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# ACTA VŠFS

Ekonomické studie a analýzy  
Economic Studies and Analyses

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# *On the Way*

## *Na cestě*

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BOHUSLAVA ŠENKÝŘOVÁ

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Dear readers,

you are holding in your hands a new issue of our scientific journal. We would like to offer you interesting and inspiring articles from the research performed at VŠFS and to create in this way a platform for scientific discussion about the current issues of economic theory and practice.

This particular issue is special in a way. It is the first issue of ACTA VŠFS as a scientific professional journal included on the List of Peer-reviewed Journals approved by the Research and Development Council of the CR Government. Readers from abroad should know that the reason for the creation of such a list is the effort to support research and publishing activities in our country.

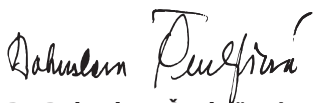
Two years ago, the intention of VŠFS to create and expand conditions for high-quality and expert activities resulted in an editorial initiative: the publication of the ACTA VŠFS professional scientific journal. This was preceded by a long discussion about the effectiveness and long-term strategy of this periodical. Of course there was also some skepticism. But because, as one eastern saying says, even the longest journey begins with the first step, we decided to go ahead with this project while being aware of the possible risks and big responsibility.

The conscientious work of the international editorial board and the implementation team, as well as the expanding number of authors of high-quality contributions and readers brought their fruit in the form of the acknowledgment of our journal within peer-reviewed periodicals.

We set out, figuratively speaking, on a long journey where the constant supply of current and interesting expert articles and the demanding and strict review proceedings will make it possible to create a respected expert periodical from our journal.

You, our readers, will always have the final word. We are open to ideas, suggestions and recommendations. We are open to new topics and new authors. We are opened to discussion. Please join in.

With wishes of mutually beneficially cooperation,



**Dr. Bohuslava Šenkýřová**

*Editor in-Chief*

*Institute of Finance and Administration, Rector*

.....

Vážení čtenáři,

dostává se Vám do rukou nové číslo našeho vědeckého časopisu. Chtěli bychom Vám nabídnout zajímavé a inspirativní statě z oblasti výzkumu realizovaného na VŠFS a vytvořit takto platformu pro vědeckou diskusi o aktuálních problémech ekonomické teorie a praxe.

Toto číslo je svým způsobem výjimečné. Jde o první číslo ACTA VŠFS jakožto vědeckého odborného časopisu zahrnutého do Seznamu recenzovaných neimpaktovaných periodik uznávaných Radou pro výzkum a vývoj vlády ČR. Zahraničnímu čtenáři je třeba vysvětlit, že důvodem pro vznik takového seznamu je snaha podpořit výzkumnou a publikační činnost u nás.

Záměr VŠFS vytvářet a rozšiřovat podmínky pro kvalitní a odbornou činnost vyústil před dvěma lety v editorský počín: vydávání odborného vědeckého časopisu ACTA VŠFS. Předcházela tomu široká diskuse o efektivnosti a o dlouhodobé strategii tohoto periodika. Byla zde samozřejmě i skepse. Ale protože, jak praví východní moudrost, i ta nejdelší cesta začíná prvním krokem, rozhodli jsme se pro realizaci tohoto projektu s vědomím možných rizik a velké odpovědnosti.

Pečlivá práce mezinárodní redakční rady a realizačního týmu i rozšiřující se okruh autorů kvalitních příspěvků a čtenářů přinesly své ovoce v podobě uznání našeho časopisu v rámci recenzovaných periodik.

Vydali jsme se, obrazně řečeno, na dlouhou cestu, kdy neustálý přísun aktuálních a zajímavých odborných statí a neoblomná a přísná recenzní řízení umožní, abychom z našeho časopisu vytvořili uznávané odborné periodikum.

Konečné slovo budete mít vždy Vy, naši čtenáři. Jsme otevření nápadům, námětům a doporučením. Jsme otevření novým tématům a novým autorům. Jsme otevření diskusi. Vstupte do ní.

S přáním oboustranně prospěšné spolupráce



**Dr. Bohuslava Šenkýřová**

šéfredaktorka

rektorka Vysoké školy finanční a správní, o.p.s.

# *The Czech Republic's Progress on its Road to the Euro Area<sup>1</sup>*

## *Pokrok České republiky na cestě do eurozóny*

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MOJMÍR HELÍSEK

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### **1 Introduction**

The Czech Republic's accession to the euro area is being discussed increasingly, due also to Slovakia's quick entry into the monetary union in early 2009. What are the economic criteria relevant for the decision on the preparedness to adopt the euro? Just a glimpse is enough to evaluate the Maastricht (nominal) convergence criteria. The real convergence criteria are no less important, including adjustment mechanisms, which replace the national monetary policy.

This paper initially summarises the circumstances under which the Czech Republic has to adopt the euro sooner or later. The subsequent sections deal with the nominal and real criteria of the Czech Republic's convergence towards the euro area, including the assessment of the degree of the convergence. The conclusion presents a sci-fi time schedule of adopting the euro at the beginning of 2012.

### **2 The Czech Republic as an EU Member State with a derogation**

By accession to the European Union, the Czech Republic automatically undertook to participate in the third stage of the Economic and Monetary Union (EMU), which also includes the replacement of a national currency with a single one.<sup>2</sup> Nevertheless, the Czech Republic is one of what are known as the "Member States with a derogation". This includes countries which fail to comply with the conditions required for the introduction of the single currency, and which are consequently, under Article 122 of the Treaty establishing the European Community (ex Article 109k), subject to an exemption from the rules of the fiscal and monetary policy applicable to Members of the Monetary Union. Also, this position is explicitly expressed in the Act concerning the conditions of accession of the Czech Republic (Article 4): "Each of the Member States shall participate in Economic and Monetary Union from the date of accession as a Member State with a derogation within the meaning of Article 122 of the EC Treaty."

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1 This article was created as part of a project of the Internal Grant Agency at the Institute of Finance and Administration (VŠFS) (No 7701). The data included herein reflect the status of the examined issue in late 2008.

2 In compliance with the wording of the EU Treaty, I use the term "single currency", rather than "common currency".

The obligation of an EU Member State to adopt the single euro currency sooner or later stems from the establishing treaties, namely:<sup>3</sup>

- from Article 2 of the Treaty on EU: The objective of the Union is “to promote economic and social progress [...] through the establishment of economic and monetary union, ultimately including a single currency in accordance with the provisions of this Treaty,”
- from Article 2 of the Treaty establishing the EC: “The Community shall have as its task, by establishing [...] an economic and monetary union [...] to promote development of economic activities;”
- from Article 4, paragraph 2 of the Treaty establishing the EC: Member States’ activities include “the irrevocable fixing of exchange rates leading to the introduction of a single currency.”
- and from Article 98 of the Treaty establishing the EC: “Member States shall conduct their economic policies with a view to contributing to the achievement of the objectives of the Community, as defined in Article 2.”

The European Central Bank (ECB) notifies new Member States of their obligation to adopt the euro in the ECB Governing Council’s opinion: “[...] while not yet adopting the euro, they will be committed to striving towards the eventual adopting to euro. [...] The Treaty foresees that: i) at some point following accession, new Member States will join the Exchange Rate Mechanism II (ERM II); and ii) when they are deemed to have fulfilled the Maastricht convergence criteria, they will adopt the euro”<sup>4</sup>.

Setting the accession date lies within the competence of each Member State, depending on its preparedness. The National Euro Changeover Plan for the Czech Republic, prepared in 2007 (part I, p. 1), interprets the Treaty in such a way that a country with a temporary derogation “must work to introduce the euro as soon as possible.” According to another interpretation of the Czech Government and the Czech National Bank (CNB), the Czech Republic is “obliged to take steps to be prepared to join the euro area as soon as possible”<sup>5</sup>. The interpretation of “as soon as possible” is not explicitly specified in the binding documents of the European Union<sup>6</sup>. Perhaps, we could draw a conclusion from the diction of Articles 121/1 and 122/2 of the Treaty establishing the EC, which put an obligation on the Commission and the European Monetary Institute (the forerunner of the ECB) to present what are known as the “reports on the progress” of EU Member States in fulfilling their obligations to implement the EMU to the Council, and to do so at least once in two years or upon Member State’s request. This interest by the Council in receiving the “reports” quite

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3 According to the consolidated versions of the Treaty on European Union and the Treaty establishing the European Community (Official Journal of the EU, C 321 E/1, 29. 12. 2006).

4 European Central Bank, 2003, p. 1.

5 Assessment, 2008, p. 4. The same statement is also available in the previous Assessments, of 2004 – 2007.

6 Not included in the Treaty on European Union, in the Act concerning the conditions of accession, in the Treaty concerning the accession to the EU, in the Final Act concerning the accession to the EU, nor in the Commission’s opinion on the applications for accession.

frequently (in fact, they are referred to as “Convergence Reports”<sup>7</sup>) may signal that European authorities wish that EU Member States join the euro area soon. On the other hand, the above ECB’s statement “at some point following accession” is evidence of enough tolerance to delays in introducing the euro. The same tolerance is also evident in regard to the position of Sweden, which actually complies with all Maastricht convergence criteria (including the stable exchange rate) but lingers in joining the ERM II (whereby it, de jure, fails to comply with the criterion of exchange rate stability), thus postponing its accession to the euro area in the long term.<sup>8</sup>

Certain aspect of ‘acceleration’ can be found in the First report on the practical preparations for the future enlargement of the euro area: “New Member States must therefore start preparing themselves in order to be ready in time [...] The transition from the national currency to the euro is expected to be much faster [compared to the first wave, due to experience, the knowledge of the euro, etc. – note by M. H.]”<sup>9</sup>. However, these Reports are not legally binding; they are informative only.

When does the Czech Republic wish to introduce the euro?

- The Czech Republic and the Euro – Draft Accession Strategy (of December 2002) mentions such preparations as “not to rule out” the year 2007.
- The Czech Republic’s Euro-area Accession Strategy (of September 2003) states the “2009-2010 horizon,” which was specified more accurately later (in September 2005) as 1 January 2010.
- The Pre-Accession Economic Programme (PEP), adopted by the Government of the Czech Republic in July 2003, also predicts that the criteria required for the adoption of the euro will be met at the end of the decade.
- On 25 October 2006, the Government of the Czech Republic decided not to strive for entry into the ERM II in 2007, and this meant the abandonment of the original plan to join the euro area in 2010. No new date was set.
- Another important document, The Czech Republic’s Updated Euro Area Accession Strategy (of August 2007), confirmed both the withdrawal from the original accession year 2010 and the absence of a new accurate date of the planned accession to the euro area. The date of adopting the euro will ‘depend’ on resolving the ‘problematic aspects’ of the Czech economy, notably the public finance reform and the flexibility of the economy, the labour markets in particular.
- The Assessment of the Fulfilment of the Maastricht Convergence Criteria (of December 2008) as well as the Assessment of 2007 continue to recommend the government to avoid setting the date of adopting the euro, and consequently to refrain from entering the ERM II in 2009.

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7 In addition, once or twice a year, the Commission issues the “Report on the practical preparations for the future enlargement of the euro area.”

8 In addition, Sweden has not fully completed the harmonisation of its legislation according to Treaty requirements.

9 Commission, First Report, 2004, p. 2, 8. The Commission also expected that countries would be interested “in making the changeover period as short as possible,” in view of the concerns about the parallel informal circulation of the euro and a national currency. (p. 9)



The main reason for the current cautious position is the impact of the ongoing global financial crisis, and no longer a troublesome condition of the public finances; the reasons are as follows (according to the 2008 Assessment):

- The financial crisis works as an asymmetric shock (let us add: the need for individual monetary and exchange rate policy has consequently increased),
- The risks stemming from the participation of the koruna in the ERM II are increasing,
- The financial crisis may have negative implications for the alignment of economies if it led to easing the fiscal discipline.

Expert community as well as political circles express various ideas as to the possible date of introducing the euro. The withdrawal from the original date was immediately followed by a new "working date" – 2012 (by Minister of Finance Kalousek, supported by representatives of the industrial sector), but this date was also revoked soon afterwards. CNB Governor Tůma cited a "nice date" of 2019 in printed media while Prime Minister Topolánek "could even say 2020 as a joke." Czech President, through his advisors, expresses his position on the euro "no sooner than in 10 years."

In spite of these circumstances, which indicate a cautious and sceptical position of the current Czech central authorities on the introduction of the euro, the recent assessments of the Czech Republic by the EU in regard to the progress of its preparations for membership of the euro area have been surprisingly favourable. The Reports from the Commission on the practical preparations for the future enlargement of the euro area are evidence of this:

- The Second Report (of November 2005) states that the "practical preparations in the Czech Republic are in a very preliminary stage";
- The Third Report (of June 2006) evaluates that the "practical preparations in the Czech Republic are still at preliminary stage";
- The Fourth Report (of November 2006) only mentions the cancellation of the original target date and approval of the "Big Bang" scenario, approved by the Government of the Czech Republic in October 2006;
- The Fifth Report (of July 2007) states that the Czech Republic is a good example of the timely preparations even without any target date set. The Report particularly appreciates the adoption of the National Euro Changeover Plan for the Czech Republic (of April 2007).

The Sixth Report (of November 2007) only mentions the adoption of the Updated Strategy (in August 2007). Likewise, the Seventh Report (of July 2008) only enumerates the existing steps mentioned above and adds later measures<sup>10</sup>. The Eighth Report (December 2008) only extends the previous Report, particularly with priorities of the National Coordination Group. Those Reports of the European Commission provide no assessment of the Czech Republic's progress on its road to the euro.

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<sup>10</sup> *The European Commission's Report notes the preparations of the General Act on the Introduction of the Euro (the "umbrella law", published on 16 July 2008) and the release of the "Evaluation of budgetary costs related to the principle of not harming citizens during the euro introduction in the Czech Republic" and the "Guidelines on converting, rounding and smoothing of financial amounts during euro introduction."*

We will better understand European authorities' position on the postponement of the euro introduction in the Czech Republic if we realise that the Czech Republic is no exception among new Member States of the EU regarding its decision to postpone its originally planned date of introducing the euro:

- Estonia, whose original standpoint had been "2006, if possible" (the 2003 Pre-accession Economic Programme), initially postponed its target date of 1 January 2007 by a year, while later it stated that the nearest possible date was 2011 (due to unfavourable inflation prospects);
- Lithuania, after its unsuccessful attempt to introduce the euro as at 1 January 2007, only set the start of the period when the euro introduction would be the most favourable (starting from 2010);
- Latvia has postponed its original date of 1 January 2008 to an indefinite time;
- Hungary initially considered 1 January 2008 (the 2003 Pre-accession Economic Programme), then 1 January 2010. After the withdrawal from this date, a new date was not set. In addition, as of 26 February 2008, Hungary cancelled its quasi-participation in the ERM II, maintained since May 2001;
- Poland originally planned to adopt the euro within 2008 or 2009 (the 2003 Pre-accession Economic Programme), but this date was not declared officially. The new date, announced by the Polish Government in October 2008, is 1 January 2012;
- Romania has set its date at 2014;
- Bulgaria has not set any date so far, neither has Sweden;

The state of current membership of the euro area and planned accessions are described in Tab. 1 and Tab. 2.

**Table 1:** Current member states of the euro area

Date of entry	Country
1.1. 1999 cashless euro	Belgium, Germany, Ireland, Spain, France, Italy, Luxemburg, Netherlands, Austria, Portugal, Finland
1.1. 2001 cashless euro	Greece
1. 1. 2002 cash euro	Belgium, Germany, Ireland, Spain, France, Italy, Luxemburg, Netherlands, Austria, Portugal, Finland, Greece
1. 1. 2007	Slovenia (unsuccessful Lithuania)
1. 1. 2008	Cyprus, Malta
1. 1. 2009	Slovakia

Source: [http://ec.europa.eu/economy\\_finance/the\\_euro/index\\_cs.htm?cs\\_mid=2946](http://ec.europa.eu/economy_finance/the_euro/index_cs.htm?cs_mid=2946) [quotation 10. 1. 2009]

The United Kingdom and Denmark have been granted an opt-out clause, meaning that they are not required to participate in the Economic and Monetary Union; these clauses

are part of Protocol 25 and Protocol 26 respectively, annexed to the Treaty establishing the European Community:

- “United Kingdom shall not be obliged or committed to move to the third stage of economic and monetary union without a separate decision to do by its government and parliament.”
- “In the event of a notification that Denmark will not participate in the third stage [of economic and monetary union], Denmark shall have an exemption.”

**Table 2:** The planned dates of the entry into the euro area

Country	Original date	New date
Bulgaria	not set	
Czech Republic	1. 1. 2010; cancelled 25. 10. 2006	not set
Estonia	(2006), 1. 1. 2007; further date 1. 1. 2008 (set 27. 4. 2006, cancelled 31. 10. 2006)	not set
Latvia	1. 1. 2008; cancelled in spring 2006	not set
Lithuania	1. 1. 2007; EU Commission had not recommend introduction of the euro (16. 5. 2006)	as soon as possible, after 2010 (the plan from 25. 4. 2007)
Hungary	1. 1. 2010; cancelled 1. 12. 2006	not set
Poland	(2008 – 2009), 1. 1. 2012	
Romania	2014	
Sweden	not set (introduction of the euro rejected in the referendum 14. 9. 2003)	

Source: Commission of the EC, 2004 – 2008; European Commission 2003.

### 3 State of preparations for the euro introduction

The existing progress in the organisational, legislative and technical preparations for the introduction of the euro in the Czech Republic are described by the following chronological overview of the milestones.

13. 10. 2003: The Government of the Czech Republic approved **The Czech Republic’s Euro-area Accession Strategy**. According to this strategy “[...] the accession to the euro area can be expected within 2009 – 2010.”

23. 11. 2005: The government issued a resolution by which it approved:

- **The institutional arrangements for the introduction of the euro in the Czech Republic** (the definition of the legislative framework, selection of a scenario and

of basic principles – see below, the indicative timetable<sup>11</sup>, and the establishment of required institutions<sup>12</sup>).

- Appointment of the **National Coordinator** and establishment of the **National Coordination Group** (NCG) for the Introduction of the Euro (an inter-ministerial coordination group managed by the Ministry of Finance of the Czech Republic), under which six working groups are active, namely the groups for the financial and non-financial sector, for public administration, legislation, communication, and informatics. The NCG started work on 20 February 2006.

25. 10. 2006: In accordance with the proposal for **Selecting a scenario of the euro introduction in the Czech Republic** (the NCG material of June 2006), the government issued a resolution by which it approved the “big-bang” scenario, i.e. the concurrent introduction of the euro in both cash and non-cash form. Alternative scenarios include the one involving a transitional period, i.e. a two-wave changeover (what is known as the Madrid Scenario; used for the first group of euro area members), and the “phasing-out” scenario, with a single-wave euro introduction but involving temporary use of a national currency for certain instruments (such as paying-in slips, invoices of small businesses, taxes, etc.).

Another resolution of the Government of the Czech Republic of the same date (i.e. 25 October 2006) approved the third Assessment of the fulfilment of Maastricht convergence criteria, and concurrently the proposal for not joining the ERM II in 2007, which meant the **withdrawal from the date of accession to the euro area in 2010**.

11. 4. 2007: The government issued a resolution by which it approved **The National Euro Changeover Plan for the Czech Republic**. The National Plan is composed of three parts:

- I. “Basic Information”, which describes the “big-bang” scenario, principles of the euro introduction (legal continuity, price neutrality, etc.), the euro introduction timetable (divided into four stages<sup>13</sup>), the process of preparations for the euro introduction (activities of the NCG, institutional arrangements, etc.), and the summary of basic tasks in individual sectors;
- II. “Specification of Tasks in Individual Sectors”, structured by the six working groups of the NCG (banks and financial sector, public finance and public administration, non-financial sector and consumer protection, legislative needs, communication, information and statistical systems), always including general timetables of preparations;
- III. “Glossary of Basic Terms”.  
The National Plan, inter alia, sets the period of dual circulation of the koruna and the euro at 14 days, the dual display of prices starting no later than a month after setting the conversion coefficient and ending at least one year after the introduction of the euro, the exchange of koruna cash at banks for six months after the euro introduction

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11 The indicative timetable was based on the euro adoption date of 1 January 2010, i.e. anticipated accession to ERM II in the middle of 2007.

12 i.e. the NCG, the National Coordinator and the working groups of the NCG (seven groups were originally planned, but the groups for non-financial sector and for consumer protection were later merged).

13 Of course, without any time specification.

(and several years afterwards at the central bank), the principles of the General Act (see below), and more.

