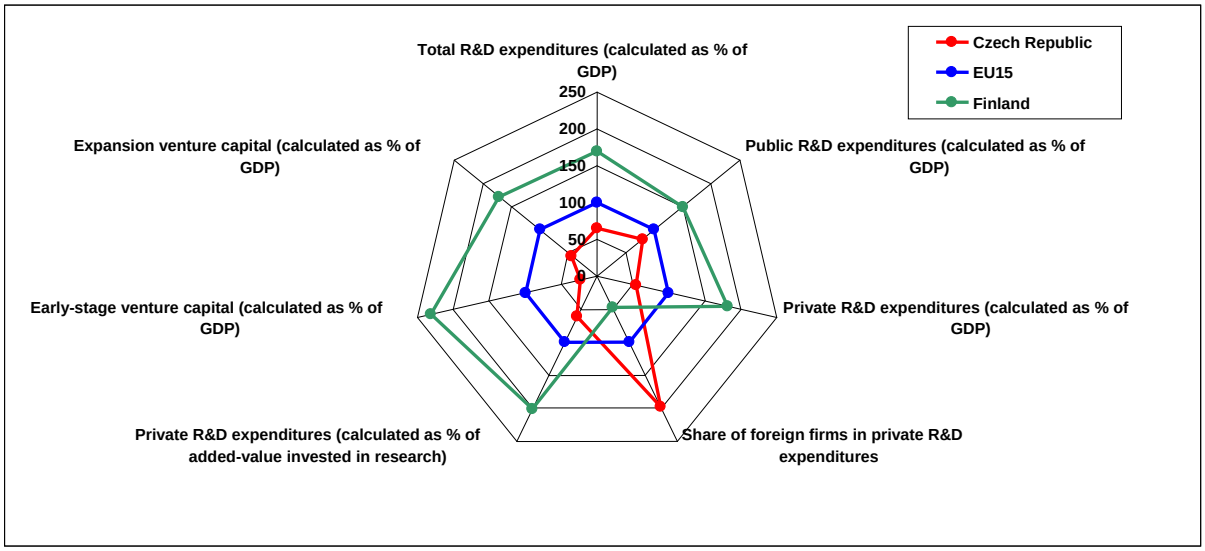
Innovations:

- Difficult access to financial resources (particularly for start-up companies),
- Innovations are expensive and risky,
- Low innovation expenses in enterprises,
- Low number of high-tech firms,
- Adopting foreign innovations prevails,
- Technology transfer sector is not sufficiently developed.

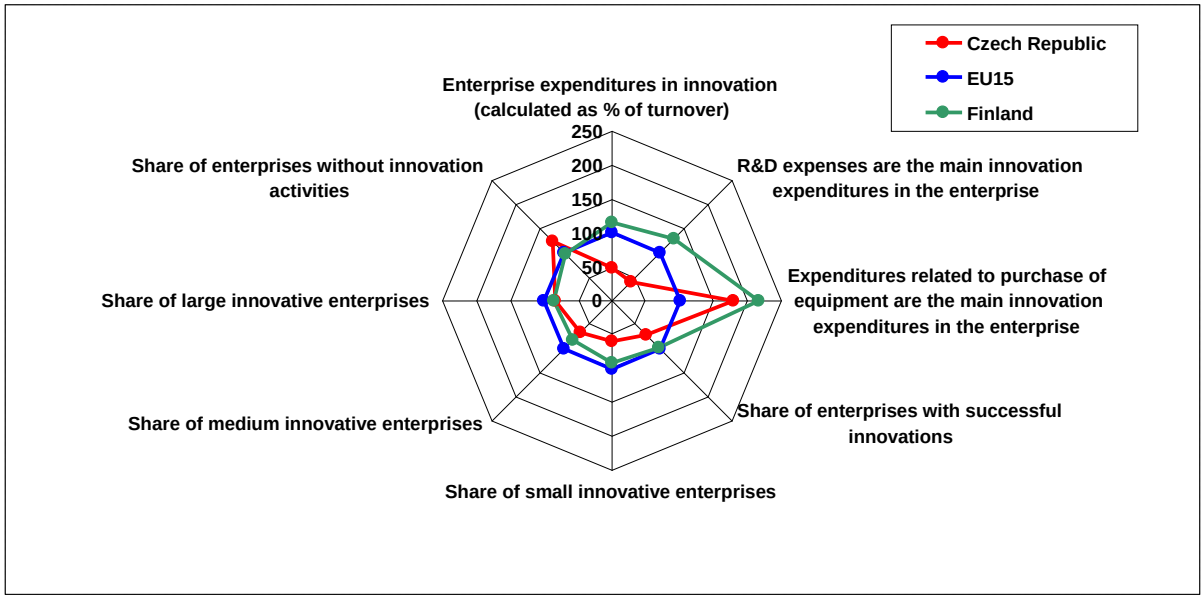
The charts below compare Czech Republic with Finland and the EU-15 average for the state of human resources, financing and innovations. The EU-15 average is taken as 100% (comparison level), values of indicators for the Czech Republic and Finland are calculated as percentages of this basis:



