

JOURNAL 
of Applied Economic Sciences

Quarterly Journal

Volume V
Issue 4(14)
Winter 2010

ISSN 1843-6110

Editorial Board

Editor in Chief

Laura **Ștefănescu**

Managing Editor

Mădălina **Constantinescu**

Executive Editor

Mihaela **Galiceanu**

International Relations Responsible

Pompiliu **Constantinescu**

Proof – readers

Camelia **Firică** – *English*

Ana-Maria **Trantescu** - *English*

Redactors

Cristiana **Bogdănoiu**

Sorin **Dincă**

Editorial Advisory Board

Claudiu **Albulescu**, University of Poitiers, **France**, West University of Timișoara, **Romania**

Huseyin **Arasli**, Eastern Mediterranean University, **North Cyprus**

Cristina **Barbu**, Spiru Haret University, **Romania**

Christoph **Barmeyer**, Universität Passau, **Germany**

Amelia **Bădică**, University of Craiova, **Romania**

Gheorghe **Bică**, Spiru Haret University, **Romania**

Ana **Bobîrcă**, Academy of Economic Science, **Romania**

Anca Mădălina **Bogdan**, Spiru Haret University, **Romania**

Elena **Doval**, Spiru Haret University, **Romania**

Jean-Paul **Gaertner**, École de Management Strasbourg, Université de Strasbourg, **France**

Shankar **Gargh**, Editor in Chief of Advanced in Management, **India**

Ioan **Gâf-Deac**, Spiru Haret University, **Romania**

Eugen **Ghiorghiță**, Spiru Haret University, **Romania**

Emil **Ghiță**, Spiru Haret University, **Romania**

Dragoș **Ilie**, Spiru Haret University, **Romania**

Arvi **Kuura**, Pärnu College, University of Tartu, **Estonia**

Ion Viorel **Matei**, Spiru Haret University, **Romania**

Constantin **Mecu**, Spiru Haret University, **Romania**

Piotr **Misztal**, Technical University of Radom, Economic Department, **Poland**

Marco **Novarese**, University of Piemonte Orientale, **Italy**

Russell **Pittman**, International Technical Assistance Economic Analysis Group Antitrust Division, **United States of America**

Ion **Popescu**, Spiru Haret University, **Romania**

Kreitz Rachel **Price**, École de Management Strasbourg, Université de Strasbourg, **France**

Peter **Sturm**, Institut National de Recherche en Informatique et Automatique, **France**

Andy **Ștefănescu**, University of Craiova, **Romania**

Laura **Ungureanu**, Spiru Haret University, **Romania**

Hans-Jürgen **Weißbach**, University of Applied Sciences - Frankfurt am Main, **Germany**



Publisher:

European Research Center of Managerial Studies in Business

Administration Brazda lui Novac Street, no 4 Craiova, Dolj, Romania

Email: jaes_secretary@yahoo.com

Journal of Applied Economic Sciences

Journal of Applied Economic Sciences is a young economics and interdisciplinary research journal, aimed to publish articles and papers that should contribute to the development of both the theory and practice in the field of Economic Sciences.

The journal seeks to promote the best papers and researches in management, finance, accounting, marketing, informatics, decision/making theory, mathematical modelling, expert systems, decision system support, and knowledge representation. *This topic may include the fields indicated above but are not limited to these.*

Journal of Applied Economic Sciences be appeals for experienced and junior researchers, who are interested in one or more of the diverse areas covered by the journal. It is currently published quarterly with three general issues in Winter, Spring, Summer and a special one, in Fall. The special issue contains papers selected from the *International Conference* organized by the *European Research Centre of Managerial Studies in Business Administration* and *Faculty of Financial Management Accounting Craiova* in each October of every academic year. There will prevail the papers containing case studies as well as those papers which bring something new in the field. The selection will be made achieved by:

- Conference Session Chairs
- Editorial Board Members

Journal of Applied Economic Sciences is indexed in SCOPUS www.scopus.com, CEEOL www.ceeol.org, EBSCO www.ebsco.com, RePEc www.repec.org and in [IndexCopernicus www.indexcopernicus.com](http://IndexCopernicus.com) databases.

The journal will be available on-line and will be also being distributed to several universities, research institutes and libraries in Romania and abroad. To subscribe to this journal and receive the on-line/printed version, please send a request directly to jaes_secretary@yahoo.com

Journal of Applied Economic Sciences

ISSN 1843-6110

Table of Contents



	Lucian CONSTANTIN, Gabriel BUDACIA <i>The Firm's Patrimony – An International Approach</i>	... 311
	Elena DOVAL <i>A Model of Planning Process by Using Scenarios in Strategic Management</i>	... 317
	Floarea GEORGESCU <i>The Forecasting and Diagnosis Analysis of Cash Flows. The Calculation and Covering of the Treasury Balances</i>	... 324
	Rajmund MIRDALA <i>Monetary Aspects of Short-Term Capital Inflows in the Central European Countries</i>	... 342
	Michal TVRDON <i>International Division of Labour in the Context of Globalisation: The Case of the Czech Republic</i>	... 359
	Camelia FIRICĂ, Manuel Cristian FIRICĂ <i>The Components of Nonverbal Communication Important Factors in the Teaching Process</i>	... 370
	Aleš MELECKÝ, Martin MACHÁČEK <i>The Role of National and Supranational Fiscal Rules - International Evidence and Situation in the Czech Republic</i>	... 375
	Ravinder RENA <i>The Global Economic Downturn and African Economy – Recent Trends and Future Prospects</i>	... 383

THE FIRM'S PATRIMONY – AN INTERNATIONAL APPROACH

Lucian Constantin Gabriel **BUDACIA**
Romanian - American University, **Romania**
lucian.budacia@yahoo.com

Abstract

This article is meant to reinterpret the balance equation of the Patrimony. Any book about the Foundations of Accountancy presents in the chapter "The Object of Accountancy", the patrimonial equation mentioned above. We state the following affirmation: in the accountancy of a firm, everything is thought over from the point of view of the respective firm. However, this small detail seems to have been overlooked by authors of accountancy manuals when they presented the equation mentioned above. And we observed that this small detail attracted a lot of confusion even among people with many years of experience in accountancy. This article will offer a new point of view regarding the concept of a firm's Patrimony on an international approach.

Keywords: accountancy, patrimony, assets, liabilities, owner's equity.

JEL Classification: M410

1. Introduction

The essential problems in characterizing a science are establishing its object of study and its method of research. These aspects allow the respective science to have a clear and precise position among all sciences, to establish relations with related domains and to specify its importance and utility in the process of knowledge. As a science, accountancy has established over the centuries more or less its content and object of study. The first definition of accountancy was given by Luca Paciolo (Caraiani 2005) and written down in Venice in 1494 in the mathematics and geometry work „Summa de arithmetica, geometria, proportioni et proportionalitá” which includes „Tractatus de computis et scripturis”, meaning The treatise of double entry accountancy. He considers that the object of accountancy is „everything which the merchant considers to be his and all the big or small businesses in the order in which they took place” (Capron 1994). Although it is the first treatise of double entry accountancy, Luca Paciolo does not claim the paternity of this system, he only describes the system used by merchants in Venice and Florence. Regarding the object of accountancy, in historic evolution, numerous discussions and debates took place. Starting from Luca Paciolo's definition (Baciu 1997), a great number of reformulations were made through which the object of accountancy was defined, but without any unanimous cohesion.

2. Concepts regarding the object of accountancy

In the accounting literature, four concepts regarding the object of accountancy are known: administrative, legal, economic and financial (Popa 2009).

In the administrative concept, which belongs to the Italian school (E. Pisani, G. Massa, V. Gitti), the object of accountancy refers to the reflection and the value control of administrative facts in order to obtain maximum economic effects with minimum efforts (Negrescu 1996).

The legal concept, cultivated by the German school (F. Hugli, R. Reisch, I. C. Kreibig) and adopted in our country by professors G. Tancu Iași, S. Iacobescu, A. Sorescu, considers that the object of accountancy is represented by the patrimony of a natural person or of a legal person regarded from a legal point of view, namely from the point of view of rights and material obligations in relation to the corresponding objects (goods, values). In this concept, accountancy is the science of recording the trade equalities from a person's patrimony.

The economic concept, which is very widespread in the European accountancy schools (J. Fr. Schar, R. P. Coffy, E. Leautey, A. Guibbault, A. Gibert, I. Evian, C. Panțu, D. Voina), defines the object of accountancy as a circuit of capital regarded from the point of view of destination (fixed capital and working capital) and of the source (national and foreign capital). Hence, R. P. Coffy shows that in the object of accountancy, “the solution to the following problems plays an important part: given a capital made by a common method, meant to be used, all of it or just a part of it successively, in different uses and likely to suffer certain changes in its nature and amount, it has to observe this

capital in all its successive changes at a time fixed according to the will, nature and position of each of its component parts, all the increases and decreases that it suffered, to reveal the causes of these variations and the part played by each of these causes in the overall effect or in a partial effect". In this concept, J. Fr. Schar considers as an object of accountancy "the movement of individual capital as well as its expenses and income".

The financial concept views the object of accountancy as a part of the research and solution to the value chains of our existence, a part of the movement and change of the patrimonial resources which it treats starting from their source (permanent and temporary resources) and from their use (durable and cyclic uses). In some papers, the source of the resources is also structured from the obligations' perspective (obligations toward the owners and toward other persons).

The financial concept has more and more followers and it is accepted by the contemporary schools of accountancy (Malciu 1999). This concept together with the economic one represents the basis of the studies for the establishment of international accountancy conventions and standards. Taking into account the definition of the object of accountancy in historic evolution and its particularities on the market economy (Cistelecan 2000), we consider that the definition of the object of accountancy should also include the patrimony viewed economically, legally and financially, as well as the financial results of economic agents, therefore a legal-economic and financial perspective on patrimony.

3. The content of the object of accountancy

The object of accountancy is represented by the state of the patrimony from the money perspective, by its movement and transformation as a result of the economic operations and the obtained results. Any economic unity and budgetary institution is different from others of its kind in relation to its patrimony (Luca 1999).

The patrimony is represented by the set of rights and obligations of economic nature expressed in money together with the goods which they refer to and which belong to a natural or legal person no matter the source (Horomnea 2001). Hence, in order to have a patrimony, two elements are necessary:

- *the subject of patrimony*, namely a natural or a legal person, who is in the possession of material goods and controls them, who has the corresponding rights and obligations, being able to exert acts of disposition and administration over the patrimony;

- *the objects of patrimony*, the material goods and money, as objects of the rights and obligations relations.

Viewed as utility values, these objects or goods, as components of the patrimony, represent the wealth of natural or legal persons. The use of this wealth in economic activity is expressed by the notion of „economic means (goods)".

Hence, the patrimony of a unity brings together two main elements: patrimonial elements of the material means and money type expressed on a value scale and sometimes quantitatively and patrimonial elements of the legal relations type which unities create for themselves in the process of their activity, relations materialized in rights and obligations. Therefore, the patrimony, from the perspective of structure, includes the legal and the economic patrimony (Doinea 2002).

The economic patrimony represents the set of goods (means, wealth) which belong to an economic agent, used in order to develop the object of his activity by a natural or a legal person, no matter the source of the respective goods.

The legal patrimony represents the legal relations, rights and obligations which are created in patrimonial unities as a result of the existence and use of the economic patrimony (Drăgan 1995).

Legal relations are important components of the patrimony and include categories of rights and obligations, among which the most common are (Epstein 2007):

a) the rights of the patrimony subject:

- the ownership rights over goods and values which belong to him;
- the claim rights over other persons for the transferred goods and values;

b) the obligations of the patrimony subject:

- internal obligations, toward the associates or shareholders for their contribution to the society's capital;
- external obligations, toward other persons for the received goods and services, credits, work, taxes, etc.

We can conclude that the object of accountancy is found in a patrimony which contains, structurally speaking, both the economic and the legal patrimony, because an economic patrimony cannot exist without a legal patrimony and vice-versa.

The object of accountancy, reflecting the patrimony of unities, is represented by the evidence, calculation, control, movement and change of the economic means (goods) as a result of the economic processes in connection with the corresponding legal relations (Feleagă 2005).

In conclusion, the content of the object of accountancy is represented by patrimony, evidence, calculation and control of the existence, movement and change of the economic means within the framework of the economic processes, the final result of these movements and changes, the legal relations which generate rights and obligations, mirrored in money standard and sometimes quantitatively in the perimeter of the patrimonial unities (Feleagă 1998).

4. New own points of view regarding the interpretation of a firm's patrimony

This article is meant to reinterpret the *balance equation* of the *Patrimony*, which, in accountancy, appears under the form: Economic goods = Rights + Obligations.

Any book about the Foundations of Accountancy presents in the chapter "The Object of Accountancy", the patrimonial equation mentioned above. We state the following affirmation: *In the accountancy of a firm, everything is thought over from the point of view of the respective firm.* However, this small detail seems to have been overlooked by authors of accountancy manuals when they presented without further consideration the equation mentioned above. Therefore, in the explanations that we encounter in accountancy books, we find out that the Rights relations take into account the owners' rights over their personal wealth, rights which they brought into the firm when it was established or which they have earned gradually from the firm's activity. But what do we notice? The notion of *rights* (receivables) has not been taken into account from the firm's perspective, but from the shareholders' (owners') point of view. Hence, if shareholders have indeed rights (receivables) over the firm, doesn't this mean that the firm has debts toward its shareholders? Of course it has! Why are we interested in the firm's perspective? Because, as said before, everything in accountancy should be thought over from the firm's point of view. The accountancy of a firm is kept at the firm, not at its shareholders. Therefore, through the notion of *Rights* (the shareholders' rights over their firm) from the equation mentioned above, we understand in fact the firm's *Debts* to its shareholders, regarded from the firm's point of view.

Through the notion of Obligations we understand Debts. Whose? The firm's or shareholders' debts? The accountancy is kept at the firm, so the answer is very clear: the firm's Debts. If the notion of Rights means in fact the firm's Debts to its shareholders, then the notion of Debts means the firm's Debts to other persons, namely to everybody else except the shareholders. So, there are two categories of a firm's debts: the firm's Debts to its shareholders – which we can call *Internal Debts* and the firm's Debts to other persons – namely *External Debts*.

Through the firm's Economic Goods we understand the firm's Wealth, meaning any goods or values that the firm has and which are used in order to generate new surpluses of goods and values. In the equation mentioned above, if we replace the notion of *Rights* with *Receivables*, the notion of *Economic goods* with *Wealth* and the notion of *Obligations* with *Debts*, then we will have an equation of the type: Wealth = Receivables + Debts, equation which, regarded from a firm's point of view, has never been encountered in accountancy under this form. Why? Because the equation Assets = Equity + Liabilities, meaning the equation which lies at the foundation of accountancy, is not encountered under this formula. If the Assets mean the firm's Wealth and the Liabilities don't mean the sum of receivables and debts of a firm, because the receivables are, by definition, a part of the firm's Assets, from the firm's Wealth and we will see why.

To sum up, when the great patrimonial equation was established under the form Economic Goods = Rights + Obligations, a big confusion was made: the notion of Rights was used with the sense of *Receivables of the shareholders toward the firm*, instead of using the notion of *Debt of the firm toward the shareholders*, which practically means the same thing, but from the firm's point of view. So, starting from the patrimonial equation mentioned above, we will never reach, step by step, the accountancy fundamental equation, namely the simple patrimonial equation Assets = Equity + Liabilities ($A = E + L$), because, in accountancy, everything should be taken into account only from

the firm's perspective, assumption rarely respected in the primordial patrimonial equation $\text{Goods} = \text{Rights} + \text{Obligations}$.

This is how we see logically explained the patrimonial equation of a firm. The Net Patrimony at a certain moment in time is represented by what the firm *has*, to which we add what the firm *has to receive*, from which we extract what the firm *has to give*. Putting all this into a formula, the primordial patrimonial equation could be written under the following form from Figure 1:

$$\begin{array}{c}
 \text{Net Patrimony} = \text{Money} + \text{Goods} + \text{Receivables} - \text{Liabilities} \\
 \underbrace{\hspace{10em}} \qquad \underbrace{\hspace{10em}} \qquad \underbrace{\hspace{10em}} \\
 \text{what the firm has} \qquad \text{what the firm has to receive} \qquad \text{what the firm has to give} \\
 \underbrace{\hspace{10em}} \qquad \underbrace{\hspace{10em}} \\
 \text{Assets} \qquad - \text{Liabilities}
 \end{array}$$

Figure 1. The primordial patrimonial equation

In accountancy, everything should be calculated from the firm's point of view. Therefore, in the equation mentioned above we take into account the firm's patrimony, the money, the goods, the receivables and the liabilities which all belong to the respective firm.

In accounting practice, Assets are represented by three main categories: Money, Economic Goods (Goods) and Receivables. Even if Assets are classified as *Non – current assets* and *Current Assets*, in the structure of these two categories we do not encounter anything besides Money, Goods and Receivables .

So, a simpler equation of Patrimony could be extracted from the more extended equation mentioned above: $\text{Net Patrimony} = \text{Assets} - \text{Liabilities}$ or $\text{Assets} = \text{Net Patrimony} + \text{Liabilities}$.

It is known that, in accountancy, the Net Patrimony of a firm is also called Owner's Equity. If we replace it in the equation stated above, we obtain: $\text{Assets} = \text{Owner's Equity} + \text{Liabilities}$ (the accountancy fundamental equation).

Owner's Equity in Romania is defined as being „*the interest of shareholders in the assets of an entity after the deduction of all its debts*”. This is correct; however this definition is not established from the *firm's* point of view, but from the *shareholders'* perspective. This issue creates a lot of confusion even among teachers with experience. We noticed this working as a teacher, which made me write this article in order to clarify once and for all what Luca Paciolo wanted to say a long time ago, but not everybody understood him correctly. So, the shareholders' interest represents in fact the shareholders' receivables toward their firm. But, from the firm's point of view, this means the firm's debt toward the shareholders, which we called at the beginning of this article Internal Debt. So, for the Owner's Equity we can use the term Internal Debts (namely the firm's debts toward its *shareholders*).

The notion of Debts from the equation mentioned above represents in fact the firm's Debts toward other persons (meaning toward any other persons except the shareholders). These Debts have been called at the beginning of this article External Debts (meaning the firm's debts toward other persons).

Therefore, replacing in the last formula mentioned above the Owner's Equity with the *Internal Debts* and the Liabilities with the *External Debts*, we will have the following new equation: $\text{Assets} = \text{Internal Debts} + \text{External Debts}$, meaning: $\text{Assets} = \text{Total Debts}$.

Combining this equation, namely $\text{Assets} = \text{Total Debts}$, with the patrimonial simple equation $\text{Assets} = \text{Owner's Equity} + \text{Liabilities}$, we can conclude that the Owner's Equity + Liabilities represent the firm's Total Debts. Or, in other words, all the OWNER'S EQUITY and LIABILITIES accounts are only DEBTS, which can be of two types: *Internal Debts* and *External Debts*.

Therefore, just as this patrimonial equation, $A = E + L$, was established a long time ago under the form $\text{Wealth} = \text{Capital}$, by I. N. Evian in his book *Double accountancy*, published in Bucharest in 1946 or under the form $\text{Wealth} = \text{Funds}$, by V. M. Ioachim in his book *Accountancy treatise*, Volume I, Bucharest, 1955, now, after more than half a century, we boldly confirm and sustain the same formula $A = E + L$, but under a new, different form, namely: $\text{Wealth} = \text{Debts}$.

What does this mean? Only that *everything I have* as a firm, is in fact what I *have to give*. This is normal, because when the firm was established, everything began from the formula Assets = Liabilities = 0. Then, everything that the firm will receive in Assets from shareholders or other persons, will appear in Owner's Equity and Liabilities as the firm's debt toward them. Therefore, everything that the firm receives, represents a debt, meaning Wealth = Debts, and this is how the permanent equality of the accountancy fundamental equation $A = E + L$ is explained. From practice we also noticed that all the OWNER'S EQUITY and LIABILITIES accounts are in fact NAMES for the Assets accounts. Or, in other words: all the OWNER'S EQUITY and LIABILITIES accounts are NAMES for the Assets accounts.

This is why the *Amortization* is close to the *Owner's Equity and Liabilities*: the *Amortization* represents the name from the Owner's Equity and Liabilities for the *expenses* which have to be shown in the Assets. This is why the *Provisions / Adjustments* are close to *Owner's Equity and Liabilities*: the *Provisions / Adjustments* represent the name from the Owner's Equity and Liabilities for the *expenses* which have to be shown in the Assets, etc.

But a drawing is worth more than a thousand explanations, so here is a very suggestive draft, in Figure 2, which supports the assumption mentioned above:

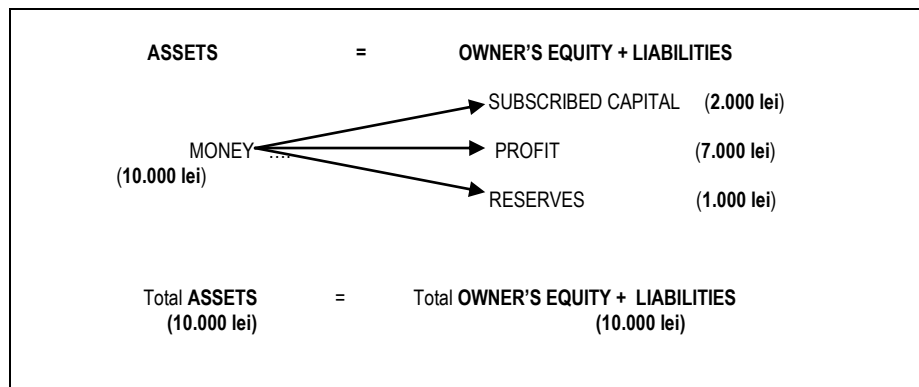


Figure 2. A model of the basic equation of the accounting

The next explanations follow this above Figure 2:

- the firm has 2.000 lei MONEY in *Assets* which is called SUBSCRIBED CAPITAL in *Owner's Equity and Liabilities*, with a value of 2.000 lei; at the same time, the *Subscribed Capital* represents the firm's *debt* toward its shareholders;
- the firm has 7.000 lei MONEY in *Assets* which is called PROFIT in *Owner's Equity and Liabilities*, with a value of 7.000 lei; at the same time, the *Profit* represents the firm's *debt* toward its shareholders;
- the firm has 1.000 lei MONEY in *Assets* which is called RESERVES in *Owner's Equity and Liabilities*, with a value of 1.000 lei; at the same time, the *Reserves* represent the firm's *debt* toward its shareholders.

To sum up, it is normal for the name from the Liabilities to be equal with what it represents in Assets and so, *the total value of EVERYTHING I HAVE in Assets should be equal with the total value of the NAMES from the Owner's Equity and Liabilities*. This is the second explanation of the equality $A = E + L$.

5. Conclusion

From what we have presented in this article, it is understood not that we changed the patrimonial equation, namely the basic accountancy equation $A = E + L$, but that this equation can also be viewed and interpreted in other ways than the literature has shown. We have presented it from another point of view and shown that it can be regarded from another perspective, just as other authors have tried to present it, but without drawing conclusions concerning these ideas.

We have tried to present this equation in a more simplified manner and to show how easy to understand is this brilliant duality created a long time ago by Luca Paciolo – the founding father of

double entry accountancy. We know that it won't be easy to convince everybody at once of what we have presented. But as long as great personalities of accountancy agreed with us concerning the content of this article and encouraged us to publish it, we considered that the results of our research will become a starting point for many student-book authors from now on.

When I made this paper, I studied all the recent scientific literature from my country and a lot of international scientific researches. All that I remarked and I proved in this paper is based on the accountancy accepted all over the world.

References

- [1] Baci, A. 1997. *Bazele contabilității*. Editura Universitatea Bogdan-Vodă.
- [2] Caraiani, C., and Dumitrana, M. 2005. *Bazele contabilității*. Editura InfoMega.
- [3] Capron, M. 1994. *Contabilitatea în perspectivă*. Editura Humanitas.
- [4] Cistelecan, R. 2000. *Bazele contabilității*. Editura Universității Petru Maior.
- [5] Doinea, O., and Șerban, C. 2002. *Bazele contabilității*. Editura Scrisul Românesc.
- [6] Drăgan, C.M. 1995. *Bazele contabilității*. Editura Contconsult.
- [7] Epstein, B.J., and Jermakowicz, E.K. 2007. *IFRS: interpretarea și aplicarea standardelor internaționale de contabilitate și raportare financiară*. Editura BMT Publishing House.
- [8] Feleaga, N., and Malciu, L. 2005. *Contabilitate financiară o abordare europeană și internațional - Volume II*. Editura Infomega.
- [9] Feleagă, N., and Ionașcu, I. 1998. *Tratat de contabilitate financiară*. Editura Economică.
- [10] Horomnea, E. 2001 *Tratat de contabilitate – teorii, concepte, principii, standarde*. Editura Sedecom Libris.
- [11] Luca, I., and Mazarachi, C. 1999. *Bazele contabilității*. Editura Național.
- [12] Malciu, L. 1999. *Contabilitate creativă*. Editura Economică. București.
- [13] Negrescu, I. 1996. *Logica înregistrărilor contabile*. Editura Economică.
- [14] Popa, I.E. *et al.* 2009. *Bazele contabilității – Aplicații practice*. Editura Economică.

A MODEL OF PLANNING PROCESS BY USING SCENARIOS IN STRATEGIC MANAGEMENT

Elena DOVAL
Spiru Haret University, Romania
doval.elena@yahoo.com

Abstract

The organization environment is characterized by uncertainty and risk that have an important impact of strategic management. In order to face this problem the managers need to plan their strategies. A useful tool in strategic planning is forecasting, but it is difficult to be applied in uncertain environment. This paper briefly discusses these aspects and proposes a model that uses scenarios in strategic planning.

Keywords: uncertainty and risk, strategic management, strategic planning process, scenarios.

JEL Classification: M1, C1, Y8

1. Introduction

Strategic management represents a superior approach of the relation company-environment through which the organization creates its own future by handling all its resources and capabilities in order to obtain competitive advantage and to realize flexible structures and management systems that are used to find out alternatives and politics for action plans.

Forecasting or future anticipation is part of strategic management that comes as a response to the uncertainty of the environment in which the company operates. That is why the approach of the strategy in management has to be flexible, dynamic and innovative.

The strategy design requires the consideration of the economical, political and social instability and in the same time forecasting as closer as possible to the real life.

The information technology revolution has facilitated the using of mathematical modelling and sophisticated approaches, but in the context increased volatility of the international environment forecasts don't always give effective coordinates for decisions that lead to performance. Usually, the managers seek for certainties to easier manage the operations and sometimes with probabilities to assess the risks of their decisions by assuming additional costs, but the environment is often uncertain and the management has to face a large number of variables, demanded elasticity and competition, that constitute the main barriers in predictions.

While the risk problems may be planned using conventional methods, when the external environment becomes uncertain the future design cannot be based on predictions but on alternative options and possible futures.

Makridakis (1988) has identified a large list of errors in predictions, among the optimism, inconsistency, actuality, availability, conservatism, selective perception, effects of regression and others that underline that forecasting not always fit the management possibilities in designing the strategy. The situations where patterns of similar experiences don not exist may use the scenarios technique which may be a useful and valuable instrument in designing the strategy and the future of the organization.

2. Uncertainty and the risk in strategic management

2.1. Strategic planning

Strategic planning is basically realized on long term, usually over 10 years, and it is no doubt that is less certain then operational or medium term planning. The quantitative techniques are not effective, the majority of them being replaced with qualitative techniques. But, nevertheless the vision on the organization's future is useful and relevant for strategies. Whether techniques of modelling phenomena are useful for tactics drafting in strategies design an „educated guess” is needed (Herbig cited in Ringland 1998, p.11). „Futures design or planning involves issues of development and strategic planning. It observes the organization from both an internal and external view. It does this by gathering information from the environment and the system itself. It does all the future orientated

tasks: research and development, training (except the orientation and maintaining skills), recruitment, public relations, and market research. Consistent with the information gathering activities, it is also connected with the creation of knowledge” (Yolles 2009).

Considering external environment with discontinuities and uncertainty the strategic planning techniques have been developed by General Electric and improved by Group Royal Dutch and Shell Group. The recent proofs underline the General Electric success in strategy based on professional managers that is out of control and opposite of the known theories. „Existing theory in the field of strategic management does not predict or explain GE’s investment into fungible and noncontrollable managerial resources”. (Lehmberg *et al.* 2009).

2.2. Uncertainty versus the risk

The risk associated to hazard is technically defined as a product between the hazard amplitude and the probability of appearance that is the cost of diminishing the risk. When more probabilities or chances exist we talk about the expected value of risk costs. The amplitude of risk and the probability of appearance are elements of risk under the human subjectivism, because people make errors in risk perception and these depend on the general importance given to different types of risks. The tendency is to overestimate the importance of rare but unpleasant risks, having defavorable consequences and to underestimate or even ignore the common, known ones, even if the induced risk has stronger impact on activities. Hence, the estimation approach and risk management have two basic elements: the risk amplitude and the probability of risk appearance (Doval 2009).

The risk which does not imply costs is not a risk, because the magnitude of risk is estimated in terms of costs. Therefore the risk is assessed in context of beneficiaries’ interest. The probability of risk appearance or the chance a hazard is realized is considered as a sample of possible events. The error of not including events invalidates the whole operation, therefore it is important to estimate amplitude limits. In practice the failure tree and events tree diagrams are used to do the judgment. This kind of diagrams permit the traceability of possible future events and the probability is attached to each knot of the tree, so that the composed probabilities may be determined by multiplication. The difficulty is to include all probabilities, but this type of analyses is usually made by experts.

When the probabilities could no be known, it is about uncertainty as opposition of risk.

This is a crucial factor in strategic planning. There are three categories of uncertainty (Mercer 1998): hidden certainty, expected uncertainty and random uncertainty.

Hidden certainty: Plenty future events, especially in strategic development of the companies, result from the hidden tendencies, but they may be planned if they are selected with judgment; for example the decreasing population in Eastern Europe.

Expected uncertainty: Some events, even they are not totally predictable, are expected to appear because they are based on consensus; for example, the increasing role of female managers.

Random uncertainty: some events, even not many, cannot be predicted and they lead to dramatic failure of the strategic plan; for example, showers that destroy trees, earthquake or exchange crash.

In practice, the long period forecast lead to decision based on judgment.

3. Scenarios technique

3.1. Scenarios functions

In strategic planning managers are taking into account experience and acquired knowledge, but some limits appear in uncertain environment. „Often the managers don’t define and don’t explore the strategic problems and don’t generate alternatives. They study in part one or whole alternatives which are at their disposal for a long period of time” (Bood and Postma 1997, 636).

The scenarios contribute to learning by encouraging the managers to explore unfamiliar domains and to analyse them by the means of the question „What if...?” Boost and Posma (1997) have identified five functions by using scenarios:

- *Strategy assessment and selection.* The scenarios offer the framework for managers to judge the strategic alternatives.

- *Integration of data oriented towards the future.* The scenarios may integrate quantitative and qualitative inputs, including subtle and fuzzy sets, and may incorporate results obtained by using other techniques of forecasting.

▪ *Exploration of future.* By formulation of hypothetical sequences of the events the scenarios may help to the identification of the major changes and the potential problems and to generate options for managing them. They also permit the unexpected problems anticipation and assure a system of warning in time about their appearance.

▪ *Warning the environment uncertainties.* The scenarios require managers to accept uncertainty, to understand it and to make part of their judgment (Wack 1985).

▪ *Organizational learning.* The scenarios offer the possibility to explore the strategic decisions consequences.

In strategic planning by using scenarios technique the uncertainty has to be approached with a high degree of flexibility.

3.1. Scenarios approach in strategic planning

Theoretically, the scenarios take into account three important alternatives of the future of the events (Heller 1999, 44):

- the ideal scenario (optimistic), where the events follow an ideal successful way;
- the reasonable scenario, where the events follow a mitigated way;
- the catastrophic (pessimistic) scenarios, where the events end with failure.

In practice, the optimistic and pessimistic scenarios are neglected and the reasonable scenarios are developed in several alternatives. Stapleton (2000) proposes three stages for the process of strategic planning by using scenarios: environment analysis, scenarios preparation and strategy formulation.

Searching for good practices, we observed that the strategic resources and capabilities are strongly linked to strategy planning that have to be used in the context of the organization mission and strategic objectives in order to obtain competitive advantage and finally added value. „There are clear linkages between strategies, value-adding activities, core competences, and resources. The more that core competences can be integrated into value-adding activities, the greater will be the value added” (Stonehouse, and Snowdon 2007).

Therefore, a model for the process of strategic planning by using scenarios is proposed bellow (Figure 1).

The model consists into four stages: strategic analysis, strategy formulation, scenarios formulation and strategy decision making and 15 working steps: 1. External environment scanning and analyse; 2. Strategic resources and capabilities identification; 3. Critical points isolation; 4. Clusters identification; 5. Organization’s strategic objectives reviewing; 6. Knowledge database searching; 7. Strategic options identification & selection; 8. Scenarios generation; 9. Key issues identification; 10. Drivers’ selection; 11. Scenarios writing; 12. Scenarios testing; 13. Strategic changes application; 14. Strategy selection decision making and 15. Strategy implementation.

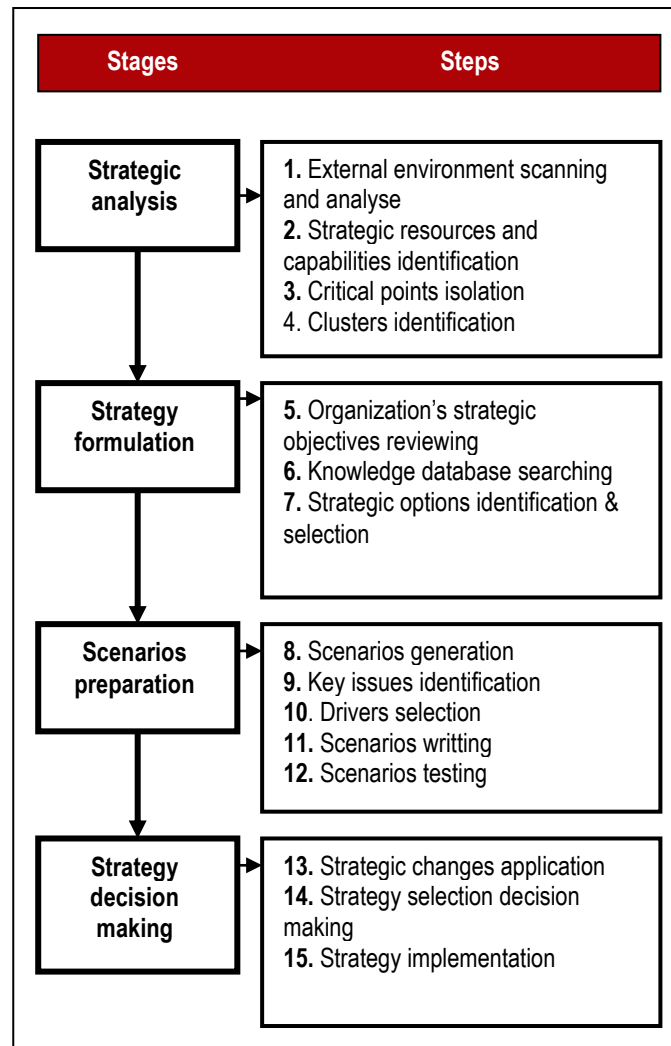


Figure 1. The process of strategic planning by using scenarios model

Stage 1. Strategic analysis

Step 1. External environment scanning and analyse. External environment is often complex and volatile and affects the long-term decisions. The first step in strategy planning is to scan the external environment and to identify the hidden constraints. The external environment factors are to be evoked and analyse their influence on the organization's activities. The best practice is the brainstorming with an opened and divergent thinking which has not to have the „judgment“ characteristics. The ideas could be refined by using techniques like STEEP (Social, Technological, Economical, Environmental and Political factors) analyse and/or check lists.