29. 8. 2007: The Government of the Czech Republic issued a resolution by which it approved **The Czech Republic's Updated Euro-area Accession Strategy**. The strategy mentions the postponement of the date of accession to the euro area beyond the original horizon of 2009-2010, without setting a new target date.

28. 2. 2008 Website of the Ministry of Finance about the euro, called "Introduction of the euro in the Czech Republic" ([www.zavedenieura.cz](http://www.zavedenieura.cz)), was launched.

9. 4. 2008 The government approved the **Report on the fulfilment of the National Plan** (NCG material of March 2008), which actually updates the National Plan. The main tasks accomplished include the General Act, preparations of the new law on the Czech National Bank, the rounding methods, the calculations of budgetary impacts, and the launch of the above website. The forthcoming priority tasks to be carried out include the creation of consumer protection instruments and a recommendation of the steps to facilitate the preparations of SMEs for the euro. The Report also includes detailed indicative timetables of the tasks of the individual six working groups of the NCG.

16. 7. 2008 The **"General Act on the Introduction of the Euro in the Czech Republic – basic principles"** was published. This brief document expresses the principles of legal continuity, neutrality, rounding, dual circulation of the koruna and the euro, dual display of prices, conversion of funds on accounts, and conversion of the nominal value of securities.

Numerous other documents, papers, analyses and materials were prepared as part of the preparations for the euro introduction, including in particular:

- **Convergence Programmes of the Czech Republic**, prepared by the Ministry of Finance of the Czech Republic (extraordinary in May 2004, then annually in 2004-2008), on the basis of Council Regulation (EC) on the surveillance of budgets and economic policy. The programmes include analyses of economic policies (of the fiscal, monetary and structural policies), government sector's financial position (such as deficit and debt), and public finance sustainability.
- **Assessment of the Fulfilment of the Maastricht Convergence Criteria and the Degree of Economic Alignment of the Czech Republic with the Euro Area**, prepared by the Ministry of Finance of the Czech Republic and the Czech National Bank (five reports in 2004-2008). This analytical material includes the assessment of the fulfilment of the above criteria as well as the degrees of real convergence in the form of the economic and structural alignment of the Czech economy with the economy of the euro area, including the function of adjustment mechanisms. The outcome of the analysis is a recommendation to the government regarding the setting of the date of accession to the euro area and accession to the ERM II.<sup>14</sup>

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<sup>14</sup> Annexes to the "Assessment" include "Analyses of the Czech Republic's current economic alignment with the euro area" (2005 – 2008).

- Overview of the tasks within the competence of the Czech National Bank and the outline of other tasks in association with the euro introduction in the Czech Republic (CNB, 13 January 2005) and the Update of Czech National Bank's tasks in association with the euro introduction in the Czech Republic (CNB, 11 October 2007).
- Guidelines on converting, rounding and smoothing of financial amounts during euro introduction (NCG material, October 2007) and Evaluation of budgetary costs related to the principle of not harming citizens during the euro introduction in the Czech Republic (Annex to the NCG Report of March 2008).
- As part of the information campaign, the Ministry of Finance of the Czech Republic had a team of authors at the Mendel University of Agriculture and Forestry in Brno prepare the "Study of effects of the euro introduction on the economy of the Czech Republic"<sup>15</sup>.

Even this enumeration of the main measures alone indicates the significant progress in the preparations for the introduction of the euro in the Czech Republic. Let us compare these preparations to other future members of the euro area, according to the Eighth Report of the Commission of the European Communities (2008):

- The Czech Republic, along with three Baltic States, is one of the best prepared countries. All of them have approved a National Plan including updates<sup>16</sup> and numerous detailed adjustments.
- Hungary also has a National Plan, but without certain more detailed requirements.
- Romania is going to prepare its National Plan in 2010.
- Sweden and Bulgaria show no preparations for the introduction of the euro, at least according to 'publicly available information,' used by the Commission.
- The Polish Government released what is known as the Road map for euro adoption on 28 October 2008. To adopt the euro at the beginning of 2012, it plans to prepare a National Plan during the first quarter of 2009 and incorporate the Polish zloty into ERM II in the middle of 2009.

This relatively advanced stage of preparations in the Czech Republic probably reflects the fact that the decision on the principal materials (approval of the Institutional arrangements, the task to select a scenario and prepare the National Plan) was made as long ago as in autumn 2005, i.e. when the domestic political circumstances in relation to accession to the euro area were more favourable.

#### **4 Nominal convergence**

We will identify the nominal convergence criteria with the Maastricht convergence criteria, which are set out in the Treaty establishing the European Community (Article 121 and Protocol 21). In addition to the numerical values of the relevant indicators, we should

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<sup>15</sup> The second issue of this paper was released at [www.mfcr.cz](http://www.mfcr.cz) in 2008 after consultations. To provide information to the general public, the NCG created a simple leaflet called "Preparations of the Czech Republic for the euro adoption."

<sup>16</sup> For the Czech Republic, this update is not included in the Commission Report but, in effect, it was carried out in the form of the NCG Report of March 2008.

also bear in mind the requirement for “sustainable convergence” while evaluating their compliance, i.e. not just the current temporary fulfilment of the criteria.

The **price stability criterion** requires that the domestic inflation rate (measured as the 12-month HICP average), over the period of one year before the examination, is not more than 1.5 percentage points above the rate of the three best performing Member States of the EU in terms of inflation (this is interpreted as lowest positive inflation). See Tab. 3 for the figures.

**Table 3:** Price stability criterion

	2005	2006	2007	2008	2009	2010	2011
Average in 3 countries	1.0	1.4	1.3	2.6	2.4	1.7	1.7
Criterion	2.5	2.9	2.8	4.1	3.9	3.2	3.2
Czech Republic	1.6	2.1	3.0	6.4	2.9	3.0	2.5

Source: *Assessment, 2008, p. 10 (according Eurostat, Convergence Programmes and Stability Programmes 2007).*

Notes: 2008 – estimate, 2009 – 2011 forecast (for the CR from Convergence Programme 2008, for 3 countries from EC Spring 2008 Economic Forecast).

The inflation criterion was not met in 2007 and 2008. However, the compliance with this criterion in the coming years is predicted to be without problems. This optimistic forecast is augmented by the fact that, from the beginning of 2010, the Czech National Bank will switch to an inflation target lowered by 1 percentage point compared to the present value (from 3% to 2%, in compliance with ECB’s inflation target), with a tolerance of 1 percentage point in either direction.

The reasons for high inflation in 2008 were the high rise in energy prices (only partly counterbalanced by the appreciation trend of the exchange rate of the koruna), the high rise in regulated prices (an increase in energy prices for households, increase in regulated rents), the introduction of healthcare fees, the VAT increase from 5% to 9%, and the increase in cigarette excise duty.<sup>17</sup> The Czech Republic’s Convergence Programme of December 2008 evaluates this inflation rise as “transient, one-time occurrence” (p. 16).

The **public finance criterion** is composed of two parts, which must be fulfilled at the same time:

- The government deficit, expressed as a share of GDP, must not exceed 3% (the government deficit includes the deficit pertaining to the central government including regional and local authorities and social-security funds, with the exception of commercial operations defined in the European System of Macroeconomic Accounts),

<sup>17</sup> Czech National Bank. *Inflation Report IV – 2008, p. 28 – 29.*

- Government debt, expressed as a share of GDP, must not exceed 60% (the government debt means a gross sum of debts in their nominal values at the end of the year, consolidated inside and between the individual branches of the state sector).<sup>18</sup>

See Tab. 4 for the Czech public finance figures.

**Table 4:** Public finance criterion

	2005	2006	2007	2008	2009	2010	2011
General government balance (in % GDP)							
Criterion	- 3.0	- 3.0	- 3.0	- 3.0	- 3.0	- 3.0	- 3.0
CR	- 3.6	- 2.7	- 1.0	- 1.2	- 1.6	- 1.5	- 1.2
Government debt (in % GDP)							
Criterion	60	60	60	60	60	60	60
CR	29.8	29.6	28.9	28.8	27.9	26.8	25.5

Source: Assessment, 2008, p. 11 – 12 (according Czech Statistical Office and Convergence Programme 2008).

Notes: 2008 – estimate, 2009 – 2011 forecast.

According to a late 2008 forecast, the public finance criteria should be most probably met within the next few years. Evidence of the positive developments in this area is the fact that the excessive deficit procedure, to which the Czech Republic had been subject since 2004, was terminated in June 2008. On the other hand, their fulfilment may be complicated by the GDP growth deceleration or rather by its decline and increased budget expenditure (as a result of the ongoing global financial crisis, which also affects the Czech economy).

**The exchange rate stability criterion** means that a Member State complied with what are known as normal fluctuation margins, set by the Exchange Rate Mechanism II (ERM II) of the European Monetary System, “without severe tensions” over at least last two years before the examination. The Member State avoided devaluing the central rate of its currency against the euro out of its own initiative during this period in particular.

The Czech koruna does not participate in the ERM II at the moment. Hence we will only simulate the fulfilment of the exchange rate criterion. To set the hypothetical central rate, we will use ECB’s approach, i.e. the average monthly exchange rate of the first month of the monitored two-year period. We will consider 2007 – 2008 to be the hypothetical monitored two-year period of staying within ERM II. The central rate is the exchange rate of CZK

<sup>18</sup> The former criterion may be exceeded if the deficit significantly and steadily decreased and is close to the required value, or is only exceeded rarely and remains close to the required value; exceeding the latter criterion is allowed if it decreases sufficiently and is close to the required value.



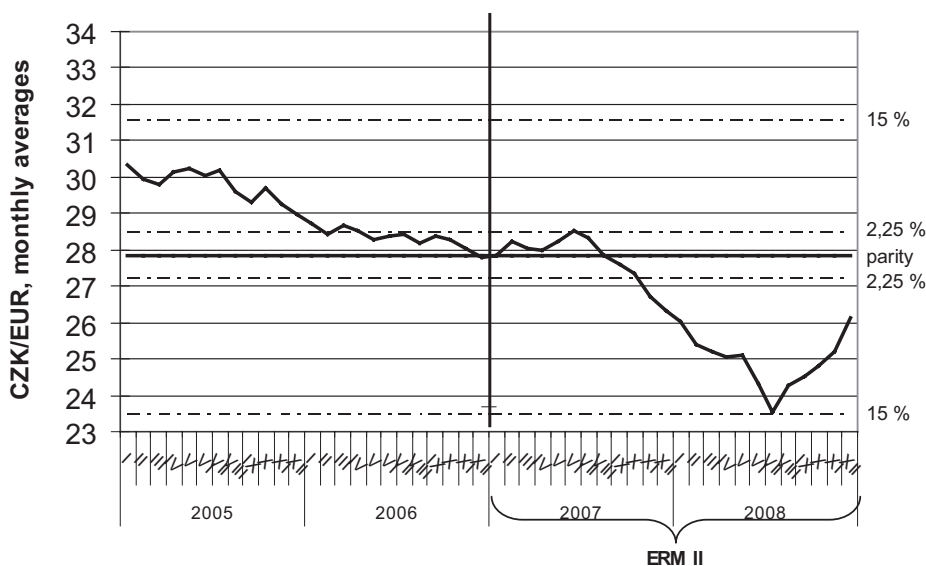
27.84 per EUR. We will interpret the fluctuation band asymmetrically, with 15% possible appreciation and 2.25% possible depreciation.<sup>19</sup>

The exchange rate was highly volatile over this period (see Fig. 1):

- Given the moderate depreciation over the first six months, the currency slightly exceeded its depreciation limit within the narrow fluctuation band in June 2007 (by CZK 0.1 per EUR),
- The subsequent significant appreciation made the koruna slightly exceed the appreciation limit within the wide band in July 2008 (by CZK 0.2 per EUR),
- Then, until the end of 2008, the currency depreciated, but remained far from the central rate.

In view of only slightly exceeded fluctuation margins, we can draw a conclusion that the exchange rate stability criterion would be probably met (in the first group of Member States of the euro area, the Commission tolerated much greater and longer deviations).

**Fig. 1:** Simulated membership CZK in ERM II



Source: [www.cnb.cz](http://www.cnb.cz) (foreign exchange rates). Calculations and figure: own amendment. [quotation 10. 1. 2009]

<sup>19</sup> The Commission of the EC monitors the application of a narrower fluctuation band in its Convergence Reports, but rules out that the reason for failure to meet the criterion of exchange rate stability should be fluctuations above 2.25% (i.e. in excess of the appreciation threshold). The ECB (implicitly) tolerates fluctuations within a wider band of 15%. The Council (composed of Ministers of Finance – ECOFIN) decides on abrogating a derogation upon Commission's proposal. For details, see Helisek a kol., 2007, p. 11, 35.

Regarding the formal (fictitious) assessment, we should add that the central rate was not devalued over the monitored period. The strong appreciation of the exchange rate might lead to a revaluation of the central rate, but this is not at variance with the interpretation of the fulfilment of the exchange rate criterion.

To assess the presence of “severe tensions”, we also need to monitor (Tab. 5):

- Interest rate differential,
- Czech National Bank’s foreign exchange reserves.

A low (or negative) interest rate differential, or just a moderate decline or a rise in foreign exchange reserves (always monitored on a quarterly basis) is evidence that the exchange rate of the CZK was not exposed to speculative depreciation pressures. Therefore the exchange rate criterion would also be met from this point of view, i.e. without “severe tensions”.

**Table 5:** “Severe tensions” indicators in development of the CZK exchange rate

Quarter	Interest rate differential (p. p.)	Change in foreign exchange reserve (%)
2007 I	- 1.2	- 3.3
II	- 1.3	- 2.9
III	- 1.2	- 4.5
IV	- 0.9	- 0.8
2008 I	- 0.5	0.8
II	- 0.7	4.3
III	- 1.1	9.5
IV		

Source: *www.cnb.cz (financial markets; statistics of balance of payments); www.sdw.ecb.europa.eu (Statistical Data). Own calculations. [quotation 10. 1. 2009]*

Note: *The interest rate differential is the gap between 3 M PRIBOR and 3 M EURIBOR (in all cases, quarter average is shown); changes in foreign exchange reserves indicate year-on-year difference (December, in %). The reserves are given in EUR.*

**Long-term interest rate criterion** means that, during one year before the examination, the average long-term nominal interest rate of a Member State did not exceed, by more than 2 percentage points, the interest rate of the best performing Member States in terms of price stability. Interest rates are ascertained on the basis of long-term government bonds or comparable securities, with respect to different definitions in individual Member States.

The convergence of long-term interest yields should prove that the criteria of price stability and exchange rate stability are not just temporary (or accidental), but that they are

irreversible. This context is based on the assumption that financial markets reflect the anticipation of future inflation and the expectation of devaluation by adding premiums to long-term bond yields.<sup>20</sup>

Tab. 6 illustrates the fulfilment of this criterion using 10-year government bonds on the secondary market (12-month averages).

**Table 6:** Long-term interest rates

	2005	2006	2007	2008	2009	2010	2011
Average in 3 countries	3.4	4.2	4.4	4.6	3.9	3.2	3.2
Criterion	5.4	6.2	6.4	6.6	5.9	5.2	5.2
Czech Republic	3.5	3.8	4.3	4.7	4.4	4.3	4.2

Source: *Assessment, 2008, p. 16 (according Eurostat, Convergence Programmes and Stability Programmes 2007).*

Notes: 2008 – estimate, 2009 – 2011 forecast. The values for 2009 – 2011 are based on the assumption that interest rates will move in line with inflation.

The Czech Republic easily fulfils the criterion of long-term interest rates, and the same conclusion can be drawn for the upcoming period.

By and large, we can summarise the assessment of the fulfilment of the nominal convergence criteria by the conclusion that the Czech Republic currently (in 2008) only fails to comply with the inflation criterion. Nonetheless, the country is expected to fulfil all criteria within the next three years, probably except for government deficit criterion.

The latest assessments of the fulfilment of Maastricht convergence criteria in the Commission and ECB's Convergence Reports are included in Tab. 7.

In addition to the four criteria included, the Treaty establishing the European Community (in Article 121 again) also specifies the requirements for the compatibility between the legislation of an acceding country and the legislation of the European Community. As far as the Czech Republic is concerned, the Act on CNB and the Act on Financial Arbitrator are not entirely compatible with Articles 108 and 109 of the Treaty and with statutes of the European System of Central Banks (ESCB) and the ECB.<sup>21</sup>

In addition, the same Article of the Treaty requires the following: "take account of [...] the results of the integration of markets, the situation and development of the balances of

<sup>20</sup> Dėdek, 2008, p. 179.

<sup>21</sup> Commission's Convergence Report of December 2008 specifies a total of six areas where these shortcomings occur.

payments on current account and an examination of the development of unit labour costs and other price indices [as factors that influence competitiveness – note by M. H.]<sup>22</sup>.

**Table 7:** Assessment of the fulfilment of the Maastricht convergence criteria

Criterion (reference period)	Values	Commentary	
		Commission	ECB
Inflation (IV 2007 – III 2008)	CR: 4.4 % Reference value: 3.2 %	Inflation is likely to remain elevated for much of 2008. CR does not fulfil the criterion.	Well above the reference value. Forecasts for 2008: 4.6 – 6.3 %.
Government finance (2007)	Deficit: -1.6 % Debt: 28.7 %	CR will fulfil criterion, if the Council abrogates the excessive deficit procedure.	As regards the sustainability of public finances, the CR appears to be at high risk.
Exchange rate (IV 2006 – IV 2008)	Non-participation in ERM II	Appreciation against the euro by 13%. CR does not fulfil the criterion.	High degree of volatility vis-à-vis the euro.
Long-term interest rate (IV 2007 – III 2008)	CR: 4.5 % Reference value: 6.5 %	CR fulfils the criterion.	Well below the reference value.

Source: Commission of the EC: *Convergence Report 2008*. European Central Bank: *Convergence Report*. May 2008. Own amendment.

In this regard, the Czech Republic is mostly assessed as free of problems:

- The Czech economy is strongly interconnected with the EU and the euro area (in 2007, the exports and imports of goods and services to/from 13 countries of the euro area made up 57.0% of all exports and imports of the Czech Republic, while the FDI from euro area countries even reached 79.8%). With the high degree of foreign ownership in the financial sector, it could be incorporated into the financial sector of the EU.
- The 2007 current account deficit was only 1.8% of GDP, in spite of a relatively high price rise (the above-mentioned 3% HICP in 2007) and employee compensations (up 7% as opposed to labour productivity, which improved by 4.6%).

<sup>22</sup> Commission's *Convergence Reports* refer to them as "additional factors", while ECB reports rank them behind long-term interest rates.

## 5 Real convergence

The introduction of the single currency will involve the loss of independent monetary and exchange rate policies. The economic development of a new member of the monetary union should therefore be similar to (aligned with) the overall economic development of the monetary union. Otherwise, the economic shocks, if any, hitting the union would have asymmetric effects, i.e. different impacts on countries with different developments.

The similarities (alignments) of the economic developments are achieved not only by nominal convergence but also by real convergence. This is particularly expressed as:<sup>23</sup>

- Convergence of the economic level (GDP per capita),
- Convergence of price levels,
- Alignment of economic cycles.

**The convergence of the economic level** of a given country contributes (through similarities in the spending behaviour of economic entities) to the alignment of economic cycles. Tab. 8 documents the quick convergence towards the economic level of the euro area. In addition, we can see (Tab. 9) that some of the current Member States the economic level of which was not on a par with the euro area average at the time of their accession<sup>24</sup> even failed to reach the current level of the Czech Republic. This is the case of Portugal and, when the Czech Republic joins the euro area (i.e. after a few years), this will, most probably, also be the case of Greece. Such differences, to a similar extent as in the case of the Czech Republic, were not identified as a source of insufficient synchronisation of cycles in any country.

Slovakia's economic level in 2007 was only 61.2% of the euro area average (13).

**Table 8:** Economic level of the Czech Republic and the euro area

Country	2004	2005	2006	2007
Euro area (13)	100	100	100	100
Czech Republic	67.9	68.6	70.2	73.2

Source: <http://epp.eurostat.ec.europa.eu> (National accounts). Own calculation. [quotation 10. 1. 2009]

<sup>23</sup> Vintrová (2007 b, p. 207 – 208) ranks the relative price level among nominal convergence criteria.

<sup>24</sup> The level of France was exactly at the euro area average, while Italy and Finland were slightly above.