The chart illustrates that the Czech Republic has a limiting factor of small number of work force in R&D and is lagging behind the EU average in all significant indicators to have high quality HR needed for knowledge economy.



This chart shows that spending on R&D in the Czech Republic is strongly influenced by FDI flows and at the same time the relative amounts of public money spend on R&D are almost reaching EU average levels.



Source: Final Report of the Project on CSF Evaluation, 4/04 Barriers to the Growth of Competitiveness of the Czech Republic

This chart demonstrates the fact that few FDI-based companies with significant R&D expenditure are key spenders in R&D. It also shows the tendency to spend most of the R&D funds on equipment.

Demand

According to a Eurobarometer survey, 64% of Czech SMEs are attracted towards innovative products or services and 54% do use/try new innovative products or services at least once. Only 37% of Czech SMEs do not use innovative products freshly launched.

At the same time, 48% of the SMEs would replace an old product with an innovative one only if this would cost the same[32]. In the past 3 years, 29% of SMEs invested in the development of new products 10% of their turnover and 23% of the SMEs invested 11-20% of the turnover. A share of 28% even invested about 50% of their turnover.

In general, demand for strengthening R&D non-grant measures exists in all European countries, given its proven impact on performance and competitiveness. Also in Czech Republic, this strong demand for innovative technology transfer and innovation instruments is substantial to make and keep the economy competitive in the European and global context in the coming years.

Market failure & JEREMIE Recommendations

Effective management of technology transfer is key to improve an economy's innovation level, which is a major priority of the EU Lisbon Strategy. The R&D-to-GDP ratio mentioned above is very low compared to EU-25 which proves insufficient supply in this field. Consequently, the enhancement of technology transfer activities is recommended.

Technology transfer offices (TOs) would need to be established/reinforced in key research institutions and networked nationally and possibly internationally, thus enabling an overview of R&D in the country (or part thereof) and the exchange of best practises between TOs.

The establishment of a **Technology Transfer Pilot Fund** in the framework of JEREMIE could be envisaged given the potential for strong improvement of the effectiveness of the technology transfer process in the country and in order to substitute non-repayable aid, like pre-seed grants with a self-sustaining financial instrument that could benefit from external/private leverage.

Such a pilot fund could initially amount to **EUR 10 m**, structured to finance about 50 projects at EUR 200,000 each. The Fund would need to be managed by appropriately qualified investment professionals, combining legal (IP) and investment expertise. An extension of the Fund could be envisaged in some years if considered appropriate.

Further research is required in the context of modelling the JEREMIE business portfolio to design the appropriate financial instrument to address the market failure.

3.8. Business Angels

A Business Angel is a private individual who invests part of his personal assets in a start-up and also shares his personal business management experience with the entrepreneur. A Business Angel network is an organisation whose aim is to facilitate the matching of entrepreneurs (looking for venture capital) with business angels. Business Angel networks tend to remain neutral and generally refrain from formally evaluating business plans or angels. BANs make a market place for matching services. The majority of Business Angel networks operating in the EU are legally set up as not-for-profit organisations, private entities, or possibly foundations. Most of them receive public support and very few are commercially oriented. Main activities are: Raising awareness, training, creation of investment-readiness, financing through public support. The number

[32] Population Innovation readiness, Special Eurobarometer 236/Wave 63.4 – TNS Opinion & Social

of networks has strongly evolved in the past few years. In Europe, they are particularly active in Germany, France, UK, Sweden and Spain. [33]

Supply

According to the European Business Angels Network (www.eban.org), the following two official business angels networks exist in Czech Republic since 2004:

Business Angels Czech (BA Czech) - finalized 5 projects by business angel, each less than EUR 1 m.