The industry analysis is also included and the best tool is Porter's five forces model (1980).

Step 2. Strategic resources and capabilities identification. As the final goal of strategy planning is to obtain competitive advantage, the second step is to identify the strategic resources and capabilities able to be multiplied within the organization (Prahalad, and Hamer 1999; Amit, and Schoemaker 1999; Grant 1999 and others). In this respect, permanent covering and the optimization of resources use, as well as the identification of the organization ability to create and multiply the strategic capabilities are some of the main activities to be done.

Step 3. Critical points isolation. In order to survive and prosper in an industry the organization needs to compare its success factors with the competition. The Grant model (1998) could be a useful tool. Strong points and especially the weaknesses need to be emphasised and new ideas about how to handle them need to be generated.

Step 4. Clusters identification. The ideas are combined with the constraints and organization’s competences into clusters that will be the basics for drivers of change identification.

Stage 2. Strategy formulation

Step 5. Organization’s strategic objectives reviewing. The organization strategic objectives are revised by analyzing them against clusters.

Step 6. Knowledge database searching. The knowledge data bases are searched and explicit knowledge referring to the clusters are selected.

Step 7. Strategic options identification & selection. Considering the clusters, strategic objectives and the explicit knowledge a team of experts will design new strategic options. A list of a few alternatives will be selected and this will be the foundation stones for scenarios preparation. The strategic options will be informal and qualitative and prepare the next stage planning.

Stage 3. Scenarios preparation

Step 8. Scenarios generation. In this step the events which are intercorrelated and have the potential to multiply or spread in the future are selected and as many as possible scenarios are then generated. Based on consensus the complementary scenarios are selected. They have to enrich each other. The preferred scenarios by the top management are avoided. The main characteristics that have to be considered when designing the scenarios are:

- the number of the identified scenarios is not limited;
- the scenarios that are too optimistic or too pessimistic are usually avoided;
- the scenarios have to be simulative and challenging; flexible and plausible;
- the scenarios need to balance the favourable and defavorable perspectives.

Step 9. Key issues identification. The scenarios are examined in order to determine the critical events and key issues that will be compared with events or decisions with strong impact on the long-term organizational potential or its possibilities to survive in a period of crisis.

Step 10. Drivers’ selection. The drivers have to be carefully chosen on the 80:20 principle and having significant consequences. All predictable events or factors will be enclosed in all scenarios, but the efforts will be focused on unpredictable, uncertain and important events or factors. Stapleton (2000) recommends the Importance/Uncertainty matrix utilization (Figure 2).

It is convenient to choose drivers that create added value. A good approach is offered by (Scott 2002).

	Uncertainty		
Not important	Driver 1	Driver 2 Driver 4 Driver 7	Important
	Driver 3 Driver 6	Driver 5	
	Certainty		

Figure 2. Importance/Uncertainty matrix

Step 11. Scenarios writing. In this step the context of scenarios is developed. There is not a standard pattern of how scenarios have be presented, but they scenarios are often presented as a written text, based on qualitative variables and is written in such a way to express the organization’s interests and needs. The condition is that every scenario has to be entitled. In some organizations they are presented as the conventional report.

This step needs rigour and divergent thinking because the consequences of the events have to be considered.

Step 12. Scenarios testing. In this step the degree of trust and the validity of the designed scenarios are tested.

Stage 4. Strategy decision making

Step 13. Strategic changes application. In this step has the role to balance the limited resources of the organization with the external challenges and the divergences identified during planning and to operate the necessarily corrections to the designed strategies.

Step 14. Strategy selection decision making. Using strategy evaluation techniques based on feasibility analyses or others, such as Johnson and Scholes criteria (1997) or Rumelt tests (1985) it is selected the strategy that better fits the criteria and better participate to the added value.

Step 15. Strategy implementation. The final step of the strategic planning is to act to put in practice the plan. A separate short term plan of actions having clear responsibilities and schedule is prepared.

Conclusions

Whether random uncertainties cannot be anticipated and the management cannot find and apply actions to thwart them, the hidden certainties may be forecasted after identifying them and could be assimilated with risks. The expected uncertainties are not always predictable, but they may be controlled by the management by using scenarios.

The scenarios represent a tool to identify the forces and events that succeed on long time and they have success whether they conduct to effective strategies formulation. The scenarios technique consists in the observation of the present and the establishing alternatives in which the economic phenomena may evolve in the future. As simple are the scenarios as more effective they are in strategy designing and planning.

The proposed model is the result of the generalization of practices of different organization's strategic planning and strategy design and it is not tested yet such as it is. The research continues with the model application in practice and details resulted from this activity.

References

- [1] Amit R., Schoemaker P.J. H. 1999. Strategic Assets and Organizational Rent. In Segal-Horn, S. *The strategy readers*, Blackwell: 200-219.
- [2] Bood, R., Postma, T. 1997. Strategic learning with scenarios. *European Management Journal*, Vol.15, No. 6: 633-647.
- [3] Doval, E. 2009. Economical forecasting in the firm management (Previziunea economică în managementul firmei). Editura Fundației România de Măine, Bucuresti.
- [4] Heller, R. 1999. Prendre des *decisions*. Mango Pratiques, Studio Michel Pluvinage: 44-45.
- [5] Herbig cited in Ringland G. 1998. *Scenario Planning. Managing for the Future*, Chichester, John Wiley: 11.
- [6] Grant R.M. 1998. *Contemporary Strategy Analysis*, Blackwell Business, UK: 126-128.
- [7] Grant, R.M. 1999. The resource-based theory of competitive advantage: implication for strategy formulation. In Segal-Horn, S. *The strategy readers*, Blackwell: 179-199.
- [8] Johnson G., Scholes K. 1997 *Exploring Corporate Strategy*, Forth Edition, Prentice-Hall Europe, UK, p.330.
- [9] Lehmborg, D., Glenn Rowe, W., Roderick E. White, and Phillips, John R. 2009. The GE Paradox: Competitive Advantage Through Fungible Non-Firm-Specific Investment, *Journal of Management*, 35: 1129-1153.

- [10] Makridakis, S. 1998. Metaforecasting-Ways of Improving Forecasting Accuracy and Usefulness, Fintainebleau, INSEAD.
- [11] Mercer, D. 1998. The future quantified, *Future*, Vol.30, No.4: 305-352.
- [12] Porter M.E. 1980. *Competitive strategy. Techniques for analysing industries and competitors*. The Free Press.
- [13] Prahalad, C.K., Hamel, G. 1999. The core competences of the organization. In Segal-Horn, S. *The strategy readers*, Blackwell: 220-233
- [14] Rumelt R. 1985. *The evaluation of business strategy*. In Mintzberg H, Quinn J.B., Ghoshal S., *The Strategy Process*, Prentice Hall, Hamel Hempsted, UK, 1985.
- [15] Stapleton, T, *et al.* 2000. *Marketing in the Complex World*, Book 1, Unit 3, The Open University, Milton Keynes and The Alen Group, Oxford.
- [16] Stonehouse, G., and Snowdon, B. 2007. Competitive Advantage Revisited: Michael Porter on Strategy and Competitiveness, *Journal of Management Inquiry*, 16: 256-273.
- [17] Wack P. 1985 Scenarios: shooting the rapids, *Harward Business Rewiew*, November/December: 139-150.
- [18] Yolles, M. 2009 Competitive advantage and its conceptual development: An exploration, *Business Information Review*, 26: 93-111.

THE FORECASTING AND DIAGNOSIS ANALYSIS OF CASH FLOWS. THE CALCULATION AND COVERING OF THE TREASURY BALANCES

Floarea GEORGESCU
Spiru Haret University, Romania
georgescuflori@yahoo.com

Summary

The treasury is the essential element through which the way of achieving results is materialized and the requirements of financial stability are respected.

A firm which obtains profit not always has a positive treasury because of the gap between the expenses and revenues recorded in accounting; the statistical records show that most bankruptcies are due to the weaknesses from treasury's management.

Based on these cash flows the entire value of the enterprise, the equity capital or the debts can be evaluated. The investors are interested in comparing the profit obtained by placing money in various investment opportunities. In this way, taking as reference the size of the opportunity cost (value of yield losses compared with other investment opportunities) they can assess whether, after a year of operation of the enterprise, the value of the invested capital decreases or on the contrary, increases.

Keywords: *treasury, cash flow, treasury forecast, forecast of financial statements*

1. Introduction

One of the most important tasks of the enterprise management is the forecast of the future economical conditions where the enterprise develops its activity. Based on these forecasts, the manager consolidates the position of the future activities, depending on the economic, technical and competitive environment. Thus, the techniques of the financial forecast constitute a useful support for the simulation of the expected results by the management.

In order to express an image as accessible and comprehensive as possible regarding the future financial performance of the enterprise, I elaborate a set of forecast financial statement, using the latest assumptions and estimations of the future activity.

2. The statistical methods used in forecasting the assets, liabilities, equity capital, revenues and expenditures

The variety of methods and techniques used for the forecasting of the assets, liabilities, equity, revenues and expenses is very broad. Next we will present some statistical procedures for the prediction of these elements.

The averages method represents a possibility of disclosing the tendency of asset and passive, revenues and expenditures by separating the essential causes of influence from the casual ones. We can use: arithmetic method, timeline and slide method.

The graphic method is the graphical representation of variation of expenditures and incomes, assets and liabilities of the previous periods, as a cloud of points. By joining these points we obtain a diagram of their dispersion. This method can be used as a mean of information and interpretation of the tendency of analyzed elements, being one of the objective criteria for choosing the method of extrapolation (Bogdan 2008).

The forecasting based on the average gain and the medium rhythm of the dynamics is founded on the assumption that the ratio of increasing or decreasing of the expenses and incomes changes very little. For such phenomena which tend to increase like an arithmetic progression is used the average gain ($\bar{\Delta}$)

$$Y_{t+1} = Y_t + \bar{\Delta}$$

Where:

Y_{t+1} = the provisional value of the element

Y_t = the last known level of the element

When the development tendency takes the form of a geometrical progression, is used the medium rhythm of dynamics. In this case the forecast level is obtained using the next relation:

$$Y_{t+1} = Y_t (1 + R_m)$$

Where:

R_m = the medium rhythm of dynamics of the element in the precedent period

$$R_m = \sqrt[n-1]{\frac{Y_n}{Y_1}}$$

Where: Y_n and Y_1 are the last and respectively the first term of the analyzed series.

The trend is one of the effective techniques to make predictions. It is a mathematical function that describes the evolution of curve of the analyzed phenomena. The general form of the trend's function is $y = f(t)$, where y is the variable whose value is eliminated, and t is time.

The successful application of the trend technique implies certain restrictions:

- The predicted phenomena will grow in future by the same curve as that of the previous period
- The phenomena varies monotonous, only ascending or descending, throughout the analyzed period
- choosing the connection and the mathematical function that reflects the evolution of the curve

The specialized literature (Ungureanu, and Matei 2008) recommends the following functions:

➤ for costs

$$y = at + b$$

$$y = at^2 + bt + c$$

$$y = \sqrt{at + b} + c$$

$$y = at^3 + bt^2 + ct + e$$

$$y = at \frac{t + b}{b + c} + d$$

$$y = at^2 \frac{t + b}{b + c} + d$$

$$y = ac^{bt}$$

$$y = t^a e^{bt+c}$$

$$y = a + b \frac{1}{t}$$

➤ for revenues :

$$y = at + b$$

$$y = at^b$$

$$y = a + b \frac{1}{t}$$

$$y = a + bt + ct^2$$

$$y = a + b \log t$$

The trend regards the predicted phenomena as functions of time, not taking into account the real factors which are causing them. Through the regression and correlation techniques this limit is replaced, especially for those phenomena which don't have a constant evolution. In comparison with the trend, the regression and correlation techniques replace the variable t with real factors that determines the phenomenon predicted $y = f(x)$. Also, the regression techniques allow the expression of the predicted phenomena as a function with multiple variable $y = f(x_1, x_2, \dots, x_n)$.

In our case, for expenditures and revenues, the variable t is replaced by production volume. When costs and revenues are the result of the influence of factors we are using the multiple regressions.

The techniques of update consist of measuring the influence of time factor in updating the value elements which makes the objective of the accounting model representation.

Every movement of value, invested by an accounting entity, is part of a process to enhance value. Through the techniques of update is measured this growth of value. By calculating the current value we determined the income flow (a_0, a_1, \dots, a_n) that can be obtained during the period of value

allocation. To determinate these income flows, and on it basis to determinate the available value after n years, means to predict the tendency of the value movement assigned to time t_0 .

The current value, available after n years of investing, essentially depends on the size of present value which is assigned, the duration of immobilization and the discount rate.

The size of the present value is provided by the accounting model with empirical character regarding the assets and expenses of the enterprise, and the immobilization duration coincides with the period for the available prediction value. The question that concerns us, in fact, is the choice of the discount rate.

The process of increasing the value represents the process of formatting results (profit / loss). As a result, the update rate can be only the rate of the invested resources. The recovery rate of the resources invested (employed capital) is calculated as a ratio between the total result of the unit and the total invested resources (employed capitals), reflected in the active of the balance sheet.

It is recommended that the discount rate to be determined for a period of at least five years. Knowing those three factors which determinate the relationship of updated content, the available amount after n years of the current amount invested is determined as follows:

$$A_n = A_0 (1+r)^n$$

Where:

A_n = the available amount of the asset A_0 after n years

A_0 = the current invested value

n = number of years in which the update takes place

r = the discount rate determinate according to the methodology presented above

In order to increase the exacted of the update calculation, the year can be multiplied with the coefficient of rotation speed of the allocated value. In these conditions, the above relation becomes:

$$A_n = A_0 \left(1 + \frac{r}{x} \right)^{nx}$$

Where:

x = the coefficient of rotation speed of the allocated value

The relations presented above can also be used to determine the size of the future cost or profits. For the prediction of these quantities is advisable to use the rate of return of the consumed resources or the turnover and as time unit it can be used the duration of one rotation of production costs.

3. The forecasting analysis of cash flows

In this subchapter we will study the prediction of the future economic conditions, a task considered critical for the management of any business. In this context we will examine the essential concepts and techniques of forecasting operational performance and the financial necessary, to support future operations of a company.

The forecasting of the financial necessities is an essential component of the planning process of business. On this basis, the management consolidates the position of future activities, according to the economic, competitive and technological environment. The preparation of the business plans involves structuring all activities around some specific goals. Through these plans are established strategies and actions necessary to achieve the desired results in short, medium or long term, a special attention is placed on the need to create value for shareholders by achieving higher returns of invested capital costs and promote some consistent investments of growth on long term.

All these plans are quantified in monetary terms as the forecast financial statements and operational budgets.

The main techniques used in the financial forecasting fall into three groups:

- The forecast financial statements;
- Budgets of receipts and payments;
- Operational budgets.

The forecast financial statements involve an estimate of the financial statements based on a series of assumptions about the future necessities of the company's activity regarding the performance and the financing.¹

¹ E. Helfert, *Techniques of financial analysis*, BMT Publishing House, 11 Edition, 2006, cap V, page 170

The budgets of recipients and payments are detailed projections for specific period of time regarding the incidence of cash inflows and outflows on enterprise activity.

The operational budgets are detailed estimates of the company or its structures, on their revenues and expenditures structure, being attached to both financial statements and cash flow statements.

In order to obtain a consistent and solid financial projection, it must be exploited the close connection of the three types of approaches enumerated above. The full picture of the future financial performance may be obtained by completing a set of predicted financial statements.

In order to demonstrate how to build a forecasting financial statement, we use the example of a productive company with a complex activity, having in this way the possibility to make more complex correlations.

The latest financial statements of the company are those of 2009, based on them being able to forecast the future activity. The forecasts are elaborated on the last quarter of 2009 to determine the quarterly level of profit and the source of the capital needed at the end of the year.

I realized also an overview image of the whole year, indicating the expected results for 2009 and a forecast for 2010.

3.1. The forecasting situation of the profit and loss account

The forecasting situation of the profit and loss account is usually the first document in the forecasting process, because the amount of net profit will be included in the forecast balance sheet, to ensure the consistency between the two situations.

The forecasting of the physical and value volume of sales represents the starting point in the preparation of this statement. This information can be estimated in a variety of ways, from linear projections to a complex forecast or through a more simple method based on the historical results. In the case of Alexandra SA Company, we know that the sales may decrease in the last quarter and we estimate the result for the whole year 2009, which includes the projected profit for the fourth quarter and an estimate for 2010. The estimates for the fourth quarter will be based on the result of the third quarter, the quarter pater being established over the years.

From the statistics notes of the business we observe that there is a decrease in the IV quarter on volume of sales of about 18-20%. We will use as a working hypothesis the medium value of the interval, respectively 19%.

The volume of units sold at 30.09.2009 was of 1,496,250 lei and if we add the estimation of the IV quarter of 416.250 lei, we obtain the incomes from sales gain in 2009, which will be of 176.652 million lei. For 2010, the management of the sales department expects a growth of 150.000 units, and result a total of sales of 195.937.500 lei.

To estimate the seasonal conditions we can assume that there will be an increase by about 1% of report of cost of goods sold / sales. This situation will cause a reduction of the gross margin with 1% of sales, respectively 38.435 lei.

Regarding the expenditure, these also can be estimated by examining the current situation, available at 30.09.2009. The costs related to sales are 3.281.250 lei. A reduction in the case of costs of 19% is not realistic, given the multitude of existing costs, such as those with personnel salaries which are fixed. Based on this assumption this indicator can be estimated at 13.312.500 lei. Based on the information provided by the management for the first nine months of the year, the expenditures are estimated for the whole year 2009, to 8.306,.50 lei and 8.812.500 lei on 2010.

The operational profit of the IV quarter is reduced with 1.875.000 lei, and the profit rate decrease almost to half in comparison with the previous level. This is primarily due to the 19% reduction of the sales associated with the loss afferent to the IV quarter. For the whole year, the operating profit is estimated at 11.85.0.000 lei and at 16.125.000 lei in 2010. This is due to the increasing of the sales volume with 40.000 units and the streamlining operational costs, as it can be seen in their less reduced loss compared with the sales over 2009.

The interests expenses are calculated based on the debts contracted by the firm and are presented throughout the estimation period. In order to determine the net profit we will calculate the income tax. In this way, there is a significantly decrease of the net profit in the last quarter.

Table 1. The forecasting profit and loss account

Indicatory	The III trimester 2009		Estimate of the IV trim. 2009		Estimate 2009		Estimate 2010	
	Value	%	Value	%	Value	%	Value	%
Turnover	47 437,50		38 437,50		176 625,00		195 937,50	
- The sales cost	36 262,50	76,0	29 250,00	76,0	135 206,25	76,0	148 500,00	76,0
= Margin on sales	1 175,00	24,0	9 187,50	24,0	41 418,75	24,0	47 437,50	24,0
- Depreciation	2 156,25		2 250,00		8 737,50		9 187,50	
- General expenses	2 193,75		2 250,00		8 306,25		8 812,50	
- Sales expenses	3 281,25		3 093,75		12 525,00		13 312,50	
- Interest expenses	712,50		656,25		2 943,75		3 187,50	
GROSS PROFIT	2 831,25	6,0	937,50	2,4	8 906,25	5,1	12 937,50	6,6
- Profit tax	1 020,00		337,50		3 206,25		4 687,50	
NET PROFIT	1 811,25	3,8	600,00	1,6	5 700,00	3,2	8 250,00	4,2
- Dividends	375,00		0,00		1 125,00		1 500,00	
RETAINED PROFIT	1 436,25	3,0	600,00	1,6	4 575,00	2,5	6 750,00	3,4

-Thousand Lei-

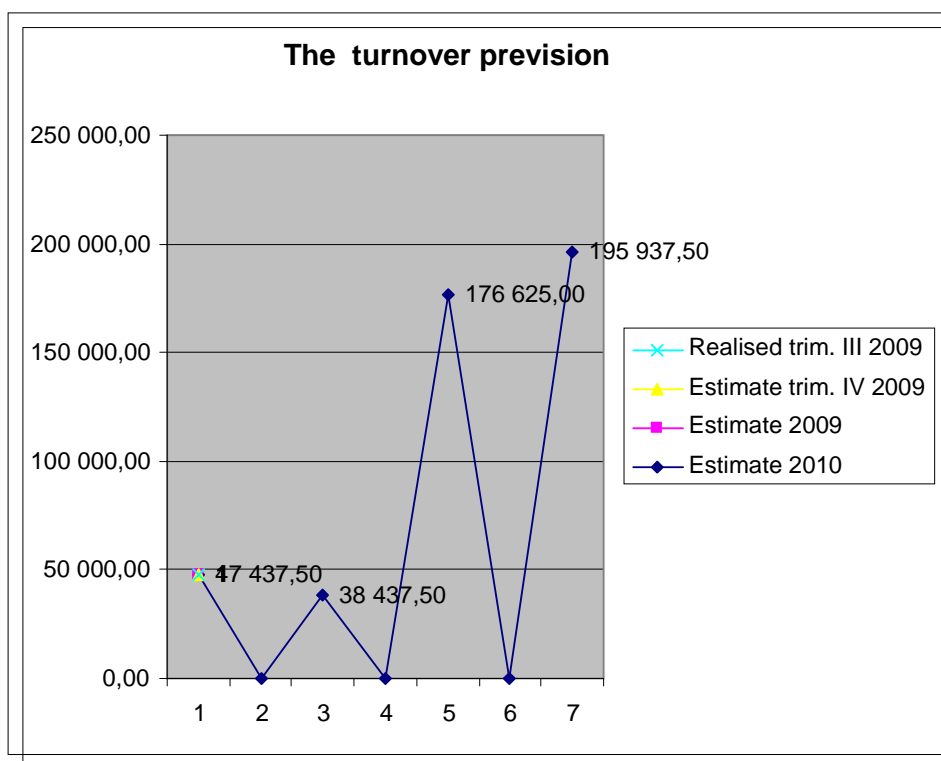


Figure 1.1. The turnover prevision

3.2. The projected balance sheet

The forecast balance sheet will be carried the most recent assumptions and estimates of future activity and through forecasting, item by item, of the obtained conditions and performances. Thus, it will reflect the anticipated cumulative impact of the future decisions made by the company's financial position management.

We can develop the forecast balance sheet for the final of 2009 and 2010 by using the dates regarding the future operations of the firm.

We will estimate the first element of the active, the assets. In the case of the lands there are no changes, but some certain equipment will be evaluated during the fourth quarter. Their initial cost was 5.625.000 lei, of which 3.562.500 lei represents the depreciated value. These will be sold at their net value of 2.062.500 lei; the result of this transaction is zero. This transaction will generate an income of cash of 2.062.500 lei if it is collected.

From the forecast profit and loss account we find out that the normal level of depreciation expenses in the fourth quarter will be 2.250.000 lei, an amount that must be added to the balance of the accumulated depreciation. The net result of these changes will be reduced with 1.312.500 lei. The total assets of operations is reduced with 4.312.500 lei of the net value of buildings and equipment of the company

During 2010, the company expects to purchase new equipment in amount of 6.562.500 lei, a value which will be added to the existing balance of buildings and equipments. The calculated expenses with depreciation for 2003 and included in the forecast profit and loss account are 9.187.500 lei, a value that will be add to the balance of the accumulated depreciation. The value of the intangible asset will remain unchanged in the fourth quarter of 2009 and for 2010 the company intends to acquire a license, estimated at 750.000 lei.

In the circulating assets we made the following estimates:

- The inventories of raw materials will be forecast using the monthly consumption and the rate of supply, information that the company can provide. We was informed that for reasons of continuity, the company always keep a reserve stock of raw materials worth 5.625.000 lei, the current necessary being provided through acquisitions that complement this level for both 2009 and 2010.

- Stocks of finished products will register a reduction being correlated with the decrease of sales and production, a value is estimated at 19%.

- For receivables is expected that at the end of the quarter, 1/3 of the sales volume will represent unearned receivables and for 2009, the uncollected receivables will represent 1/2 of the sales volume. Specifically, if in the IV trimester is expected a volume of sales of 38.437.500 lei, the claims reviews will be 12.812.500 lei. After some discussions with the sales department manager, who considered a slight drop in sales in December 2009 compared with the same period of 2008, is forecast a level of debt of 11.437.500 lei. Similarly, the estimates for 2010 are 13.125.000 lei.

In the passive of the balance sheet we make the following estimates:

- The social capital will increase by 937.500 lei as a result of carrying out operations in the fourth quarter of 2009. The expected net profit in the statement of profit and loss account for the fourth quarter will be 600.000 lei, and for 2010 will be 6.750.000 lei.

- The commercial debts are decreasing, as an effect of reducing the activity in the fourth quarter. We were informed that the effects of pay, amounting 5.625.000 lei will settle in 2010.

- the accrued taxes for the fourth quarter will be 3.375.000 lei and the company must estimate the taxes of 1.500.000 lei during the quarter, which causes a decrease in tax debts of 1.162.5000 lei. For 2010 the accumulation of income tax will be 1.500.000 lei.

- It is estimated that the total current liabilities will decrease by 19.200.000 lei at 31.12.2009 and for 2010 they will decrease by 3.750.0000 lei.

By making these assumptions about these accounts and correlate them with the forecast profit and loss account, we get the amount needed to the equilibration of the balance sheet. In both data this amount will be given by the net capital deficit or the surplus.

The forecast net capital deficit or surplus serves as a fast estimator of additional debt of the company, required to draw up the balance sheet or of the unallocated funds available at that time. This value does not indicate any changes of the financing necessary which may appear that may appear during these three months. The identification of these variations is possible by generating forecast balance sheets at intermediate data during the quarter. We can identify major changes of the funding conditions provided by this situation to generate less data (one month, one week).

Table 1. The projected balance sheet at 31.12.2009 and 31.12.2010

Element	(+/-)		(+/-) -Thousand Lei-		
	Realized at 31.09.2009	Estimate changes in trim. IV 2009	Estimate 31.12.2009	Estimate changes in 2010	Estimate 31.12.2010
Fixed assets					
I. Intangible assets	4 687,50	0,00	4 687,50	750,00	5 437,50
II. Tangible assets	56 062,50	-4 312,50	51 750,00	-2 625,00	49 125,00
1. Lands	9 375,00	0,00	9 375,00	0,00	9 375,00
2. Buildings and equipments	78 000,00	-5 625,00	72 375,00	6 562,50	78 937,50
(-) Accumulated depreciation	-31 312,50	-1 312,50	-30 000,00	9 187,50	39 187,50
NET FIXED ASSTES	60 750,00	-4 312,50	56 437,50	-1 875,00	54 562,50
Current assets					
1. Raw materials	5 625,00	0,00	5 625,00	375,00	6 000,00
2. Finished goods	15 187,50	-2 812,50	12 375,00	1 875,00	14 250,00
3. Claims	15 937,50	-4 500,00	11 437,50	1 687,50	13 125,00
4. Cash	5 437,50	-750,00	-4 687,50	0,00	4 687,50
CURRENT ASSETS	42 187,50	-8 062,50	34 125,00	3 937,50	38 062,50
TOTAL ASSETS	102 937,50	-12 375,00	90 562,50	2 062,50	92 625,00
Social equity	15 973,50	937,50	16 875,00	0,00	16 875,00
Exercise result	22 237,50	600,00	22 837,50	6 750,00	29 587,50
Debts on long term	31 875,00	0,00	31 875,00	0,00	31 875,00
Debts on short term	32 887,50	-19 200,00	13 678,50	-3 750,00	9 937,50
1. Commercial debts	4 200,00	-1 537,50	2 662,50	2 250,00	4 912,50
2. Effects for payments	11 250,00	-5 625,00	5 625,00	-5 625,00	0,00
3. Contractual debts	12 750,00	-10 875,00	1 875,00	-1 875,00	0,00
4. Profit tax	4 687,50	-1 162,50	3 525,00	1 500,00	5 025,00
TOTAL PASIV	102 937,50	-17 662,50	85 275,00	3 000,00	88 275,00
	-	5 287,50	5 287,50	-937,50	4 350,00

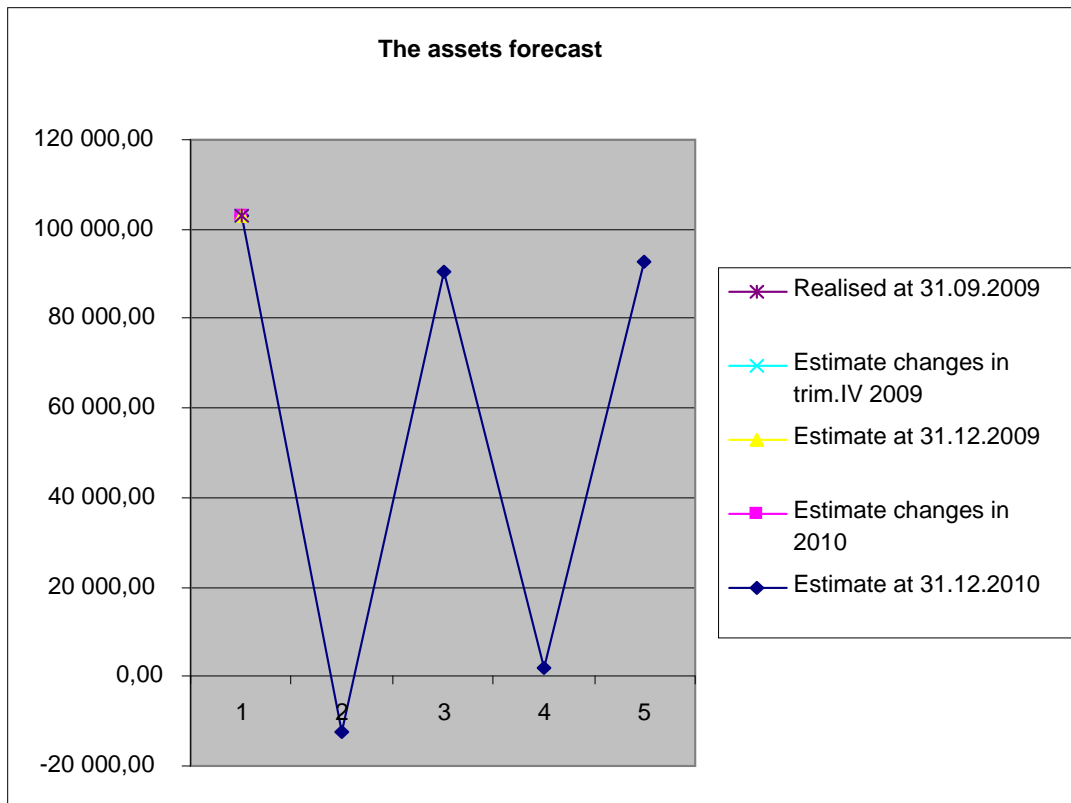


Figure 1.2. The assets forecast

We can see that the funding needs at 31.12.2010 of 4.350.000 lei are similar to those from the projected statement of cash flows and treasury budget at 31.12.2010.

3.3. The projected statement of cash flows

Before we present the projected treasury budget of Alexandra SA company we will make a further interpretation of the changes from balance sheet in terms of cash flow analysis, using our estimate of cash flow situation. Such an approach will allow us to identify elements and to correlate them with the available cash balances contained in the projected balance sheet.

We separate the various components of cash in cash flows from operating, financing and investment activities. It is clear that the reduction of the operations registered the previously quarter will determine the reduction of the circulating assets (4.612.500 lei), from which 4.500.000 lei are the debts.

The sources of funding of capital requirements are nearly triple comparing with the basic operational cash flows (net income of 600.000 lei and depreciation of 2.250.000 lei); the total cash flow 7.462.500 lei.

The proposed increase for 2010, affected by seasonal rhythm like last year, will not cause any major change in the capital requirements. The depreciation and the net income, which are higher than the level recorded the previous year, will be fully available for the finance of other needs.

To meet different current requirements, there is a reimbursement program of 16.500.000 lei. Within these current liabilities, the payable effects worth 5.625.000 lei, which reflect the repayment of commercial debts, while the contractual debts are 10.750.000 lei.

This reimbursement was possible because of the cash received from sales of equipments and of the exercise of some purchase options by holders. The net outcome of cash of 6.037.500 lei is equilibrated by the planned reduction of the available cash. The necessary remained for financing at 31.12.2009, of 5.287.500 lei is included in the projected balance sheet, as we have seen in the table above. The planned capital reimbursements regarding the effects worth 5.625.000 lei and the contractual debts worth 1.875.000 lei affected the financing needs in December 31. Also they are

planned significant cash outflows for investments in equipments of 6.562.500 lei, patents of 750.000lei and dividends payments worth 1.500.000 lei. In 2010 it recorded a net cash out of 937.500 lei, but in order to maintain the minimum cash target of 4.687.500 lei, is needed a financing of 4.350.000 lei, amount which is expected in the balance sheet at 31.12.2009.

In order to fulfill the business plans on the three types of activities, operating, financing and investment, the company will have to have a funding within 3.750.000 to 5.625.000 lei. It may be noted that any changes in the various hypotheses of work related to the forecasting of the cash flows situation will directly affect the size of the financing necessary.