**Table 9:** Selected countries – comparison of economic levels

Country	1999	2007
Euro area (12)	100	100
Greece	76.3	86.4
Portugal	68.1	70.0
Spain	84.3	96.0

*Note: in case of Greece is concerned the entry into euro area in 2001.*

*Source: <http://epp.eurostat.ec.europa.eu> (National accounts). Own calculations [quotation 10. 1. 2009]*

**Price level convergence** will mitigate the hypothetical rapid price rise when the euro is adopted. Tab. 10 shows the price level developments, measured as HICP. This difference is much greater than it was, for example, in Portugal when it joined the euro area (81.5% of the price level of 12 euro area countries) or Greece (80.4%). A lower price level also corresponds to a lower economic level but, in the Czech Republic, the difference is significant, indeed. Using the correlation with other acceding countries, we can draw a conclusion on the 'adequate' 2006 price level at around 80% of the EU 25, while the actual figure was 59%<sup>25</sup>.

Slovakia's price level in 2007 was only 62.0% of the euro area level (13).

However, experiences of those of the current euro area members whose price levels were well below the euro area average when they joined the euro area<sup>26</sup>, do not indicate the feared 'jump' in the price level as a result of the euro introduction (see Tab. 11). Vintrová predicts that, with the 4% price convergence rate, the Czech Republic might reach  $\frac{3}{4}$  of the EU 25 level in 2012 – 2013<sup>27</sup>. This also mitigates the risk of the aforementioned rapid price rise.

**Table 10:** Price levels in the CR and the euro area

Country	2004	2005	2006	2007
Euro area (13)	100	100	100	100
Czech Republic	53.5	56.6	59.8	60.9

*Source: <http://epp.eurostat.ec.europa.eu> (Comparative price levels). Own calculations. [quotation 10. 1. 2009]*

<sup>25</sup> Žďárek, Šindel, 2007, p. 203 – 205.

<sup>26</sup> Italy's level was also below average, but only slightly, at 95.7%.

<sup>27</sup> Vintrová, 2007 a, p. 94. For this subject, see also Šaroch, Tomšík, Srholec, 2005, p. 9.

**Table 11:** Selected countries – comparison of price levels

Country	1999	2007
Euro area (12)	100	100
Greece	80.4	86.8
Portugal	81.5	82.9
Spain	84.1	91.1

*Note: in case of Greece is concerned the entry into euro area in 2001.*

*Source: <http://epp.eurostat.ec.europa.eu> (Comparative price levels). Own calculations. [quotation 10. 1. 2009]*

Given the long-term similar inflation rates in the Czech Republic and the euro area (see Tab. 12), we can expect the convergence of their price levels mostly through the appreciation of the nominal (and consequently real) exchange rate of the local currency. The CNB predicts an annual appreciation of 1.3 – 2.4%<sup>28</sup>.

**Table 12:** Inflation rate in the CR and the euro area (HICP, annual average, composition of the euro area by actual stage of member countries)

Country	2000	2001	2002	2003	2004	2005	2006	2007	Average
Euro area	2.1	2.3	2.2	2.1	2.1	2.2	2.2	2.1	2.2
CR	3.9	4.5	1.4	-0.1	2.6	1.6	2.1	3.0	2.4

*Source: <http://epp.eurostat.ec.europa.eu> (HICP). [quotation 10. 1. 2009]*

To assess the **alignment of economic cycles**, we will use a Czech National Bank's analysis, which states "that the overall economic activity during the business cycle in the Czech Republic is becoming more aligned with that in the euro area", with this particularly applying to the alignment of industrial activity and exports<sup>29</sup> (see Fig. 2).

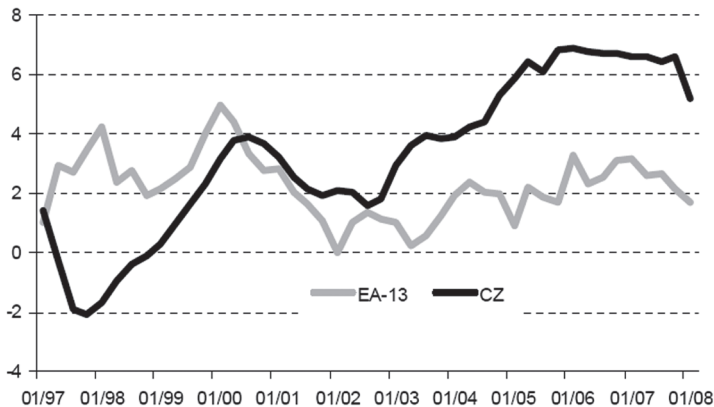
For both real convergence indicators examined, i.e. the GDP per capita and the price levels, we can draw a conclusion on their sufficiently high levels (even at present) to disperse worries that the accession to the euro area will be affected by a lower economic level or involve a rapid price rise. The development of economic cycle has also shown a high degree of alignment since the late 1990's.

<sup>28</sup> *Assessment, 2008, p. 18.*

<sup>29</sup> *Ibid. The report also states that the alignment was not proved by analysing the occurrence of demand and supply shocks.*

After the independent monetary and exchange rate policies cease to exist, the elimination of the impacts of possible asymmetric shocks<sup>30</sup> primarily depends on two circumstances, the possibilities of fiscal policy and the flexibility of labour markets. For example, for the economic recession in the Czech Republic, at which ECB's monetary policy would not have an expansive character (due to different developments in the euro area average or due to the developments in major euro area economies), expenditure should be encouraged by expansive fiscal policy while sectoral and international labour mobility should reduce unemployment.

**Fig 2:** GDP growth in the CR and the euro area (13) (in %, quarterly, year on year)



Source: *Assessment, 2008, p. 19* (according Eurostat, CNB calculations).

Evidence of sufficient possibilities of the fiscal expansion includes:

- Sufficiently low government deficit and low government debt (see Tab. 4);
- The fact that the structural balance of public budgets is being stabilised (estimated at approximately -1.5 % of GDP in 2008-2009) and the outlook for its decline (the forecast for 2010 and 2011 is -1.4% and -1.1% of GDP).<sup>31</sup> The low structural deficit will thus provide enough latitude for the effect of built-in stabilisers that would increase the overall budget deficit during a GDP growth deceleration.

However these optimistic prospects can be complicated by economic recession.

Developments in labour market flexibility also show a progress:

- The long-term unemployment rate has been decreasing for a long time (with certain deviations), from 4.1% in 2000 to 2.8% in 2007, with its long-term share of the overall unemployment remaining approximately a 50% and a rising trend<sup>32</sup>;

<sup>30</sup> These asymmetric shocks may occur irrespectively of the degree of economic cycle alignment, if the shocks are internal, stemming from the Czech economy, and hitting the Czech economy only.

<sup>31</sup> *Convergence Programme of the Czech Republic, December 2008, p. 20.*

<sup>32</sup> 47% in 2000, 53% in 2007 (<http://www.czso.cz>, Macroeconomic Data).



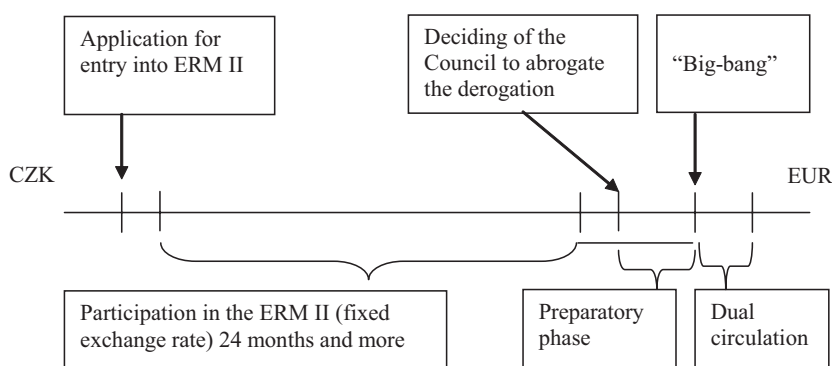
- The difference in the regional unemployment rates in the regions with the highest and lowest unemployment shrank slightly year on year in 2007–2008 (third quarter), from a difference of 6.7 percentage points to 5.5 percentage points.<sup>33</sup>

## 6 Conclusion

Fig. 3 shows the standard model of changeover from a national currency to the euro under the “big-bang” scenario. If we filled this model with data for the intended accession to the euro area as at 1 January 2012, the timetable would be as follows:

- Spring 2009: filing the application for accession to ERM II,
- Entry into ERM II as at 1 July 2009 (at least 2-year participation until 30 June 2011),
- Council decision on abrogating a derogation in the autumn of 2011,
- Approximately a three-month “preparation stage” to complete technical and legislative preparations,
- Switch to the euro as at 1 January 2012,
- Two weeks of dual circulation of the koruna and the euro.

**Fig. 3:** Transition to euro



Source: own creation

However, 2012 is just a fictitious date; the model is only designed to illustrate the feasibility of this intention.

### Abstract

According to documents of the Government of the Czech Republic and the Czech National Bank, the obligation to join the euro area should be met “as soon as possible”. However, the original date of 1 January 2010 has been cancelled, without setting a new date, even though the Czech Republic will comply with all Maastricht convergence criteria in the forthcoming years. The degree of real convergence is also sufficient, including adjustment

<sup>33</sup> The lowest unemployment is, as usual, in the Capital of Prague, while the highest unemployment was registered in the Ústí nad Labem and Karlovy Vary Regions ([www.czso.cz](http://www.czso.cz), Labour and Social Statistics).

mechanisms against asymmetric shocks. The state of organisational and legislative preparations for the introduction of the euro is also well under way. Thus the postponement of the adoption of the euro has become a political rather than economic issue.

### **Keywords**

euro, euro area enlargement, nominal convergence, real convergence, asymmetric shocks, alignment of business cycles

### **JEL classification / JEL klasifikace**

E 52, F 36

### **Abstrakt**

V dokumentech vlády ČR a ČNB je povinnost vstupu do eurozóny interpretována stylem „co nejdříve“. Původní termín 1. 1. 2010 však byl zrušen bez stanovení nového data. ČR přitom bude v nejbližších letech plnit všechna maastrichtská konvergenční kritéria. Také stupeň reálné konvergence je dostatečný, včetně přizpůsobovacích mechanismů vůči asymetrickým šokům. Pokročilý je také stav organizačních a legislativních příprav zavedení eura. Odkládání zavedení eura se tak stává politickou, nikoliv ekonomickou, záležitostí.

### **Klíčová slova**

euro, rozšíření eurozóny, nominální konvergence, reálná konvergence, asymetrické šoky, sladěnost hospodářských cyklů

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# *Redistribution Systems, Cross-Coalitions among them and Complexes of Memes Securing their Robustness*

## *Redistribuční systémy, křížové koalice mezi nimi a komplexy memů zabezpečující jejich odolnost*

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RADIM VALENČÍK, PETR BUDINSKÝ

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If a certain piece of knowledge opens the path to further discoveries, it is usually an unmistakable sign of the fact that the theory, of which it is a part, is proceeding in the right direction. This is also true in the opposite case – a theory that is not distinguished by certain internal dynamics, in which an existing piece of knowledge is not a bridge to a new discovery, a theory which is only treading water, should re-evaluate some of its assumptions.

As far as the theory of redistribution systems is concerned, the initial theses of which were formulated approximately two and a half years ago, it is rather the first case. During a brief period of time, several dozen expert articles and papers have been published, as well as one scientific monography<sup>1</sup>.

Anybody can get a clear idea about how dynamically this theory is evolving by comparing the level of knowledge presented in the contribution of the authors of this paper published in the first and second issue of the ACTA VŠFS magazine last year<sup>2</sup>, which were published only six months apart. In our opinion, also this contribution confirms that the potential of the theory of redistribution systems has still not been exhausted by a long shot. We also believe that the most significant discoveries are still ahead of us and that we are still only seeing the proverbial tip of the iceberg.

### **1 Elaboration and specification of the mathematical model of the negotiation process**

Let's keep in mind that redistribution systems (as objects analyzed via the apparatus of game theory) are characterized by two basic characteristics:

- The more that payouts to players deviate from their performance, the more the performance of the entire system declines.
- The systematic deviation of the payouts of the players from their performance is given by the formation of coalitions inside of them, when one set of players (form-

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<sup>1</sup> Valenčík 2008.

<sup>2</sup> Budinský – Valenčík 2008a; Budinský – Valenčík 2008b.

ing the coalition that controls the distribution in the system) is treated preferentially, whereas the others (outside of this coalition) are discriminated.

The theory of redistribution systems can be applied in various areas, such as a company, part of a company, any institution, interest or political organizations, and potentially family relations as well.

For the analysis of the general inherent laws of the behavior of redistribution systems, a model of an elementary redistribution system is used, which has three players (A, B, C), whose performance varies (for illustration, e.g., in a ratio of 6 : 4 : 2) and that have the same voting power, respectively the same influence (which means nothing else other than that the coalition of any two players will control the distribution of payouts in the system). We can also add some other assumptions to this, such as that the payout of every player can be equal at a minimum to one.

In the already mentioned articles published in ACTA magazine, it was shown that a process of negotiation in which a player that is not a part of a coalition panders to one of the players that created the coalition, leads to the formation of three discriminatory balances, the values of which can be calculated, and that on the basis of the discriminatory balances, it is also possible to calculate the Nash balance. Concurrently, models of various external influences that could have an impact on the redistribution system were presented. The graphical depiction of the individual types of balances and their movements makes it possible for everyone to get an idea about what is happening as a result of various influences that are affecting any redistribution system. It is especially important to alert to the following: As soon as we meet with the fact that something is developing differently than it should, this signals that the game has been entered by some influence or factor that we had not counted upon, such as a network relation of one of the game participants, respectively the fact that the player is a member of a certain hidden cross coalition, i.e., of a coalition between redistribution systems.

In order to calculate the individual types of balances, which we presented in the first of the mentioned articles, we worked with an intuitive notion of the negotiations process. We will now show how it is possible to specify this notion. And it is this specification that will serve as a certain bridge that opens up more, enormously attractive, research space.

We will introduce the following designations:

- $D A (y_E; z_E); D B (x_E; z_E); D C (x_E; y_E)$  are values of discriminatory balances in which player A, B, C is being discriminated.
- $D A (y_i; z_i); D B (x_i; z_i); D C (x_i; y_i)$  are values of various discriminating situations, i.e., values in a case where two players (i.e., those that are not stated, for example in the case of  $D A (y_i; z_i)$  it is players B and C) agreed to some payout and to the third player (player A) are giving the lowest possible payout.

If all of the players know these values, the values are the same for everybody and the players know that they are the same for everybody, then we can describe, for example, the negotiation process in the following way:

1. Let some discriminating situation, such as  $D A (y_i; z_i)$ , which is the result of negotiations in round zero, be the initial relationship. At the same time, the following holds true, for example.

$$y_0 > y_E \text{ and concurrently } z_E > z_1,$$

i.e., player B has negotiated a larger payout than corresponds to the discriminatory balance, and thus player C has a smaller payout than corresponds to the discriminatory balance.

2. **In the first round**, the player that is discriminated turns to the player that has a larger payout than corresponds to the corresponding balance (in our case player C), and offers him a larger payout. In this case, the following holds true:

$$z_1 > z_0 \text{ and concurrently } x_1 > 1,$$

i.e., both players improve their situation. At the same time, player A can pander to player C (attempt to offer him more than corresponds to the discriminatory balance in order to insure the creation of a coalition with him).

3. **In the second round**, the player that is discriminated (B) turns to the player that has a lower payout than corresponds to the corresponding discriminatory balance (which, let's say, in the given case is once again player A, who pandered to player C due to the reasons stated above), and offers him a larger payout than he had after the conclusion of the coalition with player C. In this case, the following holds true:

$$x_2 > x_1 \text{ and concurrently } y_2 > 1,$$

i.e., both players improve their situation. Without restricting the generality of the approach, let's now assume that player B does not attempt to pander to player A and offers him less than corresponds to the discriminatory balance.

4. **In the third round**, the player that is now discriminated turns to the player that has the lower payout than corresponds to the corresponding discriminatory balance (which in the given case is once again player A), and offers him a larger payout than he had after the conclusion of a coalition with player B. In this case, the following holds true:

$$x_3 > x_2 \text{ and concurrently } z_1 > z_3 > 1,$$

i.e., both players improve their situation. Without restricting the generality of the approach, let's now assume that player B does not attempt to pander to player A and offers him less than corresponds to the discriminatory balance.

Here an important and new moment is the fact that with the repeated conclusion of the coalition, the situation has already come closer to the discriminatory balance, due to the efforts of the previous negotiations of player B with player A. Let's assume that player C now becomes aware of the fact that the coalition that will lead to his discrimination can win, so he now attempts to pander to player A. He thus accepts a payout that is lower than the discriminatory balance.

5. **In the fourth round**, the player that is now discriminated (B) turns to the player that has a smaller payout than corresponds to the corresponding discriminatory balance (which in the given case is now player C), and offers him a larger payout than he had after the conclusion of a coalition with player A. In this case, the following holds true:

$$z_1 > z_4 > z_E > z_3 \text{ and concurrently } y_2 > y_4$$

i.e., both players improve their situation. Now, however, player B is pandering to player C. In the opposite case, the system would evolve similarly. The situation will come closer and closer to the attainment of the discriminatory balances.

What are the negotiation rules, on which we based the presentation of one of the possible scenarios?

1. The result of negotiations will always be some discriminatory situation.
2. The number of negotiation rounds is unlimited.
3. Negotiations will always be begun by the player that is discriminated (his payout equals 1).
4. The discriminated player makes an offer to that player out of those who are in the winning coalition, who has a lower payout than corresponds to the discriminatory balance. (This is a very important assumption.)
5. If the winning coalition already achieved the distribution according to the discriminatory balance, then the discriminated player could offer the creation of a coalition with any of either of the players.
6. When formulating the offer to the player that has less than corresponds to the discriminatory balance, the discriminated player has the following possibilities and restrictions:
  - He can offer more as well as less than corresponds to the discriminatory balance. (If he offers more to the second player, it is because he is pandering to make sure that his participation in the winning coalition is secure).
  - To give a repeated offer that deviates from the discriminatory balance in a certain, but at the same time the same, direction as was the offer that he had made in one of the previous rounds; in this case, the offer must be closer to the discriminatory balance. (This is quite logical, because it does not make sense for him, with his offer, to trigger the formation of a coalition acting against him, as has already occurred once; and it is this restriction that guarantees the convergence of the system to discriminatory balances.)

The logic of the negotiations of the above mentioned type is as follows: Each of the players is attempting to attain one of two possibilities that are advantageous for him – to secure participation in the winning coalition by pandering to one of the players, or conversely to secure a higher payout within the winning coalition.

If, however, all players proceed in the same way and they are equally thorough, and if the negotiations process is not restricted in any way, then the individually negotiated discriminatory situations come closer and closer to the discriminatory balance. One can say that perfectly rational and informed players could know the result already right at



the beginning and they wouldn't have to "try" whether by chance they are successful in attaining some better result.

Several important conclusions, however, follow from the developed form of negotiation that we presented:

1. Within the scope of a "clean" model, it makes sense to consider only discriminatory balances and possibly the Nash balance as possible situations. (If, however, the players are to arrive at the Nash balance, it is necessary to supplement the negotiation rules.)
2. The developed notion of negotiations shows that the result of negotiations is very sensitive to various influences that can impact that negotiations process. It offers the offer to identify, systematize and analyzes these influences in a certain way.
3. It is the basis of the formulating of various popular models of the negotiation process. At any rate, we see that as soon as we begin formalizing the negotiations process and analyzing it with the use of mathematical means, we begin revealing complex relations even in an elementary redistribution system. But at first glance, it is not apparent what could be an elementary form of negotiations in an elementary redistribution system.

How do negotiations take place under the assumption that the players do not know the value of the discriminatory balance, but are informed about the results of mutual negotiations? In the given case, it is logical to further assume that each player has an idea about how much he should receive and how much his partner in the winning coalition should receive. If he were to be discriminated, and find himself outside of the winning coalition, then how much should each of the players in the winning coalition get? From this perspective, let's designate:

$D A (y_A; z_A)$  is a discriminatory balance in which player A is discriminated, the values  $y_A$  and  $z_A$  are values that player A considers as corresponding to the payouts of players B and C, if a discriminatory balance forms without his participation.

$D B (x_A; z_A)$  is a discriminatory balance in which player B is discriminated. The value  $z_A$  is the same as in the previous case, i.e., player A assumes that what player B would get in a coalition with player C, player B should also get if player A was in a coalition with him. The value  $x_A$  is then the value that player A requires for himself.

$D C (x_A; y_A)$  is a discriminatory balance in which player B is discriminated, the value of corresponding payouts is the same as in the previous case.

We can designate and interpret  $D A (y_B; z_B)$ ;  $D B (x_B; z_B)$ ;  $D C (x_B; y_B)$  a  $D A (y_C; z_C)$ ;  $D B (x_C; z_C)$ ;  $D C (x_C; y_C)$  similarly.