Angel Investor Association –not providing data about their volume of investments.

Demand

Business financing through informal, individual investors is strongly needed in every country. Absence or limited activities restricts significantly the number of new enterprises created, especially the most innovative ones which, at their early stages, are very often financed by business angels. Strengthened technology transfer activities and the potential deal flow coming from this development will result in an even increased demand for this type of financing in the coming years.

Market Failure & JEREMIE Recommendation

The market failure in the Business Angels segment in Czech Republic is obvious due to strong potential demand and low existing supply. As business angels tend to operate within limited geographical and sectoral areas, the existence of a well-functioning and efficient network is an important condition preparing the ground for increasing activities. It is thus recommended to help enhancing Business Angels activities in Czech Republic through the JEREMIE Programme with a total amount of **EUR 5 m** for:

- Capacity-building:

  Establishment of a fund to **stimulate the development of a Business Angel network** in wide geographical and industry areas. Operational costs which are beyond the JEREMIE scope could be financed by grants.

After some years of capacity-building to establish a network, a pilot project is recommended:

- **Pilot project**: "Pool Fund" to stimulate investment readiness

  Limited investment provided by business angels stems from aversion to taking risk by individual investors. Based on EIF's experience, it is expected that such reluctance can be overcome by setting up a fund, supported by private contributions from business angels as well as JEREMIE contribution, which will pool the expected risk among limited partners. Alternatively, a pilot co-investment facility can be established. Such a fund would provide matching investments at a fixed proportion, alongside selected networks if Business Angels.

The operational costs of setting up business angels networks need to be covered through technical assistance grants, as this does not lie in the scope of JEREMIE, which only contains revolving instruments. The Pool Fund pilot project proposed in the JEREMIE

[33] European Business Angels Network, www.eban.org

context should then encourage the members of the established business angels network to do investments by giving a 50/50 contribution in a matching fund or a co-investment facility. Further research is required in the context of modelling the JEREMIE business portfolio to design the appropriate financial instrument to address the market failure.

4. NEXT STEPS

4.1. Proposed Actions and Responsibilities

This evaluation report was prepared by EIF and is considered as final after presentation to the Managing Authority and request for feedback and comments. Subject to the positive decision by the Czech Government on the implementation of the JEREMIE initiative in cooperation with the EIF, further work is to be done complete the evaluation and prepare for implementation. These tasks include the establishment of the legal framework, business planning and modelling of flows, organisational, governance and procedural issues. In order to prepare for the implementation of the JEREMIE Holding Fund, the following actions are to be undertaken:

№	Action	Responsibility	Date
1.	Presentation of draft evaluation study to Czech Government	EIF	January 2007 (done)
2.	Feedback received from Czech Government	EIF	2007
4.	Finalisation of Evaluation study	EIF	2007
5.	Decision on implementation of JEREMIE in cooperation with EIF	Czech Government	As soon as possible
6.	Set up of legal structure and contract negotiations	EIF + Czech Government	As soon as possible

The gap analysis is an evaluation of the existing supply of and potential demand for access to finance of SMEs in a country or region. It is a horizontal activity which the European Commission has asked EIF to perform in all countries interested in JEREMIE. The legal environment, structuring of the holding fund and modelling of a business plan how to run investments according to the JEREMIE portfolio proposed are separate issues which are tackled in cooperation between the government in charge of implementing EU Structural Funds 2007-2013, the European Commission and EIF, once a decision has been taken by the respective Government to implement JEREMIE and to implement it with EIF involvement. A "roadmap" of JEREMIE implementation steps will be established thereafter. An MoU between EIF and Czech Government is not mandatory.

The start of investment activities of the JEREMIE Holding Fund depends on signature of Funding Agreement between the Managing Authority and the Holding Fund on the basis of the legal structuring of JEREMIE in the country, and on the availability of Structural Funds means related to OP(s) approval. The JEREMIE Holding Fund can receive from contributions from different OPs managed by different Managing Authorities.