Table 1. The projected cash flow situation

- Thousand Lei -

Indicators	Estimate Trim IV 2009	Estimate 31.12.2010
A. Exploitation activity	x	x
Net profit	600,00	8 250,00
+ Depreciation	2 250,00	9 187,50
Claims value	4 500,00	-1 687,50
Variation of raw materials stocks	0,00	-375,00
Variation of finite products stocks	2 812,50	-1 875,00
Suppliers variation	-1 537,50	2 250,00
Variation of the debts with profit tax	-1 162,50	1 500,00
= The net treasury of exploitation activity	7 462,50	17 250,00
B. Investment activity		
Payments for the equipments acquisition	0,00	-6 562,50
Payments for the patents acquisitions	0,00	-750,00
Receipts from the equipments sales	2 062,50	0,00
= The net treasury of investments activity	2 062,50	-7 312,50
C. The financing activity		
The rambursation of the effects for payments	-5 625,00	-5 625,00
Contractual debts rambursation	-10 875,00	-1 875,00
Receipts from the options exercitation	937,50	0,00
Dividends payments	0,00	-1 500,00
= The net treasury from the financing activity	-15 562,50	-9 000,00
D. The net treasury	-6 037,50	937,50
Cash at the beginning of the period	5 437,50	-600,00
Cash at the end of the period	-600,00	337,50
Minimum balance of cash	4 687,50	4 687,50
Necessary for financing at 31.12	5 287,50	4 350,00

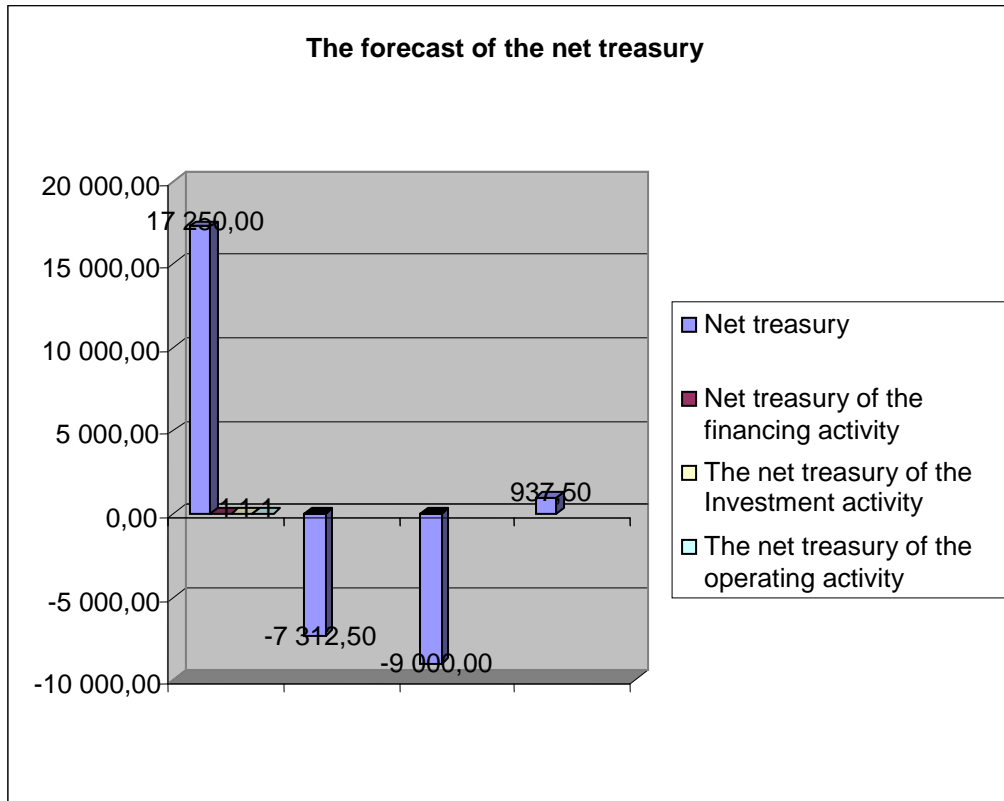


Figure 1.3. The forecast of the net treasury at 31.12.2010

Statement of cash flow forecasting helps to highlight the movements of capital involved in the balance sheet changes. Forward planning is limited to the static nature of the balance sheet showing only financed deficit or surplus at a given moment of time, not the creation or variation of these funds.

3.4. The treasury budget

Known as the detailed projections of the cash flows, the treasury budgets are monthly or even weekly planning vehicles, made in the financial department. The exclusive role of these budgets is to plan receipts and payments over a period of time. The draw up of the receipts and payments budget involves the continuous observation of the changes in the cash account in order to establish a level of cash that would be sufficient to allow payments for falling due obligations. The financial analyst should plan treasury activity in detail, showing exactly when the moment of cash inflows and outflows.

The treasury budget shows any shortfall or surplus of funds. The treasury budgeting is a simple process, much like personal budgeting of revenues and expenditures, where bills are paid with proceeds from wages, rents, dividends, interest, etc. This correlation is necessary in order to align the necessary of funds with the available cash. If the collection rate of the company debts from sales, tends to decrease, there may be serious gaps in cash, as salaries and purchases must be paid currently.

Also, the unplanned payments for certain investments may create temporary needs that must be covered. Given the emphasis on the level of detail of items, the treasury budget is the most comprehensive expression of the cash flows analysis, because ultimately, all movements of funds are included as changes in cash levels.

In order to draw up the treasury budget, must be detailed a plan of projected receipts and payments. This plan reflects the net effect of the planned activity on the level of cash distributions, except of the nature of depreciation, which doesn't represent cash movements.

The time intervals covered by these budgets are selected according to the nature of the business and trading conditions in which it operates. If the daily changes are significant, such as banks, daily

forecasts of these movements are necessary. In other circumstances there are sufficient weekly, monthly or quarterly projections.

In the case of Alexandra SA we will create a treasury budget for the fourth quarter of 2009, which will increase the capacity of understanding the cash flows of the company.

In the projected balance sheet are presented some basic data related to the business activity, regarding the sales, production and acquisition. Also, we will present how the annual totals correlate. For 2010 the totals presented were obtained similarly.

We considered useful to come up with a temporal scale, Table 1.1, in which we point out the monthly sales volume. Using this scale, any forecast collection can be simulated by delaying cash earnings by actual number of days of lag. A complete sales and collections plan of the receivables, at 30 days, looks like this:

Table 1.1.

	Month					
	January	February	March	April	May	June
Sales	15.000	25.000	30.000	45.000	40.000	42.000
Receipts	10.000	15.000	25.000	30.000	45.000	40.000

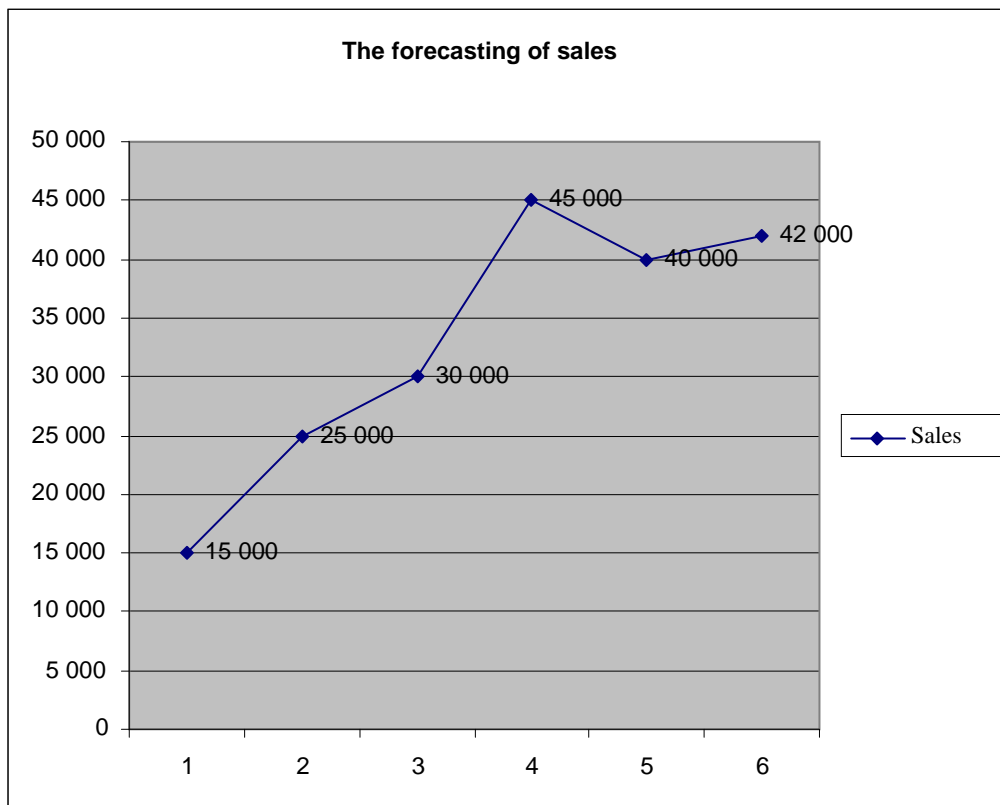


Figure 1.4. Sales forecasting

The forecasting of receipts

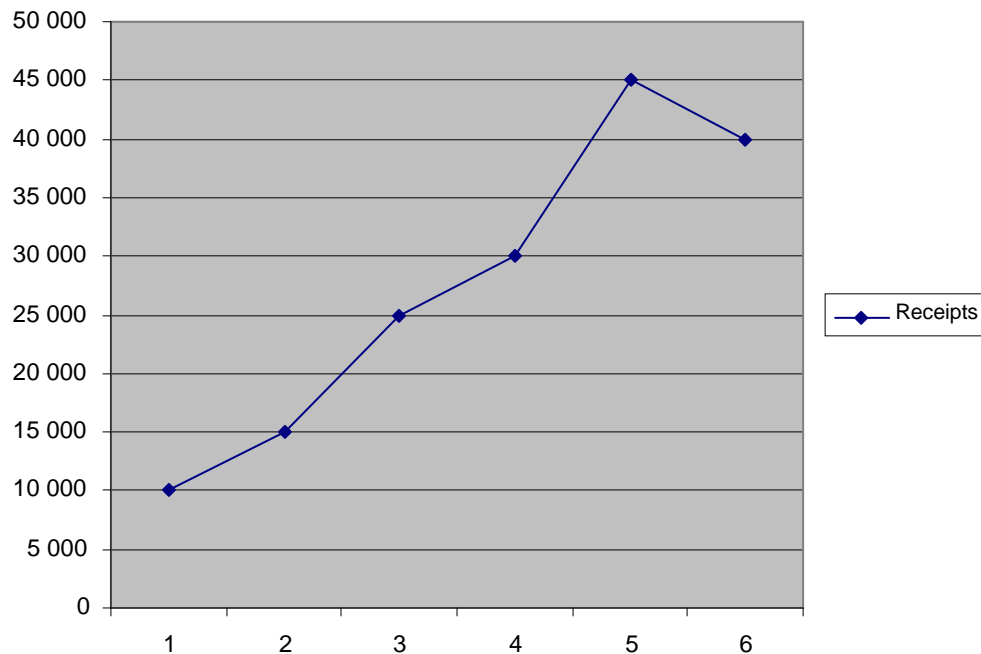


Figure 1.5. The forecasting of receipts

In the case of Alexandra SA Company, the recipients from the exercise of stock options and the sale of equipments were budgeted in the months in which these transactions took place. The total cash receipt for each month shows a trend of a lesser reduction than the monthly sales reduction. This gradual reduction of debt collection is mitigated to a certain extent by the inoperative receipts from issue of shares and sale of equipments.

If we analyze the cash utilization, we see a gap in terms of purchases on credit. In normal conditions of a commercial loan for 45 days, we can consider that the parties made by the company will be mistress for 45 days. Thus, the purchases made during the second half of August and in September will be paid in October, a structure which will repeat for November and December.

For the fourth quarter of 2009 is provided a seasonal minimum, due to a reduction in sales and operations since December, thus the period of immobilization of debts changes fast, in conditions of higher cash receipts over a period of activity less intense than that provided for the reduction of payments related to purchases and salaries. As a result of this situation, there is a net release of operational capital, but they are not enough to offset the debt repayments scheduled for October and November, only in December there is a certain balance between receipts and payments.

Against a possible increase in the volume of operational activity, it would have been necessary a greater allocation of cash in the financing of the current assets, and thus requires an additional funding. It can be observed this effect on projected statements for 2010, when the working capital is expected to increase enough to offset the seasonal decline of the last quarter. If in the fourth quarter of 2009 was also a period of growth, the treasury budget should have reflected the effect of lag in lower activities of the previous months and the necessary of cash to finance the achieved production. It is clear that we need a treasury budget drawn up very carefully, regardless of the business, as the operational level of receipts and payments trend to fluctuate significant.

The payments related to the productive activity are based on the regressive pattern of production and reflects a gradual reduction of the volume of inventories.

In order to make simple forecasts, the cost of sold goods was determined based on the sales estimates. Thus, between the projected situation of the profit and loss account and the treasury budget there may be some differences due to the different taxes on sales and production. To ensure consistency is required to canvass the production structure, it must be estimated on the same basis of

the sales. Such a difference can occur when minimum seasonal is used by the management to obtain stocks in advance in order to increase the anticipated sales growth. The recognition of such differences in sales and production structure represents a key for the increasing of the accuracy of performances projection, achieving in the same time a correlation between the budgeting of the treasury results and the projected financial statements.

The final result of the treasury budgeting represents the general picture of the effect of cash on operational plans that they are based, establishing the cash needs or the surplus at the end of each month. Note that, in our case, the excess cash at the end of 2009 (5.287.500 lei) and December 31, 2010 (4.350.000 lei) is identical to that obtained in the forecast financial statements. This is not surprising, because we used the same assumptions throughout the preparation of forecasts.

Table 1.2. The projected treasury budget

	Luna					- Thousand Lei -	
	August	September	October	November	December	Total trim. IV 2009	Total year 2010
Basic information							
* Sold units	180.000,00	172.500,00	157.500,00	135.000,00	123.750,00	416.250,00	2.062.500,00
* Produced units	187.500,00	187.500,00	131.250,00	127.500,00	116.225,00	375.000,00	2.100.000,00
* Stocks changes	7.500,00	15.000,00	-26.250,00	-7.500,00	-7.500,00	-41.250,00	37.500,00
* Sales on credit	16.687,50	15.937,50	14.437,50	12.562,50	11.437,50	384.375,00	195.937,50
* Acquisitions on credit	2.850,00	2.775,00	1.950,00	1.875,00	1.725,00	5.550,00	31.500,00
Receivables							
Claims collection			15.937,50	14.437,50	12.562,50	42.937,50	195.375,00
Options receipts			0,00	937,50	0,00	937,50	0,00
Receipts from equipments sales			0,00	0,00	2.062,50	2.062,50	0,00
TOTAL RECEIPTS			15.937,50	15.375,00	14.625,00	45.937,50	195.375,00
Payments			-	-	-	-	-
Payments for acquisition			2.812,50	2.362,50	1.912,50	7.087,50	31.125,00
Salaries			2.100,00	2.093,75	1.875,00	6.018,75	33.937,50
Expenses for production			4.743,75	4.725,00	4.631,25	14.100,00	81.375,00
Marketing expenses			1.312,50	1.293,75	1.256,25	3.862,50	18.000,00
General expenses			750,00	750,00	750,00	2.250,00	8.812,50
Interests			0,00	0,00	656,25	656,25	3.187,50
Credit reimbursement			5.625,00	0,00	0,00	5.675,00	5.625,00
Tax payments			1.500,00	0,00	0,00	1.500,00	3.187,50
Contractual payments			0,00	7.500,00	3.375,00	10.875,00	1.875,00
Equipments acquisitions			0,00	0,00	0,00	0,00	6.562,50
Other assets acquisitions			0,00	0,00	0,00	0,00	750,00
Dividends			0,00	0,00	0,00	0,00	1.500,00
TOTAL PAYMENTS			18.843,75	18.675,00	14.456,25	51.975,00	194.437,50
NET RECEIPTS / PAYMENTS			-2.906,25	-3.300,00	168,75	-6.037,50	937,50
Cumulated cash flow			-2.906,25	-6.243,75	6.037,50	-	-
The cash necessary analysis			-	-	-	-	-
Initial cash			5.437,50	2.531,25	768,75	5.437,50	-600,00
Net receipts			-2.906,25	-3.300,00	168,75	-6.037,50	937,50
Final cash			2.531,25	-768,75	-600,00	-600,00	337,50
Minimum balance of cash			4.687,50	-4.687,50	4.687,50	4.687,50	4.687,50
Total cash necessary			2.156,25	5.456,25	5.287,50	5.287,50	4.350,00

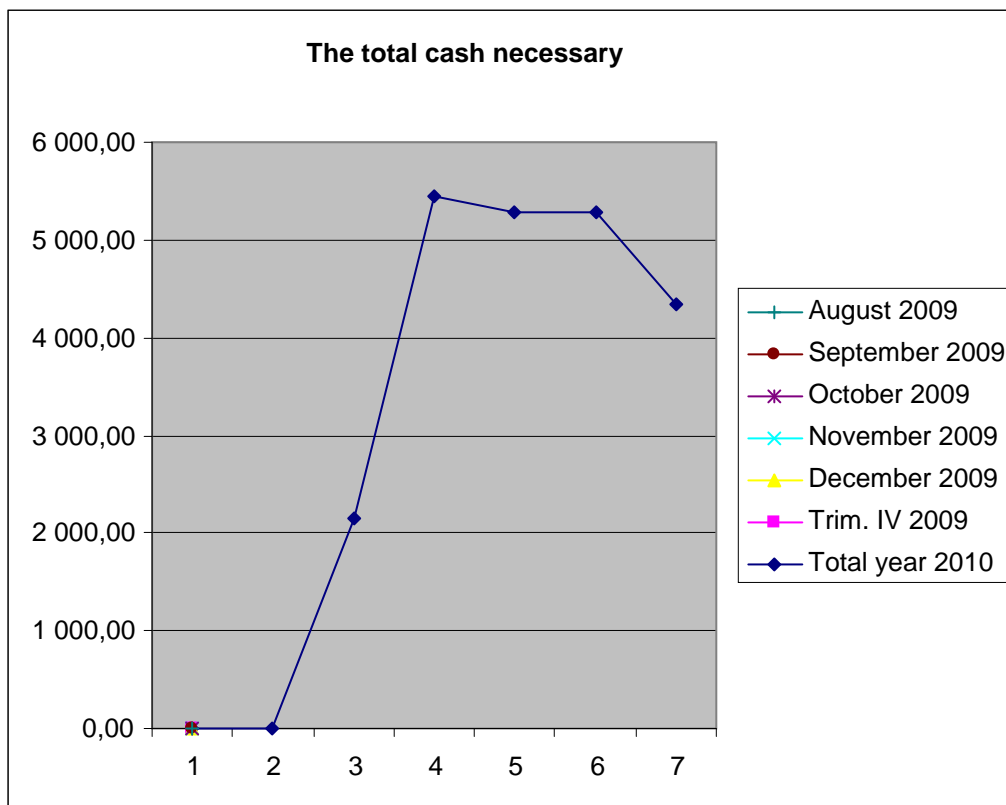


Figure 1.6. The projection of the cash necessary

In conclusion, the treasury budget shows under the form of specific details, the exact incidence of receipts and cash payments. The treasury budget does not allow finding the minimum or maximum available and to planning additional financial of the reimbursements, according to the existing needs. Unlike the forecast situation, the forecast budgets may be prepared for each desired intervals within the simulation period of fluctuations in cash flow.

If is based on the same assumptions regarding the production, sales volume and handling of receipts, payments and trade credit, the treasury budget and the forecast situations will be similar regarding the situations in the alert level of deficit or surplus funds at the end of the period for which they are prepared.

3.5. Correlation between the company's financial forecast

Between the three typed of predictions (forecast financial statements, treasury budget and operating budgets), presented in this subchapter, there is a close connection. Thus, they are based on the same set of assumptions about returns and payments, repayment schedules, operating rates, inventory levels, etc., these estimates may be correlated with each other precisely as in Figure 1.7.

If it starts from different assumptions about the vectors of influence used, particularly in the forecast of the financial statements and treasury budget, then the financial plans and the deficit or surplus funds will be different. Only through careful reasoning on key assumptions can be achieved reconciliation between them, thus defining formats that contain sufficient detail and historical data properly grounded.

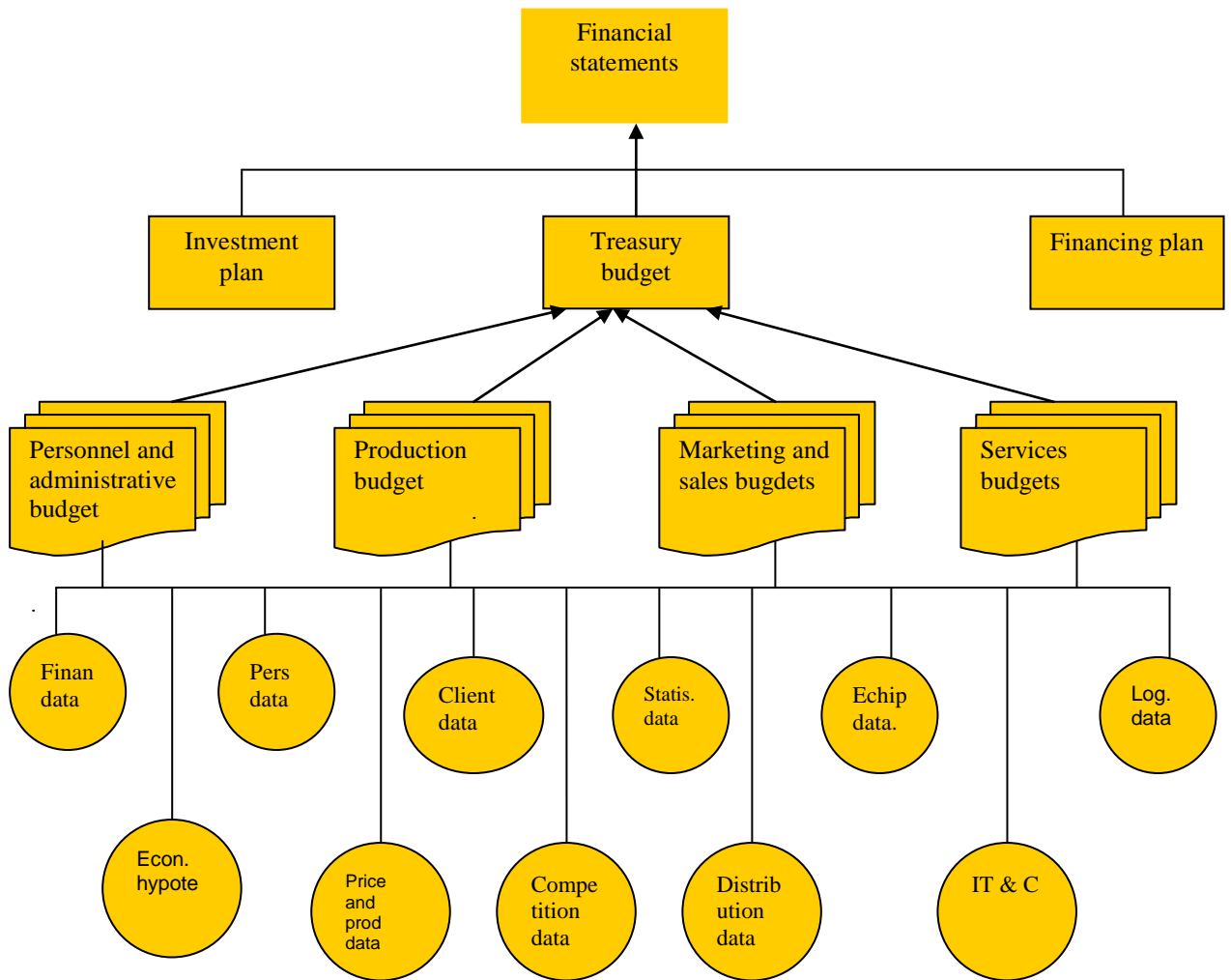


Figure 1.7. Correlation between the financial projections of the firm

Source: (Helfert A, page 190)

As it can be seen from the chart, the operational budgets are supported by the specific information from the financial and investments plans. The combined information helps to the projected financial statements presentation, from the top of the chart. The projected financial statements reflect the global picture of the economic and financial conditions expected for the projected period.

From the diagram is noted that the investment plan is the projection of the cash outflows purchases for the acquisition of lands, equipments, buildings and the development of the working capital requirements.

In the example of Alexandra company in 2009 there was a slight reduction in fixed assets by selling the used equipments and acquisition of new planned during 2010, a fact reflected by the 1.8 figure.

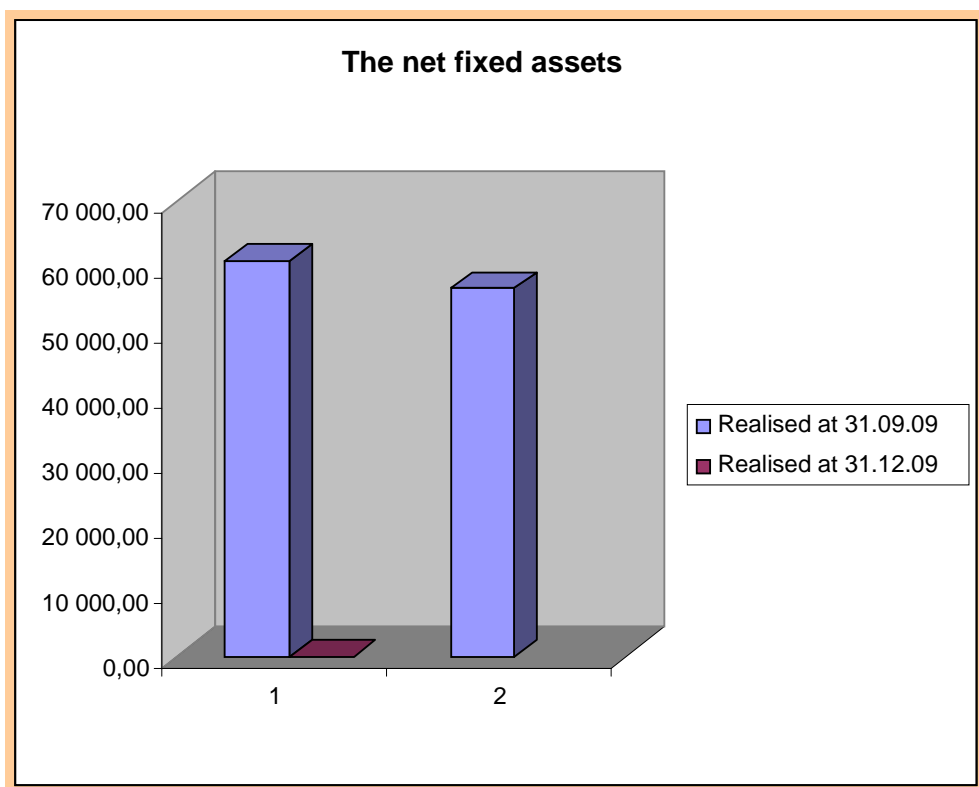


Figure 1.8. The evolution of the fixed assets

It was also realized the construction of new manufacturing halls, located in its final stage of completion, as is clear from the amount due and payable manufacturer (10.875.000 lei), reflected in the balance of 31/09/2009 and is funded largely of long term debts contracted previously.

Taking into consideration the size of investments and production facility, the company may aim to attract new long-term financing, whereas the estimates we have done in future operations indicates a cash deficit on long term, necessary for the obligations payments in amount of 1.875.000 lei (see the situation from the projected balance sheet).

The financing plan includes the schedule of future increases or decreases in debts or equity during the projected period, which would involve a significant expansion or restructuring of the company's permanent capital, depending on capital requirements. Alexandra SA Company did not plan any future funding but will require resources to cover the funding needs for the foreseeable future (fourth quarter 2010), to avoid the dilution of the current monetary funds as the construction is completed and paid.

In Figure 1.7, in addition to operational budgets and financial forecasts are presented a selection of the essential information and their sources, information derived from the key and financial vectors. In the case of Alexandra firm we used only the information provided by the management, which based their estimates on the understanding of all the conditions affecting the business activity.

Any financial estimates involves both examining past trends as well as specific assumptions concerning the future of key indicators of conditions that affect revenues, costs and other items of receipts and payments.

The mathematical calculations, statistical methods and easy access to electronic databases should not replace the human effort to make realistic assumptions regarding the national or global outlook on the business performance, which may affect the company's expected performance. Also, we must not forget that the past is just history; it is considered just the starting point in the forecast.

4. The calculation and covering of the treasury balances

To meet the forecast deficit balance, before resorting to loans are required to be taken the following measures:

- To act to advance the revenues cashing (by reducing the volume and/or duration of the trade credits to customers or to request the casing in advance of sale's incomes) and by delaying the payments (the credit extension for suppliers in legal terms)

- Trying to renounce for moment at some expenditures (investment, dividends, etc.).

- Trying to achieve some exceptional revenues (sale of fixed assets etc.)

The deficit balance which is resulting from these measures is going be covered with new loans and discount treasury, whose selection regards the treasurer ability to optimize the size of their actual cost.

In order to realize a surplus of treasury positions is necessary an analysis of the origin of this balance. It can come either from a higher working capital, due to contraction of financial debts without immediate use or needed or a working capital too low, given the maturity of payments greater than the revenues. In the first case the question of choosing between the cost of financial debt (long term) and short-term investments, although in principle these two operations are not compatible (circulating assets can not be covered in long-term loans). In the second case we can see a profitable cash investment, with the smallest risk and the best liquidity.

In order to maximize the monetary surplus we can be made the following cash investments:

- Negotiable monetary investments (investment contracts are not sold through input, endorsement or negotiation on the stock exchange) term deposits, cash receipts, repurchase operations etc.

- Financial investments: stocks, bonds, options, etc.

In principle, the longer the more profitable is the placement, less liquid but, unlike short-term investments which are more liquid, but have a lower rate of return.

References

- [1] Agrawal A., and Jayaraman, N. 1994. The Dividend Policies of All-equity firms: A Direct Test of the Theory of Free Cash Flow Theory. *Managerial Decision Making Economics* 15: 139-148.
- [2] Albouy, M., and Dumontier, P. 1985. Faute des-il verser dividendes?. *Revue Français manageable*, January.
- [3] Battle, P. 2009. Actionnaires, financiers dirigeants et managers. Historique et perspectives. *Revue Français manageable* 35: 319-342.
- [4] Bistriceanu, G.D., Adochitei, M.N., and Negrea, E. 2001. The finances of economic agents. Economic Publishing House. Bucharest.
- [5] Bogdan, A.M. 2008. *The Evaluation of Final Results in Time*. Journal of Applied Economic Sciences Volume II Issue 2 (3) Summer.
- [6] Brezeanu, P. 2006. *The financial analysis*. Meteor Press Publishing House. Bucharest.
- [7] Brezeanu, P. 2003. *The financial diagnosis. The financial analysis tools*. Economic Publishing House. Bucharest.
- [8] Doval, E. 2009. Dominant logic in investments in knowledge decision-making. *Revista Metalurgica International* no.4 (2010). http://www.metalurgia.ro/Metalurgia_International_special4_2010.pdf.
- [9] Doval, E. 2009. Return on investments in marketing integrated communications within global environment. *Revista Metalurgica International* no.4 (2010).
- [10] Dragotă, V. 2005. *Practical approaches in the finances of companies*. IRECSON Publishing House. Bucharest.
- [11] Dragotă, V. 2003. *Financial management* vol I. Economic Publishing House. Bucharest.
- [12] Ungureanu, L., and Matei, V. 2008. *Advances in Decisions Analysis. Efficient Methods in Finance*. Journal of Applied Economic Sciences. Volume III. Issue 4 (6).

*** Collections magazines: Tribune economics, Finance, Credit and accounting, General accounting and expert review, The accounting and audit expertise business.

MONETARY ASPECTS OF SHORT-TERM CAPITAL INFLOWS IN THE CENTRAL EUROPEAN COUNTRIES

Rajmund MIRDALA

Technical University of Kosice, Slovakia

Faculty of Economics

rajmund.mirdala@tuke.sk

Abstract

International capital flows represents one of the key aspect of the globalisation process and refers to the continuous relieving the cross-border capital allocation barriers reflecting in huge increase in the common financial connections among the countries during the last decades. Flows of the capital among the countries stimulated by increased investment opportunities, expected profits and better risk diversification generated many positive, symmetric and multiplicative affects. On the other hand it also increases the exposure of the countries to many negative and asynchronous defects that led economists to reevaluate the overall effects of financial liberalization and dynamic increase in the international capital flows. Rigorous assessment of general effects related to short-term capital inflows requires a consideration of a wide variety of country specific assumptions and determinants. Real conditions affecting overall effects of short-term capital inflows have to be also considered in the view of (dis)equilibrium trends in the balance of payments.

In the paper we analyze selected monetary aspects of short-term capital inflows in the Central European countries (Czech republic, Hungary, Poland, Slovak republic) in the period 1999-2010 using VAR (vector autoregression) approach. In order to meet this objective we estimate a vector VAR model identified by the Cholesky decomposition of innovations that allows us to identify structural shocks hitting the model. Impulse-response functions are computed in order to estimate the impact of short-term capital inflows on exchange rate, money stock, price level and current account. Ordering of the endogenous variables in the model is also considered allowing us to check the robustness of the empirical results.

Keywords: capital inflows, exchange rate, balance of payments, money stock, VAR, Cholesky decomposition, impulse-response function.

JEL Classification: C32, F15

1. Introduction

Flows of a short-term capital among countries represent a kind of quite unstable and risky form of international capital flows. As their most the specific features we emphasize speculative intentions of investors and short-term maturity that distinguish them from other forms of international capital flows such as (1) long-term capital flows - foreign direct investments and long-term loans and (2) sophisticated capital flows - portfolio investments and financial derivatives. On the other hand as the main incentives for short-term capital flows we accept widely accepted assumption based on existence of interest rates margins on short-term deposits denominated in different currencies considering risk premium, inflation premium and exchange rate uncertainty. On the other hand the overall effects of the short-term capital inflows in the reporting country are not clear.

To assess the contribution of the short-term capital inflows to the macroeconomic development in the target economy it is necessary to take into attention lot of country specific assumptions and considerations relating to the macroeconomic (macroeconomic policies, business cycle phase, size, trade and financial openness, productivity, regional disparities, labour market conditions, financial sector development and deepening, exchange rate regime, etc.) and microeconomic (institutional quality and governance, corporate governance, private sector profitability, standard of living, etc.) performance of the country as well as global conditions (financial markets conditions, expectations of investors, exchange rates volatility, etc.). Specific determinants affecting short-term capital inflows should be also evaluated in the view of (dis)equilibrium trends in the balance payments as a whole.

In the paper we analyze selected monetary aspects of short-term capital inflows in the Central European countries (Czech republic, Hungary, Poland, Slovak republic) in the period 1999-2010 using VAR (vector autoregression) approach. In order to meet this objective we estimate a recursive VAR model identified by the Cholesky decomposition of innovations that allows us to identify structural shocks hitting the model. We compute impulse-response functions in order to estimate the impact of

short-term capital inflows on exchange rate, money stock, price level and current account. Ordering of the endogenous variables in the model is also considered. This approach helps us to check the robustness of the empirical results of the econometric model.