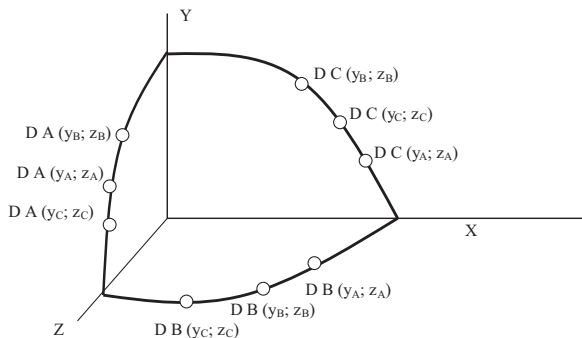
## 2 Graphical depiction of the negotiations process

Let's now use the same negotiations process as in the previous case, but with the difference that in the next negotiations round, each of the discriminated players will focus on

that player that according to him receives less in the winning coalition than he should get according to the thinking of the discriminated player.

By using step-by-step reasoning, we come to the answer that even in this case the system will converge. And it will converge to values corresponding to the discriminated player's idea of a fair distribution. In order to better show why, we will use a visual representation.

**Illustration 1:** Graphical depiction of the negotiations process – values of ideas about fair distribution:

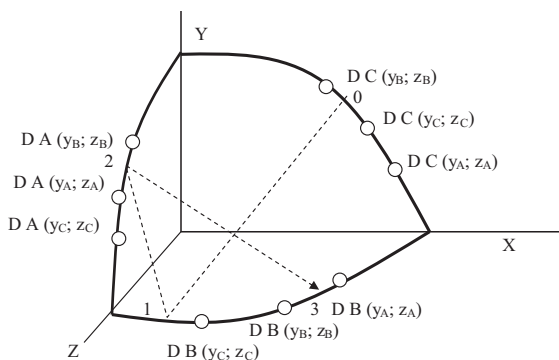


*X, Y, Z are the payouts of players A, B, C (the axes have been moved with regard for the fact that the smallest payout of each player can equal 1).*

Also marked here are the corresponding points under the assumption that each of the players is over-valuing himself, and is more objective in the evaluation of the others. The placement of the corresponding points can also be different; players can also under-value themselves or they may not be objective in the evaluation of other players, if they are not members of the coalition. This does not change anything in the result of our considerations.

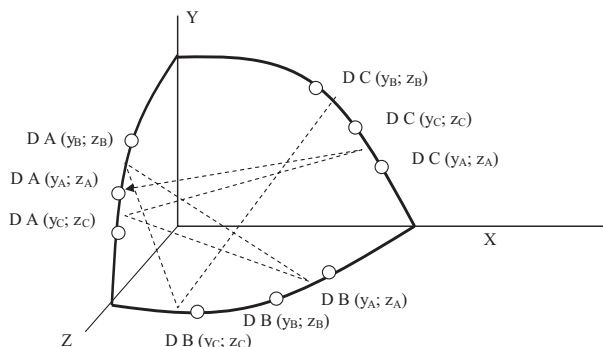
It is worthwhile to give special consideration to how the game will evolve if every player will require the same payout for himself if he is in a winning coalition with another player, or not. We can then show the negotiations process graphically.

**Illustration 2:** Graphical depiction of the negotiations process:



*Other negotiation steps lead to individual discriminatory balances.*

**Illustration 3:** Graphical depiction of next steps in the negotiations process:



*On the basis of this visual representation, it is possible to specify the conditions under which negotiations converge to individual types of discriminatory balance.<sup>3</sup>*

### 3 Conclusions that follow from the negotiations process analysis

It follows from the analysis of the negotiations process with pandering in an elementary redistribution system that under quite general assumptions, this process converges to three discriminatory balances that have equal probability of occurring. This conclusion can also be generalized for systems with larger numbers of players. Here the negotiations process converges towards discriminatory balances, the number of which is given by all minimum winning coalitions that can form. (If the number of players is  $2n$ , i.e., an even number, then it is a number of combinations designated by the number  $n+1$ , if the number of players is  $2n+1$ , i.e., an odd number, then it is a number of combinations designated by the number  $n$ .)

The fact that the formation of all minimum discriminating coalitions, and discriminatory balances corresponding to them, has the same probability can also be read differently. And that is that all that is needed is a very small external influence acting towards the formation of a certain discriminatory balance, for exactly this balance to form. The size of this influence can be of an arbitrary size, if, however, this influence is not compensated by another influence that would act against the formation of the stated discriminatory balance, or if another stronger influence acts on the system, moving the system to a different discriminatory balance.

From the perspective of the utilization of the theoretical apparatus that the theory of redistribution systems has available, the problem then moves into an area of the analysis of those influences that can predetermine the formation of a certain discriminatory balance by influencing the negotiations process in a decisive way. This concerns both the description of these influences, as well as the resolution of the question when and under what conditions can they be compensated by other influences.

<sup>3</sup> Some other findings are formulated in the contribution by H. Vysloužilová (2008) that was presented at the 12th annual Human Capital and Investments in Education conference.

It would appear that comparing the abstract model with reality, which always surprises us with something, will lead to that fact that a huge number of the most varied external influences, which we will not be able to organize in some reasonable manner, will emerge in front of us. Even in this case, however, it is turning out that the problem is only in the discovering of a suitable key to the deciphering of the seemingly inexhaustible volume of what we would like to express theoretically. The fact that the process of negotiations with pandering as described for us is exceptionally sensitive to external influences can also be formulated in the way that it is also sensitive to anything that restricts the perfection of the negotiation process. In other words, that which is capable of predetermining the formation of a certain discriminatory balance has the form of the raising of certain imperfections, certain restrictions, into the negotiations process.

A typical example of such a restriction can be the imperfect informedness of one of the players about what has been negotiated between other players. The relevant player then does not know what offer to make, and to whom, so that it is accepted. Another example can be the restricting of one of the players, as far as the willingness of other players to negotiate and conclude coalitions with him is concerned.

The corresponding restrictions also apply to all possibilities of the expanding of the model, for example by taking into consideration that:

- The system develops in time.
- The system finds itself in a relation to other systems, and the various systems can influence one another.
- The performance, decision-making power and other parameters of the players can change in time.

Etc. If we are to summarize what we have said so far about the theoretical (but practical as well) consequences of the analysis of the negotiations process model, then we can say the following:

- 1 It follows from the theoretical model that all discriminatory balances have the same probability of occurring.
- 2 From this it follows that in reality, those discriminatory balances that are formed under some external influence will push through; this influence can be very small, but it cannot be compensated by another influence acting against it.
- 3 External influences have the form of the restricting of the perfection of the negotiation process in a redistribution system, i.e., what decides is what restricts or blocks the negotiations process in a redistribution system with something (and out of which then follows the unequal positioning of the individual players).
- 4 The sources of imperfections in the negotiations process can be identified by expanding the model in various directions, i.e., each direction of the expansion of the elementary model of a redistribution system points to different sources of imperfections.

(However, we still do not have a more specific idea about what it is that is restricting, blocking, that which brings imperfections into the negotiations process. We can still be-

lieve that revealing everything that influences the process of the formation of coalitions inside redistribution systems is a task that is practically impossible.)

Now we get close to the decisive step. One can assume that individual redistribution systems can mutually influence one another in some way. For example, in the sense that those hard-to-identify external influences that predetermine which discriminating balances will form in individual systems can be transferred from one redistribution system to another. Let's assume, for example, that coalitions are being formed not only inside redistribution systems, but also among players from various redistribution systems. Let's call these coalitions "cross-coalitions".

Whereas the size of coalitions inside individual redistribution systems is restricted by the number of players, and a minimum absolute majority of the number of players is sufficient for a minimum discriminating coalition to be created, cross-coalitions can have a very large, practically any, number of members. It is also relatively easy to imagine what specific form the larger cross-coalitions have. They are social networks that connect players from various redistribution systems. Via these networks, the process of negotiations in redistribution systems can be influenced, among other things, by the following:

- The transfer of information about the course of the process of negotiations to which those that are outside of the network do not have access.
- Influencing of preferences (who, with whom, with whom not, or against whom), if it concerns a negotiations process inside individual redistribution systems.

(The above stated serves only for the formation of an initial illustrative idea; a cross-coalition can still influence the negotiations process in a number of different ways.)

Social networks that are formed on the basis of cross-coalitions mutually compete against one another in the social space. Some can disappear and thus become material for the formation of other cross-coalitions. Some of the networks can subordinate other networks and incorporate them into their structure. The merging, inter-connecting or, conversely, dividing of these networks can occur. A question arises of what plays the most important role for the preservation of the identity of social networks of this type, what is the condition of their successful survival in a competitive environment, respectively in an environment in which the natural selection of that which is the most resistant to various external influences occurs. We will present the answer to this question in the next part.

#### **4 Use of the theory of redistribution systems for the analysis of a certain type of memplexes (those that make the formation of cross-coalitions among redistribution systems dependant on them)**

We consider the revealing of the connections between the theory of redistribution systems and the theory of memes (memetics) as the most significant and most interesting result achieved in the previous period. In order to understand what this connection consists of, it is beneficial to remind (or to put it in more exact terms, to "re-construct") how it was discovered.

We can imagine quite well how much of a significant role cross-coalitions among individual redistribution systems and the network structures (social networks) formed on the basis of these coalitions have. We gave a certain model of the influence of this type of coalition in the third example stated in an article published earlier.<sup>4</sup> Each one of us undoubtedly has a number of experiences of how these influences are transferred and how they influence events at various worksites, institutions or organizations. And in spite of, or possibly exactly because of the fact that these social links tend to be more or less hidden, they frequently take effect quite unexpectedly and thus very effectively.

We can also imagine that these cross-coalitions compete against one another; stated more precisely, they literally battle for survival. These cross-coalitions, and social networks inter-linked with them, which are not sufficiently stable, which are not able to preserve their identity, defend their existence, survive under conditions of natural selection, fall apart and become materials for the creation of more robust network structures, or they are modified in various ways and incorporated into these structures.

The architecture of effectively functioning (viable, winning, surviving) social networks created on the basis of cross-coalitions can be invented or designed by a human. In reality, however, the architecture is further molded by the spontaneous behavior of people, improves itself ("hardens" itself), and those elements that nobody would even be capable of inventing are formed in it.

What is the basis of the robustness of network structures of this type? What is their success in mutual competition, in the battle for survival, based on? With this question, we get to the key moment. Let's remember it well.

**For example, we can reason in the following way:**

1. A tendency for the inter-connection of players that represent that same type of winning coalitions in individual redistribution systems will exist. I.E., if, for example, in some redistribution systems coalitions that are based on the connection of average and the least performing players win, the cross-coalitions among these players will also form between other redistribution systems, so that:
  - Where coalitions based on the connection of mediocrity and low performance won, they remain.
  - Where they did not yet win, they come through as the winners.
2. Another possible direction of reasoning is the fact that we will look for the origin of the robustness of network structures founded on the basis of the formation of cross-coalitions among redistribution system in phenomena such as:
  - A shared ideology to which the players from various redistribution systems subordinate themselves.
  - A common origin (tribal, ethnical or regional), which is consciously taken as such and taken as a value that unites players from various redistribution systems and leads to the fact that they support it.

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<sup>4</sup> Budinský – Valenčík 2008b.

- A shared faith to which the players from various redistribution systems subordinate themselves.
- Etc. (It is possible to take into account also additional elements of this type and their various inter-connections.)

For a certain period of time, the team that deals with this topic searched for which of the above stated possibilities could be considered and how to model the influence of the factors stated above. Only after some time it was discovered that everything is a bit different. More exactly – the current period of time leads to the fact that we have to look at the entire matter from a different point of view.

Earlier, structures formed on ideological, religions, ethnical, etc. bases played a significant role. Today, something else is coming to the forefront, and – as we will see – something much more robust, aggressive and able to survive better.

It turns out that cross-coalitions are formed also between redistribution systems that vary by what according to the above stated should divide them or even on the basis of which they have become enemies. I.E., cross-coalitions and network structures are being formed among systems having different faiths, different ideologies, different territorial, national or ethnical identities, etc. The more that players forming different redistribution systems are inter-connected in cross-coalitions, the more effective is the corresponding cross-structure and the network structure that closely follows – more robust and concurrently also able to better penetrate its environment and overtake other network structures. An important role is played by the players that are capable of portfolio investments into positions in various social networks.

At a time, when the amount of contacts among people has radically grown, such a multi-dimensional inter-connecting on a local as well as global scale is a typical and dominant phenomenon. This magnifies even more the competition to which individual network structures are exposed, this tests even more the cohesion of the various cross-coalitions among redistribution systems, this increases even more the effect of the natural selection factor on their improvement, and this increases even more the role played by that which is no longer completely on record in the form of reflection via human thinking.

It could appear that the formation of cross-coalitions on the basis of portfolio investments into positions in the most various network structures, even into those that are complementary (from the point of view of faith, ideology, type, origin) is connected with something that could be called “idea, value, or another type of ‘emptiness’”. In reality, that which enables the inter-connection of players from various redistribution systems is not something that is not filled with content, and is not something that is easy to map. It has a very complicated structure that we are able to uncover only partially. But what is it?

In order to become aware of what we are dealing with, we have to take one more step forward in our reasoning. Let’s remind ourselves to what lead the detailed analysis of the negotiations process:

- The result of a negotiations process can be several types of balances and coalitions corresponding to these balances, which differ quite a lot by who is at an advantage in them and who is discriminated.
- Into what type of balance the system “falls” is determined by something external (against a clean model), respectively can be influenced by even very small influences acting from the external environment (in the model example by something that we could call an “infinitely small external influence”).
- If some of the external influences offset one another, then the system “falls” into that balance which corresponds to the external influence, which was not offset by other influences.
- The negotiations process is thus not sensitive only to external influences, but also to whether some of the influences are excluded from the negotiations process or whether their role in the negotiations process is limited.
- The acting of external influences in the negotiations process always has the form of the use of supplementary argumentation, i.e., the use of some arguments, by which the recipient is notified of some circumstance that he was not aware of, and the goal of which is to influence his decision (in the economic model executed on the basis of the principle of the costs of a foregone opportunity).<sup>5</sup>
- A very effective way of influencing the negotiations process, and thus also the formation of coalitions, is therefore the preclusion of a certain type of supplementary argumentation (block it, limit its weight, make it impossible for the person for whom it is meant to accept it).
- The effectiveness of the preclusion can be made even greater if not only the supplementary arguments are made taboo, but if also those people that are using these arguments are expelled from the negotiations.
- This is possible if use of a certain type of argumentation becomes that by which – on one hand – are recognized those who are predetermined for the formation of a certain type of coalition or cross-coalitions, and – on the other hand – are identified those, who are excluded from this process because they could disturb that which is the basis of discriminating coalitions, cross-coalitions and the social networks based on them.
- That which determines the stability of the corresponding structures and networks, as well as their ability to spread and take control of its surrounding, as well as the thinking and behavior of people, is replicated and spread via the communications process (the content of which is, in a significant manner, the spontaneous and permanently present negotiations).

So what is it? What is the factor that decided about the formation of the most robust, and at the same time also the most expanding and penetrating cross-coalitions and closely linked social networks that serve for the formation of winning discriminating coalitions inside various (different in a different way, similar in different ways, or, conversely, complementary in different ways) redistribution systems?

When at one of its regular discussions the team that is dealing with this issue came to the stating of the above stated order of questions (formulated, however, not in such a clear

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<sup>5</sup> *The principle of the costs of foregone opportunities states that a cost of that alternative, for which the person decides, is each of the alternatives that are sacrificed.*



way as is possible when reconstructing after the passage of time), one of the participants<sup>6</sup> said – “why, it’s memes....”.

With this, the process of the gradual revealing of how redistribution systems and their mutual interconnections work moved to a completely new phase. We gradually began discovering and mapping a certain type of replicating entities that have the form of meme complexes, the structure of memes (or, how it is sometimes said, “memplexes”)<sup>7</sup>, which are characterized by the following:

- They have the ability to block (make taboo, restrict) a certain type of argumentation, or the wider angle of view of reality, natural development of knowledge that the individual has at his disposal, etc.
- They lead to the fact that the viewing of the world, a rational reflection of reality, etc., by those that are under the influence of a corresponding structure of memes, is increasingly restricted more and more, and gradually the “encapsulation” of a person’s consciousness occurs so that everything that would enable any transcendence, any critical reflection or distance from what the affected person has succumbed to is liquidated.
- They take control of the formation of cross-coalitions and the social networks that follow from them.
- In the process of the very intense battle for survival (and for which of these meme structures wins, or which, conversely, vacates the space, breaks down) given by the significant (from a historical perspective manifold) expansion of contacts among people and the possibilities of communication (both in the form of technical means, as well as a result of the fall of various barriers), the very fast improving of these memplexes occurs; the motor of the dynamic process of the evolution of memplexes capable of taking over the behavior of a person is their natural selection, similar to the one we come across with organisms of a biological type.
- They are a phenomenon “from another world”, they have a relatively complicated structure, which we are able to view only from the outside and only to a certain extent, respectively which we will be discovering gradually and always only partially.
- They are not a product of the rational thinking of people, they are subject to the logic of natural selection in the environment in which they were formed; their impact on our civilization is manifested in the various forms of that which appears to us as irrationalities in human behavior.

**In contrast to the theory of memes (memetics), the following is new in our approach:**

1. The replication of the units of information (memes) and the replication of structures that form in society (as the carrier of memes), i.e., replicating information and substrate structures, differs.

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6 *It was Petr Krejčí in June 2008. Among other things, this episode shows how crucial teamwork is. Each one of us has the tendency to reason by means of inertia. However, as soon as several persons communicate together about a scientific topic (and these people comply with the rules of correct, critical professional discussion), ideas are formed that break through the barriers of stereotypes.*

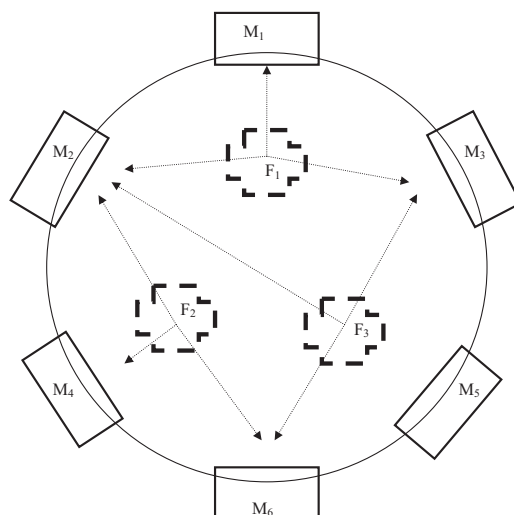
7 *Blackmoreová, S. 2001. Teorie memů. Praha : Portál.*

2. The causes of the recency of the problem are being found (a significant higher degree of the battle for survival of the replicating structures as a result of the expansion of the possibilities of contact among people, and therefore a significantly fast development as a result of natural selection).
3. Identifies the most important type of structures:
  - In the case of substrate structures, this concerns the cross-coalitions among redistribution systems and the social networks that follow from them.
  - In the case of information structures, this concerns the complexes of memes (memplexes) that block the ability of the transcendence of existing knowledge, lead to making certain opinions, views of reality, arguments, etc., taboo.
4. The theory of redistribution systems is used as the key of the analysis of the problem of the replication and reproduction of information and substrate structures – it shows from where these structures get their “energy” (i.e., an analogy of energy sources) and “building material” for their replication and reproduction.
5. The phenomenon of the blocking of the transcendence of the knowledge of new things, as a basic element of replicating information structures, is revealed, described and substantiated.
6. The role of cross-coalitions among redistribution systems as a certain skeleton of replicating substrate structures is revealed, described and substantiated.

## 5 Demonstration and description of memes and their complexes

Let us now attempt to demonstrate what structures of memes, which block the transcendence of the given state of the knowledge of reality that a certain individual has at his disposal, thereby reforming it into the building material (substrate) of certain social networks, look like.