As presented to the Czech Government in different letters, there are different options for the legal structuring of the Holding Fund and private investor's involvement (co-financing) might be possible for example through the European Investment Bank. The structuring of the financial instruments will go into more details in the context of the preparation of the investment strategy and initial business plan of the JEREMIE portfolio in Czech Republic, after a positive decision by the government has been taken. In the context of the elaboration of the business plan, the manager of the holding fund is supposed among others to take into account opinions of established market players, e.g. major financial intermediaries active in Czech Republic.

A key role of the JEREMIE Holding Fund is to promote the instruments under the JEREMIE portfolio jointly with the selected financial intermediaries among SMEs; according to the specific demand situation in the country. In addition, for example, training to SMEs on modern financial engineering instruments could be arranged, if considered necessary. A central role of the JEREMIE Holding Fund is to develop the market for the financial instruments as contained in the JEREMIE portfolio.

4.2. Conclusions on the Role of JEREMIE

As a result of this gap analysis on SME access to finance supply and demand in Czech Republic, EIF comes to the conclusion that the Czech Republic can draw substantial benefits from the implementation of the JEREMIE Programme during the next EU budgetary period 2007-2013. The programme should adopt an appropriate portfolio of financial instruments, identified in this report and should implement them together with all local institutions involved with maximum participation from the private sector. In order for the portfolio to be constantly updated, it should be balanced in nature and should not shift balance to the benefit of one specific instrument. Moreover, the JEREMIE Holding Fund should have a range of flexibility to meet the dynamic market conditions throughout the implementation phase and thus bring substantial advantages to Czech SMEs by facilitating access to finance.

5. ANNEXES

5.1. Charts and Tables Supporting Chapter 1 and 2

Development of the number of active SME in Czech Republic in years 1997-2005

	2000	2001	2002	2003	2004	2005
Number of SMEs - corporate body	102476	111298	134499	148440	144724	143235
Number of SMEs - individuals	658416	634829	679306	840347	847408	850477
Number of SMEs - total	760892	746127	813805	988787	992132	993712

Source: Czech Statistical Office, Ministry of Industry and Trade

Number of economically active SMEs

	Number of economically active SME			
2005	Corporate body	Individuals	Total	SME share[34]
				%
Industry	25 959	133 884	159 843	99,42
Construction	6 581	96 869	103 450	99,93
Merchandise	43 280	190 048	233 328	99,94
Restaurants	5 067	43 631	48 698	99,96
Transportation	5 880	40 556	46 436	99,79
Finance	1 019	14 684	15 703	99,82
Services	52 957	289 761	342 718	99,95
Agriculture	2 492	41 044	43 536	99,92
Total	**143 235**	**850 477**	**993 712**	**99,85**

Source: Ministry of Industry and Trade, based on data from Czech Statistical office

Number of employees in SMEs

	Number of employees (thousands)			
2005	Corporate body 0-249 employees	Individuals 0-249 employees	Total SMEs	Share of SME employees on total number
				%
Industry	553	108	661	49,96
Construction	126	50	176	78,92
Merchandise	281	112	393	77,06
Restaurants	48	56	104	88,89
Transportation	71	30	101	34,95
Finance	12	1	13	20,00
Services	284	79	363	78,74
Agriculture	107	16	123	86,62
Total	**1 482**	**452**	**1 934**	**61,79**

Source: Ministry of Industry and Trade, based on data from Czech Statistical office

[34] on total number of businesses in Czech Republic

Output of SMEs

	Output (million CZK)			
2005	**Corporate body 0-249 employees**	**Individuals 0-249 employees**	**Total SME**	**Share of SME output on total in Czech Republic**
				%
Industry	1 016 931	150 039	1 166 970	36,45
Construction	251 028	66 033	317 061	63,47
Merchandise	414 237	107 273	521 510	82,54
Restaurants	42 550	43 980	86 530	88,49
Transportation	176 417	69 751	246 168	48,07
Finance	36 715	5 875	42 590	21,61
Services	476 224	153 495	629 719	88,03
Agriculture	100 246	26 174	126 420	86,68
Total	**2 514 348**	**622 620**	**3 136 968**	**52,27**

Source: Ministry of Industry and Trade, based on data from Czech Statistical office