2. Overview of the literature

International financial integration of the European transition economies (ETE) that reflects their ability to participate in the process of the international capital flows is closely related to the process of economic integration and convergence, while it is also conditional to the qualitative changes of main macro and microeconomic indicators. International capital flows determine economic development of countries while they also reflect the ability of countries to actively participate in the process of international division of labour. In the chapter we analyze main features and trends in the international financial integration of ETE in the process of economic convergence toward old EU member countries. To fully explore main, side and specific effects related to ETE participation in the process of international capital flows we consider impact of the changes in main macro and microeconomic proportions in each of the selected group of countries.

International capital flows represents one of the key aspect of the globalisation process and refers to the continuous relieving the cross-border capital allocation barriers reflecting in huge increase in the common financial connections among the countries during the last decades (Kose, Prasad). International financial integration of the countries as a vehicle for participation of the countries in the process of the international division of the labour helped to reduce the restrictions that limited the investors' decision making on the national level. Flows of the capital among the countries stimulated by increased investment opportunities, expected profits and better risk diversification generated many positive, symmetric and multiplicative affects. On the other hand it also increased the exposure of the countries to many negative and asynchronous defects that led economists to reevaluate the overall effects of financial liberalization and dynamic increase in the international capital flows (Blanchard 1984, Obstfeld 1998). Following the analysis of the overall effects of the international financial integration (Baldwin 2004, Bussiere 2004, Eichengreen 2001) we consider not only macroeconomic but also microeconomic effects of the international financial integration. The overall outcome of these effects is significantly determined by the general parameters of the economy. On the other the similar economic environment in certain countries doesn't necessarily guarantee the similarity of the effects resulting from the participation of the countries in the process of international capital flows (Fisher 1998, Stulz 2006).

Specific attention should be taken into the evaluation of the overall effects and outcomes of the international capital flows in the ETE. International financial integration of the ETE became the most significant outcome of capital flows liberalization process that past central planning economies have started since the second half of the 1990s. At the beginning of the transition process these countries were in the specific situation and in the relative short period they passed the complicated, capital demanding process of the transition toward the market economies. The decision to allow the cross-border allocation of capital assets and liabilities resulted from the ability of the transition countries to sustain negative balance of payments and exchange rate pressures. Initial low domestic capital base together with usually higher domestic interest rates stimulated significant foreign capital inflows to such a degree that many ETE rapidly became net international capital debtors (Lane - Milesi-Ferretti, 2006).

Macroeconomic stabilisation and expectations of the fast economic convergence of the ETE toward the old EU member countries increased an attractiveness of the countries for the foreign investors that resulted in increased foreign direct investments inflows to the ETE (Stiglitz 2000, Rose 2005). While the effects of the foreign direct investments are well described in the present literature, the role of the portfolio investments is typically underestimated. It is typically the result of the low developed domestic financial markets in the ETE (Buiter-Taci, 2002; Blanchard, 1984). In addition to this obvious trend, changes in the external capital portfolio structure reflected the progress in the domestic economic and institutional reforms, increasing the reliance of foreign investors to allocate more direct and portfolio equity investments in those countries. In comparison with the old EU member countries the effects of the international capital flows in the ETE doesn't necessarily reach the

generally expected intensity, while the overall outcome can be distorted or even opposite (Edwards 2001, Edison - Ross - Luca - Torsten 2002, Bekaert 2005).

Individual national conditions significantly determine not only height, but also structure of the international capital flows in which the country participate. Another specific determinant of the international capital flows effects in the ETE is the length of the period during which we evaluate these effects reflecting the qualitative changes of the main parameters of the economies (Buiter, and Taci, 2002, Blanchard, Giavazzi, and Sa 2005). This key factor significantly determined the character (increased share of the equity forms of the capital flows through the time), intensity (increased dynamics of the capital flows on the annual base) as well as the overall effects of the international financial integration of the ETE.

Among the other significant aspects that became at least as important as continuously increasing international financial integration we emphasize the progress in the financial sector development and the financial deepening in the European transition countries (Buiter, and Taci 2003). Of course, institutional aspects, heritage from the central planning period and transitional rigidities has fundamentally affected the overall progress as well as durability of partial steps shaping the individual features of the financial sector development and the financial deepening in each particular country. Hence we assume the financial sector development in the European transition countries became even more complicated and country specific when comparing with the financial integration process.

Considering the empirical knowledge from the old EU member countries an economic development of the ETE that remains the traditional target of the foreign capital inflows should stimulate the key change in the height, structure, as well as the direction of the capital flows in the later periods (Kraay 1998, Hasan, Watchel, and Zhou 2006, Goldberg 2004). These changes should affect the balance of payments development in the ETE. An increase in the export efficiency, an increase in the foreign direct investments exports, a decrease in the foreign indebtedness are only few examples of effects resulting from the expected change in the role of the more developed ETE in the process of the international capital flows (Lane, Milesi, and Ferretti 2006, Obstfeld 1998, Blanchard 1984).

Another important impact on the height and structure of the international capital flows that still remains difficult to estimate in the ETE results from the world financial crisis. An increased uncertainty, higher risk margins, clever credit policy of the commercial banks, decreased domestic and foreign demand, a pressure on the price decrease, a discriminating state assistance to the selected branches, together with other effects of the world financial crisis become specific determinants of the common parameters of the international capital flows (not only) in the ETE.

3. Econometric model

In regard of a monetary model of the balance of payments balance of payments equilibrium is considered to be a monetary phenomenon. Balance of payments surpluses and deficits then results from stock disequilibrium in the money market. On the other hand it doesn't mean this approach underestimates other non-monetary determinants (i.e. government expenditures, taxes, tariffs, productivity changes, etc.) of the balance of payments equilibrium².

Excessive demand in the domestic money market leads to the balance of payments surplus while an excessive supply in the domestic money market leads to the balance of payments deficit. We also suppose there is an equilibrium auto-corrective mechanism presented here as an integral part of the model. This mechanism enables country to maintain money market equilibrium through the balance of payments adjustments.

To analyze the effects of the short-term capital inflows to the Central European countries we consider two following statements as crucial assumptions a relevance of which we have to test. (1) If the short-term capital inflows³ are determined by the domestic money market disequilibrium (demand for money exceeds money supply) the balance of payments as a whole of the country should tend to be

² While a monetary approach views the balance of payments disequilibrium as a result of monetary flows due to stock disequilibrium in the money market (Pilbeam, 2006), it is not considered to be a purely monetary phenomenon.

³ Other things being equal, short-term capital inflows lead to the capital account surplus in the balance of payment of the country.

in surplus. It also means that the short-term capital inflows shouldn't stimulate the current account to tend to the deficit as it then may offset a surplus in the capital account. If our analysis confirms a relevance of this statement then we may claim the short-term capital inflows in the individual country from the group of the Central European countries have been stimulated by the money market disequilibrium in the selected period. (2) On the other hand the situation seems to be different if the short-term capital inflows are largely determined by a motive of speculation focusing on short-term yields resulting from interest rates margins on short-term deposits denominated in national currencies among countries. It also means that the short-term capital inflows should stimulate the current account to tend to the deficit so that the overall balance of payments may tend to the equilibrium state. If our analysis confirms a relevance of this statement then we may claim the short-term capital inflows in the individual country from the group of the Central European countries have been stimulated by the speculative purposes of foreign investors in the selected period.

In order to estimate the monetary aspects of short-term capital inflows in the Central European countries we estimate a vector autoregression model (VAR) that can be written by the following moving average representation

$$CY_t = A(L)Y_{t-1} + u_t \tag{1}$$

where $Y_t = [d_t, m_t, e_t, i_t, tb_t]$ is a $N \times 1$ vector of the contemporaneous endogenous variables (d - short-term capital inflows, m - money supply, e - exchange rate, p - domestic price index, tb - trade balance), C is an $N \times N$ matrix with ones on the main diagonal and possibly non-zero off-diagonal elements representing the contemporaneous relationship among the endogenous variables of the model, $A(L)$ is a polynomial variance-covariance matrix in the lag operator L representing the relationship among variables on the lagged values and u_t is a $N \times 1$ normalized vector of shocks to the model (short-term capital inflows shock, nominal shock, exchange rate shock, inflation shock, trade balance shock).

By multiplying equation (1) by an inverse matrix C^{-1} we obtain the reduced-form of the VAR model (this adjustment is necessary because the model represented by the equation (1) is not directly observable and structural shocks cannot be correctly identified):

$$Y_t = C^{-1}A(L)Y_{t-1} + C^{-1}u_t = B(L)Y_{t-1} + e_t \tag{2}$$

Equation (2) reveals the relationship between u_t and e_t , that is given by

$$C^{-1}u_t = e_t \text{ or } u_t = Ce_t \tag{3}$$

where $B(L)$ is again a matrix representing the relationship among variables on the lagged values and e_t is a $N \times 1$ vector of serially uncorrelated structural disturbance (errors) of the model.

In order to identify our model there must be exactly $n^2 - [(n^2 - n)/2]$ relationships among the endogenous variables of the model, where n represents a number of variables. We have to impose $(n^2 - n)/2$ restrictions on the matrix C based on the Cholesky decomposition of the residual variance-covariance matrix that define matrix C as a lower triangular matrix. The lower triangularity of C implies a recursive scheme among variables (the Wald chain scheme) that has clear economic implications and has to be empirically tested as any other relationship. Identification scheme of the matrix C implies that some structural shocks have no contemporaneous effects on some endogenous variables given the ordering of the endogenous variables. It is clear that the convenient causal ordering of variables is necessary to identify structural shocks and reflects the distribution chain of the impulse hitting the model.

More explicitly written equation (3) following our identification scheme is given by

$$\begin{bmatrix} u_{d,t} \\ u_{m,t} \\ u_{e,t} \\ u_{p,t} \\ u_{tb,t} \end{bmatrix} = \begin{bmatrix} 1 & 0 & 0 & 0 & 0 \\ c_{21} & 1 & 0 & 0 & 0 \\ c_{31} & c_{32} & 1 & 0 & 0 \\ c_{41} & c_{42} & c_{43} & 1 & 0 \\ c_{51} & c_{52} & c_{53} & c_{54} & 1 \end{bmatrix} \begin{bmatrix} e_{d,t} \\ e_{m,t} \\ e_{e,t} \\ e_{p,t} \\ e_{tb,t} \end{bmatrix} \quad (4)$$

To check the robustness of our empirical results we estimate two VAR models identified through the restrictions resulting from the recursive Cholesky decomposition of the residuals for each country from the Central European region - model A ($Y_t = [d_b, m_b, e_b, p_b, tb_t]$), model B ($Y_t = [d_b, e_b, m_b, p_b, tb_t]$).

In each model we assume different ordering of the variables that reflects the different distribution chain of the impulse initiated by the short-term capital inflows shock. It is also possible to analyze the responses of the endogenous variables to different types of capital inflows (foreign direct investments, portfolio investments, long-term capital).

Additionally, if the estimated results from the impulse-response analysis confirm the model is not very sensitive to the endogenous variables ordering, the Cholesky decomposition method can be interpreted as providing robust results.

In order to meet the objective of the article to estimate the monetary aspects of short-term capital inflows in the Central European countries in the period 1999-2010 we focus our attention to interpret the responses of the endogenous variables of the model to the short-term capital inflows one standard deviation innovation.

4. Data and results

We use monthly data ranging from 1999M1 to 2010M7 (127 observations) for the short-term capital inflows, money supply represented by the monetary aggregate M3, nominal effective exchange rate (NEER), inflation represented by the adjusted domestic consumer price index (indicator of core inflation) and trade balance. Time series for short-term capital inflows, monetary aggregate M3 and trade balance are seasonally adjusted and together with NEER are expressed as indexes with base line year 2005. Core inflation is calculated as an annual percentage change of adjusted consumers' price index expressed on the monthly base.

Before estimating the model we test the time series for stationarity and cointegration. The augmented Dickey-Fuller (ADF) and the Phillips-Perron (PP) tests were computed to test the endogenous variables for the existence of the unit roots. Both ADF and PP tests indicate the variables are non-stationary on the values so that the null hypothesis of a unit root cannot be rejected for any of the series. Testing variables on the first differences indicates the time series are stationary so that we conclude that the variables are I(1).

Because the endogenous variables have a unit root on the values it is necessary to the test the time series for cointegration using the Johansen cointegration test. The test for the cointegration was computed using two lags as recommended by the AIC (Akaike Information Criterion) and SIC (Schwarz Information Criterion). The results of the Johansen cointegration tests seem to be clear. Both trace statistics and maximum eigenvalue statistics (both at 0.05 level) indicate there is no cointegration among the endogenous variables of the model. The results of the Johansen cointegration tests correspond with the results of the unit root tests because it implies that there is no long-run equilibrium relationship among the variables of the model (they follow the different stochastic trend in the long run).

The results of unit root and cointegration tests are not reported here to save space. Like any other results, they are available upon request from the author.

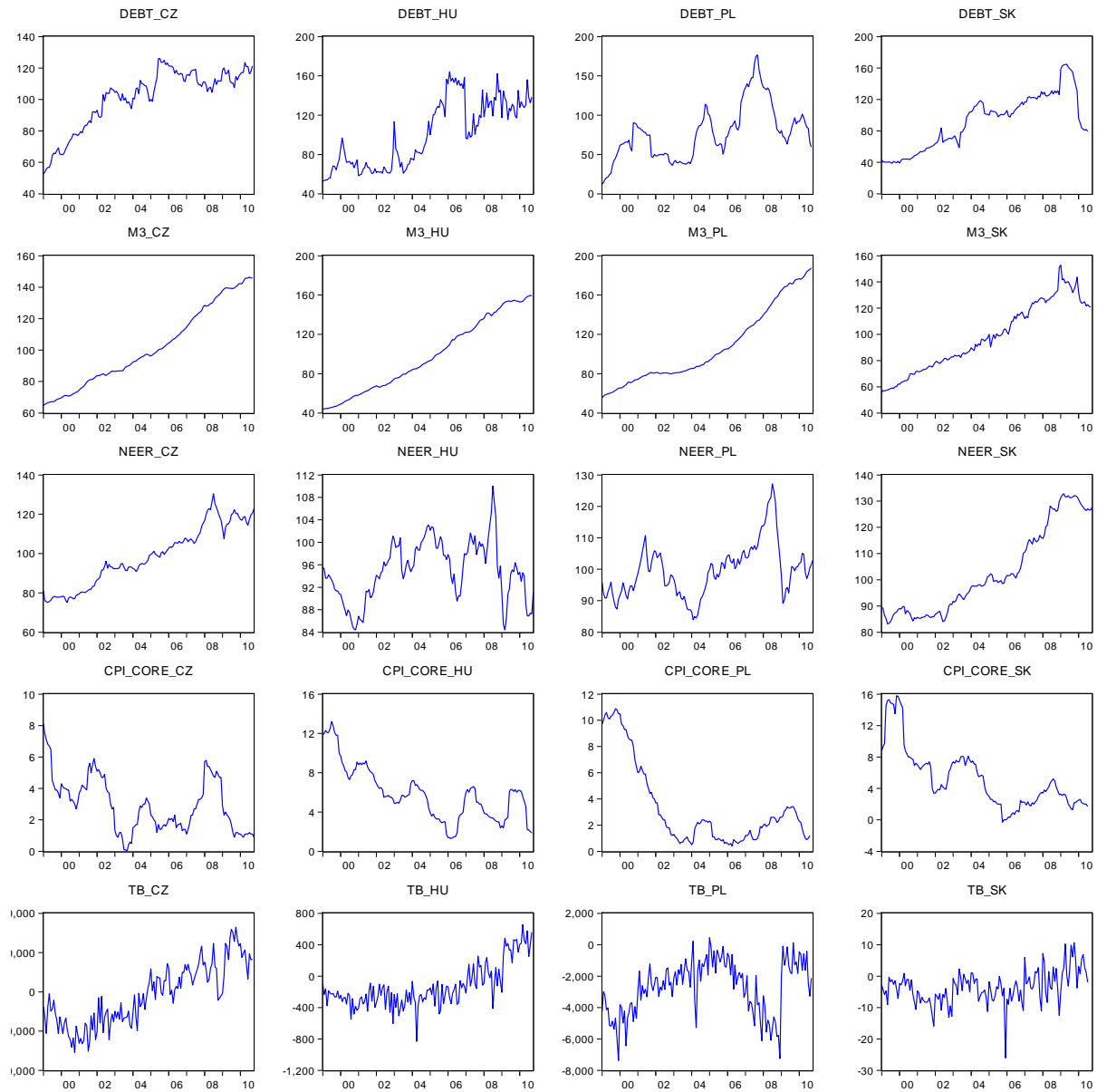


Figure 1. Variables

Source: Bank for international settlements, national central banks, OECD.

To test the stability of the VAR model we also applied a number of diagnostic tests. We found no evidence of serial correlation, heteroskedasticity and autoregressive conditional heteroskedasticity effect in the disturbances. The model also passes the Jarque-Bera normality test, so that errors seem to be normally distributed. The VAR models seem to be stable also because the inverted roots of the models for each country lie inside the unit circle, although several roots are near unity in absolute value (figure 2).

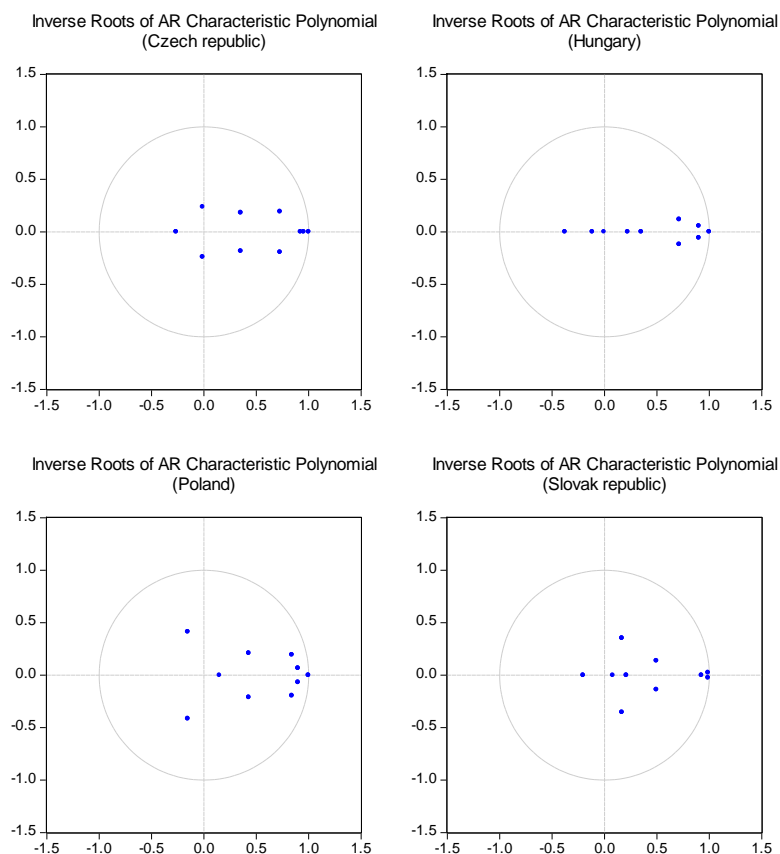


Figure 2. VAR stability condition check (Central European countries)⁴

Source: Author's calculations.

Following the results of the unit root tests and cointegration tests we estimate the model using the variables in the first differences so that we can calculate impulse-response functions (we focus on the responses of endogenous variables to the short-term capital inflows one standard deviation in each country from the Central Europe region. In the figure 3 - 6 we summarize the impulse-response functions for the model A ($Y_t = [d_t, m_t, e_t, p_t, tb_t]$) and model B ($Y_t = [d_t, e_t, m_t, p_t, tb_t]$) for each of the individual country from the Central European region.

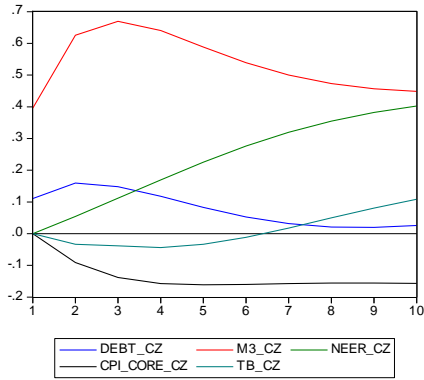
4.1 Czech republic

In the model A we consider the exchange rate shocks are determined by the nominal shocks. At the same time the exchange rate shocks affects the price level contemporaneously, but not vice versa (assumption is given by the Cholesky structure that allows us to identify the model).

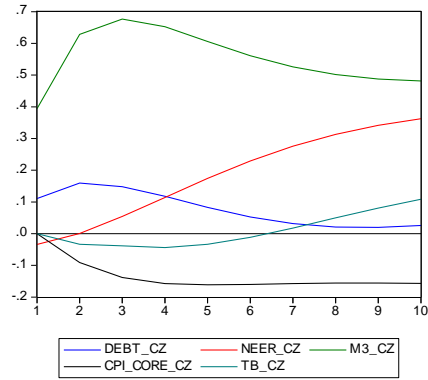
In the model B we consider the nominal shocks are determined by the exchange rate shocks. At the same time the nominal shocks affects the price level contemporaneously, but not vice versa (assumption is given by the Cholesky structure that allows us to identify the model).

⁴ The results of the VAR stability condition check are reported for the model A only. Like any other results, VAR stability condition check for model B is available upon request from the author.

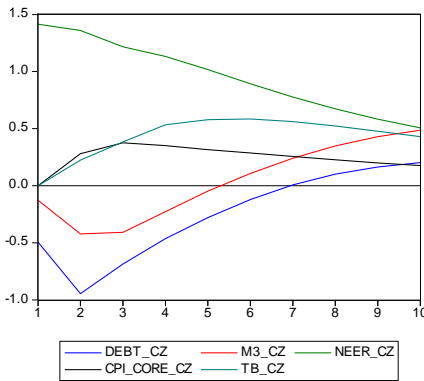
Response of M3_CZ to Cholesky
One S.D. Innovations
(model A)



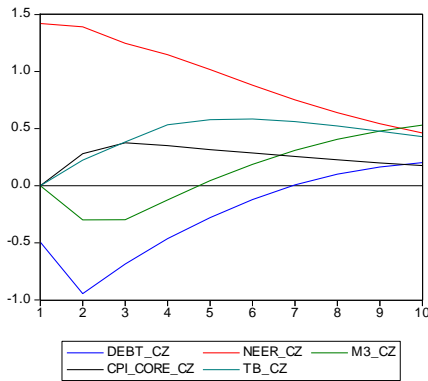
Response of M3_CZ to Cholesky
One S.D. Innovations
(model B)



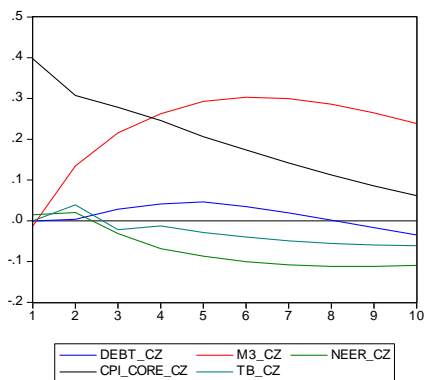
Response of NEER_CZ to Cholesky
One S.D. Innovations
(model A)



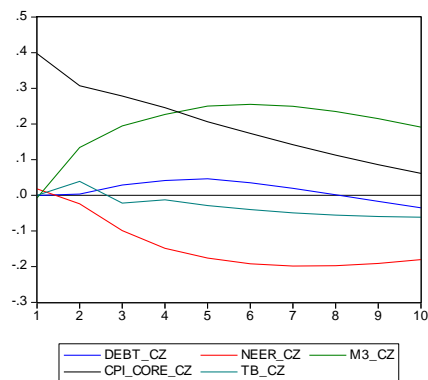
Response of NEER_CZ to Cholesky
One S.D. Innovations
(model B)



Response of CPI_CORE_CZ to Cholesky
One S.D. Innovations
(model A)



Response of CPI_CORE_CZ to Cholesky
One S.D. Innovations
(model B)



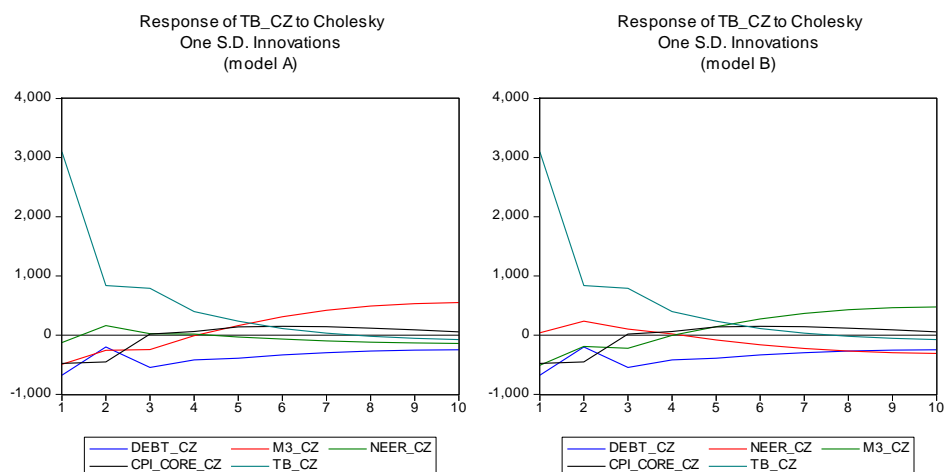


Figure 3. Impulse-response function, Czech republic (models A and B)

Source: Author's calculations.

The figure 3 reflects the estimated impulse-response functions that reveal the responses of endogenous variables of the model to the Cholesky one standard deviation shocks in the Czech republic. As we expected the short-term capital inflows immediately raised the domestic stock of money in the short period and after 8 months the effect of this shock died out. As a result the stock of money remained unchanged in the long-run after one standard deviation short-term capital shock. As we can see the results are almost identical for both models A and B so that the changes in ordering of the variables don't play any significant role.

After initial short-term capital shock NEER slightly depreciated. After 1 month after the shock NEER followed the path on the way back to its initial level and after 7 months the negative impact of the short-term capital shock to the NEER development completely disappeared. Similarly the change in ordering of the variables confirmed the results presented here.

Core inflation slightly increased after one standard deviation short-term capital shock with lag of 2 months after the shock. The effect of this shock was only temporary and lasted only 6 months so that core inflation returned back to its initial level after this period. The change in ordering of the variables doesn't revealed results significantly different if we compare models A and B.

Finally, the current account turned into deficit after one standard deviation short-term capital shock and while the overall effect of the shock on the current account development slightly decreased after 10 months, the current account remained in deficit and it didn't return back to the initial equilibrium state. The change in ordering of the variables doesn't revealed results significantly different if we compare models A and B.

Considering our assumptions from the beginning of the section 3, the overall surplus in the capital account caused by the short-term capital inflows (leaving other accounts of the capital account unchanged), together with the negative trend in the current account development (reflects the negative trend in the current account development caused by the short-term capital inflows shock) caused the balance of payments in the Czech republic followed the path to the overall equilibrium. Considering this we expect, the main motive for the short-term capital inflows in the Czech republic was mainly determined by the motive of speculation.

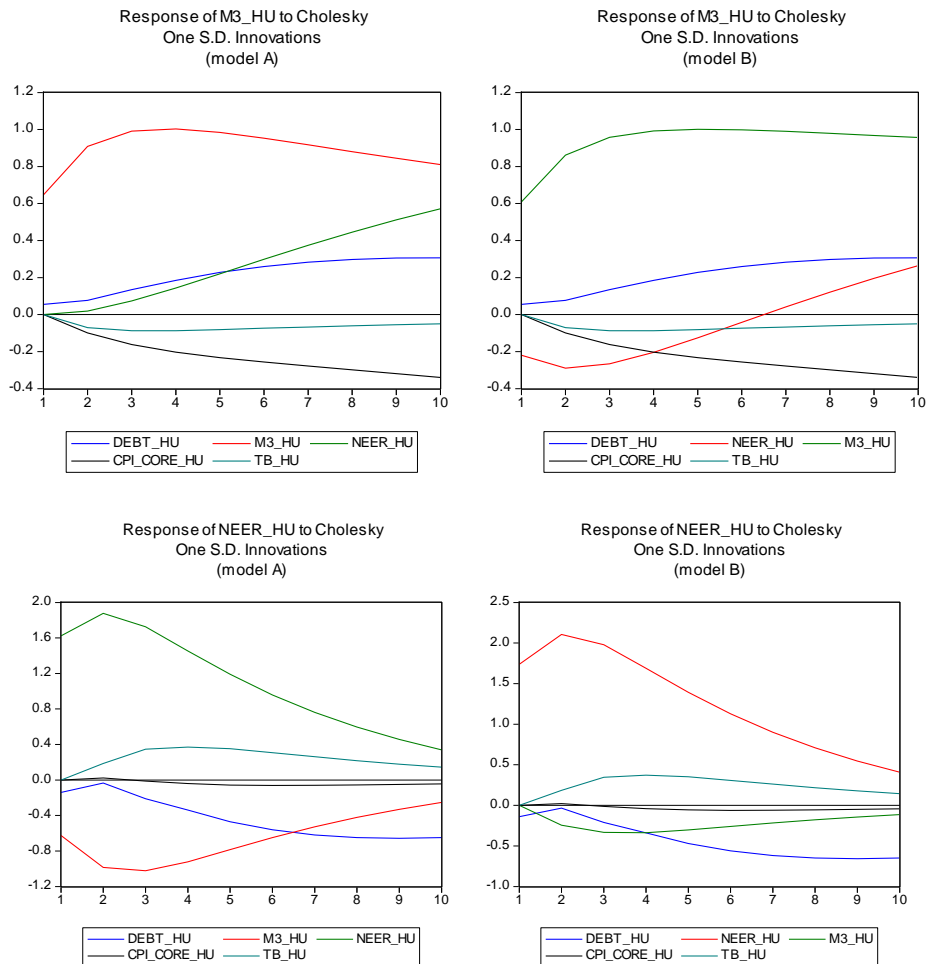
4.2 Hungary

The figure 4 depicts the estimated impulse-response functions showing the responses of endogenous variables of the model to the Cholesky one standard deviation shocks in Hungary. In comparison with the Figure 3 we found rather similar response of the domestic stock of money to the one standard deviation short-term capital inflows shock. While the stock of money increased after this shock, the power of the stock rose steadily and reached its peak after 8 months. Contrary to its long-run neutral impact in the Czech republic, in Hungary it seems its effect on the stock of money seems to be permanent. The change in ordering of the variables (models A and B) doesn't seem have any

significant impact on the response of domestic stock of money to short-term capital shock presented here.

Quite different, in comparison with the Czech republic, seems to be the response of NEER to the initial one standard deviation short-term capital shock in Hungary. The shock affected negatively the development of NEER with 1 month lag. NEER depreciated steadily after this shock with the peak after 10 months after the shock. Similarly, just like in case of the stock of money, the negative effect of the short-term capital shock to the NEER development seems to be permanent. Similarly the change in ordering of the variables (models A and B) doesn't seem have any significant impact on the response of NEER to the short-term capital shock presented here.

Absolutely different results, in comparison with the Czech republic, we found in the analysis of the response of the core inflation to the one standard deviation short-term capital inflows shock. Surprisingly the price level decreased after this shock while this effect steadily fades out in the long-run. We may expect it is due to non-speculative character of the short-term capital inflows in Hungary. Our consideration is supported by the response of current account to the initial short-term capital inflows shock. Contrary to our findings in the Czech republic, the current account in Hungary turned into surplus after this shock. Similarly the change in ordering of the variables (models A and B) doesn't seem have any significant impact on the response of NEER to the short-term capital shock presented here.



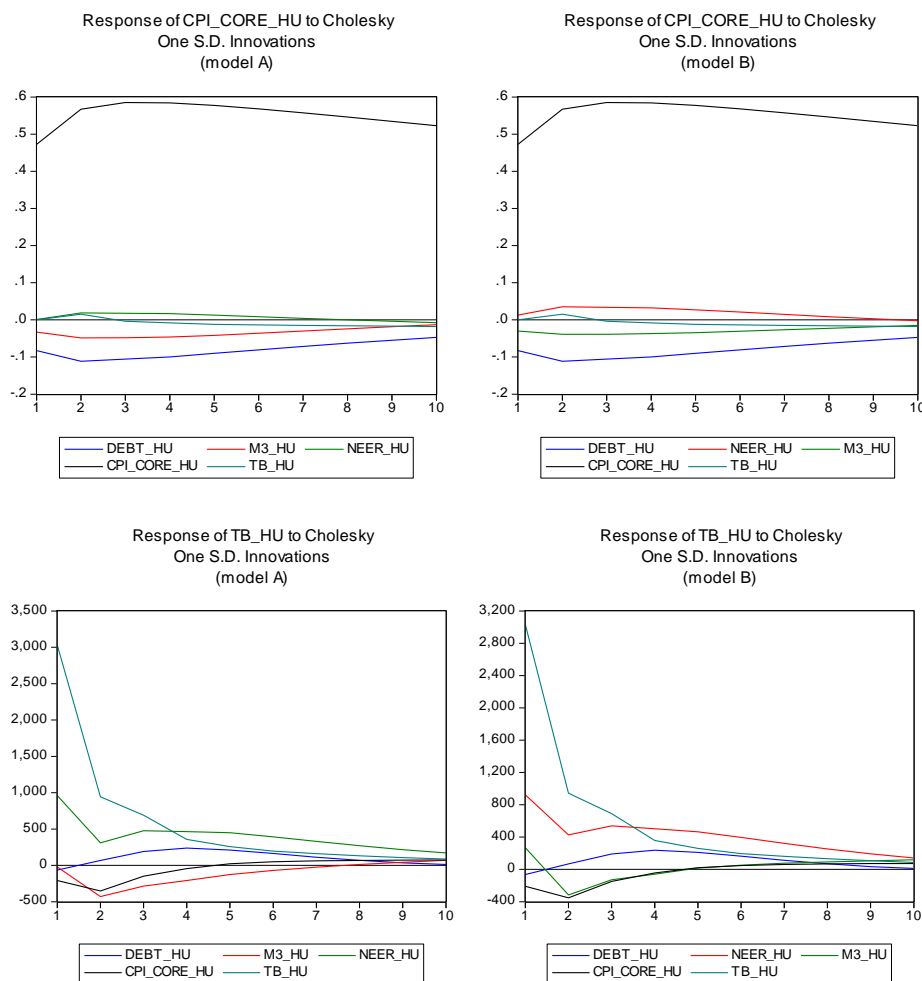


Figure 4. Impulse-response function, Hungary (models A and B)

Source: Author's calculations.