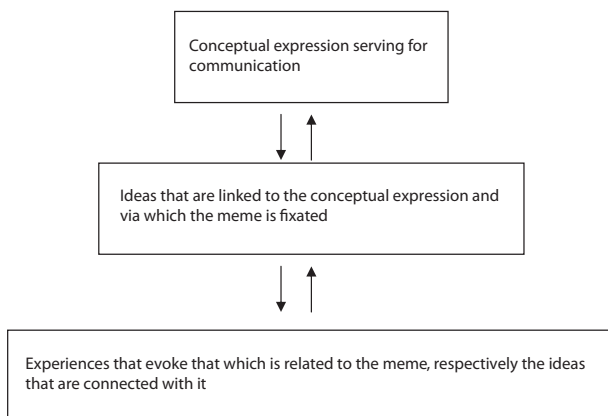
**Illustration 4:** Graphical depiction of a limiting complex of memes (memplex):



A complex of memes (memplex) that is capable of replicating (transmitted “from head to head”, spread like a disease) via communication consists of:

1. That, which is able to block the transcendence of knowledge that a given individual has at his disposal – in the given example of individual blocks (memes)  $M_1, M_2, \dots, M_6$ . These mutually supplement one another and create something like a “circle defense” of that, which is, as a stereotype, blocked in the mind of the individual.
2. That, which makes it possible for each block (meme) to function as that, which limits the system of acquiring knowledge, prevents the transcendence of existing knowledge, and concurrently intermediates (represents externally) as that, which can be communicated and thus spread the corresponding meme via this. This is depicted as  $F_1, F_2, F_3$  on the illustration. This can concern, for example:
  - an experiential fixation of the meme,
  - an idea that we connect with the corresponding meme,
  - a conceptual expression of the meme, via which we are communicating its contents so that for the person to whom it is being communicated, it evokes the same fundamental idea and original experiences (when the idea and experiences then gradually mutually supplement one another).
3. The arrows show how our ability to create and maintain experiences, ideas and conceptual expressions stabilizes individual memes in our mind. (Only some relations between that, which is capable of evoking and storing experiences, ideas or to conceptually express the known, and the corresponding memes are depicted.)

**Illustration 5:** Three layers of meme fixation:



The above described representation of the structure of a complex of memes capable of spreading via communication (as is always the case when we are coming into contact with something that is relatively complicated and that we are getting to know gradually) is only very approximate. For example, the following are among the simplifications:

- There are significantly more individual memes and they form a structure that has more layers, i.e., some are more general and block, from a certain perspective, the

whole system of knowledge, the carrier of which is the corresponding individual; it's as if they were on the surface, while the others are related to the blocking of partial knowledge.

- Similarly, there is also more of that by which each meme is stabilized in the psyche of an individual as a relatively permanent phenomenon that is capable of transmission. It is not only the connection with ideas, the fixation via experiences and conceptual expressions. It is also a way via which that, which is transmitted as a meme, becomes involved in negotiations as a factor that can influence the outcome of the negotiations, etc.
- It does not contain a depiction of the dynamic aspect, i.e., of the possibility to break through the block (finds ways of evoking ideas or experience in the form of communication via terms that would destroy the corresponding limiting structure of the memes), or conversely, of the process of the gradual encapsulation of replicating meme structures. The mechanism of the evoking of a blocking aversion is based on:
- The evoking of an idea during communication via verbal as well as non-verbal expressions.
- The evoking of experiences connected with this idea, once again via verbal or non-verbal expression.

This is actually the hitting upon the deeper layers of the psyche by that, which is transmitted in direct communications contact.

Despite a number of simplifications, the conceptual elementary idea about the structure of meme complexes is useful. Its confrontation with how it really works will make it possible to gradually attain a better expression of what is hiding from us and what must be discovered, so that we are better able to face the risks connected with the spreading of the limiting structures of memplexes.

On the basis of the findings that have been formulated above, the team that deals with these issues<sup>8</sup> proceeded with the compilation of a meme map, i.e., the identification and description of the blocks that eliminate various arguments from the negotiations process, or eliminates those players that use a certain type of arguments. The first results are proving to be very promising.<sup>9</sup>

The typical signs of memes active during the formation of cross-coalitions are: the formation of a picture of the enemy, non-critical adoration of some authority, tendency towards solutions based on strength, the consideration of some statements as all-explaining or indisputable, the granting of a right to something for only a few chosen ones, a catastrophic vision of the world, expectation of brighter tomorrows, relativization of morality as well as rationality, use of double standards, creation of a feeling of being threatened by something, etc.

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8 This concerns the team that is handling the GA ČR Investments into social capital and effectiveness (ref. no. 402/06/1357) project and the Internal grant project of VŠFS Theory of redistribution systems.

9 The first expert forum where results in this area were presented took place on December 19, 2008, within the regular EPS-SI Theoretical seminar organized by KEMV VŠFS.

When compiling the meme map, it is necessary to show how the individual memes (resp. submemplexes) mutually supplement one another (are complementary towards one another), or, conversely, mutually exclude one another.

## **6 What can be expected from further research**

Memes and meme complexes have their roots deep in our psyche. The discovering of their structure is a long-term and difficult task. One of the research paths is the careful monitoring of that, which is taking place in the communications space, the identifying of various manifestations of memes, their suitable classification, analysis and objectivization of the acquired knowledge. Therefore an approach based on the use of empirical methods. But these are not all of the possibilities of the theory. The second – and in a certain way more interesting – path is continuing in the analysis of the negotiations process via the expansion of the mathematical model. Here it is possible to very precisely and very specifically formulate the tasks that have an unambiguous solution (and thus offer opportunities to all people that have analytical thinking, are well versed in the technique of the use of the mathematical apparatus and are interested in achieving original results in the area of mathematical theory). This concerns especially the two following types of tasks:

- Prove under what conditions (other than those that we have stated in this article) the negotiations process with pandering converges to discriminatory balances, and under what conditions it does not. There are lots of alternatives that can be tested from the perspective of convergence.
- Formulate and prove theorems related to the convergence of the negotiations process with pandering in redistribution systems that are an expansion of the elementary model.

Research in both directions has both a theoretical as well as practical significance, as the mathematical model makes it possible to reveal the most sensitive moments of the negotiations process on which external influences can act. Much as the process of the development of memes and their complexes under conditions of natural selection of that, which is best able to preserve its identity and replicate in the communications space, takes place in a concealed manner and spontaneously, and nothing that is characterized by intelligence acts upon it, the process causes memes and their complexes that are able to impact those most sensitive moments of the negotiations process. In this area of research, an opportunity thus presents itself of how to demonstrate the possibilities of mathematics in the revealing of that, which in a significant manner influences social events.

Theoretical research focused in this direction can bring a number of valuable findings about the mutual effects of the elements of rationality and irrationality, respectively about the causes of that, why, by what and how the rational decision-making of humans is modified and influenced by elements of irrationality. Research in the given direction must be preceded by the further elaboration of the theory of negotiations in redistribution systems with the use of the mathematical apparatus, as well as by the establishing of interdisciplinary cooperation (including such disciplines as evolutionary biology, psychology, etc.).

## Abstract

Analysis of the process of negotiations in redistribution systems shows two things: a) The negotiations process converges towards discriminatory balances, which are unstable. b) Which discriminating coalition will form can be decided by even a slight external influence, if it is not offset by another influence of this type. This opens the door to the discovery of the connections between the following phenomena – via the specific form of that, which decides about the performance of the players, the complementarity and rivalry of the players in the system, tendencies towards spontaneous advocacy of average and low-performance alliances, the “chaining” of redistribution systems, i.e., the creation of social networks of the cross-coalition type, the sensitivity of the negotiations process to imperfections of the negotiations process and the effects of exogeneity, natural selection in the area of the survival of network structures formed on the basis of cross-coalitions among redistribution systems. The theory of redistribution systems can also be used in the analysis of memes and meme complexes that replicate in the communications (and thus also the negotiations) space, and restrict the rationality of the choice of some entities that are active in this space.

## Keywords

game theory, theory of redistribution systems, coalition, negotiations, discrimination, meme, complex of memes, rationality and irrationality

## Abstrakt

Analýza procesu vyjednávání v redistribučních systémech ukazuje dvojí: a) Proces vyjednávání konverguje k diskriminačním rovnováhám, které jsou nestabilní. b) O tom, která diskriminující koalice vznikne, může rozhodnout i velmi nepatrný vnější vliv, pokud není kompenzován jiným vlivem tohoto typu. Tím se otevírá cesta k odhalení souvislostí mezi následujícími jevy – konkrétní podobou toho, co rozhoduje o výkonnosti hráčů, komplementaritou a rivalitou hráčů v systému, tendencí ke spontánnímu prosazování spojenectví průměrné a nízké výkonnosti, „řetězením“ redistribučních systémů, tj. vytvářením sociálních sítí typu křížových koalic, citlivostí procesu vyjednávání na nedokonalosti procesu vyjednávání a působení exogenity, přirozeným výběrem v oblasti přežívání síťových struktur vzniklých na bázi křížových koalic mezi redistribučními systémy. Teorie redistribučních systémů může být využita i při analýze memů a komplexů memů, které se v komunikačním (a tudíž i vyjednávacím) prostoru replikují a omezují racionalitu volby některých subjektů působících v tomto prostoru.

## Klíčová slova

teorie her, teorie redistribučních systémů, koalice, vyjednávání, diskriminace, mem, komplex memů, racionalita a iracionalita

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# *Financial Stability, World Financial Crisis and Financial Markets' Regulation: Some New Issues*

## *Finanční stabilita, světová finanční krize a regulace finančního trhu: některé nové poznatky*

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VLADISLAV PAVLÁT

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### **1 Introduction**

A research group at the Institute of Administration and Finance in Prague (IAF), headed by Antonin Kubicek, has been analysing selected partial problems connected with the phenomena of regulating financial markets since 2002 in the framework of two grants (2004-2006 – public grant and 2008- internal grant).

Several research results were presented by research team members [Antonin Kubicek, Vladislav Pavlat, Jaroslav Šulc, Václav Křivohlávek, František Jakub – former Chairman of the Czech Security Commission and others] at two International Conferences organized by the Institute of Administration in 2005 and 2007.<sup>1</sup>

This research was started with a broad goal – to try to embrace the most important world literature on this broad topic, with the intention “catching up with the world” and creating the necessary research background. Up to 2000 only a few articles or other contributions by Czech authors had been published in the Czech Republic. The first stages of the research started by our group were strongly influenced by the ideas and views stated during the important late nineties discussion concentrating on central bank independence, the role of central bank supervision and – of course – on the decision of the British Authorities to set up a single mega-regulator and supervisor.<sup>2</sup>

During this initial stage, different problems of regulating financial markets were questioned. The second – and more important – stage of the research was oriented on the problem of “effective regulation”, especially the question of how to measure the effectiveness and/or efficiency of regulation. (Several but not all the results of this stage were published.)

In 2008 (Internal Project), the main research goal of the IAF-team was almost dictated by the need to re-consider the validity of our former results: we tried to find out whether and how their validity was affected by the world financial crisis.

This task reminds me of the famous sentence “cogito, ergo sum”, re-formulated by many researchers into “dubito, ergo sum”. In one sense, one of the positive effects of the present world financial crisis on academic researchers is the need (or only a temptation?) to re-think many of the basic parts of what is called the theory of regulating financial markets.



Many – even the (up to now) generally accepted – views seem to be if not directly false, then dubious, and they have to be put under the microscope and thoroughly examined again and again.

For several months, powerful politicians, experienced bankers, financial experts (and some academicians as well) have felt obliged to repeatedly express their explanations of the causes and possible way-outs of the present *crises*. The media does its best to popularize (or vulgarize) their views and – to add their own banal explanations, apprehensions, and advice. A lot of these views presented as “new ideas” are, in fact, the old principles disguised in new cloths. Other ones are the old views, presented in “modern” terminology. For most people, it is difficult to find what is the “truth” or a “lie”.

Let give a brief (accidental) list of these views (just as a group of illustrative examples): “The experience of Financial Regulatory Authorities is a guarantee that they can present general solutions on how to maintain financial stability”, “Financial stability can be maintained by international bodies (if they find the right way to do it)”, “World financial crises were caused by psychological and sociological factors (greed, loss of confidence, crime, lobbying etc.)”, “World financial crises were caused by institutional deficiencies”, “World financial crises were caused by a low degree of enforcement of FMR”, “Stricter Financial market regulation can restore financial stability” etc. etc.

Altogether, these and similar opinions were expressed in one form or another (some of them were specifically pointed out thereafter) by representatives of different significant institutions such as central banks and international institutions.

Since the research team at the Institute of Finance and Administration intends in the future to concern itself with the issues of deliberate influencing financial markets, we consider it to be purposeful to point out in this essay some general problems, which emerged during the actual development of the financial crisis. There is no general consensus of opinion on these issues among theoreticians and experts on practical matters. These issues, which we will deal with on a more general level, do of course call for more detailed and deeper analyses. Further research done by our team at VŠFS will tend to these analyses. This essay (which will be also read by our students) can open further discussions also on the university campus.

The following three paragraphs – briefly and in a general way – comment on some of the new issues.

## **2 Financial Stability**

Up to the outburst of the present world financial crisis, many recognized financial experts doubted the probability of such “all-embracing” crises – given the existing “safety nets” created and expanded during the last decades.

Since the last 70-80 years (because of adverse experience of financial defaults of banks and other financial institutions, and because of financial and monetary crises) the existence of so called financial safety nets has been considered as absolutely necessary.

Financial safety nets are a group of prudential regulations for financial intermediaries (banks included) the ultimate objectives of which are double: at the micro-level they have to ensure that individual financial institutions are well capitalized and well managed, and at the macro-level they have to safeguard the soundness, efficiency and stability of the financial system.<sup>3</sup> Financial safety nets consist of rescue mechanisms for the benefit of the national economy, financial intermediaries and the general public.

During the second half of 20th century, the span of protection safeguarded by financial safety nets has been – step by step – expanded. To-day, these nets cover a much broader space than they covered in the not very distant past.

Contemporary financial safety nets include (1) deposit insurance, (2) the functions of central banking institutions (providing emergency liquidity, ensuring the efficient functioning of payment and settlements systems), (3) investor protection, (4) compensation for holders of insurance policies and pension rights, (5) compensation for certain losses arising from catastrophes, (6) protection against some risks of private companies, and (7) recapitalization arrangements to overcome the insolvency of key financial institutions.<sup>4</sup>

During the last two decades, regulatory progress can be characterized not only by a quantitative extension of financial safety nets, but by qualitative changes of different safety mechanisms that multiply the efficiency of their application as well.

One of the new features of present regulation and supervision systems, both at the micro- and macro-level, is the stress put on preventing – instead of repressing misconduct and/or compensation for incurred losses. Undoubtedly, this is one of the positive features of present regulation and supervision. Unfortunately, it only seems to be workable in “good times” – not during a world financial crisis.

The present situation is proving that the power of construction and application of an extended set of mathematical and statistical models (both at the micro- and macro-level) i.e. predicting future events<sup>5</sup>, was overestimated. During the present financial crisis, micro- and macro-alerts systems have been practically unable to prevent imminent risks and financial losses.

The best and safest results are still attained by prognostic models (such as ARMA, ARIMA, SARIMA etc.) for a short-term horizon.

Briefly: Financial safety nets – in spite of their expansion and sophisticated working mechanisms – have proved not to be the expected safe tool to prevent financial crises. Neither do new tools and methods developed by IMF researchers (for example, Financial Stability maps, Heat Maps, Financial Soundness indicators etc.)<sup>6</sup> seem to be reliable for finding a safe way-out of a crisis.

### **3 Causes of the Global Financial Crisis: an urgent need for a deeper analysis**

To-day, one of the frequently asked questions is the following: could the crisis have been prevented? The answer seems to be very simple: no, it could not. In the summer of 2007,

signs showing growing problems on the US real estate market already existed; however, they were underestimated, and therefore – neglected.

One of the last FESE-reports published recently describes the chain of disastrous events in a brief, but very impressive style. Let us quote a few sentences from the Summary of this Report: “The sequence of events that began in the summer of 2007 and continued during 2008 will pass through history as some of the most crucial and difficult periods in the history of world financial markets.... The crises that stemmed from the real estate market in the United States and its consequences for financial markets due to subprime mortgages has spread to all kinds of financial assets. This has resulted in a great deal of distrust among economic agents. All financial markets, monetary markets, credit markets and securities markets, regulated or non-regulated have suffered from a lack of liquidity and high volatility. The magnitude and consequences of these unforeseen developments have caused greater uncertainty in a world economy which was already in the midst of an economic slowdown. The process of globalisation has been more evident than ever under these circumstances, especially in the interconnection of financial networks.... Stock markets at the first stage of the crisis did not experience a great impact, but over time they have increasingly suffered the effects and negative expectations of the financial crisis on the world economy and on listed companies more intensively. The loss of financial wealth has been massive. *European Stock Exchanges have lost 5.6 EUR trillion of market capitalization during the twelve months up to October 2008, a figure that represents a third of the European GDP.* This loss of wealth has had a great impact on the behaviour and expectations of economic agents.”<sup>7</sup>

The extent of financial losses caused by the world financial crisis is, of course, much higher than the losses of European stock exchanges. Reliable numbers are still missing, the final “bill” will not be known for some time.

The bad news is that – the different measures taken by the US FED and the US Government later, followed by a similar series of financial measures in Europe and Japan seem not to be sufficiently effective. In addition to these poor results, a real *economic* crisis had already started. The combination of both crises is considered to be very dangerous: the general world crisis (i.e., financial and economic) is expected to last for more than 18 months.

Influential leaders of different national and international organisations stress not only short-term, but also (and preferably) mid-term pro-market oriented measures. ECB Chairman Jean-Claude Trichet in December 2008 stressed the role and responsibility of central banks: “Les turbulences actuelles constituent un défi majeur pour le système financier dans son ensemble ainsi que pour les responsables de la politique économique et les autorités de régulation à travers le monde. Depuis août 2007, les banquiers centraux s’attachent à gérer l’accroissement de la volatilité et des risques sur les marchés de capitaux.... L’objectif principal d’un banquier central et de la Banque centrale européenne est de maintenir la stabilité des prix à moyen terme. Pour réaliser cet objectif, nous devons non seulement définir l’orientation de la politique monétaire et fixer les taux directeurs. Mais nous devons aussi mettre en œuvre cette politique monétaire en conduisant des opérations d’*open market* afin de piloter les taux d’intérêt à court terme sur le marché monétaire interbancaire.”<sup>8</sup>

Recently, when the financial crisis in many countries grew into depression which had all the classic attributes of it (bankruptcies of not only banks, but also numerous industrial and other types of enterprises, unemployment etc.), the opinion that the gradual cutting of main interest rates by many central banks is not effective enough predominated, i.e. that the traditional interest rate transmission mechanism does not function in practice (it is not projected into the inter-bank market). From here a transition to massive state interventions, which were also aimed at the off-bank sector not only in the U.S.A., but also in many other countries.

A deeper analysis of the causes of crisis is one of the important conditions for the finding and the application of suitable and effective anti-crisis instruments (not only in the financial sphere, but also in the national economy), more precisely a detailed analysis performed in each country which has been affected by the crisis. Measures should be taken in the area of regulation and supervision over financial markets following this analysis.

#### **4 Financial Markets Regulation – theory and practice**

Elements of market regulation theory can be traced back to the thirties, the time when the US Security Commission was created. This event was the direct product of the World Economic Crisis of 1929-33, the longest and most detrimental crisis up to that time. The main aim of this “revolutionary” idea was to coerce financial intermediaries (especially brokers, dealers, exchanges and banks), because the main responsibility for the Great Depression was generally imputed to them.

The main policy measures – the separation of commercial and investment banking (Glass-Steagal Act) and a set of restrictive rules put on the American capital market – aimed at consumer protection. These measures had to renew the trust of financial market clients to persuade them to invest their money in securities on the American capital markets, considered to be safe and secure while protected by new regulations.

These events were not much reflected in pre-war Europe. After World War Two, the situation with capital markets regulation (earlier or later) dramatically changed: a world-wide trend to set up security commissions emerged and prevailed. In many countries the role of capital markets regulators and supervisors was confined to central banks as one of their functions.<sup>9</sup>

It is very important to know that in most countries capital markets regulation and supervision has been relatively independent for the last 50-60 years. This does not mean that other financial markets segments were not regulated and supervised. World-wide, sector regulation and supervision is still prevalent in many countries.<sup>10</sup>

The sector model of financial markets regulation certainly still has some positive features. However, growing internationalisation, globalisation and integration with a strong tendency to inter-mingle or melt different financial market segments more and more together gave birth to a new stage of financial regulation and supervision in many countries: the stage of unified regulation and supervision of financial markets.

This new stage was started by the creation of the British Financial Services Agency – a mega-regulator and supervisor: all sorts of financial services are regulated and supervised by this single regulator and supervisor. Since beginning of the new millennium, this practice has been introduced in many EU member countries. It paves the way to a single EU financial market.<sup>11</sup>

During the last decades, the practical experience of regulators and supervisors of many countries (especially the advanced countries – such as the USA, Great Britain etc.) was gathered and generalised. The generalised experience was gradually transformed into a (more or less) consistent theoretical framework, consisting of general principles, a number of standards and a set of rules. In my opinion, the most fruitful period of putting these elements together to create a consistent theory, was the last decade (say – since 1996/7, when the decision to set up the FSA was taken).