Main macroeconomic indicators in the Czech Republic

Indicator		**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
GDP	bn CZK, c.p.	2 080,80	2 189,20	2 352,20	2 464,40	2 577,10	2 781,10	2 970,30
GDP/capita	CZK/capita, c.p.	202 357	213 110	230 064	241 593	252 617	272 468	290 232
Number of employees	%, r/r	-2,4	1,3	0,6	0	-0,4	-1	0,7
Registered unemployment rate	%, average	8,54	9,02	8,54	9,15	9,9	10,24	.
General unemployment rate	%, average	8,7	8,8	8,1	7,3	7,8	8,3	7,9
Average gross nominal wage	%, r/r	8,4	6,4	8,7	7,3	6,6	6,6	5,4
Average real wage	%, r/r	6,2	2,4	3,8	5,4	6,5	3,7	3,4
Inflation rate	%, r/r, average	2,1	3,9	4,7	1,8	0,1	2,8	1,9
Financial account Balance of payment	billion CZK	-50,6	-104,9	-124,5	-136,4	-160,6	-167,3	-61,7
Current account Balance of payment	billion CZK	106,6	148	172,8	347,8	157,1	183,7	137,9

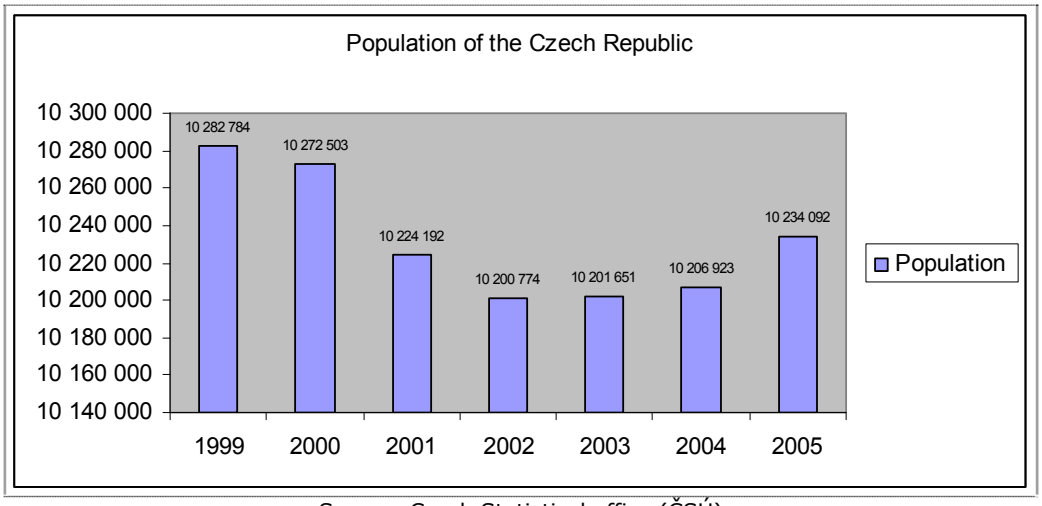
Source: Czech statistical office (ČSÚ)

The share of the regions in GDP (in %, Czech Republic = 100)

Cohesion Region	2003	2004
Central Bohemia	81,8	93,6
South-West	90,5	90,8
North-West	79,5	82,2
North-East	83,7	85,6
South-East	85,5	90,2
Central Moravia	77,6	80,1
Moravia-Silesia	83,5	82,1
The average	**83,2**	**86,4**
Prague	226,0	201,8

Source: Czech Statistical office (ČSÚ)

Population of the Czech Republic



Source: Czech Statistical office (ČSÚ)