Absolutely different results, in comparison with the Czech republic, we found in analysing the response of the core inflation to the ode standard deviation short-term capital shock. Surprisingly the price level decreased after this shock while this effect steadily fades out in the long-run. We may expect it is due to non-speculative character of the short-term capital inflows in Hungary. Our consideration is supported by the response of current account to the initial short-term capital inflows shock. Contrary to our findings in the Czech republic, the current account in Hungary turned into surplus after this shock.

Finally, considering our assumptions from the beginning of the section 3, the overall surplus in the capital account caused by the short-term capital inflows (leaving other accounts of the capital account unchanged), together with the positive trend in the current account development (reflects the positive trend in the current account development caused by the short-term capital inflows shock) caused the balance of payments in the Hungary followed the path to the overall surplus. Considering this we expect, the main motive for the short-term capital inflows in the Czech republic was mainly determined by the stock disequilibrium in the money market.

4.3 Poland

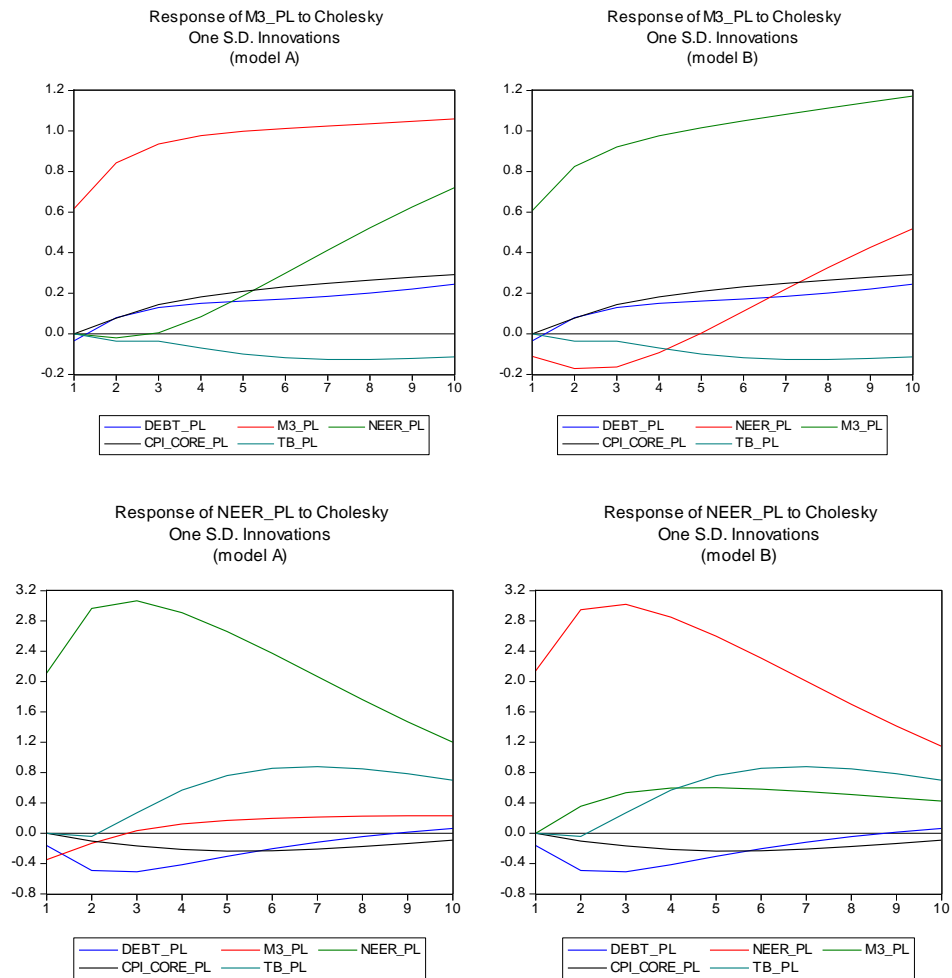
The figure 5 reflects the estimated impulse-response functions that reflect the responses of endogenous variables of the model to the Cholesky one standard deviation shocks in Poland. Similarly to the result for the Czech republic, the short-term capital inflows gradually increased the domestic stock of money in the short period with the slightly lower positive trend after 3 months after the shock. Contrary to its long-run neutral impact in the Czech republic, in Poland it seems its effect on the

domestic stock of money seems to be permanent. The change in ordering of the variables (models A and B) doesn't seem have any significant impact on the response of domestic stock of money to short-term capital shock presented here.

After initial short-term capital shock NEER slightly depreciated. After 1 month after the shock NEER followed the path on the way back to its initial level and after 8 months the negative impact of the short-term capital shock to the NEER development completely disappeared. Similarly the change in ordering of the variables confirmed the results presented here.

Core inflation slightly increased after one standard deviation short-term capital shock with lag of 2.5 months after the shock. The effect of this shock seems to be also permanent so that the core inflation remained increased after initial short-term capital inflows shock. The change in ordering of the variables doesn't revealed results significantly different if we compare models A and B.

Finally, the current account didn't turn into deficit immediately after one standard deviation short-term capital shock, but only after 3 months. Here again the current account remained in deficit and it didn't return back to the initial equilibrium state. The change in ordering of the variables doesn't revealed results significantly different if we compare models A and B.



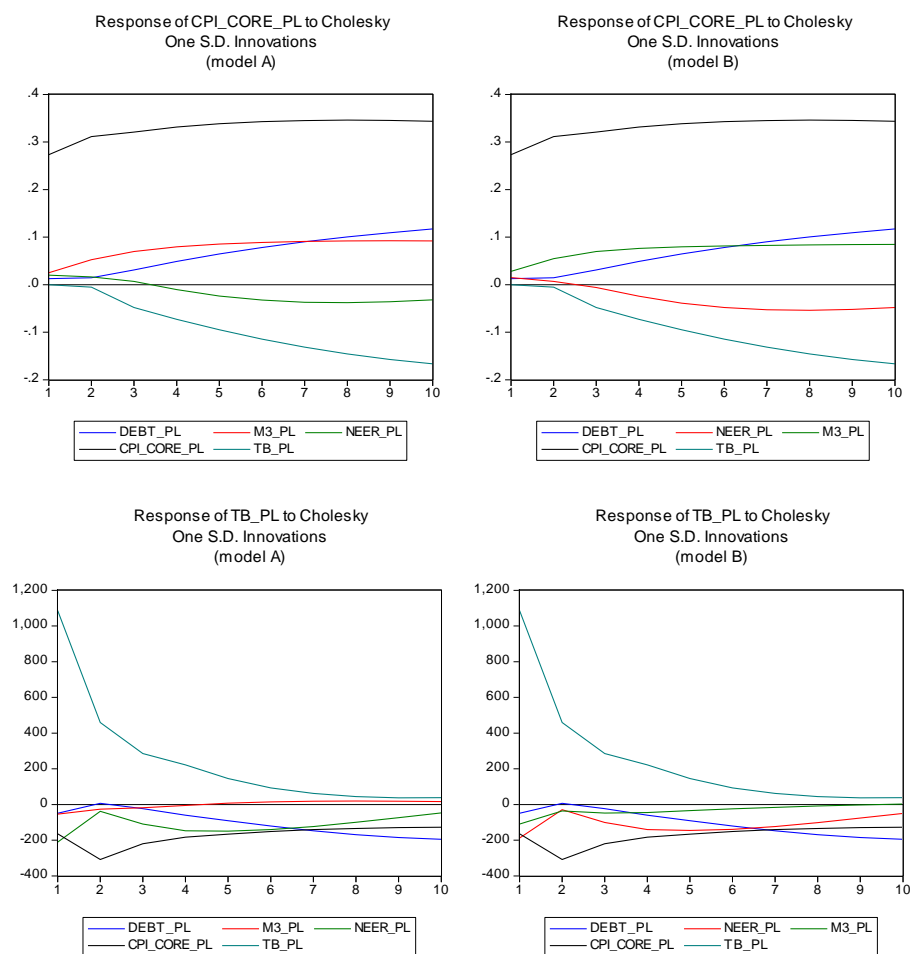


Figure 5. Impulse-response function, Poland (models A and B)

Source: Author’s calculations.

Final comments related the motives of the short-term capital inflows in Poland are similar to our findings for the Czech republic. The overall surplus in the capital account caused by the short-term capital inflows, together with the negative trend in the current account development caused the balance of payments in Poland followed the path to the overall equilibrium. Considering this we expect, the main motive for the short-term capital inflows in Poland was mainly determined by the motive of speculation.

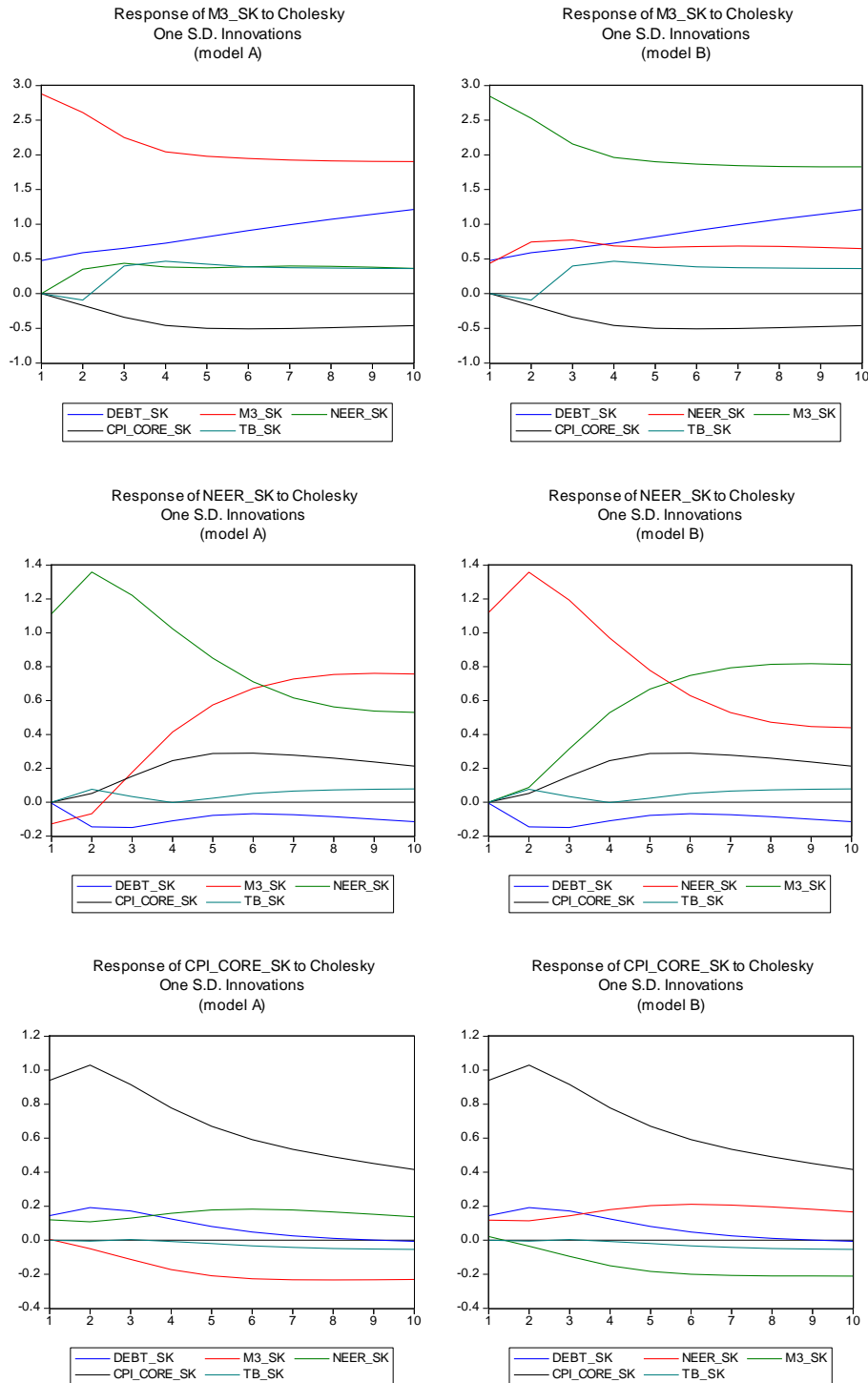
4.4 Slovak Republic

The figure 6 reflects the estimated impulse-response functions that reveal responses of endogenous variables of the model to the Cholesky one standard deviation shocks in the Slovak republic. As we expected the short-term capital inflows immediately raised the domestic stock of money in the short period. While in the Czech republic the positive effect of the short-term capital inflows shock to the stock of money development was only temporary and in Hungary and Poland permanent and stable, in the Slovak republic we observed a steadily rising trend even in the long-run. As we can see the results are almost identical for both models A and B so that the changes in ordering of the variables don’t play any significant role.

After initial short-term capital shock NEER slightly depreciated. 2.5 months after the shock NEER followed the path on the way back to its initial level but contrary to the results for three remaining countries, in the Slovak republic NEER remained depreciated even in the long-run. Similarly the change in ordering of the variables confirmed the results presented here.

Core inflation slightly increased immediately after one standard deviation short-term capital shock while its effect was only temporary and lasted only 7 months so that core inflation returned back to its initial level after this period. The change in ordering of the variables doesn't revealed results significantly different if we compare models A and B.

The current account turned into deficit after one standard deviation short-term capital shock and it didn't return back to the initial equilibrium state. The results depict the impulse-response function of the short-term capital shock in the model B.



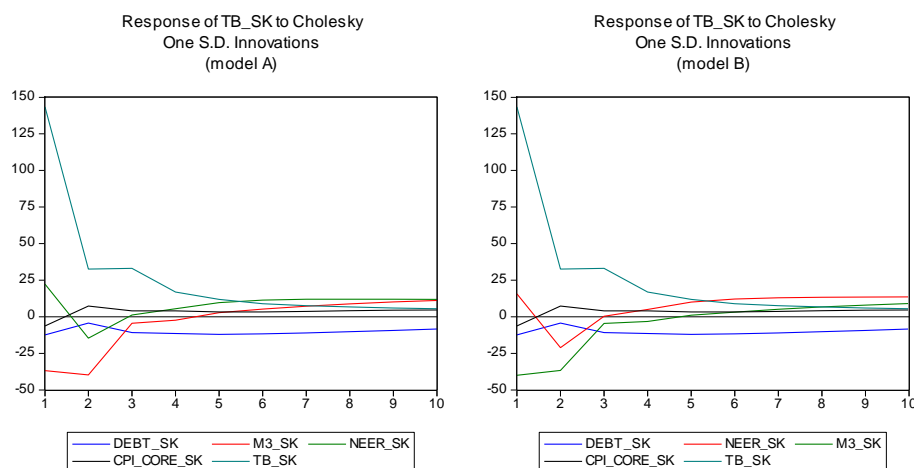


Figure 6. Impulse-response function, Slovak republic (models A and B)

Source: Author's calculations.

The overall surplus in the capital account caused by the short-term capital inflows, together with the negative trend in the current account development caused the balance of payments in the Slovak republic followed the path to the overall equilibrium. Considering this we expect, the main motive for the short-term capital inflows in the Slovak republic was, similarly to what we observed in the Czech republic and Poland, mainly determined by the motive of speculation.

5. Conclusion

In the paper we have analyzed selected monetary aspects of short-term capital inflows in the Central European countries (Czech republic, Hungary, Poland, the Slovak republic) in the period 1999-2010 using VAR (vector autoregression) approach. In order to meet this objective we have estimated a recursive VAR model identified by the Cholesky decomposition of innovations that allowed us to identify structural shocks hitting the model. We have computed impulse-response functions in order to estimate the impact of short-term capital inflows on exchange rate, money stock, price level and current account in the Central European countries. Ordering of the endogenous variables in the model was also considered.

To analyze the effects of the short-term capital inflows to the Central European countries we have considered two following statements as crucial assumptions a relevance of which we have tested. (1) If the short-term capital inflows⁵ are determined by the domestic money market disequilibrium (demand for money exceeds money supply) the balance of payments as a whole of the country should tend to be in surplus. It also means that the short-term capital inflows shouldn't stimulate the current account to tend to the deficit as it then may offset a surplus in the capital account. If our analysis confirms a relevance of this statement then we may claim the short-term capital inflows in the individual country from the group of the Central European countries have been stimulated by the money market disequilibrium in the selected period. (2) On the other hand the situation seems to be different if the short-term capital inflows are largely determined by a motive of speculation focusing on short-term yields resulting from interest rates margins on short-term deposits denominated in national currencies among countries. It also means that the short-term capital inflows should stimulate the current account to tend to the deficit so that the overall balance of payments may tend to the equilibrium state. If our analysis confirms a relevance of this statement then we may claim the short-term capital inflows in the individual country from the group of the Central European countries have been stimulated by the speculative purposes of foreign investors in the selected period.

⁵ Other things being equal, short-term capital inflows lead to the capital account surplus in the balance of payment of the country.

Comparing the result for each country from the Central European region we may summarize our findings:

- The one deviation short-term capital inflows shock raised the domestic stock of money in all countries with different intensity and durability. While in the Czech republic the effect of the short-term capital inflows shock was only temporary, in Hungary, Poland and the Slovak republic it seemed to be permanent.

- After the initial one deviation short-term capital inflows shock NEER temporarily depreciated in the Czech republic and Poland. On the hand in Hungary and the Slovak republic the negative impact of the short-term capital inflows shock seemed to be permanent.

- In the Czech republic and the Slovak republic the short-term capital inflows shock seemed to have only temporary negative impact on the core inflation development while in Poland the overall effect of the short-term capital inflows shock seemed to be permanent. Surprisingly the short-term capital inflows shock seemed to have a positive impact on the core inflation development in Hungary while this effect steadily fades out in the long-run.

- The overall surplus in the capital account caused by the short-term capital inflows (leaving other accounts of the capital account unchanged), together with the negative trend in the current account development (reflects the negative trend in the current account development caused by the short-term capital inflows shock) caused the balance of payments in the Czech republic, Poland and the Slovak republic followed the path to the overall equilibrium. Considering this we expect, the main motive for the short-term capital inflows in the Czech republic, Poland and the Slovak republic was mainly determined by the motive of speculation.

- The overall surplus in the capital account caused by the short-term capital inflows, together with the positive trend in the current account development caused the balance of payments in the Hungary followed the path to the overall surplus. Considering this we expect, the main motive for the short-term capital inflows in the Czech republic was mainly determined by the stock disequilibrium in the money market.

Acknowledgement

This paper was written in connection with scientific project VEGA no. 1/0442/10. Financial support from this Ministry of Education's scheme is also gratefully acknowledged.

References

- [1] Baldwin, R.E. 2004. *Openness and Growth: What's the Empirical Relationship?* Challenges to Globalization: Analyzing the Economics, ed. by Robert E. Baldwin, and L. Alan Winters (Chicago: University of Chicago Press).
- [2] Begg, D., Eichengreen, B., Halpern, L., Hagen, J., and Wylposz, Ch. 2003. Sustainable Regimes of Capital Movements in Accession Countries. CEPR Policy Paper, No. 10 (London: Centre for Economic Policy Review).
- [3] Bekaert, G. July 2005. Does Financial Liberalization Spur Growth? *Journal of Financial Economics* Volume 77 No. 1, pp. 3–55.
- [4] Bertaut, C., and Kole, L. Winter 2004. *What Makes Investors Overweight or Underweight? Explaining International Appetites for Foreign Equities.* Federal Reserve Board Bulletin No. 90 No. 1, p. 19-31.
- [5] Blanchard, O.J. 1984. Current and Anticipated Deficits, Interest Rates and Economic Activity. *European Economic Review* Volume 25, pp. 7-27.
- [6] Blanchard, O.J., Giavazzi, F., and Sa, F. 2005. International Investors, the U.S. Current Account, and the Dollar. *Brookings Papers on Economic Activity* 1, pp. 1-49.
- [7] Brada, J.C. 2004. Foreign investments and perceptions of vulnerability to foreign exchange crises: Evidence from transition economies. *Politická ekonomie* č. 3, ISSN 0032-3233.
- [8] Buiters, W., and Taci, A. 2002. *Capital Account Liberalization and Financial Sector Development in Transition Countries, Capital Liberalization and Transition Countries: Lessons from the Past*

and for the Future, ed. by Barker, A.F.P., and Chapple, B. (Cheltenham: Elgar), pp. 105-41.

- [9] Bussière, M., Fratzscher, M., and Muller, G.J. 2004. Current Account Dynamics in OECD and EU Acceding Countries-An Intertemporal Approach, *ECB Working Paper No. 311* (Frankfurt: European Central Bank).
- [10] Bussiere, M., and Fratzscher, M. 2004. Financial Openness and Growth: Short- Run Gain, Long-Run Pain?, *ECB Working Paper No. 348* (Frankfurt: European Central Bank).
- [11] Edison, H., Ross, L., Luca, R., and Torsten, S. November 2002. International Financial Integration and Economic Growth. *Journal of International Monetary and Finance* Volume 21, No. 6, pp. 749-76.
- [12] Edwards, S. 2001. Capital Mobility and Economic Performance: Are Emerging Economies Different?, *NBER Working Paper No. 8076* (Cambridge, MA: National Bureau of Economic Research).
- [13] Eichengreen, B.J. October 2001. Capital Account Liberalization: What Do Cross-Country Studies Tell Us? *World Bank Economic Review*, Volume 15, pp. 341-65.
- [14] Fischer, S. 1998. Capital Account Liberalization and the Role of the IMF, Should the IMF Pursue Capital-Account Convertibility?, *Essays in International Finance*, Department of Economics, Princeton University, Volume 207, pp. 1-10.
- [15] Goldberg, L. 2004. Financial-Sector Foreign Direct Investment and Host Countries: New and Old Lessons. *NBER Working Paper No. 10441* (Cambridge, Massachusetts: National Bureau of Economic Research).
- [16] Hasan, I., Wachtel, P., and Zhou, M. 2006. Institutional Development, Financial Deepening and Economic Growth: Evidence from China. Bank of Finland, Institute for Economies in Transition. BOFIT Discussion Papers No. 12/2006.
- [17] Kose, M.A., Prasad, E., Rogoff, K.S., and Wei, S.J. 2006 Financial Globalization: A Reappraisal. *NBER Working Papers 12484*. National Bureau of Economic Research.
- [18] Kraay, A. 1998. *In Search of the Macroeconomic Effects of Capital Account Liberalization*. World Bank (unpublished manuscript).
- [19] Lane, P.R., and Milesi-Ferretti, G.N. 2006. The External Wealth of Nations Mark II: Revised and Extended Estimates of Foreign Assets and Liabilities 1970-2004. *IMF Working Paper* No. 69 (Washington: International Monetary Fund).
- [20] Mishkin, F. 2001. Financial Policies and the Prevention of Financial Crises in Emerging Market Countries. *NBER Working Paper* No. 8087. Cambridge, MA: National Bureau of Economic Research.
- [21] Obstfeld, O. Fall 1998. The Global Capital Market: Benefactor or Menace. *Journal of Economic Perspectives* 12, pp. 9-30.
- [22] Pilbeam, K. 2006. *International finance*. 3rd edition. Palgrave Macmillan Press. London.
- [23] Rose, A.K. June 2005. One Reason Countries Pay Their Debts: Renegotiation and International Trade. *Journal of Development Economics* Volume 77, No. 1, pp. 189-206.
- [24] Stiglitz, J. 2000. Capital Market Liberalization, Economic Growth, and Instability. *World Development*. Volume 28, No. 6, pp. 1075-86.
- [25] Stulz, R. 2006. Financial Globalization, Corporate Governance and Eastern Europe. *NBER Working Paper* No. 11912 (Cambridge, Massachusetts: National Bureau of Economic Research).
- [26] Stultz, R. 1999. International Portfolio Flows and Security Markets. *International Capital Flows*. *NBER Conference Report Series*, pp. 257-293. Chicago/London: University of Chicago Press.

INTERNATIONAL DIVISION OF LABOUR IN THE CONTEXT OF GLOBALISATION: THE CASE OF THE CZECH REPUBLIC

Michal TVRDON

Silesian University in Opava

School of Business Administration, Karvina, **Czech Republic**

tvrdon@opf.slu.cz

Abstract:

Division of labour is the specialization of cooperative labour in specific, circumscribed tasks and roles, intended to increase the productivity of labour. Historically the growth of a more and more complex division of labour is closely associated with the growth of total output and trade, the rise of capitalism, and of the complexity of industrialization processes. The revealed comparative advantage (RCA) measures the intensity of trade specialisation of a country within the world. We try to analyse Czech foreign trade on the base of indices of revealed comparative advantage with respect to world exports into the EU-27 and with the EU-27 Member states and over time. Most important Czech export and import products into EU are different kinds of machines, electrical equipment, and transport vehicles (car industry) and related parts. Presented analysis also indicates that Czech Republic has revealed comparative advantage in SITC sections of 6 a 7 only.

Keywords: division of labour, comparative advantage, absolute advantage, revealed comparative advantage, Czech Republic.

JEL Classification: F10, F23, F41

1. Introduction

In general, trade liberalisation has substantial effects on the location of economic activities (especially on division of labour). Differences in comparative advantage across countries determine specialisation patterns at the inter-country level, while at intra-national level the forces of new economic geography are at work.

This paper aims to examine Czech Republic's relative competitiveness and to compare the structure of specialization in trade vis-à-vis world exports to the EU-27 and exports within the EU-27 Member States. The empirical analysis is based on Balassa's revealed comparative advantage (RCA) index. The paper is structured as follows. First, we discuss theoretical concept of division of labour and absolute and comparative advantage in Section 2. To provide background for the analysis, an overview of Czech Republic's foreign trade structure is presented briefly in Section 3. In Section 4 indices of revealed comparative advantage are developed to examine Czech RCA with respect to world exports into the EU-27 and with the EU-27 Member States and over time. Conclusions are included in Section 5.

2. Division of labour and comparative advantage

The theory of comparative advantage is perhaps the most important concept in the international trade theory. An economic advantage is when one person or group can produce a given result with more economy than another. This is very general, and can be broken down into categories: labour advantage is when production can be carried out at lower labour cost (other things being equal); capital advantage, capital; rent/space advantage, rent (Guillory 2005).

The early logic that free trade could be advantageous for countries was based on the concept of absolute advantages in production. Adam Smith wrote in *The Wealth of Nations* „If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry, employed in a way in which we have some advantage“ (Smith 1998, 595). He argued that it was impossible for all nations to become rich simultaneously by following mercantilist prescriptions because the export of one nation is another nation's import. However, all nations would gain simultaneously if they practiced free trade and specialized in accordance with their absolute advantage. The idea here is simple and intuitive. If our country can produce some set of goods at lower cost than a foreign country, and if the foreign country can produce some other set of goods at a lower cost than we can produce them, then clearly it would be best for us

to trade our relatively cheaper goods for their relatively cheaper goods. In this way both countries may gain from trade.

Division of labour and specialization occupy a central place in Smith's writing. More direct precursors of Smith on doctrines of the division of labour of course are Petty, Mandeville, Hutcheson and the French Encyclopedists among others. The extent to which Smith's celebrated division of labour principle was directly inspired by the French Encyclopedie has long been a focus of controversy. It cannot be denied after all that the three major advantages of labour specialization Smith famously identified, namely, increase in dexterity in every particular workman, saving of time in passing from one job to another, and invention of machines (Sun 2005). But Smith appears to be the first author to be well aware of the other side of the coin: division of labour plays a crucial role in determining the extent of the market.

For instance, in Smith's theory of the division of labour, differences between individuals of different occupations, "*is not upon many occasions so much the cause, as the effect of the division of labour*" (Smith 1998, 32). As such, the Smithian endogenous comparative advantage sharply differs from many, including notions attributed to Plato and other Greeks, before him as well as many influential ones like the Ricardian exogenous comparative advantage as the cause of division of labour after him (Sun 2005). Smith's absolute advantage is determined by a simple comparison of labour productivities across countries.

The division of labour has also international dimension as Smith wrote: "*The most opulent nations, indeed, generally excel all their neighbours in agriculture as well as in manufactures; but they are commonly more distinguished by their superiority in the latter than in the former*" (Smith 1998, 20).

Though Smith successfully established the case for free trade, he did not develop the concept of comparative advantage. Because absolute advantage is determined by a simple comparison of labour productivities, it is possible for a nation to have absolute advantage in nothing. Adam Smith, however, was much more concerned with the role of foreign trade in economic development and his model was essentially a dynamic one with variable factor supplies.

David Ricardo was concerned with the static resource allocation problem when he defined the concept of *comparative advantage*, which is determined not by absolute values of labour productivity but by labour productivity ratios. At first glance, there is no reason to think that A, with absolute advantage against B in goods X and Y, would wish to trade either X or Y with B. Another worry is that if B trades in either X or Y with A, he might harm his interests. These initial impressions are completely exploded by considering the nature of trade, and Ricardo's discovery of the law of comparative advantage. It is not absolute advantage that is relevant when considering the gains to trade - it is comparative advantage. That is, if A enjoys absolute advantage, it is still in a position such that the cost of foregoing production of enough units of Y to produce a unit of X means that it would be willing to trade X for Y at a ratio that is favorable to his position. The same is true for B, and if these ratios are not equal, then the direct benefits of trade emerge.

To measure the comparative advantage, Balassa (1965) suggested that comparative advantage could be "revealed" by observed trade patterns that reflect differences in factor endowments across nations. Balassa constructed an index that measures a country's revealed comparative advantage (RCA). Formally the original Balassa index (BI) is presented as:

$$BI = (x_{ij}^k / X_{ij}) / (x^k / X)$$

where x_{ij}^k represents exports of product k from country i to country/region j , X_{ij} is total exports from country i to the reference group, x^k is the reference group's exports of good k , X is the reference group's total exports and EX refers to export shares being used to compute the index. If the index is greater than one for product k , the country is said to have comparative advantage in exports of that good.

Based on Balassa's original concept and Benedicts and Tamberi (2001), two measures of competitive advantage are developed in the paper. The first index (RCA_I) aims to measure Czech Republic's exports advantage with respect to world exports into the EU-27. To measure Czech Republic and Turkey exports advantage with respect to world exports into the EU-27. Formally the index is presented as:

$$RCA_I = (x_{czi} / x_{cz}) / (X_{wi} / X_w)$$

Where RCA_i denotes revealed comparative advantage index of Czech's industry i to the EU-27, x_{czi} is Czech exports to the EU-27 in industry i , X_{wi} is world industry i 's exports to the EU-27; x_{cz} indicates total Czech exports to the EU-27, and X_w is the world exports to the EU-27.

It does not, however, explain what is behind the comparative advantage. A simple index could not explain an issue as complex as why one nation has a comparative advantage in a given product while another nation does not. The approach taken here seeks to determine to what extent the revealed comparative advantages of two countries in any one market converge. Comparative advantage is "revealed" by observed trade patterns, and in line with the theory, one needs pre-trade relative prices which are not observable. Thus, inferring comparative advantage from observed data is named "revealed" comparative advantage (RCA). In practice, this is a commonly accepted method to analysing trade data (Utkulu and Seymen 2004).

3. Development of Czech foreign trade

Over the last 30 years, the main feature of international trade has been the integration of East Asian economies („Asian Tigers“) into world trade. The emergence of China on the world trade stage in the 80's and 90's seems to have brought an additional boost to the international division of labour (Betschart *et al.* 2005). Another group of countries which have been integrated into world trade, especially into European trade, were ten countries in Central and East Europe during the 90's (see Misztal 2007). During this decade they have made radical economic reforms and have re-integrated themselves rapidly into Western Europe in terms of foreign trade and foreign direct investment (FDI) which have statistically significant impact on GDP growth (for more detailed analysis see Arfaoui and Abaoub 2010). These countries applied for EU membership and signed association agreements, which liberalised most trade with EU in industrial products (Freudenberg and Lemoine 1999). In sum, the pattern of intra-firm trade that has emerged between Germany and Eastern Europe on the one hand and Austria and Eastern Europe on the other, suggests that some of the Eastern European countries like Hungary, Poland, the Czech and Slovak Republic, Romania, Bulgaria and Russia have clearly become new members in the international division of labour (Marin 2005).

For most Western European economies, globalisation is more of an opportunity than a great because their exports do not compete head-to-head with exports from the emerging countries. For example, the EU15 is strong on high-value-added engineering, pharmaceuticals and services, which are not strong points for the dynamic Asian exporters. Southern and Eastern European economies are more exposed because they are competing for similar businesses, namely the low-wage assembly operations of global production chains. They are also vulnerable because they have a large pool of unskilled labour that is harder to shift into high-value-added, high-tech products. The driving force of the division of labour into two economic zones of 'core' and 'periphery' is global capitalism, as enacted through the strategies of some of the main actors in the globalization process – transnational and multinational corporations (McCallum 1999). The 'core' is situated in the first zone of the advanced industrial states (Old EU Member States and Japan and United States). The 'periphery' is situated in the second zone of the developing countries (New Member States). Transnational companies whose headquarters are based in the core states are utilising increasingly accessible labour from the peripheral states as part of the growing phenomenon of sourcing labour from a global base. The reason this is happening is that globalisation provides an opportunity for international capitalists, through their Transnational Corporations (TNCs), to maximise profits through the use of low cost, low- skilled labour. An increasing polarisation of the core and the periphery results from this use of labour (McCallum 1999).

Industries can be divided into five basic categories according to properties used in the process of production (Widgrén 2005). Category 1 is characterised by a high share of wages in value added, very high average wages, and a very high proportion of white-collar workers. These are typically high-tech industries where human capital is used intensively in production. Category 2 comprises production activities intensive in human capital, but low physical capital intensity. This category includes industries which have a relatively low level of investment relative to value added, high wages, and a high share of wages in value added. Manufacturers of electrical machinery and equipment serve as an example from this category. Category 3 includes production intensive in labour and which uses relatively little capital. Average wages are low, and there is a low level of investment and a high share

of wages in value added. An example from this category is textiles and apparel industry. Category 4 includes industries that are intensive in labour and capital. These industries have a high level of investment, relatively low wages, a low proportion of white-collar workers, and an intermediate share of wages in value added. Automobile manufacturing, for instance, falls under this category. Category 5 is dominated by the forest and food-processing industries that are intensive in both physical and human capital. Also the paper industry belongs to this category.

The present analysis is based on OECD RCA indicator and on the annual time series data on EU-27 exports and imports, compiled by EUROSTAT. The data have been collected at 1 and 2-digit Standard International Trade Classification (SITC) over the period of years 1999 to 2006 or 2008. SITC is a statistical classification of the commodities entering external trade. It is designed to provide the commodity aggregates required for purposes of economic analysis and to facilitate the international comparison of trade-by-commodity data. While the OECD uses a wide range of SITC sections (0-Food and live animals; 1-Beverages and tobacco; 2-Crude materials, inedible, except fuels; 3-Mineral fuels, lubricants and related materials; 4-Animal and vegetable oils, fats and waxes; 5-Chemicals and related products, n.e.s.; 6-Manufactured goods classified chiefly by material; 7-Machinery and transport equipment; 8-Miscellaneous manufactured articles; 9- Commodities and transactions not classified elsewhere in the SITC). Eurostat introduced classification of 6 sub-sections (0+1 Food, drinks and tobacco; 2+4 Raw material, 3 Mineral fuels, lubricants and related products, 5 Chemicals and related products; 6 +8 Other manufactured products and 7 Machinery and transport equipment). In this study, we use both approaches, because both databases do not provide all the necessary data for the detailed analysis.