The bulk of this theoretical framework was gradually created by the more or less isolated efforts of different international bodies, such as US.SEC, BIS, IMF, OECD, FSF, IOSCO, WFE, ECB, EU Commission, FESE, etc., supported by the central banks of most economically advanced countries. To sum up: the origin of the theory of regulation and supervision was closely connected with efforts to create a set of internationally recognized practical recommendations. These recommendations served as a base for international agreements (of different force) and national legislation.

Important items constituting the above defined “theory” can be enumerated as follows: the definition of FMR and supervision, reasons for financial markets regulation and supervision, goals, object, subjects, institutional structure (forms, types and models), national and international aspects of regulation and supervision, ways and instruments of regulation and supervision – principles and standards included, the main (recommendable/normative) features of optimal regulation and supervision, the role of self-regulation, the significance of regulation and supervision (its economic and social benefits).<sup>12</sup>

Many events from recent history can be used as examples that regulatory and supervisory practice (both national and international) does not necessarily correspond to theoretical postulates. Anyway, the practice mentioned (theoretically) should correspond to the economic needs of the countries involved, and to the needs of the world economy. But: this is hardly possible to achieve.

The development of theory and the development of regulation and supervision do not coincide – they have separate lives, however these “lives” cannot be completely isolated one from another. New real events, their causes and consequences have to be analyzed, and the results of these analyses lead to improvements of theory, to more sophisticated knowledge. However, quite a lot of theoretical questions still remain unanswered. Let me briefly comment on selected non-consensual problems of theory, or simply pose questions. The problems discussed, of course, may represent urgent practical issues to be solved.

- a) **GOAL OR GOALS:** Is it preferable to fix only one goal or more goals? The one goal-approach may over-simplify the situation. It will be too general to be practically implemented. Multiple-goals-approaches would be better, because they are less general

and will be better understood and implemented, unless they are not well structured and without a defining range (priorities). Both solutions can be found in different countries.<sup>13</sup>

- b) **OBJECT:** Is it advisable to regulate all financial products or only selected products? Different approaches in different countries can be found. Regulation of all products is recommendable for advanced markets. Topical problems: Are structured products really so dangerous for investors that all of them (or only some of them?) should be prohibited? [This is a broader problem: the process of de-leveraging is already going on]. But: should financial markets/equity markets be deprived of their most powerful instruments; forever, or only during a crisis or depression? Would it be reasonable and feasible to restrict the access of non-educated investors to sophisticated instruments? Should (eventually) other financial instruments be prohibited or more restrictions put on them?<sup>14</sup>
- c) **SUBJECTS:** In different countries, not the whole range of financial subjects are sufficiently regulated: the problem of non-banks, leasing companies, investment funds (sovereign-funds, guaranteed funds etc?). It is advisable to unify the legislation, but this is not feasible at present.
- d) **INSTITUTIONAL STRUCTURE:** The institutional structure in different countries is highly differentiated. In most cases, the existing types or models do not correspond to the theoretical types/models: there is a vast variety of modified structures. The modifications are mainly due to the historical development of financial regulation and supervision and cannot be easily changed. It is not probable that a unification of the institutional structure (if not accompanied by other measures) contributes to the efficiency of regulation and supervision.
- e) **NATIONAL VS. INTERNATIONAL REGULATION:** There is a significant gap between theory and practice: in theory, the ancient, old-fashioned approach preferring national regulation and supervision to international; in practice, remnants of isolationism and its tools will still – from time to time – appear. The idea of an isolated state (as described by von Thuenen) seems to be still alive – during crises at least. The present theory holds that progressing internationalisation and globalisation of the World economy will make isolationism impossible. However, the right time obviously has not yet come. Up to now, the highest degree of international regulation has been reached in banking (Basel 1, Basel 2).<sup>15</sup>
- f) **THE WAYS:** The old way, i.e. command and control approach, process-oriented approach and public interest approach is gradually being replaced by incentive compatible approach, goal-oriented (risk-oriented) and public/private interest approaches.

Theoretical (hypothetical) optimal regulation and supervision is defined as systematic, dynamic, flexible, adaptable, innovative, reliable, not expensive and efficient regulation and supervision.<sup>16</sup> It is very probable, that integrated regulation of all financial markets – sooner or later – will replace isolated regulation and supervision of individual financial markets segments.

The world financial crisis, *inter alia*, has again raised the old question of over-regulation and under-regulation. Primitive versions of this approach claim *unison* “more” regulation and supervision. Sophisticated versions claim “stricter” regulation and supervision (without any specification). Both versions are false: theoretically, in any

situation, "optimal" regulation has to be defined and implemented. Anyway, during financial crises, a more restrictive approach has to be elected.

- g) **SELF-REGULATION:** Will company self-regulation influence and discipline financial markets during the crisis?

In comparison to internal control and audit systems in the past, up to now more stress has been put on self-regulation and prevention.

Self-regulation is an important part of Corporate Governance.<sup>17</sup> The rationale of self-regulation is based on the assumption that company managers are the best informed employees and most competent persons to define the internal control and audit system of the company (in other words – the system of self – regulation) and who have to manage the company for the benefit of the owners (shareholders). The common interest of the company owners should coincide with the self-interest of the top managers of the company. Obviously, there is a close link between self-interest and self-regulation, because human behaviour is generally driven by perceived interest. If a company's self-regulation rules respond to the self-interest of its top managers (high salary, personal reputation etc.), the financial results achieved by such a company probably will be better than in an adverse case. Supporters of self-regulation argue that the self-interest (a long-term, not a short-term interest) of individual managers would lead them to avoid the traps of misconduct. But this is not the case. It is pure theory, not only from the micro-economic point of view (at the level of an individual bank), but from the macro-economic point of view (at the level of financial markets) as well. The actual world financial crisis shows many striking examples of this contention: too many bank directors and managers of all ranks failed.<sup>18</sup> In practice, there are a lot of problems connected with self-regulation: managers' misconduct – unrestrained greed, abuse, manipulation, concentration of power, lax enforcement of rules, deficient regulation and standards etc.

Self-regulation of financial markets is not necessarily the most efficient, because it favours financial firms at the expense of customers. The interests of financial firms (investment banks, security traders, exchanges etc.) are quite often not well aligned with the interests of the consumers of their services. And more than this: internal distributive conflicts can impede the adoption of efficient rules and can hinder their enforcement.

Broadly speaking – unlimited rush for more profitable assets, which are necessarily more hazardous, passes the discussion about justification or unjustification of self-regulation of financial institutions back to the initial point: Can self-regulation contribute to the limitation of moral hazard or not? It appears to be the case, that under the conditions of this financial crisis, this hazard is rather challenged by it and under the open rules it is practically enabled by it.

These problems limit the role of self-regulation and this is why self-regulation cannot automatically guarantee the success financial institutions. The weaknesses of self-regulation, on one side, have to be limited by strong and effective regulation and supervision. The role of different public authorities' regulation and supervision is considered to be absolutely indispensable. On the other side, this does not mean that public authorities' regulation and supervision should be a substitute for self-regulation at the micro-level. On

the contrary, the role of sound self-regulation mechanisms in the corporate governance systems has still been growing during the last decade.

Anyway, during the present world financial crisis, tightening internal rules in the financial sector could be applied as one of the feasible partial instruments for the way-out, given that the "tightened" rules are not too restrictive. Many banks in many countries have already spontaneously reacted in this way.

## **5 Theory and Practice of Regulation and Supervision: selected topical issues**

Most important is the fact that politicians all over the world reacted to the spreading financial crisis (beware of the possible domino-effect) relatively quickly. They proposed different – frequently politically motivated – proposals of how to face the crisis.

Some of these proposals had the character of political declarations and they do not define feasible solutions of how to improve financial markets regulation. Some of these declarations can be quoted as examples: a ban on structured products and funds, a ban on financial engineering and securitisation, a ban on tax-heavens, etc., mostly without.

However, it was important to show readiness to solve imminent problems: several "GX" summits were organised, the result of which demonstrated the common political will to find "some" way-out of the crisis.

From the practical point of view, the summits proved that no "general way-out" exists (and probably at the present state of international affairs cannot be agreed upon): therefore, every country has to solve its problems itself – BUT: not at the cost of other countries, because this would impede the process of the inevitable post-crisis financial stabilisation.

This should be generally agreed as one of the principles of Financial Markets Regulation and Supervision.<sup>19</sup>

Two other important principles could be accepted as well, namely: first, that FMR cannot serve as the only remedy – it cannot be a substitute for state economic policy (especially for the monetary policy, tax-policy, budgetary policy, etc.); and second, that FMR itself cannot solve problems created by real economic development, (maybe) negative *processi* in the financial sector of economics could be (to some extent) mitigated by a prudent FMR affecting both national and international sides of financial activities of all (or some – at least!) players.

It is still premature to evaluate the real causes of the world financial crises. Many different views have already emerged, sometimes merely in the form of unanswered questions. Is the financial failure in the USA mainly due to dissatisfactory laws or a weak enforcement of laws? A high degree of negligence on the side of US SEC is repeatedly quoted, long time-lags in legislative practice, lobbies, evasion of regulation, unsatisfactory institutional structure (are there *too many* regulators or supervisors and/or *too weak* regulators and supervisors at play?) etc. In my opinion, the lack of enforcement is one of the most seri-



ous reasons for the final failure. Certainly, other above mentioned factors may also have contributed to the crisis – to a different extent which is – unfortunately – hardly possible to measure.

Any possible way how of improving the FMR has to be based on reasonable interaction between the theory of regulation and regulatory (and supervisory) practice.

## 6 Lessons and Outlook

To characterise the present financial turmoil, a new terminology was invented by journalists: they frequently write about “panic-economy”, “pseudo-wealth”, “pseudo-assets”, “poisoned securities” etc.

However, it can be clearly seen that valid lessons cannot be drawn right now – it would be pre-mature. There are different ways of explaining the global financial crisis: Is it a crisis of negligence? Is it a crisis caused by loss of confidence? Or a crisis caused by lack of regulation? A crisis caused by human greed? A crisis caused by irrational human behaviour? Many authors think that the crisis cannot be explained only from an economic point of view. Very often, the role of psychological and sociological factors will be emphasized.

Let me quote Prof Sloterdijk (professor of philosophy) from Germany: “Die riesenhaften Pseudovermoegen, die .... an der Boerse fingiert wurden, sind auf einen sinnvollen Massstab zurueckzukorrigieren.... Es gab einfach zu viel geld, dass blosses Spielgeld war, daher gab es massenhaft illusorische Wertberechnungen und haltlose Reichtumseinbildungen....Der wirkliche Mensch, wie er ausserhalb der theoretischen Modelle erscheint, lebt durch die Leidenschaften, aus dem Zufall und dank der Nachahmung.... Wir wollen als vernuenftig, organisiert, selbstdurchsichtig und originell gelten und sind in Wahrheit unberechenbar, chaosanfaellig, trueb und repetitive.”<sup>20</sup>

The present crisis, in fact, is a multi-dimensional global financial crisis, with many different (not only economic) affects. However, the economic outlook for 2009 is very gloomy: “In 2009, all major advanced economies will experience weak or zero growth at the same time. The outlook for the US economy remains very gloomy. Forecasts by international organisations see 2009 average growth near or below zero. The growth outlook for emerging market economies has weakened dramatically. The IMF and the EU Commission see global growth at 2.2 and 2.3% in 2009, respectively, after 3.7% this year.”<sup>21</sup>

The IMF Economic Outlook – October 2008 – evaluation of the impact of the current financial crisis on economic activity: “It is now all too clear that we are seeing the deepest shock to the global financial system since the Great Depression, at least for the United States. Are we then doomed to a slump in output as occurred in the 1930s?... shows the historical record is mixed. Periods of financial stress have not always been followed by recessions or even by economic slowdowns. However, the analysis also shows that when the financial stress does major damage to the banking system – as in the current episode – the likelihood increases of a severe and protracted downturn in activity. This is clearly demonstrated by the experiences of many economies that have struggled with virulent financial crises over the past decades...”<sup>22</sup>

Up to now, different partial solutions in different countries (corresponding to their situation) have been applied. There is a necessity to combine partial solutions, because one comprehensive solution (valid for all countries) is impossible to find. However, during the last months, similar measures (for example, the so-called "nationalization of banks") in different countries have been applied.

In spite of the fact that there is a strong tendency and need for top-level co-operation and coordination<sup>23</sup>, not much progress has been achieved up-to-now.

For individual countries, the present feasible way-out of the crisis probably is to go on step-by-step, to apply a well prepared experimental approach – in other words – to apply the trial-and-error method. This approach seems to be very skeptical, however – it seems to be rational.

## **Abstract**

This article confronts selected theoretical concepts of financial crisis, financial stability and financial regulation with the real situation at the world economic scene. The author's views are mainly based on the results of a research group at the Institute of Administration and Finance in Prague (IAF), headed by Antonin Kubicek. This group has been analysing selected partial problems connected with the phenomena of financial markets' regulation since 2002 in the framework of two grants (2004-2006 – public grant and 2008 – internal grant). Several research results were presented by research team members [Antonin Kubicek, Vladislav Pavlat, Jaroslav Šulc, Václav Křivohlávek, František Jakub – former Chairman of the Czech Security Commission and others] members at the occasion of two International Conferences organized by the Institute of Administration in 2005 and 2007. The author proposes, inter alia, to broaden the recognized principles of international regulation which should be systematic, dynamical, flexible, adaptable, innovative, reliable, not expensive and efficient. As for an advisable way-out of the global crisis, a well prepared experimental individual approach has to be applied – an indispensable part of which is a sound financial regulation and supervision.

## **Keywords**

financial crisis, financial stability, financial safety-nets, financial regulation and supervision, mega-regulator, self-regulation, co-operation and co-ordination of international regulatory measures

## **Abstrakt**

Stať se zabývá vybranými teoretickými poznatky týkajícími se finanční krize, finanční stability a finanční regulace a konfrontuje je s reálnou situací na světové ekonomické scéně. Autorovy názory vycházejí z poznatků výzkumného týmu Vysoké školy finanční a správní, která se – v čele s doc. Antonínem Kubíčkem – od r. 2002 zabývá regulací finančních trhů v rámci dvou grantů (2004-2006 a nyní interního projektu VŠFS). Členové týmu (Antonín Kubíček, Vladislav Pavlát, Jaroslav Šulc, Václav Křivohlávek, František Jakub a další) prezentovali výsledky výzkumu na dvou mezinárodních konferencích VŠFS v r. 2005 a 2007. Autor stati navrhuje mj. rozšířit uznávané principy mezinárodní regulace o další položky: regulace by měla být soustavná, dynamická, pružná, adaptabilní, inovativní, levná a účinná. Autor se domnívá, že cesta k ukončení globální krize vede po linii experimentálního indi-

viduálního přístupu jednotlivých zemí, spojeného s účinnou, zdravou a rozumnou finanční regulací a dohledem.

### Klíčová slova

finanční krize, finanční stabilita, bezpečnostní sítě, finanční regulace a supervize, mega-regulátor, seberegulace, kooperace a koordinace mezinárodní regulace

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- [6] Some of these instruments are partially based on judgments, not on ex post statistical dates. This is the reason, why deviations from real developments will occur. See: Global Financial Stability Report. Financial Stress and Deleveraging. Macrofinancial Implications and Policy. October 2008. IM, Washington DC, 2008. Global Financial Stability Map, p. 2 and Annex 1.1. ISSN 1729-701X.
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- [11] There is a lot of very important Commission EU Directives concerning Financial Sector issued after 2000.
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- [14] Since the last months, securitisation (as a part of financial engineering) and its rules have been repeatedly discussed in the USA. New measures are being prepared by the US.SEC. „The SEC's mission to maintain fair, orderly, and efficient markets is based on a very simple premise: if investors have confidence that they will be treated fairly in the capital markets, they will be more willing to invest their money. The less risky they perceive the markets to be, the lower the risk premium they will demand. So it is my hope that any regulatory response will focus on improving the markets by enhancing investor ability to understand and price risk rather than by restricting access to or prohibiting the offering of new, innovative financial products.“ Atkins, Paul S. Improving Financial Markets. Speech by SEC Commissioner Paul S. - Remarks to the Vanderbilt University Financial Markets Research Center, Conference on Securitization, Nashville, Tennessee. April 17, 2008. <http://www.sec.gov/news/speech/2008/spch041708psa.htm>
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- [17] Cartwright reminds the historical definition of self-regulation which "... usually involves an organization or association ... developing a system of rules that it monitors and enforces against its own members or, in some cases, a larger community." See: **CARTWRIGHT, P.** *Banks, Consumers and Regulation*. Hart Publishing. Oxford and Portland Oregon, 2004, p. 122. 258 p. ISBN 1-84113-483-X. To-day, SRO are no more identified with professional organizations, exchanges etc., and the word „self-organization“ has a broader meaning.
- [18] An impressive description and analysis of illegal activities in banking (such as insider trading, money laundering, corruption, embezzlement, theft and robbery etc. with many examples from many countries (Czech Republic included) is given by **POLOUČEK, S.** a kol. *Bankovníctví*. Praha : C. H. Beck, 2006, pp. 571-633. 716 s. ISBN 80-7179-462-7. (Banking.)
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*Accountance of the Public Sector – Some problems  
in accounting procedures for territorial  
self-governing units, subsidized organizations, state  
funds and organizational units of the state*  
*Účetnictví ve veřejném sektoru*  
*– Některé problémy v postupech účtování*  
*pro územní samosprávné celky, příspěvkové*  
*organizace, státní fondy a organizační složky státu*

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PAVEL SCHRÁNIL, DANA KUBÍČKOVÁ

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## **1 Introduction**

Currently the CR Ministry of Finance is preparing an extensive project of the implementation of the state's accounting, which will radically deal with the issue of the accounting of accounting units in the public sector. The objective of the state accounting that is being newly created is the effective provision of correct, complete and timely information about the financial situation of the state as well as of the accounting units that secure the state's functions. The basis element of this transformation is the migration of budget accounting to the accrual system of accounting. However, the fulfillment of this intention, which will mean a radical change of direction at these accounting units, requires the thinking through, construction, addition and implementation of new rules, procedures and solutions, which currently do not exist in this area or are unusual, or are precluded by other measures and procedures that have already been adopted. One such area, one that has been discussed for a long time, is the monitoring and expressing of the amortization of fixed assets in the public sector. At a number of units, the gradual and regular depreciation of the value of fixed assets is not being considered, and no processes that would make it possible to effectively record and report this process have been created and implemented. This contribution deals with one possibility, which suggests itself as a part of the solution of another problem.

The fundamental and most general requirement for data provided by accounting is the true and precise depiction of reality. This requirement blends accounting rules and procedures at different levels and in different directions and concerns various methodical elements of the accounting reporting of processes in accounting units. The fulfillment of this requirement is thus determined both by the methodical elements of accounting themselves, as well as by their specific reflection in accounting regulations. In the Czech Republic, accounting regulations represent a hierarchically organized system, where the most general regulation of accounting and accounting statements is provided by Act no. 563/1991 Coll., as amended, which is then specified for individual entities via Regulations

of the CR Ministry of Finance. A total of seven different types of entities are recognized in the CR – an independent Regulation has been issued for each one of them, which regulates the fulfillment of the general principles for the given specific type of accounting entity. And the reporting of individual sub-processes within a given type of accounting unit is governed by the Czech Accounting Standards.

It is the specific regulation of accounting statements in decrees and accounting standards which is the factor that significantly decides on the fulfillment of general requirements and principles. The objective of the research activities within the scope of the internal grant project was to find and point out some aspects of accounting in the area of the accounting of entities in the public sector, which are in contradiction with generally accepted requirements and principles that are put on the accounting reports regarding assets and the sources of these assets of the accounting unit. Attention was paid to the area of fixed assets where for already a long period of time both theory and practice perceive as insufficient, respectively in contradiction with general requirements, the manner of its accounting reporting leading to a distorted record of the quantity and status of the assets of the stated entities.

The issue is that tangible as well as intangible fixed assets are being reported at the original, acquisition price in the accounting records of some entities in the public sector, without regard for the gradual loss of the assets' value, both as a consequence of real use as well as of obsolescence; i.e., its amortization is not being included in the accounting records. This statement does not apply to accounting units such as subsidized organizations (PO), where long-term tangible and intangible assets are depreciated in the same manner as in the financial accounting of commercial entities, i.e., the assets' acquisition price (brutto), adjustments and residual, i.e., book price (netto) are reported in the Balance Sheet. The booking of fixed assets in these accounting units is thus not the subject of attention of this contribution.