5.2. Charts and Tables Supporting Chapter 3

List of Science and Technology Parks in the Czech Republic

Accredited parks
Akademicke a univerzitni centrum, Nove Hrady
BIC Brno, Podnikatel. a inovační centrum, s.r.o., Brno
BIC Ostrava, s.r.o., Ostrava
BIC Plzeň, společnost s ručením omezeným, Plzeň
CTTV - INOTEX, s.r.o., Dvůr Králové n.L.
Podnikatelské a inovační centrum Most, Most
Podnikatelský a inovační park Agritec, s.r.o., Šumperk
Podnikatelský a inovační park H. Brod, s.r.o., Havlíčkův Brod
Regionální inov. centrum Frýdek-Místek, s.r.o., Dobrá
Středisko rozvoje IT OLLI, s.r.o., Brno - sever
Technologický inkubátor VUT v Brně, Brno, U Vodárny 2
Technologický park Chomutov o.p.s., Chomutov
Technologický Park Řež, a.s., Husinec - Řež
TIC ČVUT Praha, Praha
Třeboňské inovační centrum (TIC), Třeboň
Vědecko - technologický park Ostrava, a.s., Ostrava
Vědecko technologický park Dakol, s.r.o., Petrovice u Karviné
Vědeckotechnický park UP v Olomouci, Olomouc
Vědeckotechnický park VZLÚ Praha, a.s., Praha
VTP Agrien, s.r.o., České Budějovice
VTP Inovační technologické centrum - VÚK, a.s., Panenské Břežany
Parks in process of accreditation
Podnikatelský inkubátor Kroměříž, s.r.o., Kroměříž
Technologické centrum Akademie věd ČR, Praha
Technologické inovační centrum, s.r.o., Zlín
Technologický park Karlovy Vary, s.r.o., Karlovy
Technologický park při VÚTS Liberec, a.s., U Jezu 525/4,Liberec
Parks under preparation
Laboratories, s.r.o., Brno
Podnikatelský inkubátor Vsetín,
Přerovský podnikatelský INKUBÁTOR,
Region.centrum progresivních technologii, Plzeň
Středočeské inovační centrum o.p.s., Zlatníky - Hodkovice
Výzkumný ústav pivovarský a sladařský, a.s., Brno

Source: Science Technology Parks Association,
http://eng.svtp.cz/esearch.php3?search=1&output=1akce=temata

List of the factoring companies established in the country

Company name	Factoring turnover[35]	Majority shareholder	Type of company
D.S. Factoring, s.r.o. (1993)	48	Dimension, a.s. (100 %)	IC
Factoring České spořitelny, a.s. (1997)	765,5	Česká spořitelna, a.s. (100%)	SB
Factoring KB, a.s. (1997)	460	Komerční banka, a.s. (100%)	SB
HVB Factoring, s.r.o. (2004)	33,6	HVB Bank Czech Republic a.s., (100%)	SB
NLB Factoring, a.s. (1994)	345,8	Nova Ljubljanska banka d.d., Ljubljana (100%)	SB
ČSOB Factoring, a.s. (1992)	557,4	Československá obchodní banka, a.s. (50%), NNB Heller Holding N.V. Holandsko (50%)	SB
TRANSFINANCE a.s. (1991)	738,7	BRE BANK S.A., Warszaw - controlled by Commerzbank (50 %), Intermarket Bank A.G., Wien, controlled by BRE BANK (50 %)	SB
HP FINANCE s.r.o. (2002)	80,6	HOPI s.r.o. (80%)	IC
CASH REFORM, a.s. (1996)	114,2	Mr. Jan Kudera (90%)	IC

Division of bank (DB), Subsidiary of bank (SB) or Independent company (IC)
Source: EIF and IFG Analysis on Factoring, 2005

NLB Factoring new products

Condition	Small Factoring	Micro factoring
Company revenue	0, 17- 0,71 M EURO	Minimum 71 420 EURO
Client	Individual or corporate body with double-entry accounting and minimum one closed fiscal period	Individual or corporate body with one closed fiscal period
Economy of the client	Shareholders´capital in plus, operating profit, maximum amount of external financial resources 50 % of the turnover	Shareholders´capital in plus
Factoring limit	53 570 EURO	10 710 EURO
Advance payment	80 %	
Maximum maturity	90 days	
Minimum invoice amount	1 780 EURO	
Interest rate from financing	1M Pribor + 3 % p.a.	
Factoring payment	Up 1 %	Up 1,5 %
Security	Bill of exchange with aval, assignment of claims	
Background documents	Contract with customer or binding order; excerpt form the Trade register or trade licenses; evidence of economic results	

Source: Econom magazine, 14.-20.12.2006, page 70

[35] in 2005, in millions EURO

Regular membership in CVCA – PE funds only (managing third parties money)