Figure 1 illustrates development of Czech foreign trade with world. Both volume of exports and imports has risen yearly between the years 1999 and 2008. Volume of imports was higher than volume of exports every year till 2005. Trade balance has become positive from this year.

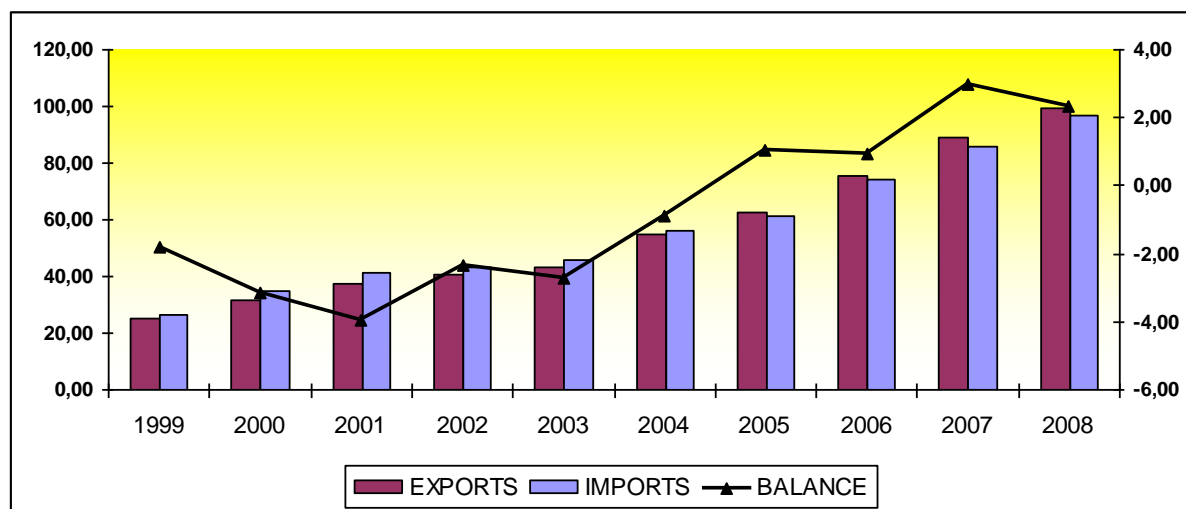


Figure 1. Development of Czech foreign trade

Source: Eurostat

The next table represents trade volume indices by declaring country. The value index is calculated as the percentage change between the trade value of the current month and the average monthly trade value of the previous year. Growth of Czech external trade (% change reached 148 % in the year 2008 against the year 2000) belonged to the highest ones in the group of new Member States (see Table 1).

Table 1. Export volume index (2000=100)

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	Change in %
European Union (27 countries)	100.0	102.9	104.9	106.3	116.6	125.1	133.3	140.6	144.3	44.3
Bulgaria	100.0	111.0	119.6	133.7	148.7	165.7	182.7	196.8	209.9	109.9
Czech Republic	100.0	112.6	121.7	129.1	160.5	175.3	204.5	235.6	248.7	148.7
Estonia	100.0	101.9	106.2	121.7	143.9	181.7	219.8	218.7	218.2	118.2
Cyprus	100.0	110.6	107.2	104.4	188.9	284.9	245.0	229.4	222.4	122.4
Latvia	100.0	110.0	117.9	131.1	156.4	201.0	225.6	252.1	272.9	172.9
Lithuania	100.0	126.3	147.1	162.7	194.2	234.2	258.2	268.9	316.3	216.3
Hungary	100.0	111.0	121.5	128.4	150.6	169.2	201.0	231.5	238.8	138.8
Malta	100.0	80.0	81.4	81.5	85.5	86.4	97.8	96.9	84.1	-15.9
Poland	100.0	112.2	121.6	136.8	165.7	188.7	222.3	247.9	262.9	162.9
Romania	100.0	110.0	126.3	137.0	156.9	172.4	188.6	213.4	228.4	128.4
Slovenia	100.0	106.4	113.1	118.2	133.3	150.8	174.2	200.0	205.2	105.2
Slovakia	100.0	110.2	121.5	148.4	159.6	172.5	215.8	270.0	303.5	203.5

Source: Eurostat

We can use for more detailed analyses of Czech foreign trade development through the standardized SITC classification. Not all commodities had increasing trend with the same intensity in volume of exports during the period between the years of 1999 and 2008 (Figure 2). A growth of exports was the most pronounced characteristic of the section Machinery and transport equipment and other manufactured products. For other sections, it has recorded only a slight increase in the volume of exports. A similar pattern was observed on the import side (see Figure 3).

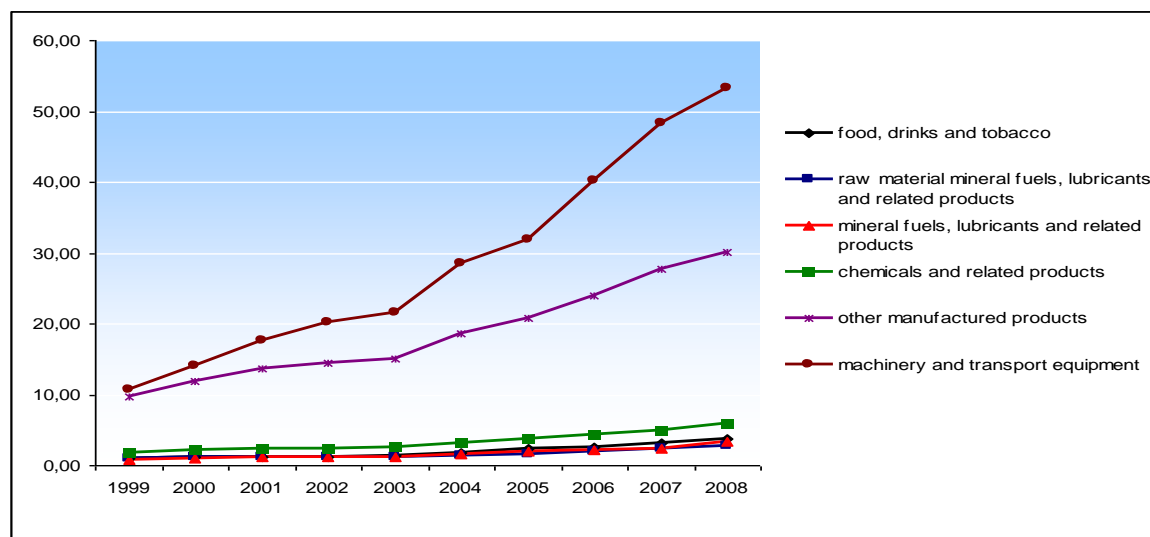


Figure 2. Development of Czech exports according SITC classification (in 1000 million Euro)

Source: Eurostat

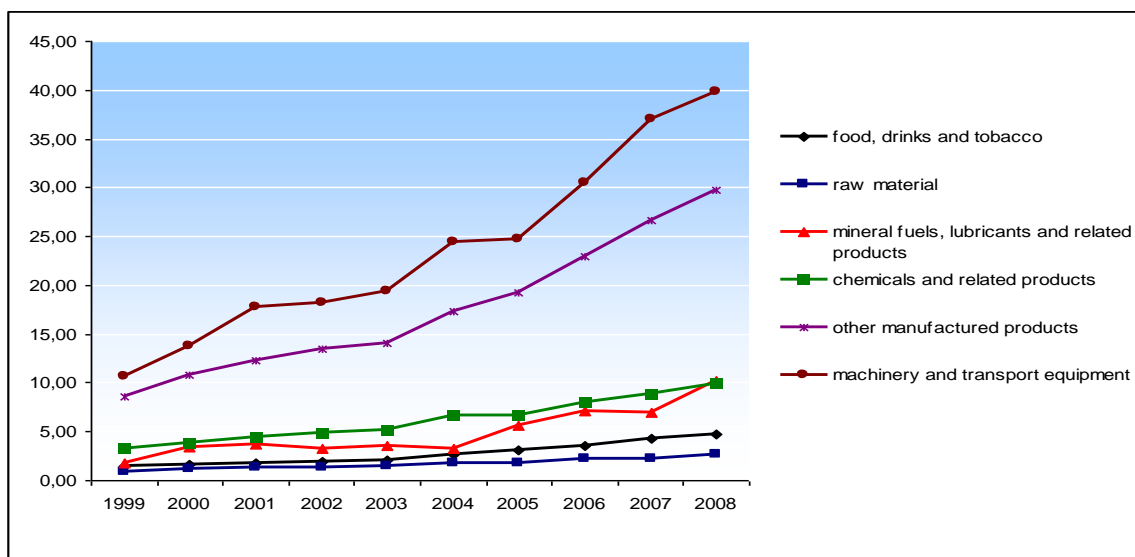


Figure 3. Development of Czech imports according SITC classification (in 1000 million Euro)

Source: Eurostat

An attractive look at the development of the Czech Republic exports to the EU-27 offers next table that summarizes the evolution of exports by SITC classification, respectively it includes the contribution of individual sections in total exports to the EU-27. From this it is clear that the EU internal market represents for Czech exporters foreign destination “number one” for their products in all these SITC sections, when this share does not fall below 70%. For some sections (2 +4 and 3) is even close to 100%. So strong orientation of Czech exports to the EU market, however, presents some risks for the Czech economy, especially in the case of such an outbreak of European economic recession, as they did in the last year.

Table 2. Share of Czech exports into EU-27 in total Czech exports

SITC section	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
0+1	0.59	0.61	0.62	0.65	0.68	0.73	0.73	0.76	0.76	0.76
2+4	0.94	0.93	0.92	0.91	0.91	0.91	0.88	0.91	0.92	0.93
3	0.95	0.95	0.94	0.95	0.97	0.97	0.98	0.97	0.97	0.97
5	0.84	0.82	0.82	0.80	0.81	0.81	0.78	0.80	0.80	0.80
6+8	0.88	0.87	0.86	0.86	0.86	0.87	0.85	0.85	0.85	0.86
7	0.88	0.85	0.87	0.86	0.88	0.88	0.86	0.86	0.85	0.84

Source: Eurostat

Table 3 illustrates the structure of Czech Republic’s trade presenting industry’s share with respect to total trade. As is evident from Table 2, the most noticeable element is dominance of machinery and transport equipment in the share of exports. Its share 43 % in 1999 has been increasing steadily to the year 2007 with 54 %. Then the share of this industry has fallen slightly to 53 % in 2008. Indeed, automobile industry was the main driving force of massive economic growth from 2003 to 2008. Second important export industry was manufactured goods classified chiefly by material. Its share has fallen from 26 % in 1999 to 20 % in 2008.

Table 3. Share of SITC categories in Czech commodity trade with the EU

Exports	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Food and live animals	0.02	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03
Beverages and tobacco	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Crude materials, inedible, except fuels	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.03
Mineral fuels, lubricants and related materials	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.04
Animal and vegetable oils, fats and waxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chemicals and related products	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.06
Manufactured goods classified chiefly by material	0.26	0.25	0.24	0.23	0.22	0.22	0.21	0.20	0.20	0.20
Machinery and transport equipment	0.43	0.44	0.47	0.50	0.51	0.52	0.51	0.53	0.54	0.53
Miscellaneous manufactured articles	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.11	0.11	0.11
Commodities and transactions not classified elsewhere in the SITC	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00

Source: Eurostat

The following table shows the influence of individual divisions (SITC 2 digit code) on the trade balance in the year 2007. Definitely the greatest positive impact to exports had division "Road vehicles" with almost five times larger value than other divisions. The significant difference is caused in particular by the massive FDI in-flows in this sector during last decade. In the divisions, which had a negative influence on the development of trade balance, there is not as noticeable difference as in the previous case. Dominating divisions were "Petroleum, petroleum products and related materials", "Non-ferrous metals" and "Gas, natural and manufactured," which is a logical consequence of the Czech Republic's energy dependency on imports from abroad.

Table 4. SITC divisions with the most influence on trade balances (in billions CZK, current prices)

Positive influence		Negative influence	
SITC Division	Balance	SITC Division	Balance
78 Road vehicles (including air-cushion vehicles)	204.2	33 Petroleum, petroleum products and related materials	-105.2
74 General industrial machinery and equipment, n.e.s., and machine parts, n.e.s.	39.2	68 Non-ferrous metals	-53.6
69 Manufactures of metals, n.e.s.	32.5	34 Gas, natural and manufactured	-48.0
66 Non-metallic mineral manufactures, n.e.s.	27.5	54 Medicinal and pharmaceutical products	-38.0
75 Office machines and automatic data-processing machines	23.9	67 Iron and steel	-28.2
62 Rubber manufactures, n.e.s.	23.0	57 Plastics in primary forms	-21.0
82 Furniture, and parts thereof; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings	20.4	05 Vegetables and fruit	-20.3
35 Electric current	16.3	58 Plastics in non-primary forms	-16.4

Positive influence			Negative influence		
SITC Division		Balance	SITC Division		Balance
81	Prefabricated buildings; sanitary, plumbing, heating and lighting fixtures and fittings, n.e.s.	14.5	59	Chemical materials and products, n.e.s.	-14.2
32	Coal, coke and briquettes	13.1	01	Meat and meat preparations	-10.0
24	Cork and wood	11.5	53	Dyeing, tanning and colouring materials	-10.0
72	Machinery specialized for particular industries	10.9	52	Inorganic chemicals	-6.6
77	Electrical machinery, apparatus and appliances, n.e.s., and electrical parts thereof (including non-electrical counterparts, n.e.s., of electrical household-type equipment)	10.5	87	Professional, scientific and controlling instruments and apparatus, n.e.s.	-5.9
89	Miscellaneous manufactured articles, n.e.s.	10.4	84	Articles of apparel and clothing accessories	-5.7
76	Telecommunications and sound-recording and reproducing apparatus and equipment	10.1	07	Coffee, tea, cocoa, spices, and manufactures thereof	-5.7

Source: Czech Statistical Office

4. Revealed comparative advantage

The revealed comparative advantage (RCA) measures the intensity of trade specialisation of a country within the world. The calculation according to OECD is as follow: export share of a product (SITC) of the total exports (of goods) of a country divided by the export share of this product (or type of goods) of the region or the world. If the RCA takes a value less than 1 this implies that the country is not specialised in exporting the product (type of goods). The share of that category of goods (SITC) within the total exports of goods of this country is less than the corresponding world share. Similarly if the index exceeds 1 this implies that the country is specialised in exporting this type of goods. Figure 4 represents changing trends of revealed comparative advantage of the Czech Republic's exports over time. As is seen from the graph the only two sections, which have RCA index higher than 1, are SITS 6 "Manufactured goods classified chiefly by material" and SITC 7 "Machinery and transport equipment industry". But the trends were different. While the RCA of section SITC 6 fell significantly from 1.874 in year 2000 to 1.471 in year 2006, the RCA of SITC 7 rose from 1.05 in year 2000 to 1.385 in year 2006 (see Figure 4).

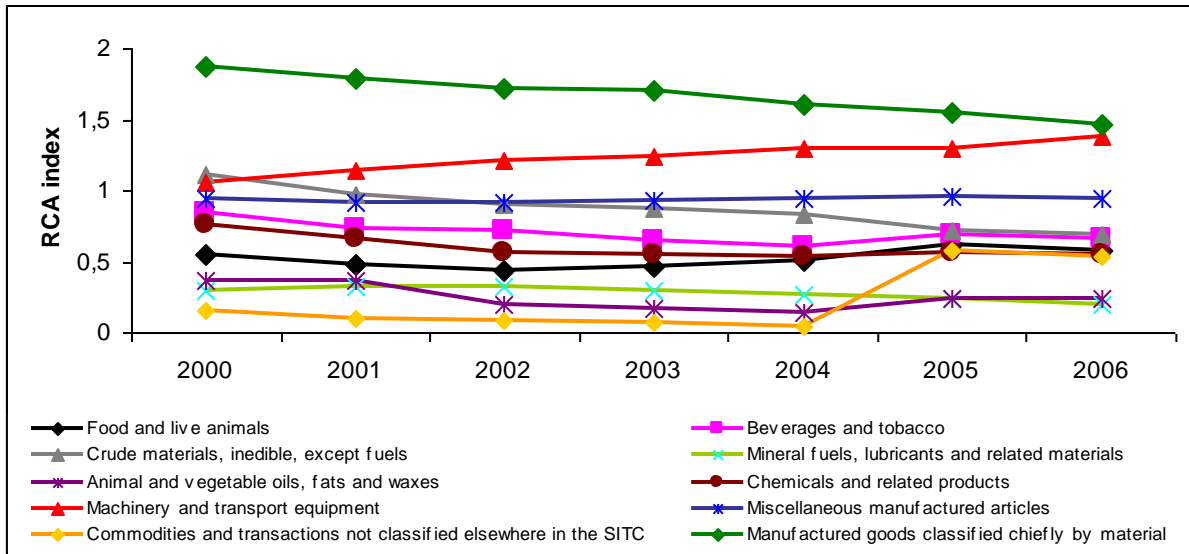


Figure 4. Changing trends of revealed comparative advantage over time

Source: OECD

The next two figures represent development of RCA for sections “Machinery and transport equipment” and “Manufactured goods classified chiefly by material” (2 digits SITC code). First one illustrates development of section “Manufactured goods classified chiefly by material” (division codes 61-69). With exception of divisions “Leather, leather manufactures and “Non-ferrous metals”, all divisions had their RCA value higher than 1, so Czech exports had RCA in these products. In addition, we can observe decline of values for division “Non-ferrous metals”, “Non-metallic mineral manufactures, n.e.s.” and “Manufactures of metals, n.e.s.”. The highest RCA value had division “Rubber manufactures” with the value 3.015 in 2006.

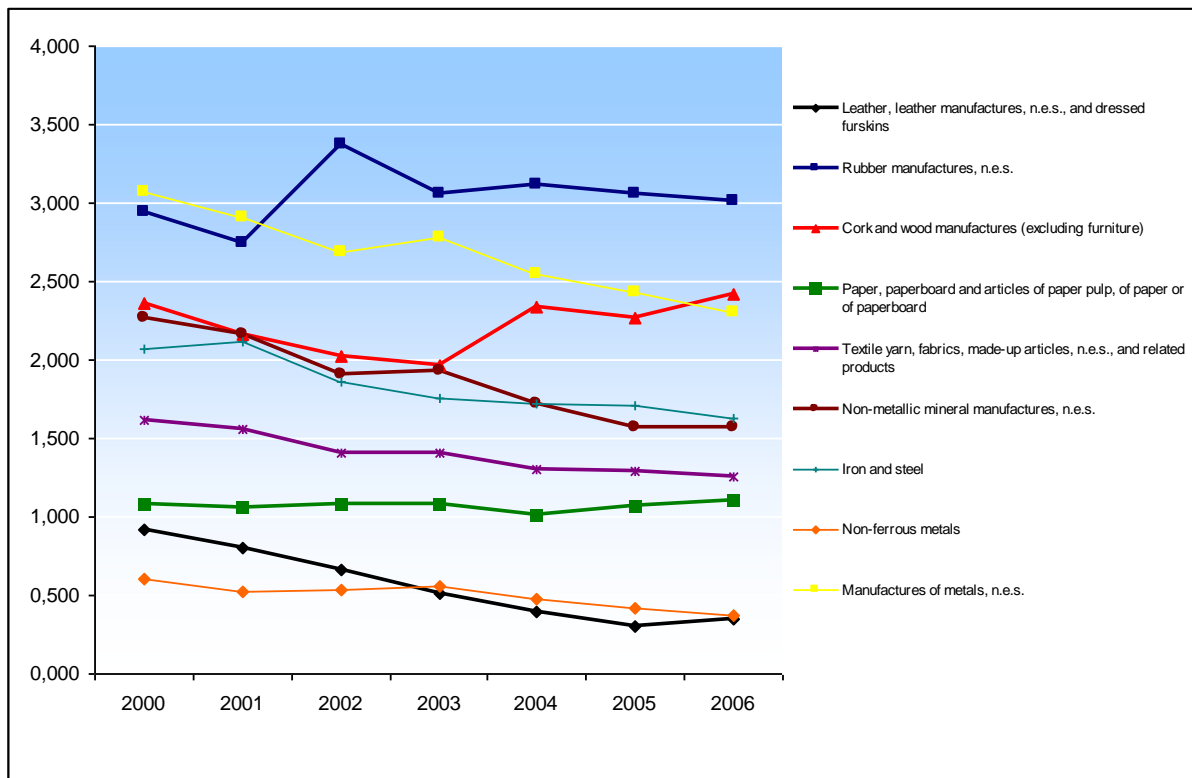


Figure 5. Changing trends of revealed comparative advantage over time for category Manufactured goods classified chiefly by material

Source: OECD

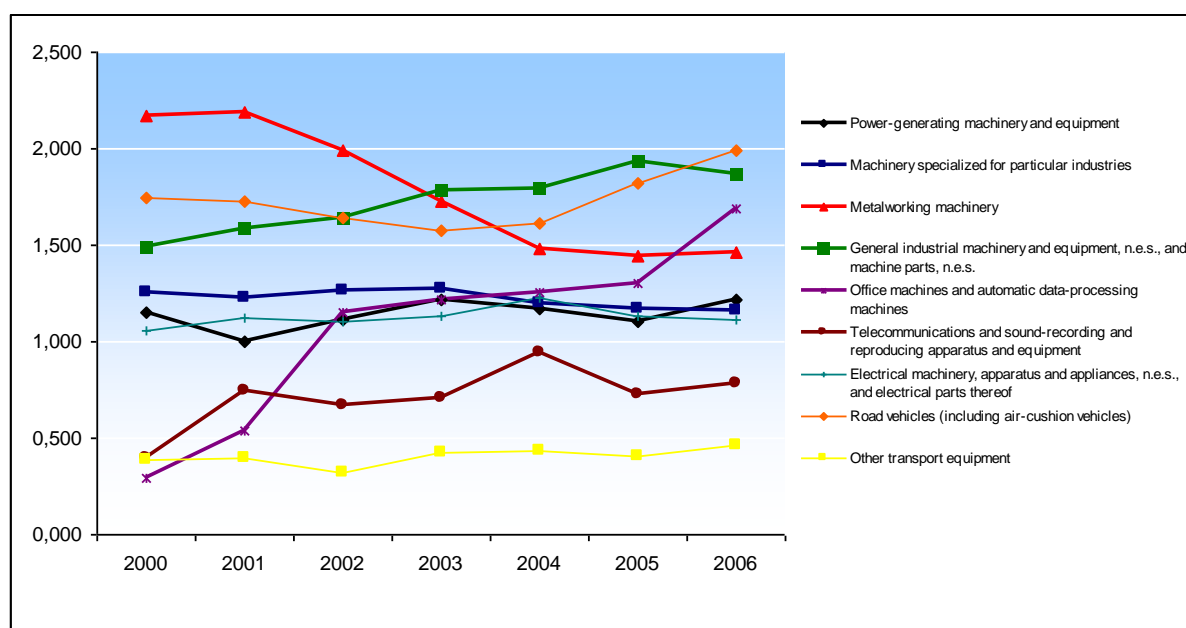


Figure 6. Changing trends of revealed comparative advantage over time for category Machinery and transport equipment

Source: OECD

Development of a SITC section 7 was different to the previous section 6. During the reporting period, the development of this group was quite volatile. For some divisions the value of RCA increased significantly (Office machines and automatic data-processing machines or Road vehicles). For other divisions, the value of RCA stagnated during the period (Machinery specialized for particular industries or Electrical machinery, apparatus and appliances, nes, power-generating machinery and equipment or Other transport equipment). Division Metalworking machinery again went through a significant decline in the value of RCA (see Figure 6).

5. Conclusions

We have presented an analysis of competitiveness of Czech exports in a relation of world and EU trade. We have used revealed comparative advantage (RCA) and standard trade indicators as well. The European Union is by far the most important trading partner of the Czech Republic. The Czech Republic's most important EU export and import products are different kinds of machines, electrical equipment, and transport vehicles (car industry) and related parts. Presented analysis also indicates that Czech Republic has revealed comparative advantage in SITC sections of 6 a 7 only. However, RCA value of section 6 has dropped during observed period. These results complement recent studies which, using price and cost based methods, have found that these industry sectors are internationally competitive. This conclusion can also be derived from the massive inflow of FDI in these sectors over the past decade. It suggests that the Czech Republic has succeeded relatively well in transforming its economy from socialist structures twenty years ago into competitive private ownership today. However, high share of above mentioned commodities in total exports may pose a threat in case of foreign demand shocks, when exports may decline significantly and through this channel an economic crisis may be imported into the Czech economy.

6. Acknowledgment

The research behind this paper was supported by the Czech Science Foundation within the project GAČR 402/09/P142 "Institutional labour market framework in the context of economic convergence and adopting single currency (application on Visegrád group)".

References

- [1] Arfaoui, M., and Abaoub, E. 2010. On the Determinants of International Financial Integration in the Global Business Area. *Journal of Applied Economic Sciences*. Volume 5, No. 3: 153-172.
- [2] Balassa, B. 1965. Trade Liberalisation and 'Revealed' Comparative Advantage. *Manchester School of Economic and Social Studies*, Volume 33: 99-123.
- [3] Benedictis, L., and Tamberi, M. 2001. A note on the Balassa Index of Revealed Comparative Advantage. *SSRN – Working paper*. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=289602 (accessed August 20, 2009).
- [4] Betschart, S., Rohr, R.K., Mosimann, Ch., and Siepmann, Ch. 2005. The Impact of the Increasing International Division of Labour on Europe's Foreign Trade. *KOF Swiss Economic Institute Working paper*. <http://ideas.repec.org/p/kof/wpskof/05-104.html> (accessed May 9, 2009).
- [5] Freudenberg, M., and Lemoine, F. 1999. Central and Eastern European Countries In the International Division of Labour in Europe. *CEPII* <http://www.economie-internationale.fr/anglaisgraph/workpap/pdf/1999/wp99-05a.pdf> (accessed August 20, 2009).
- [6] Guillory, G. 2005. Comparative advantage versus absolute advantage. *Ludwig von Mises Institute*. <http://blog.mises.org/archives/003386.asp> (accessed August 20, 2009).
- [7] Marin, D. 2005. A New International Division of Labor in Europe: Outsourcing and Offshoring to Eastern Europe. *Munich Discussion Paper*. <http://epub.ub.unimuenchen.de/714/1/InternDivofLaborJEEA.pdf> (accessed August 20, 2009).
- [8] McCallum, C. 1999. Globalisation, Developments and Trends in the New International Division of Labour. *MPRA Paper*. <http://mpira.ub.uni-muenchen.de/20579/> (accessed September 3, 2009).
- [9] Misztal, P. 2007. International Competitiveness of Polish Economy in Years 1995-2005. *Journal of Applied Economic Sciences*. Volume 2, No. 1: 47-54.
- [10] Seymen, D., and Utkulu, U. 2004. Revealed Comparative Advantage and Competitiveness: Evidence for Turkey vis-à-vis the EU/15. *European Trade Study Group*. <http://www.etsg.org/ETSG2004/Papers/seymen.pdf> (accessed August 20, 2009).
- [11] Smith, A. 1998. *An Inquiry into the Nature and Causes of the Wealth of Nations*. London: The Electric Book Co.
- [12] Sun, G.Z. 2005. The Economics of Division of Labor from Xenophon to Hayek (1945): A Review of Selected Literature. *World Scientific Books*. http://www.worldscibooks.com/economics/etextbook/5728/5728_chap1.pdf (accessed August 20, 2009).
- [13] Widgrén, M. 2005. Revealed Comparative Advantage in the Internal Market. *European Forecasting Research Association for Macro-Economy*. http://euroframe.org/fileadmin/user_upload/euroframe/docs/2005/session1/eurof05_widgren.pdf (accessed May 9, 2009).

THE COMPONENTS OF NONVERBAL COMMUNICATION IMPORTANT FACTORS IN THE TEACHING PROCESS

Camelia FIRICĂ

Faculty of Financial Accounting Management

cameliafirica56@gmail.com

Manuel Cristian FIRICĂ

University Spiru Haret, Romania

Faculty of Law and Public Administration

cristian.firica@spiruharet.ro

Abstract

The act of teaching is a predominantly verbal. Nevertheless communication during the teaching process equally depends on the paraverbal and nonverbal components, that are meant to reinforce the formative interaction between the teacher, as traditional transmitter, and the student as receiver of information.

Given the importance of nonverbal communication in career and life, the authors of the paper, aware of the fact that the issue is not part of all school syllabi, made a study on two groups of students in order to test their knowledge on the topic as well as to find out their reactions towards the professors' sundry nonverbal means of communication.

Keywords: mimics, gestures, communicative behavior, nonverbal communication, body language, accuracy of communication.

1. Introduction

An analysis of the communication phenomenon shows an irrefutable reality - communication is a natural, universal phenomenon whose complexity generates a variety of forms of expression, involving different meanings, specific codes, diverse channels and ways of producing. All these because human communication in general, teaching communication in particular manifest themselves as multi-determined phenomena being simultaneously: information, action, interaction, relationship, transaction and require a minimum of innate skills, acquired through training.

The understanding of the educational implications of the communication process requires partial or total acquaintance with forms of human communication.

Nonverbal communication is interesting because of at least two reasons: a) its role is often understated; b) in oral communication, more than 50% of information is perceived and retained through nonverbal language.

Nonverbal language, externalized in gestures, mimics, posture can support, contradict or replace verbal communication. Basically, the nonverbal message illustrates most accurately the message and the interlocutor pays greater attention to it. From ontogenetic point of view, nonverbal communication has higher prematurity based on both innate, revelatory behavior of emotions and affects and those acquired through learning or imitation.

People use their entire body to communicate; consciously or unconsciously we use every part of our body to emphasize, reinforce, avouch or deny what we say. Nonverbal language is the favorite channel of affective communication that helps to establish the relational dimension of the communicative act.

2. The teaching process and the components of nonverbal communication

2.1. Gestures

Verbal communication is facilitated mainly by gestures and movement. Their banning by the teacher can obstruct verbal communication - blockages in communication or breaks are likely to occur, words come hard on the lips, the state of irritation increases, etc. From a psychological point of view gestures support verbal communication. In one commonly accepted taxonomic approach, Ekman and Friesen (1969) classified nonverbal cues into five functional types that apply to didactic communication, too:

Affect displays - facial expressions - the primary way one's feelings are revealed nonverbally, sometimes supported by body postures, gestures or voice tone, which, altogether, are illustrative for one's affective, emotional state. Raising eyebrows, frowning or tilting head backwards when surprised, making a face when disgusted, staring or frowning when angry, smiling when happy or sympathizing, tightening of a fist, covering eyes, ears or mouth as denial to see, hear or say something, these are all expressions of affect displays. Affect displays can be also used to influence or manipulate others: a speaker, for example, displays enthusiasm and hopes it exudes to the audience, children will often cry to simply get attention.

There are eight basic emotions common to all cultures that the face can display: happiness, surprise, fear, anger, sadness, disgust, contempt, and interest and *each basic emotion has a distinctive facial expression and for most of them there is evidence of distinctive physiological responses, distinctive changes in the voice and evidence of cognitive phenomena like focusing attention on the emotion stimulus.* (Griffiths, 2010).

A combination of all these basic facial expressions can appear on the face at the same time depending on the intensity of the emotion portrayed. (Roberts, 186). When they are true they appear involuntarily while the false ones are characteristic to actors, liars, sales people who can put on a neutral face. Affect displays are extremely important because people tend to focus attention on affect displays as feedback during communication. Since affect displays convey the transmitter's feelings they can facilitate the relation adult-child, professor-student.

Regulators as nonverbal cues, whose frequency is determined by the addressee's presence, - such as eye movements, head nods, tonal variations and body movements like turn-taking cues - are used to control and support verbal communication, to regulate interaction, indicating the addresser to continue, repeat, elaborate, hurry up, stop speaking, and so on. People nod, smile, make "mm-hmm" sounds to show agreement with the speaker or that they are listening, shake head, narrow their eyes, or pout to show disagreement. Others break eye contact or change posture to show boredom or lack of participation. Voice inflections and gestures that signal whose turn it is to talk, as well as a raised arm that indicates the desire to speak are further examples of regulators in conversation. Context is important to accurately interpret regulators as well—someone who is bouncing a leg during a lecture may be indicating boredom, but if one is listening to music bouncing may be a sign of keen interest. Regulators fulfill expressive and phatic functions because they reveal the attitude towards the interaction of the participants, they are extremely important, habitual, learned, and almost involuntary.

Illustrators or iconic gestures as nonverbal cues are directly, closely related to speech, illustrating what is being said. Illustrators are useful as they add detail to the mental image that the addresser is trying to transmit: they allow the speaker to stress or emphasize words or ideas thus reinforcing, supporting and completing verbal message. Being acquired by learning, illustrators reveal the individual's social experience and indicate *direction* (up / down there / here, far, forward / back), *shape* (rectangle, spiral, circle) *size* (large, small), *person* (you, me, him), way of action (slow / fast). The timing of iconic gestures in synchronization with speech can show one whether they are unconscious or are being deliberately added for conscious effect. In case of unconscious usage, the preparation for the gesture will start before the words are said, whilst in conscious usage there is a small lag between words and gesture which can make the speaker appear manipulative.

Emblems are particularly relevant, specific gestures, consciously used as substitutes for words which have a direct verbal translation, generally a word or phrase (e.g. head movement for Yes / No, accomplice eye blink, finger to her lips - for silence, open palm meaning *stop* or utterances such as *Shhh*, for *Be quiet*). Emblems occur mainly when verbal communication is inhibited by external factors (noise, distance), carry less personal information than other forms of nonverbal cues, allowing the speaker to communicate just simple ideas in general universally understood though some are culture specific.

Adaptors are movements that satisfy personal needs and help one adapt to environment, actions that release physical or emotional tension when someone is anxious or behaviors, or objects that are manipulated intentionally. Adaptors include behaviors like adjusting one's glasses, knuckles, twirling hair, or biting fingernails. In some cases these behaviors are actually relaxing, but often they're simply done out of habit, and are class of gestures hardly related to communication.

In their turn, students also make use of nonverbal communication (head nodding, frowning as sign of attention, while attending a lecture, reproachful gaze directed towards disturbing, fidgeting colleague) in their reactions in class, which, if correctly interpreted, have the valuable of feedback for professors.