This problem is perceived much more intensively in the area of the practical use of accounting data than in theory or the legislative sector. The findings about the unsuitability of the said solution and comments on this issue were acquired from the students of the Public Administration combined study program – which for the large part are workers and employees of entities in public administration – during the Accounting in Public Administration course.

The accounting units, which are: Territorial Autonomous Units (ÚSC), State Funds (SF) and Organizational Units of the State (OSS), perform their accounting pursuant to legal regulations, i.e., Act no. 563/1991 Coll., on Accounting, as amended, Regulation no. 505/2002 Coll., and Czech accounting standards for these accounting units. For further considerations, it is necessary to remind that the main activities performed by ÚSC units are administrative activities, but it can also perform economic activities, which, in contrast to administrative activities, report taxable profits. The system of permitted accounts and methods of accounting (the system of permitted accounts is given by the type of accounting unit, i.e., ÚSC, SF, OSS, and is contained in the Chart of Accounts, which is an appendix of Regulation no. 505/2002 Coll.) has been adapted for this in the accounting regulations (Regulation no. 505/2002 Coll., and the Czech Accounting Standards for the said entities).

In addition to this it is necessary to add that the economic activity of the organizational units of the state is negligible; a certain exception applies only to the activities of their food-service facilities.

## 2 Problems in the accounting of fixed assets in the administrative activities of territorial self-governing units

According to current regulations, the acquisition, possession (use) and disposal of long-term tangible assets is booked according to the sequence of accounting operations as shown in the following table no. 1<sup>1</sup>:

**Table no. 1** Procedure for the booking of the acquisition of ÚSC long-term tangible assets (administrative activities)

	Text	CZK thousands	Debit	Credit
1.	Received subsidy to own deposit expense account	800	232	211
2.	Entering of the supplier's purchase invoice into the books	800	042	321
3.	Invoice payment	800	321	232
4.	Creation of sources	800	211	901
5.	Entry into use	800	022	042
6.	Disposal of obsolete assets	800	901	022

### **Legend for the account numbers used:**

022 – Independent movable assets and sets of movable assets

042 – Acquisition of independent movable assets and sets of movable assets

211 – Financing of the spending of territorial autonomous units

232 – Deposit expense account

321 – Suppliers

901 – Fixed assets fund

The last operation no. 6 is booked after the lapsing of the entire life-span of this asset, on the basis of a decision established via protocol on its one-time elimination from accounting.

As can be seen from the sequence of the accounting operations, the gradual loss of the value as a result of use or obsolescence does not occur, i.e., the assets are not depreciated.

<sup>1</sup> Svobodová J., Účtová osnova, České účetní standardy – postupy účtování pro územní samosprávné celky, příspěvkové organizace, státní fondy a organizační složky státu, Prague: ANAG 2008, ISBN 978-80-7263-443-9.



### **The consequences need to be seen at different levels:**

1. On the balance sheet, the acquisition (so called "historical") price of this asset is shown for the entire time that it is in use, even though in reality its value gradually decreases due to amortization, and can only be a fraction of the original price at a specific moment (on balance sheet day). The value of the total assets of the accounting unit is thus considerably distorted, until the assets have been disposed of and removed from the books. As a result, thanks to the large quantity of assets, the accounting unit can have more difficult or restricted access to the permission for the acquisition of further assets that may be necessary for the unit's development or for the increasing of its effectiveness.
2. The incorrect reporting of the level of the assets' wear and tear – although established based on estimated and anticipated variables (life-span) – makes systematic care and attention of not only use, but also the renewal of the assets via a planned system of steps with all linked consequences (including in the sphere of the distribution processes of public funds) impossible.
3. Data about total costs connected with the performance of administrative and other activities are thus distorted. This means that also analyses and subsequent decisions aimed at the increasing of the effectiveness of individual activities are also distorted, just as are decisions on the structure or expenditure side of the state budget, which may appear remote at first glance.

An accounting procedure that has been proposed for the reporting of a specific component of assets – allowances for emission limits – could be used for the continuous updating of the value (price) of assets. The total value of fixed assets could be reduced similarly throughout their life-span as is stipulated for these emission allowances.

This method of the accounting decreasing of value was introduced in 2008.<sup>2</sup> In Standard no. 512 – Intangible fixed assets and tangible fixed assets it is stated:

*"An allowance for emissions, acquired by the first operator, is valued based on the reproduction acquisition price. In accordance with § 25 section 4 letter b) of the Accounting Act, the price is understood to be the price for which the asset was acquired at the time that it is being booked. In this case, however, questions arise whether this price must be determined on the basis of an expert assessment. It is clear from the Accounting Act that this obligation is not stated explicitly, but it is also not ruled out either. Subsequent questions are related to the method of the determination of this price, if these allowances will not be traded on the public market in the Czech Republic. It must once again be stated that the Accounting Act does not deal with this problem, and therefore the valuation of these allowances based on the price of another public market on which the accounting unit could acquire them is not ruled out.*

*The financial statements, which are supposed to present a true and honest picture of the subject of accounting and the financial situation of the accounting unit, must express that the amount of assets has decreased by the amount of the emission allowances that were used up.*

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2 Svobodová J., Účtová osnova, České účetní standardy – postupy účtování pro územní samosprávné celky, příspěvkové organizace, státní fondy a organizační složky státu, Prague: ANAG 2008, ISBN 978-80-7263-443-9.

*Discussions showed that neither adjusting entries nor reserves are suitable for this, mainly because the main characteristics of these categories are not met. With regard for this, it was decided that use of the emission allowances will be booked in that accounting period in which the accounting unit produced the emission of greenhouse gases; the fact that allowance emissions will be factually removed from the books at a moment that is different than the balance sheet day is not taken into consideration.*

*As far as the accounting of emission allowances that will be purchased, it is necessary to state that these purchased emission allowances will be booked in the same way as the acquisition of any intangible fixed assets."*

In addition to this definition, also a procedure for the booking of the acquisition and gradual "use" of the emission allowances has been added – see table no. 2.

**Table no. 2** – Booking of the acquisition and use (decreasing of the value) of emission allowances

no.	Text	CZK thousands	Debit	Credit
1	Free of charge acquisition of the asset value corresponding to the right of the equipment operator to release equivalent tons of greenhouse gases into the atmosphere in a given calendar year – emission allowances	X	019	901
2	Consumption of asset value corresponding to the right of the equipment operator to release equivalent tons of greenhouse gases into the atmosphere in a given calendar year – emission allowances	X	901	019

**Legend for the account numbers used:**

019 – Other intangible fixed assets

901 – Fixed assets fund

The use of this procedure for the reporting of the value of all tangible fixed assets and intangible fixed assets as a reflection of their decreasing value is by and large understandable and substantiated.

This is how the acquisition price of tangible and intangible fixed assets would be reduced, and after the lapsing of the life-span of the fixed assets, it would be removed from accounting records via the same entry as is done currently (see table no. 1, operation 6). But establishing the amount by which the assets' value should be decreased per year is somewhat more difficult. It could be based on the anticipated life-span length – as occurs in the

establishing of depreciation amounts for commercial entities – or on the real decrease of the value that occurred during the period, which would probably be more difficult.

However, a disadvantage of this solution may be the fact that the decreasing of the value will not affect costs, respectively funds used for activities, and the conditions for the more precise assessments of the cost structures of individual areas and activities will thus not be created.

It is clear that a condition for the use of this approach is its anchoring into the legislative regulations of accounting, especially into Regulation no. 505/2002 Coll., and also into Czech accounting standards for the mentioned entities.

### **3 Some problems in the accounting of the economic activities of territorial self-governing units**

The Czech standard for territorial autonomous units, subsidized organizations, state funds and organizational units of the state no. 512 – Intangible fixed assets and tangible fixed assets states in section 4 – Depreciation, in paragraph 4.7.:

*“Territorial autonomous units book the depreciation of tangible and intangible fixed assets on the fixed assets used in the operation of economic activities. The territorial autonomous units book the depreciation amounts as a debit from account 551 – Depreciation of intangible and tangible fixed assets, and as a credit to account 349 – Settlement of the overpayment of subsidies and other obligations with the budget of territorial autonomous units.”*

It is apparent from the stated citation that the creation of “accumulated depreciation” items – on accounts of group 07 – Accumulated depreciation – intangible assets and 08 – Accumulated depreciation – tangible assets – which would depreciate the acquisition price of these assets to the book price, a more realistic value, is not expected. Even here, i.e., in the area of economic activities, the full, undepreciated acquisition price remains until the disposal of the fixed assets, which is not a “true and honest picture of the subject of accounting” and of the total assets of the accounting unit. The problem with the reporting of assets is thus similar as in the case of administrative activities.

A positive attribute of this solution can only be seen in the fact that the inclusion of a part of the depreciated amounts into the costs of the accounting units is anticipated, which is a logical consequence of the fact that it is the economic result that is being determined from economic activity, which is subject to taxation. As a result, the reports about the cost structure of individual activities are more precise, and thus also their evaluation as well as decisions made on the basis of these evaluations are more objective. But even so it is only a partial solution that does not fulfill the requirement of a true and honest picture of processes taking place in this part of the public sector.

Even this solution does not fulfill the third function of the gradual reporting of the loss of value, which is the systematic and economically substantiated approach to the renewal of assets in a manner that creates the conditions for the activities of public sector entities over the long-term.

The aforementioned problem applies only to the accounting of the economic activities of territorial autonomous units (ÚSC). Subsidized accounting units (PO) book depreciation and the creation of adjustments similarly to the financial accounting of commercial accounting units. The discussed difficulties therefore do not occur there.

## 4 Conclusion

A market environment puts increased demands on effective performance of activities in all areas, including the public sector. If the adopted measures in the area of the increasing of the effectiveness of the performance of activities in the public sector are to be effective, they must be based on reliable, true and honest information about the state of assets and their changes. The project of state accounting based on the accrual principal is being prepared with this goal in mind. The fulfillment of the goals of this project and the creation of the legislative conditions for the implementation of the accrual accounting model need to be based on a thorough analysis of the current status as well as of the possibilities for the utilization of the principles of accrual accounting taken from other areas. The current legislative regulations of accounting and reporting in the public sector contain a number of incomplete and insufficient solutions, which not only do not help in the evaluation and increasing of the effectiveness of these activities, but sometimes they even prevent this. Our contribution focused on two very narrow problems. Together with the identification of these problems, it was also stated that the current regulations contain procedures that could be currently used for a more realistic reporting of the assets in accounting statements of selected entities in the public sector.

The analysis dealt with the solution possibilities offered by the current accounting regulations currently valid in the Czech Republic. The aforementioned problems, as well as many others, could be resolved via an accelerated implementation of international accounting standards for the public sector (IAS/IFRS, resp. IPSAS).

### Abstract

The article deals with some of the problems of accounting for Fixed Assets in public sector units as part of a wide range of questions that must be answered in the project of the transition of public sector accountancy on an accrual basis. The aim is to reach a fairer and truer view of the total assets in the Balance Sheet of the public sector accounting unit. This involves either administration activities or economic activities. The solution proposed in this article is open to wide discussion. The article takes into account the effective accounting standards in the CR.

### Keywords

Harmonizing accounting, Administration activity, Economic activity, Municipal authorities, Government authorities

### Abstrakt

Příspěvek pojednává o některých problémech při účtování o dlouhodobém hmotném a nehmotném majetku v účetnictví subjektů působících ve veřejném sektoru jako jednoho z mnoha problémů, které je třeba řešit v souvislosti s přípravou přechodu účetnictví ve veřejném sektoru na akruální princip. Motivem tohoto příspěvku je stále aktuální

požadavek, aby účetní výkaz Rozvaha podával i v oblasti veřejné sféry věrný a poctivý obraz o celkovém majetku účetní jednotky a jeho zdrojích, ale i nákladovosti a event. výsledku hospodaření. Pozornost je zaměřena jak na činnosti správní, tak i hospodářské, a to jak Územních samosprávných celků (ÚSC), tak i Organizačních složek státu (OSS). Zároveň je zde navrženo i jedno z možných řešení, které je určeno k širší diskusi. Příspěvek vychází z účetních předpisů, platných v současné době v ČR.

### **Klíčová slova**

harmonizace účetnictví, správní činnost, hospodářská činnost, územní samosprávné celky, organizační složky státu

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# *Do Subsidies from the State Budget Enable the Desirable Development of Social Services?*

## *Umožňují dotace ze státního rozpočtu žádoucí rozvoj sociálních služeb?*

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LADISLAV PRŮŠA

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### **Introduction**

The setup of the optimal linkages between the individual elements of every system, and the setup of their parameters are basic conditions for the balanced functioning of the entire system of the social protection of the population as a whole. If these linkages are not established appropriately, or if they have been disturbed somehow, then the following can occur:

- some social situations may not be dealt with at all, or they are handled insufficiently, respectively the conditions for the receiving of the benefits prevent one from actively getting out of the situation of being dependent on them.
- the system as a whole can contain some motivational stimuli, which, for example, can lead to the abuse of some of the provisions of the system.

At the beginning of 2007, among other things, the new Social Services Act became effective, which creates space for the comprehensive analysis of all elements of this system from the perspective of their optimal setup. This law was practically being prepared over the course of 15 years. And although a number of elements from this system were conceived with the use of findings from abroad, completely underestimated was the macro-economic dimension of this transformation step at the expense of preferences, such as the conceiving of the standards of social services quality and their control via inspections; completely underestimated was the question of the training of healthcare workers in social services residential facilities from the perspective of the reporting of the healthcare being provided from the system of public health insurance.

### **Basic principles of the financing of social services**

Within the reform of the social services system, there were changes to the main principles of the system of financing; considerably strengthened is the effort for the finding of the optimum form of the securing of needs of citizens in an unfavorable social situation, and the emphasis on the effectiveness of the entire system is being increased. Findings acquired from analyses of foreign experiences with the implementation of a similar system of financing<sup>1</sup> show that one can anticipate a significant growth of employment especially

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1 R. Hauschild – Die Erfahrungen mit dem deutschen Pflegeversicherungssystem, in *Soziale Sicherheit in Europa*, Bad Boll 1998

with the provision of field social services; during a short period of time, the demand for placement in institutional facilities should decrease in a significant way.

Among the most significant changes within the system of the financing and provision of social services are:

- the implementation of a contribution for care as a new social benefit designated for the partial coverage of costs connected with the provision of social services,
- the provision of subsidies for the financing of social services to registered entities that provide social services,
- the provision of social services on the basis of a contract between the user of a social service and its provider,
- the implementation of a number of protective mechanisms for clients providing social services (registration of social services providers, defining of quality standards for the provision of social services, inspection of their provision, obligation of life-long training of social workers).

## **Basic principles of the provision of subsidies**

In addition to the contribution for care, subsidies from the state budget are provided for the securing of the provision of social services to those providers that are entered in the register, and the implementation legal regulation establishes the further conditions for the establishing of the amount and purpose of the subsidy, its division and method of provision<sup>2</sup>. With regard for this fact, it is suitable and necessary for the state, in the creation of this new subsidy policy system, to declare generally binding principles that would form the basic building block on which the subsidy policy itself would be based. Those principles that were declared at the end of the 1990's in connection with the specification of the subsidy proceedings of the Ministry of Labor and Social Affairs towards non-state non-profit organizations for the provision of social services can continue to be considered as the main principles of subsidy policy<sup>3</sup>. These are:

- the principle of equal conditions for all providers of public services,
- the principle of equal conditions for all recipients of public services,
- the principle of effective (purposeful) spending of public funds,
- the principle of primary emphasis on the quality of the services being provided,
- the principle of a transparent system of financing,
- the principle of a stable system of financing.

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2 *this implementation legal regulation has so far not been prepared; subsidies by the Ministry of Labor and Social Affairs are provided on the basis of an order by the Minister (In 2008, this concerns the Minister's Order no. 24/2007)*

3 *see: L. Průša, O. Mátl – Nad pojetím dotační politiky MPSV (On the approach of the Ministry of Labor and Social Affairs to subsidy policy), Sociální politika (Social Policy) no. 9/1999, ISSN 0049-0962*

## Characteristics of the results of subsidy proceedings in 2007 and 2008

In 2007 and 2008, subsidies for the activities of social services providers were provided in principle according to schemas that are known very well, from previous years, especially by providers from the ranks of non-state and non-profit organizations.

Analyses of the results of subsidy proceedings in 2007, among other things, showed<sup>4</sup>, that the level of the awarded benefits was considerably differentiated according to the type of organization and its founder. In comparison to the amount of claimed requests, the highest subsidies were awarded to subsidized organizations that are established by the regions and that provide social care services; they were awarded 82.8% of what they requested. The lowest level of request satisfaction was reported by business companies as they received 2.7% of their requests for subsidies of social care services. In connection to this it was stated that even despite a different portfolio of social services provided by individual founders, the differences that were discovered from the perspective of the level of the satisfaction of the requirements of individual types of providers are striking.

Attention was also paid to the regional differences in the provision of subsidies for selected types of social services. From the perspective of care for senior citizens, attention was only paid to the assessment of the differences in the amount of subsidies provided per one bed in homes for senior citizens. Among other things, this comparison showed that the amount of subsidies provided in individual regions varies considerably. Whereas in the South Moravian region a subsidy in the amount of 3,588 CZK per month was provided per one place in a retirement home, in the Liberec region this amount was more than 2.8 times higher at 10,131 CZK.

In 2008, subsidies in the amount of 2,245.6 million CZK were provided for services provided in retirement homes; the average subsidy per one bed was 4,497 CZK per month, i.e., by approximately 24% less than in 2007 (the average subsidy per one bed was 5,091 CZK in 2007). But the differences among individual regions remained preserved – the highest subsidy per one bed was awarded in the Olomouc region (5,540 CZK per month), and the lowest subsidy was provided in Prague (2,793 CZK), meaning that the difference between the minimum and maximum subsidy amount was approximately double. The comparison of the amount of subsidies provided per one bed in retirement homes in individual regions is shown in table no.1.

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<sup>4</sup> see: L. Průša – *Efektivnost sociálních služeb: vybrané prvky a aspekty (Effectiveness of social services: selected elements and aspects)*, VÚPSV, Prague 2007, ISBN 978-80-87007-73-0

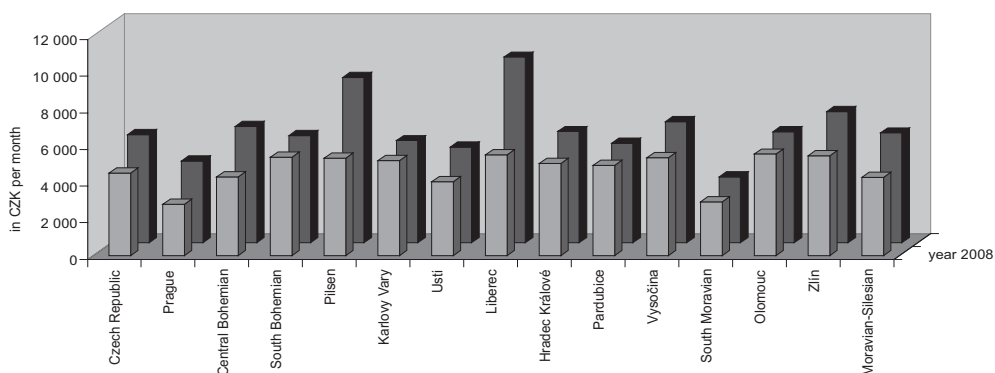


**Table no. 1** A comparison of the amount of subsidy provided by the Ministry of Labor and Social Affairs, recalculated per one bed in retirement homes in 2007 and 2008 (in CZK per month)

region	2007	2008	2008/2007 (in %)
Prague	4 444	2 793	62.8
Central Bohemian	6 345	4 290	67.6
South Bohemian	5 839	5 363	91.8
Pilsen	9 015	5 324	59.1
Karlovy Vary	5 567	5 178	93.0
Usti	5 223	4 024	77.0
Liberec	10 131	5 498	54.3
Hradec Králové	6 068	5 031	82.9
Pardubice	5 421	4 932	91.0
Vysočina	6 612	5 339	80.7
South Moravian	3 588	2 933	81.8
Olomouc	6 051	5 540	91.6
Zlín	7 163	5 454	76.1
Moravian-Silesian	5 986	4 273	71.4
Czech Republic	5 901	4 497	76.2

source: own calculations based on internal Ministry of Labor and Social Affairs source materials

**Graph 1** Comparison of state subsidies per bed in retirement homes in 2007 and 2008



source: own calculations based on internal Ministry of Labor and Social Affairs source materials

This data shows evidence of how the above stated basic principles of subsidy proceedings were breached even in 2008 within subsidy proceedings. The differences also show that principle of equal conditions for all recipients of social services was also breached within

the subsidy proceedings because the differences that exist in the amount of subsidies provided in various regions show clearly – also thanks to the provision of social services on a contractual basis – in the differing amount of payment by a service user when using comparable types of services in individual regions.