Name	Address	Post Code	City	Website
ADVENT INTERNATIONAL	Rákoczi ut. 1-3	1088	Budapest	www.adventinternational.com
3TS, s.r.o.	Václavská 12	120 00	Praha 2	www.3tscapital.com
Argus Capital Group, Ltd.	Krakovská 9	110 00	Praha 1	www.arguscapitalgroup.com
Cash Reform Investment Fund, s.r.o.	Hlinky 118	614 00	Brno	www.cashreform.com
Czech Venture Partners, s.r.o.	Jugoslávská 26	741 01	Nový Jičín	www.cvp.cz
DBG Eastern Europe, s.r.o.	Kronberg Building	110 00	Praha 1	www.dbgee.com
Sgrow Venture Partners	Americká 15	120 00	Praha 2	www.e1.cz
Genesis Capital, s.r.o.	Na Šafránce 22	100 00	Praha 10	www.genesis.cz
KBC Investco	Havenlaan 12	1080	Brussels	www.kbcsecurities.be
	Škrétova 12	120 00	Praha 2	www.patria-finance.cz
MCI Management SA	Renaissance Business Centre, V Tůních 10	50 125	Wroclaw	www.mci.pl
Riverside, s.r.o.	Václavské nám. 832/19	110 00	Praha 1	www.riversidecompany.com
Winslow Partners, s.r.o.	Ovocný trh 8	110 00	Praha 1	www.winslowpartners.cz

Source: www.cvca.cz

5.3. Historical Use of EU Pre-Accession and Structural Funds

In the 1990s, the Czech Republic was gaining funds through the EU Pre-Accession programme **PHARE** of about EUR 60-70 m a year. In 2000, the yearly average of the allocated aid increased to EUR 100 m. During the whole implementation of PHARE, the Czech Republic gained access in aggregate to EUR 1.034 bn. The most important PHARE programmes in which the Czech Republic took part were: Cross-Border Co-operation (CBC), Multi-beneficiary Programmes, and so called National Programmes.

Multi-beneficiary programmes serve for additional support to co-operation and preparation of candidacy countries to the EU accession e.g.

- *2000 Phare/EBRD Bangkok Facility Programme* to increase quantity and quality of EBRD investments in the countries of Central and Eastern Europe through financing technical co-operation activities which enable them to be better prepared and implemented.
- *Phare – SME – Facility* aims to induce financial intermediaries in the candidate countries to expand and to maintain in the long term their debt and equity financing small-and-medium-sized-enterprises (SME) operations.
- *Phare 2000 Small Projects Programme* provides grants in the candidate countries to support the implementation of Phare program and accession in general. The grants shall fall outside the scope of national programmes.
- *Phasing-Out the programme to promote SME joint ventures and other joint agreement* (JOP) is a follow-up of the JOP program (launched in 1991). The

programme intends to promote investment in the private sector and to foster the creation of Joint Ventures.

EU Structural Funds allocated to the Czech Republic for the period between June 2004 and the end of 2006 in total amounted to EUR 2.6 bn. There were five Operational Programmes dedicated to individual sectors:

Operational programme for EU Structural Funds 2004-06	%
Joint Regional Operational Programme	33
OP Industry and Business Support	18
OP Infrastructure	15
OP Human Resources Development	22
OP Rural Development and Multifunctional Agriculture	12

Source: CopiRisco CZ, a.s.

Just before the end of 2006, the Czech Republic draw 160% of the Structural Funds allocation for the year 2004, therefore the implementation has finally reached the critical limit of the so-called N+2 rule:

Programmes[36]	**Amount spent (m EURO)**	**2004 spent (%)**
JROP (ERD)	111.2	116,2%
JROP (ESF)	5.19	46,7 %
OP HRD (ESF)	30.2	41,0%
OP IE (ERDF)	67.13	128,3%
OP Infrastructure (ERDF)	87.14	153,8%
OP RDMA (EAGGF)	49	128,0%
OP RDMA (FIFG)	0.64	18,0%
JPD 2 (ERDF)	15.23	66,4%
JPD 3 (ESF)	6.75	34,7%

[36] JROP = Joint Regional OP; OP HRD = OP Human Resources Development; OP IE = OP Industry and Enterprise; OP RDMA = OP Rural Development and Multifunctual Agriculture