2.2. Facial expressions and eye contact

Facial behavior particularly intentional as it is a conscious act, is a very visible part of communication, expresses feelings, speaks about attitude, state of mind, mood which change during interaction and are continuously monitored by the recipient. A major feature of interpersonal and group communication is eye contact; by looking or not looking at someone people can communicate their attitude toward the interlocutors. Through eye contact the flow of communication is regulated and communication effectiveness and audience's feedback monitored. Becoming aware when audience are listening or feel bored, is a feedback the addresser can use to change the subject or the way it was approached, stop the dissertation, or proceed. The feedbacks obtained from watching the students' nonverbal cues, of which facial expression detains a top position, will allow the professor understand to what degree students are engaged and participate in the process.

According to Mark Knapp (*apud* Dinu 1999, 245) visual communication fulfils four functions:

- *asking for information*; look, as means of achieving interaction, plays an important role in getting feedback; when the addressee listens with wide open eyes the addresser understands the amount of interes in the subject and further details are necessary;

- *giving permission to others to speak*; in case of group communication the permission to speak can be granted to another both verbally but also by means of deictic look orientation; this most often happen in class when the teacher allows his students to speak or indicates who is to speak by means of eyes;

- *indicating the type of relation*; the type of relations between the speaker and interlocutors is indicated by the orientation and the period of time the look lasts: superiors who try to dominate usually stare while addressing their subordinates while, on the contrary, in case they want to emphasise a disregarding attitude or disagreement with their inferiors' opinions they avoid looking the later when they speak;

- *compensating or reducing the physical distance*; look can establish a visual proxemics between persons separated by distance. The direction, moment and duration of an addresser's look are important clues, eloquent of his attitude, feelings and emotional sate (like, dislike, self-confidence, attention, respect, consideration, sincerety etc.) towards the addressees whose feedback will influence. Speakers who make the least eye contact, look to the side and turn their body away are defensive, cold, immature, deceitful persons in the eyes of the listeners who find this frustrating and insulting, while those who settle longer eye contact and position their body and head squarely towards the audience are judged as friendly, mature, sincere, reliable and self-confident. A good public speaker must speak with his eyes, by sweeping the audience with his eyes, making brief eye contact with as many individuals in the audience as possible.

2.3. Paralanguage

Paralanguage is communication that goes beyond the specific spoken words. It includes pitch, amplitude, rate, and voice quality of speech. Paralanguage reminds us that people convey their feelings not only in *what* they say, but also in *how* they say it. (Robbins, Langton, 2001)

It most often prevails over the meaning of spoken words. The tone and the speed of one's voice, the pitch, ranging from deep to high, are essential parts of paralanguage important in the act of communication. Listeners are inclined to rate as more credible and captivating the addressers who speak at a slightly higher than normal rate of speech, articulate their words clearly, stress them appropriately.

Likewise, other aspects of paralanguage can impact the speaker's appearance of credibility and intelligence: Check backs are verbal ticks (*know what I mean?*, *Okay?*, *Right*), interjections (*Um*, *Uh*, *Err*, *Ah*), filler words (*Like*, *Whatever*, *So to spewak*, *I mean*) when overused they get in the way of effective communication, annoy listeners and may suggest ineptitude on the speaker's part.

2.4. Posture

Posture communicates primarily the social status of individuals and gives information about attitudes, emotions, degree of courtesy, warmth of the soul, etc.

People's posture, regarding the relationship between them is:

- *of inclusion/non-inclusion* - a position which defines the space available for communication and limits access to the group.

- *congruent/ noncongruent* - communicates to what degree a person participates to what the interlocutor says or does. Intense involvement leads to a position similar to that of the listener's, while noncongruent posture indicated divergence in attitude or status and implies lack of any interaction. These are very important positions in the act of teaching, teachers should consider.

- *of orientation* - refers to the fact that two people can choose to sit face to face or next to each other. The first situation communicates predisposition for conversation, as it is the case with the professors and students in a classroom, and the second - neutrality.

3. Case study

The authors of this article made, during the tutorial classes, a study including two of the student groups of the Financial Accounting Management and of Law and Public Administration Faculties. Each group of students contained 25 students; the day the experiment was done there were 21 students present in the Law group, 20 in the Financial Accounting Management group. They purposely chose students of the first year of study and the experiment was carried on during the first semester of the academic year.

We mention that previously students had been tested about any contingent knowledge of the subject - nonverbal communication - hardly part of school curriculum in Romania. Pictures illustrating affect displays, regulators, illustrators and emblems were showed to the students who were asked to identify the feelings, attitudes, emotions or meanings depicted.

80% respectively 84% of the students of the two groups were able to discern the meanings correctly but they admitted it was primarily out of personal life experience and intuition and not as a consequence of former thorough study (parents or grandparents very often asked them during childhood to act or behave in a certain way the moment they were looked at, in the company of others, in public spaces at kindergarten and later at school); nor were the students aware of the existing cultural differences in this respect. It is interesting to point out that they all asserted that the authors of the popular moral precepts relied more on intuition, less on scientific knowledge of nonverbal language. Their examples were: *Sweet talk helps, The tone makes the music, Silence is gold, Eyes are the mirror of the soul, Facts cry louder than words.*

It had been noticed that during the seminars, when there were discussed issues that students ought to have prepared themselves, two groups distinguished: the great majority of students who used to study thoroughly, and a relatively small one who usually failed to fulfill their assignment, relying only on issues the professors had exposed during the courses and had only vague knowledge of the academic issues under discussion. Intentionally, these became the subject of the experiment.

The assistant professors adopted two attitudes: the first one characterized by a relaxed stance (sitting or standing at a distance of about one meter away from the speaker) and a jovial attitude; eye contact was a constant of communication with the student who was encouraged by nodding or other movements of the head and hands and raised eyebrows, a slightly perceptible smile whenever his/her ideas were correct. All these were meant to provide reinforcement, make the student confident and determine them to keep on speaking. Occasionally, the teacher used calm voice to utter words of encouragement such as: *correct, please continue, right, etc.*, made *mm-hmm* sounds to show agreement. During the English class - one of the authors' field - gestures were used to suggest different notions - possession, place, shape, size - and help the subject to dare to use them in case they were in doubt. The speaker's sense of uncertainty was fading away, self confidence gaining ground.

When the situation required that certain matters be explained or clarified by the assistant professor this began by referring to the speaker's intervention using the words: *as your colleague mentioned ... as your fellow student correctly remarked...etc.*

The result was that, although the way the students had fulfilled their task was not satisfactory, they still managed to bear a conversation based on the knowledge acquired during the professor's

lecture, being encouraged by the kind, sympathetic attitude of the assistant professor. Subsequently, they were explained what had been intended and acknowledged that this attitude was felt like a support and helped them face the challenge.

A contrary approach was taken to another group of students: professors displayed a rigid attitude: with folded arms or fingers pounding on the table because of boredom or irritation, rigid face, frowning eyebrows, mouth closed to disapproval or an ironical smile addressed to the students who had failed their assignment. All this, associated with occasional visual contact and discouraging words such as: *I do not think so!, You don't say so!, Not really, Really? etc.*

The result was that students, subject to such a deliberately inappropriate behavior, ended by refusing communication, feeling embarrassed to other colleagues and professor alike. They admitted this during a prior discussion when they were explained the purpose of the experiment they had had to face. They hardly had confidence to speak or answer simple questions about topics familiar to them.

Finding out that non-verbal communication stirred the students' interest the authors of the article indicated bibliography illustrative for the issue, considering its importance in the context of the two faculties' students' training for their future careers in law, accounting respectively.

4. Conclusions

In teaching communication paraverbal and nonverbal communication form a well structured, complex and convergent whole as they are more quickly interpreted and precisely understood than verbal communication; in most cases nonverbal communication - a gesture, a look, mimics - gives sense and meaning to the message.

Affective experiences and attitudes necessary for the relational dimension of communication - are conveyed better and more easily by paraverbal and nonverbal communication.

The authors realized that what students knew about the topic was mainly intuitively and less based on thorough study. Their inferences about the professors' attitudes barely relied on specialized training. (Ekman and Friesen, 1969:50) Being aware of the importance of nonverbal communication in career and life (how to face a job interview, how to deal with clients or customers and build their feelings of trust, how to sell a service, a product, etc.), the authors suggest that the curricula should provide the students of the two faculties the opportunity to approach the subject scientifically.

References

- [1] Cucuș, C. 1998. *Psihopedagogie*. Editura Polirom. Iași.
- [2] Dinu, M. 2000. *Comunicarea*. Editura Algos. București.
- [3] Dinu, M. 1999. *Comunicarea. Repere fundamentale*. Editura Științifică. București.
- [4] Ekman, P., Friesen, W.V., 1969. *The repertoire of nonverbal behavior: Categories, origins, usage, and coding, Semiotica*, 1: 49–98.
- [5] Leroy, G., 1974. *Dialogul în educație*. Editura Didactică și Pedagogică, București.
- [6] Griffiths, Paul E. *Basic Emotions, Complex Emotions, Machiavellian Emotions*, <http://paul.representinggenes.org/>.
- [7] Paun, E. 1982. *Socio pedagogie scolara*. Editura Didactică și Pedagogică. București.
- [8] Robbins, S., and Langton, N. 2001. *Organizational Behaviour: Concepts, Controversies, Applications*. Upper Saddle River, NJ: Prentice-Hall. <http://www.usemod.com/>
- [9] Roberts, Steve. *Character animation in 3D*. <http://books.google.ro/>.
- [10] Soitu, L. 1995. *Pedagogia comunicării*. Editura Didactică și Pedagogică. București.
- [11] Wiener, M., Devoe, S., Rubinow, S., and Geller, J. 1972. *Nonverbal behavior and nonverbal communication, Psychological Review*, 79: 185-214.

THE ROLE OF NATIONAL AND SUPRANATIONAL FISCAL RULES - INTERNATIONAL EVIDENCE AND SITUATION IN THE CZECH REPUBLIC⁶

Aleš MELECKÝ

Martin MACHÁČEK

VSB-Technical University of Ostrava, Czech Republic

ales.melecky@vsb.cz, martin.machacek@vsb.cz

Abstract

This paper summarizes recent international evidence on the design, functioning and effects of fiscal rules. Special attention is paid to small open economies such as the Czech Republic. This paper (1) discusses pros and cons of the rules focusing on different types of fiscal constraints (e.g., budget balances, debt, expenditures, and revenue); (2) surveys their impact on key macroeconomic variables; and (3) considers with the efficiency of fiscal rules vis-a-vis the current financial crisis. In this context, representative national and supranational fiscal rules are also reviewed with an emphasis on the enforceability of such rules. This includes an evaluation of (1) the Czech Republic's fiscal targeting mechanism and medium-term expenditure framework introduced in 2003 and (2) the EU fiscal rules adopted by the Czech Republic in 2004. Finally, current debates on the future of fiscal policy rules inside and outside of the Czech Republic are briefly considered.

Keywords: fiscal rules, fiscal policy, debt, expenditure framework, Czech Republic.

JEL Classification: E62, H50, H60, O23

1. Introduction

Since the publication of the seminal article by Nobel Prize winners Finn Kydland and Edward Prescott on “rules rather than discretion“ in 1977, rule-based policies have become part of the tool kit of macroeconomic policy makers. Until recently these policies were clearly more popular among central bankers than their fiscal counterparts. However, with ballooning public debts, and the corresponding threats to existing currency unions and macroeconomic stability and growth, a growing number of countries are subjecting their finances to some preset nominal constraints. As a result, fiscal rules are increasingly in the limelight, as is the academic literature on this issue.

There are several definitions of fiscal rules including that due to Kopits and Symansky (1998) who define a fiscal policy rule, in macroeconomic context, as a “permanent” constraint on fiscal policy. Such a constraint is typically defined in terms of an indicator of overall fiscal performance. The rule is usually set as a numerical target (often in proportion to the gross domestic product) over a long-lasting period and focused on summary fiscal indicators such as government budget deficit, net borrowing, total debt or their major components. There are various types of fiscal rules which serve different purposes.

2. History and types of Fiscal Rules

Although the fiscal policy has been used as an economic policy tool since the economic crisis in the 1930s, the first fiscal rules were legislated as far as in the mid-nineteenth century to avoid large fiscal deficits, when subnational governments in some federal systems adopted autonomously the golden rule (Kopits, 2001). In their book, Kopits and Symansky (1998) show various examples of fiscal rules. For instance, Germany accepted yearly current balance rule in 1949 as a constitutional amendment; the Netherlands applied in the period 1961–1974 a limit for structural deficit, where government policy was used as the statutory instrument. Further, the New Zealand's adopted medium-term operating balance as a fiscal rule through a legal provision in 1994. Apart from national fiscal rules there are also supranational fiscal rules. Most notably, in Europe these are linked to the European Union requirements as we will discuss later.

⁶ Financial support from the Czech Science Foundation (GACR GAP402/10/1046) is gratefully acknowledged.

The real boom in implementation of fiscal rules started in early 1990s. According to IMF dataset from early 2009, there were 80 countries among the full IMF members with one or more national or supranational fiscal rules, at least at the central government level. In 53 countries, a national rule was in place, of which 20 had a combination of national and supranational fiscal rules. Most of the supranational rules come from four supranational treaties: the Stability and Growth Pact in Europe (SGP), the West African Economic and Monetary Union (WAEMU), the Central African Economic and Monetary Community (CEMAC) and the Eastern Caribbean Currency Union (ECCU). But if we look back to 1990, there were only seven countries who applied fiscal rules. The growth in numbers of countries that have adopted fiscal rules has differed across industrialized and emerging market economies. In industrialized countries, the growth stopped in 2004, whereas there are still more developing countries adopting fiscal rules. Overall, the average number of fiscal rules per country increased significantly during 1990-2009, from 11/2 in early 1990s to 21/2 in 2009, including both national and supranational rules.

The most popular types of fiscal rules among countries with at least one fiscal rule have been the balanced-budget rules and debt rules. This has been true for all advanced, emerging and low-income countries. The popularity of expenditure rules appears to rise with the degree of a country's development. A smaller portion of countries, especially the advanced countries also had revenue rules in place (e.g. Denmark or France).

The IMF also constructs an index of strength of fiscal rules using the principal component analysis of the enforcement score, coverage score, legal basis score, supranational rules score, index of supporting procedures for monitoring of compliance and enforcement, flexibility score, average number of fiscal rules and ratio of national to total fiscal rules in each country (IMF 2009). Their results show that the index of strength of fiscal rules peaked in 1996 and has had a slightly increasing trend in advanced countries, where values are around 1. Similarly, the index has had an increasing trend in emerging countries going from negative to positive values in the period 1996–2009. In contrast, the index stays about the same negative values in low-income countries after a short increase at the beginning of the 1996-2009 period.

There are various types of fiscal rules which serve different purposes:

- Budget balance rules are sometimes also called deficit rules. In these rules, the overall revenue should be equal to expenditures, so the government borrowing is prohibited. They are usually specified in terms of the overall budget balance, structural budget balance (i.e. cyclically-adjusted balance) or as the “over-the-cycle” balance. For instance, the most common fiscal rule, the current-budget balance rule - also known as the Golden Rule - limits the borrowing only for the purpose of capital expenditure and is in place e.g. in Germany, Switzerland and in most of the US states (Jílek, 2008).

- Debt rules, specified as an exact limit on the ratio of government debt over GDP, is the most effective fiscal rule in terms of ensuring convergence to a debt target.

- Expenditure rules use permanent limits on total, primary or current government spending that could be set in absolute terms, growth rates or as a percentage share of GDP. These types of rules are not directly linked to debt sustainability since they do not constrain the revenue side. Nevertheless, they could serve as a useful operational tool, usually in combination with budget balance or debt rules.⁷

⁷ In theory, the fiscal rules could encompass government (or public) debt and be supported by public debt management strategies as targets for allocation of public debt in the effort to minimize the shock from debt-service charges to the budget and the macroeconomy (see e.g. Melecky 2007 and 2009).

Table 1. Properties of Different Types of Fiscal Rules Against Key Objectives

Type of fiscal rule	Objectives		
	Debt sustainability	Economic stabilization	Government size
Overall balance	++	-	0
Primary balance	+	-	0
Cyclically adjusted balance	++	++	0
Balanced budget over the cycle	++	+++	0
Public debt-to-GDP ratio	+++	-	-
Expenditure	+	++	++
Revenue			
Revenue ceilings	-	-	++
Revenue floors	+	+	-
Limits on revenue windfalls	+	++	++

Positive signs (+) indicate stronger property, negative signs (-) indicate weaker property, zeros (0) indicate neutral property with regard to objective.

Source: IMF (2009)

According to table 1, the rule on Public Debt-to-GDP ratio has a very strong effect on debt sustainability but it has a slightly negative effect on economic stabilization and the size of government.

3. Aim, Implementation, and Evidence

For effective implementation of fiscal rules, it is necessary to have available reliable data and sufficient forecasting capacity to ensure that budgetary aggregates will be predictable with sufficient degree of accuracy to avoid undermining the rule's credibility. It is also necessary to have comprehensive data in terms of aggregate coverage to produce in-year and timely end-year reports. Internal and external needs to check resource utilization and fiscal data have to be consistent with the budget reporting system. Fiscal rules are often reported as part of broader reforms of fiscal framework so these reforms serve as an alternative to the introduction of fiscal rules. Fiscal responsibility laws passed in many countries, e.g. New Zealand: Public Finance (State Sector Management) Bill (2005), Spain: Budget Stability Law (2007), United Kingdom: Code for Fiscal Stability (1998), incorporate mostly procedural rules but they differ especially in the use of numerical targets, coverage, existence of escape clauses and sanctions (for more details see Corbacho and Schwartz, 2007).

The aim of fiscal rules is to correct distorted incentives in policymaking. There are two main explanations of these distortions and the resulting deficit bias. First, it is the shortsightedness, when government's main concern is about reelection, which may lead to opportunistic behavior in spending or tax cutting, i.e. preference for a short-term effect instead of long-term requirements (see Rogoff, 1990). Second, it is the "common-pool" problem which occurs since special interest groups or "constituencies" do not internalize the overall budgetary impact of their competing demands (Debrun and Kumar, 2007). But there exist several concerns about rule-based fiscal policy. First, rules have to be adopted with sufficient political commitment otherwise they will not be put in practice and this might undermine policy credibility. Second, especially deficit and debt ceilings may be pro-cyclical. Another concern relates to possible reduction in fiscal policy quality, which comes from fiscal adjustments smaller than those required by existing macroeconomic conditions. Similarly, or the quality of fiscal policy adjustments could be eroded by creative accounting and off-budget operations.

Table 2. Characteristics of Large Fiscal Adjustments in Countries With and Without Fiscal Rules

	Rules				
	No rules	In place and during adjustment	at start	In place at start	Put in place during adjustment
(Percent of GDP, unless indicated otherwise)					
Initial public debt	48.5	69.7		70.3	68.8
Reduction in public debt	20.3	29.7		24.0	38.5
Relative reduction in public debt (percent of initial public debt ratio)	42.6	42.9		33.1	58.2
Adjustment length (years)	6.3	8.2		7.1	10.0
Annual reduction in public debt	4.0	3.7		3.3	4.3
Front-loading of reduction in public debt ratio (percent)¹	49.5	39.1		40.0	44.0
Front-loading of adjustment in CAPB (percent)²	1.3	9.6		40.0	0.1
<i>Memorandum item</i>					
Number of countries	6	18		11	7

1/ Reduction in public debt-to-GDP ratio that occurred in first three years relative to total change in the public debt-to-GDP-ratio.

2/ Cumulative change in the cyclically adjusted primary balance (CAPB) in first three years relative to reduction in the public debt-to-GDP-ratio over the whole adjustment period.

Source: IMF (2009)

The key questions in designing and implementing fiscal rules are whether there exists a close link between the numerical target and the ultimate objective, sufficient flexibility to respond to shocks and a clear institutional mechanism. The appropriate variable to be constrained by the fiscal rule

should have a close link to the ultimate objective (debt ratio), good controllability, provide clear operational guidance for fiscal policy, and be transparent and easy to monitor. One of the instruments that generally fulfills this criteria is the ratio of the overall budget balance to GDP. The alternative is then the level of expenditures.

There is a discussion whether it is more useful to target the nominal balance or a cyclically adjusted (structural) balance. Apparently, the structural balance rule has a comparative advantage in leaving room for a country to respond to the business-cycle fluctuations. As a cyclical deficit reflecting the fiscal impact of negative output shocks and the functioning of built-in stabilizers diminishes with the cyclical recovery, it is crucial to control over the long-term effects of discretionary policies rather than the overall budget position. However, to avoid the problem of no or limited room for the built-in stabilizers to operate while still maintaining the nominal balance rule, it is possible to adopt an over-the-cycle version of this rule which requires achieve the nominal balance on average over the business cycle. Under such scheme, the fiscal authority is allowed to perform discretionary policy freely, provided it fulfills the medium-term nominal balance target.

In terms of its design, the structural balance rule can be shaped as reflecting the existing output gap, or as the growth-based balance rule, with the latter being more appropriate for countries with no estimates of the output gap at hand. In this case, the fiscal rule is based on the calculations of the difference between the actual and trend growth. Moreover, both alternatives of the structural balance rule can be augmented with terms representing past deviations from the target to capture the adjustment effects.

Besides the output shocks, other changes in economic variables can affect the functioning and effectiveness of fiscal rules. For instance, inflation may impact on government expenditures and revenues, thus inducing movements in the nominal balance. This holds also for the fiscal targets

expressed as ratios to GDP, including the debt-to-GDP ratio, as changes in price level may have different quantitative effects on the numerator and the denominator of the ratio. Since inflation could cause a bias in the fiscal-policy making, an inflation-adjusted fiscal target appears to be a viable alternative. Similarly, presence of transitory interest rate and exchange rate shocks calls for targeting primary balance instead of the overall balance. In addition, for countries exporting commodities, it makes sense either to target a non-commodity balance or adjust its structural balance for changes in commodity revenues (IMF, 2009).

It is clear that there is no fiscal rule which is perfectly immune to rare economic shocks or deep institutional reforms. Interestingly, the recent worldwide financial crisis revealed weaknesses in different types of fiscal targets in regards to major financial and macroeconomic fluctuations. According to a survey among IMF desk economists conducted in April 2009, out of 72 reviewed countries applying fiscal rules 41 countries found themselves in conflict with their fiscal targets during the crisis. Within this group of countries, 16 countries were forced either to modify or suspend the rules. As for the countries with only supranational rules, almost 80% of them had problems to follow the rules while the share of “problematic“ countries with only national rules did not exceed 20%. On the other hand, no supranational rule was changed due to the crisis whereas some 25% of national rules were changed or suspended. Focusing just on the countries with national rules, it appears that most often there was no need for changing the rule when the country applied a debt rule or a budget balance rule, respectively. By contrast, expenditure rules were changed or suspended most frequently (IMF, 2009). In general, these findings confirm the validity of the underlying theory.

Servén (2007) discusses the problem of assessing the strength of public finance routinely on the basis of the cash deficit. As there is virtually no difference between the effects of current and capital expenditures on the government cash-flows in the short run, fiscal authorities tend to restrict productive expenditures such as public investment to fulfill the required fiscal targets. This creates a big problem for the future growth prospects of the countries, especially those who are underdeveloped and undercapitalized. To overcome this problem connected to improper confusion of liquidity and solvency of the public sector, one needs to propose a fiscal rule with true intertemporal background. Such rule could call for setting expenditures and making financial decisions in compliance with the desired net worth trajectory, or it could simply allow the government to borrow only to finance net investment. In similar fashion, Perotti (2007) supports adopting fiscal rules which respect the government intertemporal-budget constraint and its net worth. Moreover, he argues for substituting fiscal rules with a Sustainability Council though he is aware that fiscal policy strongly differs from monetary policy in its sharp distributional impact.

4. Situation in the Czech Republic

There is only a short history of fiscal rules functioning in the Czech Republic. Interest in this kind of rules comes from too-generous fiscal policy which caused the growth of deficits and government debt in the Czech Republic. Hence, the Czech Republic needed some limits to bring public finances back under control and reduce the influence of the political cycle. Fiscal rules as a regulation of the regime for carrying out fiscal policy were incorporated into the budgetary rules as part of the reform of public finances in 2003. In this reform, institution of fiscal rules and derived medium-term expenditure frameworks (MTEFs) were introduced. Fiscal targeting and medium-term expenditure frameworks are always prepared for the next three years to determine the trajectory of the future development in the balance of public finances and also to define the responsibilities for public finances, their health and sustainability.

The Czech government sets its targets in the form of a balance of public budgets as percentages of GDP for the next three years on a rolling basis (i.e. each year the three-year horizon moves ahead by one year). The targets are set in terms of public balances because the government may influence only the part of the public budget balances directly under government control.

More details about medium-term expenditure frameworks in years 2003-2007 are provided in table 3. MTEFs are prepared for the current fiscal year and two following years. Each following year, adjustments permitted by the law are made. An expenditure framework increased more than adjustment permitted by the law means violation of the original MTEF (Overrun). The 2004 framework fulfillment was relative successful. The exceeding of the approved medium-

term expenditure framework was 0.7 and -2.4 (means better than planned) in 2005 and 2006 respectively. Nevertheless, in 2005 the three-year framework was increased by CZK 30.1 bn. in the process of composing the draft budget, so that there was an overrun in 2006 of CZK 24.4 bn. over the approved increase of CZK 5.7 bn. was Similarly, in 2007 the overrun was CZK 20.4 bn. after reduction of expenditure framework by CZK 46.7 bn. permitted by the law. The situation further worsened within the 2006 framework, where the overrun for years 2007 and 2008 was CZK 56.6 bn. and 56.8 bn. respectively. In 2007, in accordance with government policy declaration and a different fiscal target, new MTEF was approved. This implied reduction of the expenditure framework by CZK 38.9 bn. and CZK 58.8 bn. in 2008 and 2009 respectively. For more information about MTEFs in this period see the Czech Republic's Fiscal Outlook (Ministry of Finance of the Czech Republic, 2007).

Table 3. Characteristics of Large Adjustment in Countries With and Without Fiscal Rules

Expenditure frameworks in 2003-2007 (national fiscal targeting methodology, bn CZK)						
		2005	2006	2007	2008	2009
2003	Approved Expenditure Framework	937.7	966.3	-	-	-
	Approved Expenditure Framework	938.4	963.9	1001.3	-	-
2004	Adjustments Permitted by Law	0.0	0.0	-	-	-
	Overrun	0.7	-2.4	X	x	X
	Approved Expenditure Framework	-	994	975	1011.9	-
2005	Adjustments Permitted by Law	-	5.7	-46.7	-	-
	Overrun	x	24.4	20.4	x	X
	Approved Expenditure Framework	-	-	1095.2	1070.7	1112.6
2006	Adjustments Permitted by Law	-	-	63.6	2.0	-
	Overrun	x	x	56.6	56.8	X
	Approved Expenditure Framework	-	-	-	1031.8	1053.8
2007	Adjustments Permitted by Law	-	-	-	-	-
	Overrun	x	x	X	-38.9	-58.8

Table 3 shows that MTEFs were not really adhered to in the past. An overrun here actually means an increase (if the figure is positive) of expenditure frameworks over allowed adjustments.

Source: Ministry of Finance of the Czech Republic (2007)

Table 4 shows that the balance of public budgets under the fiscal targeting methodology in 2008 was CZK -35.4 bn., or -1.0% of GDP. For 2009, however, this deficit was estimated at 6.4% of GDP. This was the result of a significant drop in tax revenues and the growth in social benefits and interest payments at the given level of other expenditures. The Czech Parliament has approved temporary reduction of some planned mandatory expenditures that should increase the tax revenues considerably. According to the 2009 Fiscal Outlook the deficit is expected to reach 4.9% of GDP in 2010 and in 2011 and 2012 should remain significantly negative at -5.5 and -5.1 respectively.

Table 4. Calculation of Expenditure Frameworks from Fiscal Targets

			2008	2009	2010	2011	2012
				Forecast	Outlook	Outlook	Outlook
Target for government sector 1) (ESA 95)	(bn. CZK)	[1]	-77.4	-239.6	-195.8	-215.7	-222.6
	(% of GDP)	[2]	-2.1	-6.6	-5.3	-5.6	-5.5
Difference ESA 95 - Fiscal targeting	(bn. CZK)	[3]	-40.2	-7.7	-14.9	-4.2	-14.2
Target for public budgets (national fiscal targeting)	(bn. CZK)	[4=1-3]	-35.4	-233.4	-180.9	211.5	208.4
	(% of GDP)	[5]	-1.0	-6.4	-4.9	-5.5	-5.1
Public budgets other than SB and SF	(% of GDP)	[6]	0.9	-0.7	-0.3	-0.3	-0.2
Target for state budget and state funds	(% of GDP)	[7=5-6]	-1.9	-5.8	-4.7	-5.2	-5.0
	(bn. CZK)	[8]	-69.4	-208.4	-163.7	-184.1	-184.0
State budget	(bn. CZK)	[8a]	-46.7	-205.2	-160.3	-184.5	-183.5
State funds	(bn. CZK)	[8b]	-22.7	-3.2	-3.5	0.4	-0.5
Revenue forecast of SB and SF	(bn. CZK)	[9]	1081.7	1075.3	1131.5	976.4	1013.3
State budget	(bn. CZK)	[9a]	987.2	937.7	1018.1	936.4	973.4
State funds	(bn. CZK)	[9b]	94.4	137.6	113.4	40.0	39.8
New expenditure frameworks	(bn. CZK)	[10=9-8]	1151.1	1283.7	1295.2	1160.5	1197.2
State budget	(bn. CZK)	[10a]	1033.9	1142.9	1178.3	1120.9	1156.9
State funds	(bn. CZK)	[10b]	117.2	140.8	116.9	39.6	40.3

Notes: Reduction in the levels of revenues and expenditures from 2011 (without the influence on the expected balance) results from the fact that in the outlook for the 2009 state budget there are not included expected revenues from EU funds and the expenditure financed thereby.

Source: Ministry of Finance of the Czech Republic (2009).

5. Supranational (International) Fiscal Rules in the Czech Republic

Supranational fiscal rules in the Czech Republic come from its accession to the European Union in 2004, when the Czech Republic also entered into the EU system of fiscal rules. The Czech Republic is not a full member of the currency union because it has not adopted the euro yet and has temporary exception. The Czech Republic is subject to the majority of requirements implied by EU fiscal rules, which however do not replace national rules, but just supplement them.

The best known supranational rules in the Czech Republic come from the Maastricht Treaty, which was signed in 1993. This treaty determines the reference limits for the government deficit amounting to 3% of GDP and the government debt amounting to 60% of GDP (Article 104). The subsequent rules were put in place in 1997, when the member states agreed that ensuring budget discipline was of essential importance and they signed the Stability and Growth Pact. They agreed to achieve budget surpluses or at least a balanced or nearly balanced budget in the medium-term horizon (about 3–5 years).

The Pact specified preventive and sanction mechanisms for coordination of the economic and fiscal policies to prevent the euro destabilization or high inflation fluctuations as a result of high national deficits or debts. The European Commission is responsible for monitoring and reporting economic developments in the EU Member States and can point out if debt or deficit limits are exceeded. Breaking of rules does not necessary mean, that country will be subjected to the corrective procedures imposed by the EU commission and Ecofin because of possible exceptions that the country get from the excessive deficit procedure. The necessary conditions to start the procedure are the Commission's recommendation and an Ecofin Council's decision on excessive deficit in a country.

Very soon after its accession to the EU in 2004 the Czech Republic fell into the excessive deficit procedure and regarding its special circumstances (as a transforming country), it was given a four-year term to correct the excessive deficits (the standard is 1 year). In 2008, the Council decided to abrogate the decision on the existence of an excessive deficit. The Czech Republic is also in an ongoing excessive deficit procedure from 2009. The excessive deficits are this time caused by direct and indirect impacts of the current economic crisis. More details can be found on the European Commission web pages.

6. Concluding Remarks

Many economists would still argue that the post-war Great Moderation in the world economy originated primarily from the Keynesian macroeconomic policies which were once very popular. For decades, a prominent role was played by the discretionary fiscal policies utilizing public budget deficits as an active stabilization tool. However, in the course of time the costs of the “stop-and-go” fiscal policies appeared to be substantial. Inflation pressures, ballooning debts and slowing growth eventually led to deteriorating international competitiveness. Hence, some major changes in economic policy and philosophy became unavoidable. It was especially James Buchanan’s constitutional economics which offered the contractual and constitutional bases for the theory and practice of economic decision-making, leading to the currently wide-spread, rule-based fiscal policies.

It is often said that control of monetary policy is far too important to put in the hands of politicians. Today hardly any economist would deny that this statement can hold also for the fiscal policy adjustment in the view of responsible and welfare-improving macroeconomic management.

References

- [1] Corbacho, Ana, and Schwartz Gerd. 2007. Fiscal Responsibility Laws. In: Ter-Minassian, T. and M. S. Kumar (eds.), *Promoting Fiscal Discipline*, 58–77 (Washington, DC: International Monetary Fund).
- [2] Debrun, Xavie, and Manmohan S. Kumar. 2007. The Discipline-Enhancing Role of Fiscal Institutions: Theory and Empirical Evidence. *IMF Working Paper* 07/171.
- [3] International Monetary Fund (IMF), Fiscal Affairs Department. 2009. Fiscal Rules-Anchoring Expectations for Sustainable Public Finances. December 16, 2009, <http://www.imf.org/external/np/pp/eng/2009/121609.pdf>.
- [4] Jílek, Milan. 2008. *Fiskální decentralizace: teorie a empirie*. ASPI – Wolters Kluwer.
- [5] Kopits, George, and Steven A. Symansky. 1998. Fiscal Rules. *IMF Occasional Paper* 162.
- [6] Kopits, George. 2001. Fiscal Rules: Useful Policy Framework or Unnecessary Ornament? *IMF Working Paper* 01/145.
- [7] Melecky, Martin. 2009. The Effect of Institutions, Geography, Development Assistance and Debt Crises on Public-Debt Management. *MPRA Paper* 16332, University Library of Munich, Germany.
- [8] Melecky, Martin. 2007. A cross-country analysis of public debt management strategies. *The World Bank Policy Research Working Paper Series* 4287.
- [9] Ministry of Finance of the Czech Republic. 2007. Czech Republic’s Fiscal Outlook. April 2007, http://www.mfcr.cz/cps/rde/xbcr/mfcr/Fisca_outlook_English_april_2007.pdf.
- [10] Ministry of Finance of the Czech Republic. 2009. Czech Republic’s Fiscal Outlook. October 2009, http://www.mfcr.cz/cps/rde/xbcr/mfcr/FiskalniVyhledEN_2009Q2_komplet_pdf.pdf.
- [11] Perotti, Roberto. 2007. Fiscal Policy in Developing Countries: A Framework and Some Questions. *The World Bank Policy Research Working Paper Series* 4365.
- [12] Rogoff, S. Kenneth. 1990. Equilibrium Political Budget Cycles. *NBER Working Paper* 2428.
- [13] Servén, Luis. 2007. Fiscal Rules, Public Investment, and Growth. *The World Bank Policy Research Working Paper Series* 4382.