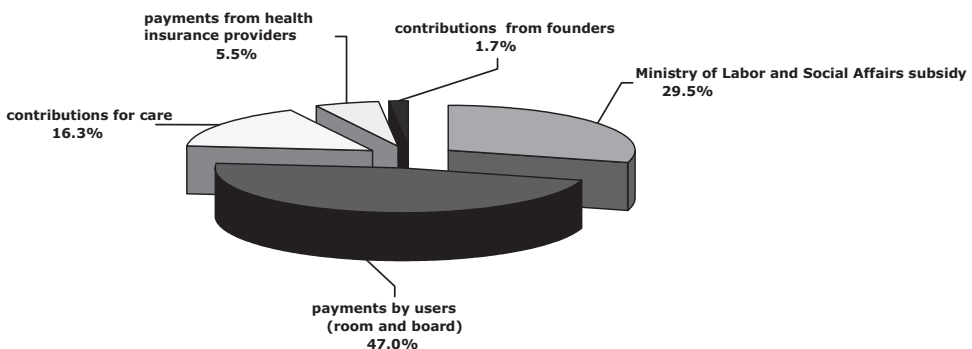
Based on this data, one can also believe that the funds provided within subsidy proceedings were oriented towards the coverage of the impacts of the not too fortunately setup transitional provisions of the law, and not towards the needed transformation of the entire social services system, especially towards the support of the development of field social services. Within this context it is clear that the solution that was selected as a part of the preparation of the factual intention of the law on social assistance at the turn of 1997 and 1998, when it was assumed that all residents of resident facilities will be awarded by law – at the moment of the starting of a new system of social services financing – a contribution for care in the highest amount was considerably more effective. Even though on one hand more funds would be spent on the contribution for care, funds within subsidy proceedings could be used for the development of missing field social services and thus start up the transformation of this entire system.

### **Some possibilities for increasing the effectiveness of the financing of social services**

According to an analysis of official statistical data, the total operating costs at retirement homes were 9,420 million CZK in 2007, while:

- the total subsidy provided by the Ministry of Labor and Social Affairs was 2,780 million CZK,
- 1,532 million CZK was paid to the users in contributions for care,
- users paid 4,430 million CZK for room and board,
- health insurance providers paid 514 million CZK for nursing and rehabilitation care
- the founders of individual facilities subsidized the operation of their facilities with 163 million CZK (i.e., 5.9% of the volume of the subsidy provided by the Ministry of Labor and Social Affairs) .

**Graph 2** Structure of operating costs in retirement homes in 2007



*own calculations*

If, for example, it would be stated within the transitional provisions of the Social Services Act that the user of a senior citizens' home will receive by law a contribution for care in the third level of dependence, but the citizen is actually on a nursing bed in this facility in the fourth level of dependence, the total amount of costs for the payout of the contribution for care would be 4,571 million CZK (i.e., 3,039 million CZK more than in reality), nevertheless the founders of individual facilities could support the desirable development of field social services with the amount of 33 million CZK.

Calculations performed up until now<sup>5</sup> show that a system of the financing of social care services that would be set up this way would make it possible to finance these types of services without subsidies from the state budget and only via contributions for care, clients' payments for room and board at residential facilities (respectively via the clients' payments for individual acts of the care services), and the coverage of the provided health care from the public healthcare insurance system. This would remove the dependence of the providers of these services on state subsidies and their long-term financial uncertainty (there is no legal right to subsidies from the state budget) that makes it impossible for them to develop the provided services in a desirable manner (for example, in 2007 the number of the recipients of care services declined by approximately 9,500 persons). It is thus apparent that tying the financing of such an important area of public services such as social services to the provision of subsidies from the state budget is a solution that does not make it possible to create the desirable economic environment<sup>6</sup>, which contributes to the undesirable stagnation of the entire system. This fact is even more alarming since existing demographic trends show that the Czech population is aging faster than was anticipated by the forecast of the population development until 2050<sup>7</sup>.

## Conclusion

The change in the system of the financing of social services, which occurred in connection with the adoption of the Social Services Act, considerably increased the dependence of the providers of individual social services on subsidies from the state budget. Experience up until now as well as performed analyses show that this step is not leading towards the desirable development of social services, towards their transformation and towards other changes that are appearing in European countries, despite the fact that the change in the system of the financing of social services considerably increased the amount of funds that are directed into this social protection system. As a result of unsuitably set transitional provisions, the effectiveness of the spent funds decreased considerably, and therefore it is necessary to search for new solutions that would contribute to the implementation of the changes that were originally intended.

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5 see: L. Průša – *Efektivnost financování sociálních služeb v domovech pro seniory (Effectiveness of the financing of social services in retirement homes)*, VÚPSV, Prague 2008

6 see: P. A. Samuelson, W. D. Nordhaus – *Ekonomie, Svoboda, Prague 1991*

7 for example, in 2007 the number of person above 80 was by approximately 3% higher than was anticipated by the middle variant of the population development until 2050

It is clear that the discussions related to this topic will require the preparation of a number of similar analyses so that the adopted solutions contribute to the remedying of the problems of the current legal regulations.

## Abstract

The adoption of the Social Services Act created space for the mapping of the mutual linkages between the individual elements of this system of the social protection of the population. The objective of this analysis was assessing whether subsidies from the state budget enable the desirable development of social services. The basic principles of the new system of the financing of social services are characterized in this contribution; basic principles that should be respected in the provision of subsidies. Attention is also paid to an analysis of the results of subsidy proceedings in 2007 and 2008, and on this basis several possibilities leading to the increasing of the effectiveness of the financing of social services are suggested.

## Keywords

social services, financing of social services, subsidies from the state budget

## Abstrakt

Přijetí zákona o sociálních službách vytvořilo prostor ke zmapování vzájemných vazeb mezi jednotlivými prvky tohoto systému sociální ochrany obyvatelstva. Cílem této analýzy bylo posoudit, zda umožňují dotace ze státního rozpočtu žádoucí rozvoj sociálních služeb. V příspěvku jsou charakterizovány základní principy nového systému financování sociálních služeb, základní principy, které by měly být respektovány při poskytování dotací, pozornost je věnována analýze výsledků dotačního řízení v letech 2007 a 2008 a na tomto základě je naznačeno několik možností vedoucích ke zvýšení efektivnosti financování sociálních služeb.

## Klíčová slova

sociální služby, financování sociálních služeb, dotace ze státního rozpočtu

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# *The Internal Grant Agency at the Institute of Finance and Administration*

## *Interní grantová agentura VŠFS*

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PATRIK MOTTL

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The current edition of the magazine mainly focuses on the output from the scientific work undertaken by the successful research collectives in the completed projects from the Internal Grant Agency at the Institute of Finance and Administration.

For more than one year, the activities of the Internal Grant Agency have demonstrated the expedience of its establishment. In the previous period, a total of 6 research projects were completed within the framework of the IGA. Four research teams followed on from their previous activities within the framework of internal grant projects by submitting grant applications to the Czech Science Foundation. A further team directly started activities on a newly acquired the Czech Science Foundation project which commenced in January 2009.

Within the framework of the aforementioned internal projects, a significant number of publications were also realised both in the form of contributions at domestic and international conferences and in the form of scientific papers published in scientific journals.

The fact that the benefits of the internal grant projects are substantial is also born out by the number of outputs realised by a single research collective which managed to publish a total of 7 articles in peer reviewed magazines, 13 articles in scientific journals and 12 proceedings entries within the framework of the project. The expansion of the publication activities of academic staff is one of the significant benefits for the Institute of Finance and Administration based on the existence of the Internal Grant Agency.

With regard to these undoubted successes in the previous period, a further call for the submission of projects to the Internal Grant Agency at the Institute of Finance and Administration was issued at the end of 2008 and this was met with great and somewhat unexpected interest. A total of 11 draft projects were submitted within the framework of this call. These projects were comprehensively assessed by a specially created evaluating committee. Upon the basis of its recommendations, the institute administration approved 7 new projects, work on which is commencing at this time. At present, there are therefore a total of 8 projects (1 ongoing from last year and 7 newly accepted projects).

The Internal Grant Agency at the Institute of Finance and Administration is becoming a dynamic and developing institution, whose contribution to the development of scientific research activities is steadily increasing.

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Aktuální číslo časopisu je především zaměřeno na výstupy vědecké práce úspěšných řešitelských kolektivů dokončených projektů Interní grantové agentury VŠFS.

Interní grantová agentura za více než rok své činnosti prokázala účelnost svého zřízení. V uplynulém období bylo v rámci IGA úspěšně ukončeno celkem 6 výzkumných projektů. Čtyři výzkumné týmy na svou předchozí činnost v rámci interních grantových projektů navázaly vypracováním návrhu grantové přihlášky do Grantové agentury České republiky. Další tým přímo zahájil činnost na nově získaném projektu GA ČR, jehož řešení bylo zahájeno v lednu 2009.

V rámci výše zmiňovaných interních projektů bylo realizováno i značné množství publikačních výstupů, a to jak ve formě konferenčních sdělení na tuzemských i mezinárodních konferencích, tak i formou vědeckých prací publikovaných v odborných periodikách. O tom, že přínos interních grantových projektů je neopominutelný, svědčí i souhrn realizovaných výstupů jednoho jediného řešitelského kolektivu, kterému se v rámci projektu podařilo publikovat celkem 7 článků v recenzovaných časopisech, 13 článků v odborných časopisech a 12 příspěvků ve sbornících. Rozšíření publikační činnosti akademických pracovníků je jedním z dalších významných přínosů pro VŠFS vycházejících z existence Interní grantové agentury.

S ohledem na tyto nesporné úspěchy v předcházejícím období byla na konci roku 2008 vyhlášena další výzva k podávání návrhů projektů do Interní grantové agentury VŠFS, která se setkala s velkým a poněkud neočekávaným zájmem. V rámci této výzvy bylo podáno celkem 11 návrhů projektů. Tyto projekty byly komplexně posouzeny speciálně vytvořenou odbornou hodnotící komisí. Na základě jejího doporučení bylo vedením školy schváleno 7 nových projektů, jejichž řešení je zahajováno právě v těchto dnech. V současnosti je tedy v rámci IGA podporováno celkem 8 projektů (1 pokračující z minulého roku a 7 nově přijatých).

Interní grantová agentura VŠFS se stává dynamicky se rozvíjející institucí, jejíž podíl na rozvoji vědeckovýzkumných aktivit pozvolna narůstá.

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# *On Keynes Somewhat Unusually*

## *O Keynesovi trochu neobvykle*

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MOJMÍR HELÍSEK

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The current financial crisis and the related economic recession are reviving interest in the work of one of the most famous economists, John Maynard Keynes (1883 – 1946). Keynes explains unemployment and recession via insufficiently effective demand. He sees state regulation of the economy, such as decreasing of interest rates and especially the increasing of government spending, which supplements the insufficient private spending, as the way out of the recession. Thanks to this, Keynes was called the “pragmatic savior of capitalism.”

Less known is that Keynes dealt not only with cyclical swings of the economy, but also (although rather marginally) with its long-term perspectives. The article by professor J. A. Jirásek points to Keynes's vision of technological progress and the accumulation of capital and from this ensuing fantastic notions of the future need of work. Keynes's visions, about which we learn in professor Jirásek's article, did not materialize, at least for now. However, his conclusions about the need for state interventions into the economy are still valid and used today, as is convincingly documented by current reality.

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Současná finanční krize a s ní spojená hospodářská recese oživuje zájem o dílo jednoho z nejslavnějších ekonomů, Johna Maynarda Keynese (1883 – 1946).<sup>1</sup> Keynes vysvětluje nezaměstnanost a recesi nedostatečnou efektivní poptávkou. Východisko z recese vidí ve státní regulaci ekonomiky, jako je snižování úrokových sazeb a zejména zvyšování vládních výdajů, které doplňují nedostatečné soukromé výdaje. Díky tomu si Keynes vysloužil označení „pragmatický spasitel kapitalismu.“<sup>2</sup>

Méně známé je, že se Keynes zabýval nejen cyklickými výkyvy ekonomiky, ale i (i když spíše okrajově) jejími dlouhodobými perspektivami. Článek prof. J. A. Jiráška poukazuje na Keynesovu vizi technologického pokroku a akumulace kapitálu a z toho vyplývajících přímo fantastických představ o budoucí potřebě práce.<sup>3</sup> Keynesovy představy, o kterých se v článku prof. Jiráška dozvíme, se nenaplnily, alespoň prozatím. Jeho závěry o potřebě vládních zásahů do ekonomiky jsou však platné a používané dodnes, jak to přesvědčivě dokládá současná realita.

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1 *Persons interested in his life and work are recommended to read especially SOJKA, M. J. M. Keynes a současná ekonomie (J.M. Keynes and the current economy). Prague : Grada Publishing 1999.*

2 *PRESSMAN, S. Encyklopedie nejvýznamnějších ekonomů (Encyclopedia of the most important economists) Brno : Barrister a Principal, 2005, pg. 123.*

3 *Persons interested in the visions of the future of work are recommended, for example, MAREŠ, P. Od práce emancipující k práci mizějící (From emancipating work to disappearing work). Sociologický časopis, 2004, Vol. 40, No. 1-2, pgs. 37 – 48.*

# *Maynard Keynes on the Scene Again "Economic Possibilities for Our Grandchildren" (1930)*

## *Maynard Keynes opět na scéně „Ekonomické možnosti pro naše vnuky” (1930)*

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JAROSLAV A. JIRÁSEK

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The economic crisis in the current swing invokes a process of conversion of values. Constitutive ideas of (John)<sup>1</sup> Maynard Keynes seem to reveal a new attractiveness.<sup>2</sup>

### **Maynard Keynes revisited**

The current dismal economics is, at the same time, a practical review of the ruling concept of the “liberal economy”. In many universities it is exactly the “free market” style which gained the monopoly in teaching. Tens of thousands students in the last 15-20 years did not learn anything else.

If digested to the core, M. Keynes’s teaching of the economic performance could be interpreted in the following sentences:

- Everybody is profitably employed
- All available money has been converted into capital

Usable labor and money are ready for a productive business.

His voluminous work displays several strong aspects. Among them his outrageous utopianism, which links up his work to the quality of life. The most eloquent presentation of his utopianism is found in his essay “Economic Possibilities for Our Grandchildren”.<sup>3</sup>

The essay was inspired by his first visit to the Soviet Union in 1926. (The second followed in 1928.) M. Keynes investigated the contradictions of the Soviet socialism: Capitalism is efficient, but lacks a creed, while socialism is inefficient, however has a great creed.

M. Keynes’s thesis was that the engine of capitalism was driven by a “neurosis”, which he called “love of money”. Capitalism as such is “self-liquidating”. The “love of money” will be recognized as “a somewhat disgusting morbidity, one of the semi-criminal, semi-pathological propensities...”

His general belief was neither capitalist, nor socialist. People, he wrote, would be free to adopt “certain principles of religion and traditional values”, validating “the good over

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1 Before his adult age, Mr. Keynes casted his first name off.

2 Lorenz Pecchi and Gustavo Piga (ed.): *Revisiting Keynes*, Cambridge (Mass.) 2008. Contributions by Maynard Keynes, Robert Solow, Joseph E. Stiglitz, Gary S. Becker, etc.

3 Robert Skidelski: *John Maynard Keynes, the Economist as Saviour 1920-1937*, London 1992, pp. 234-239.



the useful". However for a time ahead "we have to go on pretending that foul is fair, and useful...For only they can lead us out of the tunnel of economic necessity into the daylight."<sup>4</sup>

"Economic Possibilities" have attracted little attention. It is a "jeu d'esprit", a portrait of England's "educated bourgeoisie". But, at the same time, a daring long-range show of M. Keynes's thinking. His ambiguous approach to capitalism, an intricate constellation of effectiveness, but driven by avarice. Undecided contradiction of personal thinking and morals.

Soon afterwards showed up the destructive World Crisis. To study long-range development became futile. Notwithstanding, M. Keynes's appreciation of capitalist powers and limits developed further. In 1920s, "love of money" was bad, but the economic performance in principle good; in 1930s, both became bad. He observed the explosion of irrationality around him and was alerted against malfunctioning of capitalism.

### **The honor of long-range predictions**

Maynard Keynes's essay (10 pages) begins as follows: "We are suffering just now from a bad attack of economic pessimism... the epoch of enormous economic progress which characterized the nineteenth century is over... a decline in prosperity is more likely than an improvement in the decade which lies ahead of us.

I believe that this is a wildly mistaken interpretation of what is happening to us. We are suffering, not from the rheumatics of old age, but from the growing pains of over-rapid change." Two factors are being developed faster than the society could absorb: the increase of technological efficiency, and the pace of capital accumulation (or stockpiled interest rate).

"The enormous anomalies of unemployment in a world full of wants, the disastrous mistakes we have made, blind us to what is going on under the surface." Two types of pessimism obstruct our mind: one, which insinuates that things are so bad and nothing can save us but a violent conflict, or another one, that the environment is utmost precarious and excludes any experiment.

"My purpose in this essay is not to examine the present or near future, M. Keynes continues, but to disembarass myself of short views and take wings into the future". What can we reasonably expect one hundred years hence?

The modern age started in the sixteenth century and got vigour in the technological Industrial Revolution, and in the French, American and Russian social revolutions. The machine developed to a partner of labor. And the accumulation of compound interest reached in the 20th century the capacity to substitute the "living labor". (The divide was around the 1970s.) M. Keynes came to the conclusion that the working week by the time of our grandchildren could contract to some fifteen hours.

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4 Skidelski, o.c., s. 236-237.

What happened in reality – and M. Keynes was not able to reflect – is a faster growth of technology which absorbed along with technical innovation also powerful methods of information – the Internet, websites and Wikipedia – mathematical support of optimization, theory of systems, etc.

Capital accumulation developed differently in individual countries. The political economy did not preserve the measure of due size. Financial fortunes grow faster than economy. Only 5–10 % citizens control more than one half of the economic product. A substantial part of the money cannot be converted into capital and lies unproductive.

Some conclusions in the long run are “startling to the imagination the longer you think about it”<sup>5</sup>

Of course, the increase of practical performance has to go on. There will be “larger and larger classes and groups of people, from whom problems of economic necessity have been practically removed.” The pace of economic bliss will approach in dependence of our determination to control population, to entrust to science the direction of cultivating nature, to keep up the rate of accumulation, and to avoid wars and civic dissention.

But, chiefly, we should not overestimate the importance of the economic problem alone. The next future has to be committed to economic professionalism and to integrity of economics with social concern, law, and ethics. Economists being “professionals, at the same time humble and competent... that would be splendid!”

M. Keynes was mistaken. However, mistake of a highly educated man or woman is quite different from any common mistake: it inspires and provokes critical thinking.

<http://www.econ.yale.edu/smith/econ116a/keynes1.pdf>

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<sup>5</sup> *Lorenzo Pecchi and Gustavo Piga (ed.): Revisiting Keynes, Cambridge (Mass.) 2008, conclusions.*

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## PREVIEW /PŘIPRAVUJEME:

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The rector of the VSFS Bohuslava Senkyrova announces for the second time the competition for young researchers less than 35 years of age accompanied with **awarding of Prof. F. Vencovsky prize** themed: "Social Europe – problems and perspectives". vvResults of the competition will be announced at the International Scientific Conference that will be organized in the Congress Centre of the Czech National Bank in November 27, 2009. Successful original papers will be published in the ACTA VSFS journal. **More information could be found at: [www.vfsf.cz/cena](http://www.vfsf.cz/cena).**

**Bienále soutěže o Cenu prof. F. Vencovského 2009** na téma „Sociální Evropa – problémy a perspektivy“, kterou začátkem roku vyhlásila rektorka Vysoké školy finanční a správní Bohuslava Šenkýřová pro mladou generaci výzkumníků do 35 let. Vyhodnocení soutěže a slavnostní předávání cen proběhne v rámci mezinárodní vědecké konference v Kongresovém centru České národní banky 27. 11. 2009, kde vystoupí řada významných předních ekonomů a finalisté soutěže. Vítězná původní vědecká statě budou publikovány v ACTA VŠFS. **Bližší informace na stránkách [www.vfsf.cz/cena](http://www.vfsf.cz/cena).**

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