THE GLOBAL ECONOMIC DOWNTURN AND AFRICAN ECONOMY – RECENT TRENDS AND FUTURE PROSPECTS

Ravinder RENA
Harold Pupkewitz Graduate School of Business,
Polytechnic of Namibia
Windhoek, Namibia
drravinderrena@gmail.com, rravinder@polytechnic.edu.na

Abstract

Foreign Direct Investments (FDIs) is crucial in spurring economic growth and poverty reduction in developing countries, especially in the context of globalization and liberalization. For that reason there is in existence, intense competition among developed and developing countries to attract FDI (IFC, 2007). According to the World Bank, while 2007 was a record year for FDI to developing economies, the credit crunch will greatly impede this progress as foreign direct investment (FDI) and equity investment are come under pressure. The impact of the crisis on developing countries of Africa will affect different types of international resource flows: private capital flows such as Foreign Direct Investment (FDI), portfolio flows and international lending; official flows such as development finance institutions; and capital and current transfers such as official development assistance and remittances. The global economic crisis has tested the strength and reliance of many economies around the globe particularly in Africa, resulting in the collapse of large financial institutions, the “bail out” of banks by national governments and downturns in stock markets around the world. The current study seeks to investigate the impact the wake of ongoing global Economic downturn on the FDIs to Africa with a particular focus on Namibia. Namibia currently struggles with the problem of high unemployment rates and the current global economic crisis is likely to worsen the situation.

Keywords: global economy, Africa, Namibia, foreign direct investment, economic growth, stock market.

JEL Classification: D53, F35, F36, G15, O11

1. Introduction

The economic recession⁸ is a buzz word which gained increasing importance in the global economy. Advanced economies are either in recession or in a deep recession and the emerging markets is facing a sharp economic slowdown. Overall, global economic growth predictions have been revised downwards (World Bank, 2009a). The current global financial crisis began in the United States of America (USA) in late 2007. It began in the US banks when they reported losses due to bad loans. The banks in the USA were lending out loans to the public on sub-prime rates and the borrowers could not pay back the loans resulting in most houses getting foreclosed and banks making loses. The crisis quickly spread to the other financial sectors such as insurance and eventually spread to the all the sectors of economy. The crisis has since spread to the other developed countries and thus become a global problem. As a result, the global financial crisis has clearly become a leading foreign policy priority of the American Government.

Some economists feel that the world is caught between two ongoing crises. The financial crisis has undermined confidence in the global economy and has dragged the world into its worst recession for generations. The other – the sustainability crisis exemplified most acutely by climate change – is more fundamental and has been gathering momentum since the beginning of the industrial revolution. History has provided us with numerous examples of economic stagnation and breakdown, as well as environmental degradation caused by human activity, even before capitalism existed. But capitalism’s central characteristic - the incessant drive to invest and accumulate wealth - gives birth to never - ending economic and environmental crises (Barbu, 2010). But the main focus of this article is on the former one but not the later one.

⁸ Economic Recession is a financial meltdown, which can last for a period of few months to couple of years and can affect regional or world economy, leading to financial crisis, market crash, unemployment and economic depression. A long lasting impact of economic recession can lead to economic depression. (see <http://www.buzzle.com/articles/economic-recession>).

As stated earlier, in 2008, the world entered into a period of slow economic growth, triggered by food, fuel and financial crises. Countries across the world suffered from increased international food and fuel prices and high inflation during the first half of 2008, while in the second half of 2008, they were hit by an economic meltdown triggered by a global financial crisis. It is expected that the world will enter an era of slower expansion; world economic growth is expected to fall from 3.2% in 2008 to -1.3% in 2009, while growth in developing countries is expected to slow down from 6.1% in 2008 to 1.6% in 2009 (IMF, 2009).

It has been often felt by many economists that the current global financial crisis, undoubtedly the worst financial crisis since the 1930s, has tested the strength and resilience of many economies around the globe (Allen, 2000). The financial crisis, which began in 2007 as an isolated and sector specific problem in the US sub-prime residential markets, has now spread into a global financial disaster. It has adversely influence not only the developed countries like Japan, Germany, France, Australia but also developing and emerging countries India and China.

Banks and other international corporate finance institutions involved in the business of giving credit facilities aim to have a cash flow that will increase their credit portfolio and profit margins through proper control procedures. At the same time, consumers aim to have disposable incomes either for business expansion or for consumption, available at all times (Goodhart, 2008).

The net effect is that this consumption stimulates economic growth and creates the cycle of economic activities, therefore keeping the economy running. The credit crunch has managed to take the life out of developed economies; while developing economies in Africa are yet to experience its full impact. The bleak reality is that developing countries must prepare for a drop in trade, capital flows, remittances, domestic investment, as well as a slowdown in growth (Rena, 2006).

During periods of economic turmoil, especially with credit, there will be an economic recession, characterized by low consumption leading to low unit sales and low business profits, which could then lead to the redundancy and unemployment. Because of the current credit crunch there is massive level of global unemployment (Kenen, 1994). Unemployment, results in reduced household incomes that will in effect affect household spending. The poor in the society will end up unable to cope and it is this low-income population suffers the most (Rena,2010).

The low-income populations in most developed economies are economic migrants, remitting their hard earned foreign currency back home. Family members in developing economies use remittances primarily to finance consumption, including food; shelter, health care and necessities. Remittances from developed to developing countries reached a record \$251 billion in 2007 (World Bank, 2009b).

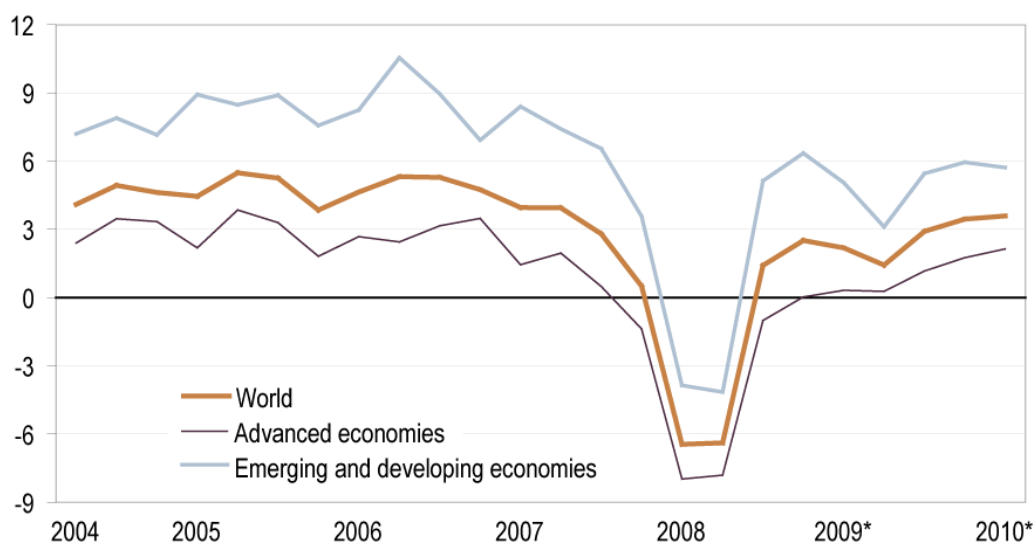


Figure 1. Global Gross Domestic Product (GDP) Growth Quarter-over-quarter percentage change, annualized

Source: IMF World Economic Outlook Update, July 2009.

Note: Quarter-over-quarter changes in GDP differ from yearly figures.

* In all graphs, 2009 and 2010 figures reflect estimates and projections, respectively.

These remittances are more broadly distributed over developing countries than private financial flows, by surpassing other financial sources, such as official development assistance, bank lending and private investment into developing countries. These inward remittances to developing economies will suffer because of the credit crunch and will have a multiplier effect on levels of unemployment, mortgage foreclosure and banking crisis developing economies as well (World Bank, 2009b).

The economic downturn in developed countries may also have significant impact on developing countries through other channels that include financial contagion and spillovers for stock markets in emerging markets. For example, according to the OECD Global report (2008) The Russian stock market had to stop trading twice, while the India stock market dropped by 8% in one day at the same time as stock markets in the USA and Brazil plunged.

The crises also hit indirectly or directly the developing countries in Africa. Therefore, the global financial crisis is on everyone's lips. The recent reports reveal that there is a job loss of 25 per cent people in Southern Africa region especially the mining sector and other industries, houses foreclosures and citizens living on credit cards debt, the impact of the crisis on the individual worker in the developed world is clear (Rena, 2010). In South African Development Community (SADC) region, there have been threats of closures and retrenchment in Zambia copper mines and the Botswana's diamond mines and this include the land of brave, Namibia.

The current global financial crisis has on adverse impact on the international trade which increased the commodity imports and pushed up the demand for oil, copper, and other natural resources, which has led to greater exports and higher prices. The oil prices steadily increasing and thus become a threat to the global economy. Slowdown in global growth will have knock-on effects on Namibia's exports. Similarly, the Foreign Direct Investment (FDI) inflows have come under pressure. While Namibia enjoyed record increase in FDI over the years 2008-2009 especially in the mining (uranium) industry, this is coming under pressure. A number of projects in the mining sector are being put on hold due to decline or collapse in mineral prices and also difficulties in finding cheaper funding due to the credit crunch. The implication is that some mining companies are closing and retrench workers, resulting in loss of income for many Namibians.

Commercial banks have become cautious in advancing credit due to high risks emanating from economic contraction and may not be able to lend as much as they have done in the past. The Namibian economy is very much dependent on circulation of credit and slowdown in advancement of loans to the economy puts breaks to economic activities especially in sensitive sectors such as retail and property market (Mwinga, 2008). Foreign aid budgets are under pressure because of debt problems and weak fiscal positions in advanced economies such as the US, the UK and other European countries and therefore funding for projects in Namibia is reduced (Rena, 2010).

Global crisis and its impact on the World Economy

The global credit crunch, economic slowdown in developed economies and rising inflation will reduce the rapid growth in developing economies in the coming years. Significantly, the credit crunch will have a far greater impact on developing countries such as Namibia. The credit crunch problems are wide-ranging, with a knock on effect that goes beyond the non-availability of credit. The root cause of this crisis is that credit drives an economy and has been a useful tool in economic growth and expansion.

According to Maurice R. Greenberg, chairman and CEO of the American International Group, (2009), the current global financial crisis is among the greatest challenges to the world economy since the end of the World War-II in 1945. Unlike past financial crisis, which were confined to particular regions, the current financial contagion is quickly spreading across continents including Asia and Africa. Unless action is taken in the next few months to shore up faltering countries and restore confidence in the global economy, the world will face a deep and prolonged recession.

The global financial crisis is set to depress oil producing economies. As the crisis is already pushing down oil prices and again pushing up (for the last few months), a firm response to the crisis from governments and Central Banks is expected. Oil prices have tumbled more than 70% since July 2007 peak and there are fears they could continue their plunge because of diminishing demand cause by the current financial meltdown. This crisis is made worse by the risk of high price-induced food

and fuel crisis. As a result, many countries are faced with the challenge of managing worsening balance of payments positions (Brana and Lahet, 2009).

Even though the general belief exists that Namibia will not suffer such a devastating fate resulting from this crisis, we should not think we are entirely isolated from this. The impact on the international arena will undoubtedly affect Namibian economy. Furthermore, the slowdown in the region, specifically South Africa being a major trading partner, will also have a significant impact on Namibia.

In the first few months of the financial crisis, there was a general view that the impact on African countries would be minimal because of their low integration into the global economy. Furthermore, the African countries tend to have very small inter-bank markets and several countries have restrictions on new financial products as well as market entry which should shield them from the direct effects of the global financial crisis. Recent developments have however shown that the negative contagion effects of the crisis are already evident in the Africa continent.

For example, available evidence indicates that in 2009 the crisis will reduce economic growth in Africa by between 2 to 4 percentage points depending on assumptions made about the availability of external finance to the region as well as the effectiveness of measures taken by the advanced countries to boost global demand. Given the heterogeneity of African countries, the crisis is certainly going to affect some countries much more than the others.

It is also interesting to note that the crisis is affecting all categories of countries in the region: those considered to have good economic policies and governance; those with poor macroeconomic-economic record; fragile states; small and large economies; oil and nonoil exporting countries. A key implication of this fact is that the real effects of the crisis in the region are not simply due to the nature of macroeconomic policies and governance. Consequently, there is a need to provide technical assistance to countries in the Africa to enable them whether the global slowdown and protect vulnerable groups. Even if, as appears likely, a double-dip recession is avoided, the recovery is expected to be slow. High unemployment and widespread restructuring will continue to characterize the global economy for the next several years. Already, the crisis has provoked large-scale human suffering. Some 64 million more people around the world are expected to be living on less than a \$1.25 per day by the end of 2010, and between 30,000 and 50,000 more infants may have died of malnutrition in 2009 in Sub-Saharan Africa, than would have been the case if the crisis had not occurred.

Over the medium term, economic growth is expected to recover. But increased risk aversion, a necessary and desirable tightening of financial regulations in high-income countries, and measures to reduce the exposure of developing economies to external shocks are likely to make finance scarcer and more costly than it was during the boom period. As a result, just as the ample liquidity of the early 2000s prompted an investment boom and an acceleration in developing-country potential output, higher costs will likely yield a slowing in developing-country potential growth rates of between 0.2 and 0.7 percentage points, and as much as an 8 percent decline in potential output over the medium term. In the longer term, however, developing countries can more than offset the implications of more expensive international finance by reducing the cost of capital channeled through their domestic financial markets.

2. Potential for African Economic Development

Africa's economic growth in the last decade

The Africa region experienced strong economic growth in recent years, averaging 6.5% per year between 2002 and 2007. Growth was facilitated by macroeconomic reforms and driven by high external demand for primary commodities, notably oil and minerals. Trade was bolstered by steady growth in industrialized countries and explosive growth in emerging economic powerhouses such as China and India. Demand for African commodities drove an investment surge in many countries, with foreign direct investment (FDI) stocks nearly doubling between 2003 and 2007. Net private capital inflows—including FDI, remittances, portfolio flows, and other sources—are thought to have quadrupled between 2000 and 2008 (as quoted by Arieff, et al., 2010) These changes followed decades of post-independence economic stagnation.

While Africa's recent growth was driven by the global commodity boom, many other factors contributed as well. Both net oil exporters and oil importers experienced growth of over 5% between 2004 and 2008 (*see figure 2*), and investment extended beyond traditional foreign interests in extractive industries. The IMF reported in 2008 that Africa's "fast growers are a diverse group, including resource-rich and landlocked countries and resource-poor countries that have not had large gains in their terms of trade." In many countries, productivity increased and domestic investment improved, in part due to remittances from African workers overseas. Domestic demand also grew, notably in telecommunications as mobile phone and internet use spread rapidly. Recent growth has been aided by policy reforms, as many African governments have improved economic governance through better banking regulations, oversight mechanisms, and fiscal restraint, which brought down inflation, encouraged private investment, and instilled greater macroeconomic stability. Some believe international debt relief programs contributed to these trends. The rate of armed conflict has also declined since the start of the decade, making some countries and the region more attractive to foreign investment.

It is important to note that the African economy has largely been leveraged by Asia in the East and to a lesser extent, Latin America in the West. Nonetheless, Africa has begun to emerge as one of the world's fastest growing economic regions. Many global investors still stay away from Africa, retaining the continent's outdated image of war, corruption, political instability, financial chaos, gender disparity unemployment, poverty and suffering. However, leading financial consulting firms McKinsey Global Institute (MGI) and Boston Consulting Group (BCG) agree that Africa is now the most profitable place to invest. Not only does Africa provide the best growth rates, but analyses also reveal that investments in Africa between 2000 to 2009 have yielded the highest profits world-wide.

Indeed Africa possess 20% of the world's land and 15% of its population but only represents 4% of global gross domestic product (GDP), the continent has been under-performing for so long that it would be difficult for it ever to rebound. Indeed, Africa's collective economies scarcely grew in the last two decades of the twentieth century. However, sometime in the late 1990s, Africa's GDP growth began to gather momentum, expanding rapidly through 2008 (Roxburgh, et al., 2010).

Telecoms, banking and retail are flourishing, construction is booming and foreign investment in Africa is surging (Roxburgh, et al., 2010) From 2000 to 2008, global GDP grew 4%, while growth in sub-Saharan Africa has averaged over 5% annually, the best performance in 40 years. During the eight-year period, only five African countries lived up to the reputation of chaos and stagnation, with the Central African Republic (CAR), Côte d'Ivoire, Guinea-Bissau, Liberia and Zimbabwe experiencing no or negative growth rates (as quoted by Furphy, 2010).

Despite these few poor performances, Africa's collective GDP in 2008 - US\$ 1.6 trillion - was roughly equal to that of Brazil or Russia. Poverty has reduced and significant progress has been made towards other important Millennium Development Goals (MDGs).

African economies also showed remarkable resilience during the recent global economic downturn, due in part to the considerable progress made by African countries from the late 1990s and in the first decade of this century, in addressing their fiscal problems and reducing their fiscal deficits. Hence, when the crisis hit, despite many economies suffering lower revenues as a result of the reduced demand for African exports, most countries were able to sustain spending on key priorities (Willson, Simon, 2010 as quoted by Furphy, 2010).

Reports reveal that the foreign investors benefitting from the economic and social development progress made on the continent in recent years. The BCG report shows that investors that started putting their trust in Africa in 2003, made far larger profits than those investing in more conventional markets. Between 2003 and 2008, investments in Africa's leading companies yielded more than twice the profits of those made in United States, East Asian or European companies.

Since 1998 the revenues of Africa's 500 top companies, outside of the banking sector, have grown 8.3% annually. Exports have primarily been responsible for the increase, surging from 3% annual growth in the 1990s to 18% in 2000. In turn, increased revenue has allowed Africa's top companies to start investing abroad. Direct foreign investment by African companies has grown 81% annually since 2002; more than double the growth rates of Latin America and Asia.

The rise in commodity prices during this decade partly explains Africa's improved economic performance. Oil prices rose from less than US\$ 20 a barrel in 1999 to more than US\$ 145 in 2008.

Prices for minerals, grain and other natural resources also soared due to increasing global demand. Strong exports and local demand also played significant roles in improving the economic performance of Africa. However, Africa's economic success has arisen out of more than the resources boom, as resources only accounted for 24% of GDP growth from 2000 to 2008. Further growth came from additional sectors including financial services, technology, media, telecommunications logistics services, transportation, retail, trade and manufacturing.

Africa has of course received vast amounts of financial aid from a variety of sources, but the greatest credit for Africa's economic success must be given to improved political and macroeconomic stability and microeconomic reforms. In the past decade, many Governments brought an end to their hostilities, thus creating the political stability and investor confidence required for significant economic growth. Average annual growth in Sierra Leone reached an impressive 11% from 2000 to 2008, second only to post-war Angola's oil economy. Following the end of the 1994 genocide, Rwanda's economy grew by 7% each year and Mozambique and Uganda's economies grew by 8% (Furphy, 2010).

Strengthened governance has been crucial to economic growth. Many African countries have grown stronger as Governments lowered inflation, trimmed their foreign debt and shrunk their budget deficits. Governments have also increasingly adopted policies that served to energize markets. State-owned enterprises have been privatized, trade barriers have been reduced, cooperate tax has been cut and regulatory and legal systems have been strengthened. Together, these structural changes have spurred on an African productivity revolution by helping companies achieve greater economies of scale, increase investment and become more competitive. Labour productivity has risen by 2.7% annually since 2000, with productivity in some countries matching that of India and China.

Most importantly, when we look at some of the highlights of African economy, the following are been found by the World Bank(2010) for example, between 1990 and 1999 PPP GDP per capita growth was 15 percent (\$1,158.9 to \$1,327.8) for Sub-Saharan Africa; in between 2000 and 2008 it was 54 percent (\$1,372.9 to \$2,113.9). Exports rose from \$319.0 billion in 2007 to \$413.7 billion in 2008, a 29.7 percent rise; conversely, imports rose less than exports, from \$305.3 billion in 2007 to \$372.1 billion in 2008, a 21.8 percent rise. Total trade as percentage of GDP is the highest in Seychelles, 283.4 percent and lowest in Central Africa Republic, 37.5 percent. In two thirds of Sub-Saharan African (SSA) countries, one or two products are responsible for at least 75 percent of the country's total exports.

History has shown that as countries develop, they move closer to creating diverse sources of economic growth and generating export revenue to finance imported and capital goods necessary for investment. The McKinsey report notes that even "pre-transition" national economies - those countries that are still largely dependent on agriculture - are growing and have started to diversify. Ethiopia's economy grew by an impressive 8% each year from 2000 to 2008 and Mali and Burkina Faso's economies expanded by 6% during that period. Meanwhile, several African economies are already seen as diversified, with the GDP share of manufacturing and services exceeding 70%. These include Cape Verde, Egypt, Lesotho, Mauritius, Morocco, Namibia, South Africa and Tunisia. These diversified economies recorded growth of 4% to 6% annually (Furphy, 2010). In addition to the four main exporters of oil - Libya, Algeria, Nigeria and Angola - African transition economies such as Ghana, Kenya, Sudan, Congo and Senegal that are moving toward diversified economies, have begun to export manufactured goods including processed fuels, processed food, chemicals, textiles and cosmetics.

African trade with the United States

The value of total U.S. trade with Africa increased by about 29% between 2007 and 2008. After at least three years of continuous growth, however, the value of Africa's exports to the United States decreased in value by about 57% in the first six months of 2009 in comparison to the same period in 2008. U.S. exports to Africa decreased in value by about 9%. The decline in the value of U.S. imports from Africa largely reflects the decline in oil prices from late 2008 through early 2009, as oil and mineral fuels account for about 80% of all U.S. imports from Africa, and 92% of all U.S. imports under AGOA. Petroleum imports did not decrease in volume as dramatically as they did in value. However, decreases in U.S. and global consumption are likely to continue to have a negative effect on most exports from the region (Arieff, et.al., 2010)

African trade with China

Because recent growth in Africa was driven in part by commodity exports to China, Africa is particularly vulnerable to fluctuations in China's economic growth. In 2007, China was the destination for some 13% of Africa's exports and the source of roughly 10% of Africa's imports. These figures represent a long trend of increased Chinese trade and commercial ties with Africa, particularly with countries rich in natural resources. China's trade with Africa greatly increased in recent years, reportedly growing to \$74 billion in the first eight months of 2008, a 62% increase over the previous year. Even with the impact of the crisis in the second half of 2008, total Sino- African trade for the year was reportedly \$106.8 billion, a significant increase from 2007. This trade has spurred Chinese investment in large infrastructure projects in Africa, which in some cases are thought to have helped alleviate constraints on economic competitiveness. Analysts suggest that China is reevaluating some resource extraction agreements, particularly in countries perceived as politically unstable, in light of the global slump. At the same time, recent statistics on China's growth in the first months of 2009 showed robust, if somewhat reduced, economic growth. Furthermore, China's domestic economic stimulus package reportedly relies heavily on infrastructure construction, which has kept demand steady for some primary inputs, such as oil, copper, tin, and lumber (As quoted by Arieff, et.al., 2010). Indeed, while Chinese private-sector engagement with Africa has apparently decreased as a result of the crisis, some Chinese firms and the Chinese government have continued to negotiate economic and resource-acquisition agreements with African countries. Chinese diplomatic outreach to African governments has also continued.

Future prospects for African Economy

Despite the glowing commendations given by MGI and BCG, it must be considered that African economies still face many challenges including poverty, disease and high infant mortality. The McKinsey and BCG reports agree that Africa still has some major challenges to overcome to secure its exit from poverty. These include the need to remove inter-African trade barriers, investing massively in infrastructure and communication, improving the education sector and improving public health throughout the continent. Nevertheless, the continent's growth prospects remain strong, propelled by both external trends in the global economy and internal transformations of the continent's societies and economies.

MGI suggests that Africa will continue to benefit from the rising prices of oil, natural gas, minerals, food, arable land and other natural resources. Demand for natural resources is growing fastest in the world's emerging markets, which account for half of Africa's trade. As such, foreign direct investment has increased from US\$ 9 billion in 2000 to US\$ 63 billion in 2006, an amount almost as large as the flow into China.

Parallel with the projected industrial revolution in Africa, the continent is set to emulate Asia's green revolution. Over 60% of the world's unexploited agricultural lands are located in Africa, and with a growing global population and new needs in the production of biofuels, these unexploited lands are already becoming the target of massive investments.

Africa's future growth is however, mostly in the hands of its inhabitants as social and demographic trends are creating new sources of domestic growth. Chief among these are urbanisation and a growing middle-class consumer base. Urbanisation rates in Africa are now similar to China and the world's other fastest growing cities, and the middle-class is steadily growing. As more Africans move from agriculture to urban employment, their incomes are rising. The number of households with discretionary income is projected to rise by 50% in the next ten years and the combined spending power of the inhabitants of Africa's 18 top cities could reach US\$ 1.3 trillion.

Poor Government policies, wars and other unforeseen factors may disrupt the impressive economic growth Africa has experienced in the last decade. However, it would be ill-advised for global businesses to ignore the continent's potential. A strategy for Africa must be part of their long-term planning. While the continent's future prospects for growth remain strong, Africa cannot afford to move away from its path of democracy, stability and economic liberalisation that will keep

investors interested and allow African people to prosper and make significant contributions toward positioning Africa as the global economic power it has the potential to be.

3. Global Economic Crises and the African Countries

Initially, many economic analysts were optimistic that the impact of the global financial crisis on Sub-Saharan Africa would be negligible. African economies are among the least exposed to the global financial system of any world region, and African banks hold few of the “toxic assets” that helped spark the crisis. However, as the financial crisis has deepened into a global economic recession, African economies are experiencing strong negative effects due to a contraction in global trade, including reduced demand for African commodity exports, tighter financing conditions overseas, and a drop in foreign direct investment and other capital inflows. Additional revenue streams such as tourism and remittances from African workers abroad are also expected to fall, and foreign aid is predicted to decrease, particularly if the crisis persists.

Amid signs that the global economy is emerging from the worldwide recession of late 2008 and 2009, African economies appear to be recovering from the crisis with the potential to significantly increase growth rates in the coming year. IMF Director Dominique Strauss-Kahn stated in March 2010 that African economies were recovering faster than expected from the global downturn.⁹ Africa’s apparent economic resilience can be explained by a variety of complex factors. Many African governments, particularly those of resource-rich and middle-income countries, lessened the economic blow of the recession by implementing economic stimulus and/or financial sector rescue packages. Sizable assistance by international financial institutions, with U.S. support, also played an important stabilizing role. Still, the drop in economic growth experienced in most African countries in 2008 and 2009 is thought to have significantly negatively affected African countries’ ability to make progress in reducing poverty. Moreover, Africa’s continued reliance on commodity exports could blunt the expected recovery.¹⁰

Many investors reportedly view Africa’s growth in 2010 as stemming from an expected rise in mining activity following its collapse in late 2008, combined with recent gains in communications infrastructure and political stability. African economies also appear to be benefiting anew from investment and trade with large emerging economies such as China, India, Russia, and Brazil, which appear to have recovered more quickly from the global recession than traditional industrialized nations (as quoted by Arieff, et al., 2010).

In its most recent regional economic analysis on Africa, the IMF estimated that average economic growth in Africa would slow from an average of 6.5% per year between 2002 and 2007—a historic high—to 1% in 2009, before recovering to 4% in 2010. The crisis is expected to dampen prospects for reducing African poverty, as at least 7% annual growth is generally considered necessary for outpacing population growth and making significant progress in alleviating the toll of hunger, unemployment, and disease (as quoted by Arieff, et al., 2010). Anticipated negative growth in some countries, including in Africa’s largest economy by far, South Africa, may have further ripple effects for smaller neighboring economies who depend on regional powerhouses for trade, remittances, and employment. Unemployment—already high in all African countries—is expected to rise, with potential implications for political stability.

⁹ Agence France-Presse, “IMF Sees Faster African Recovery from Economic Slump,” March 7, 2010.

¹⁰ Reuters, “World Bank Sees African Economies Rebounding in 2010,” March 18, 2010.

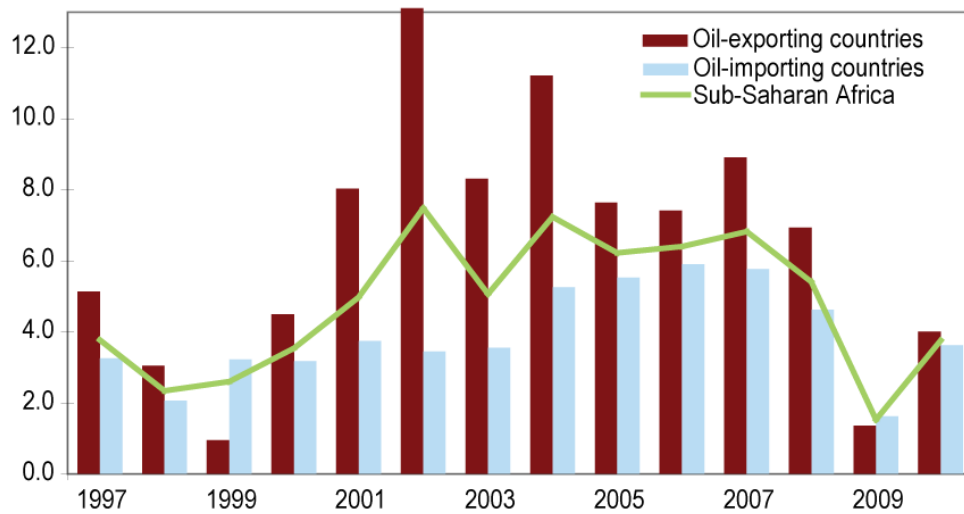


Figure 2. Economic Growth in Africa Percentage Change in GDP (Year-on-Year)

Note: Oil exporting countries are Angola, Cameroon, Chad, Republic of Congo, Equatorial Guinea, Gabon, and Nigeria. All other African countries are net oil importers.

Source: IMF Sub-Saharan Africa Regional Economic Outlook Database, April 2009.

However, few countries like Congo, Uganda and Liberia were less affected since they were not taking part in the global financial markets. The details were been discussed below:

Congo

The financial crisis had not reached the country like Congo, because it does not have a financial system which is sufficiently developed to be able to share financial income and risks with industrialized countries.

But on the other hand, the crisis in its other form, not the financial form but the economic form, did hit Congo through its two major export products, namely oil and wood. The activities in the wood and timber sector in Congo have been considerably hit, more so than oil activities. The overall production of tropical timber of Congo has dropped by over 1,300,000 cubic meters since 2008. Exports also dropped from 1 billion cubic meters in 2008 to hardly 420,000 cubic meters in 2009, which means an almost 60 percent drop.

In terms of employment the timber sector has seen its headcount, I would say, halved. So the problem is that Congo used to export tropical timber to European countries, and in particular Portugal and Spain, which used to purchase this type of timber for construction.

In terms of oil, the drop in prices led to considerable damage on the Congolese economy. The price of the barrel dropped from \$150 a barrel in 2008 to less than \$40 a barrel at the end of 2008. So this, of course, had a major impact on Congolese economy, which as you know is dependent on oil 80 percent of its income comes from oil 70 to 75 percent of its GDP is based on oil. Over 90 percent of its exports are oil exports. Consequently, the fiscal income, because of the drop in oil income, has been halved, from \$4 billion to less than \$2 billion in 2009 because of the crisis.

Excluding those two sectors, the Congolese economy as a whole has been less hit by the crisis. In 2008, Congo had a growth rate of a little bit more than 5 percent. And in 2009 the growth was still positive, more than 6 percent (6.2 percent). This is due to the fact that there is a very strong economic momentum in Congo. Thanks to the IMF and the World Bank efforts that Congo were able to reorganize its economy. They have set up a true, genuine internal momentum with the mobile phone sector and other sectors as well. This in a way protected Congo from the crisis and helped her to prepare for a better future. According to the IMF projections and the central bank, in 2010 it was expected to reach a growth rate of 13 percent, which would be one of the best and the highest in Africa.

Liberia

Liberia, a country that had been dogged by more than 14 years of civil crisis that decimated its population and left more than 200,000 of its people dead; infrastructure terribly damaged; power output in critical need of repair.

In 2006 Liberian President, Madam Ellen Johnson Sirleaf, started to craft with her economic team policies to put Liberia on a trajectory of fiscal discipline and to emerge from the debris of war. To be buffeted first by the **food crisis and then the fuel crisis**, and after that the **financial crisis** couldn't have come at a worse time for the country.

In Liberian public debt reduction strategy, which was a 3-year strategy, it had anticipated growth of around 12 percent between 2008 to 2009. But the crisis made Liberian growth to reduce to something around 5 percent, thereby constraining them to slice their expenditures, some of which were public debt reduction expenditure. Liberia inherited a huge debt burden. The debt to GDP ratio was more than 700 percent. So Liberia has been on the march to the HIPC completion point. They have reached decision point. They run a cash-based balanced budget, which means unlike other countries that used countercyclical policies they never had that option. They are probably the only country in the world that had to live within their revenue. When they faced revenue shocks, all they could do was to seek expenditure efficiencies or cut expenditure. So it's been a double problem for them in Liberia. But they have maintained the discipline because they know that one of the things that put Liberia in this unsustainable debt situation is lack of fiscal discipline. The IMF was in Liberia doing its last review to inform their march to the HIPC completion point. Hopefully, if everything is kept on track, they may reach the HIPC completion point in June 2010 because almost all the triggers have been met.

The crisis affected Liberian export sector. One of their main exports is rubber. In 2008, the total estimated export of Liberia was \$242 million. As a result of the crisis it dropped to \$152 million. They lost jobs in the rubber sector significantly. They also lost jobs in the mining sector. One of the biggest companies is Arcelor Mittal, that should have started exporting iron ore from Liberia in this year. But because of the crisis, Mittal has deferred its shipment plan to late 2011, and it had also cut down jobs.

At a time when Liberia is dealing with youth unemployment, they have an army of young people that came out of the war that are looking for alternatives. So it worries them doubly to have these issues. They hope and think every partner has been working so that they all can come out of the crisis. Because they need to start to give jobs to their people because it affects not only their democracy, but it affects their peace and economic development.

Liberia also has to engage in critical infrastructure developments such as roads, ports, and other infrastructure. They also have to build the governance framework through reform of the governance structure, which they have been doing since 2006. They strengthened the General Auditing Commission, they have strengthened the judiciary, and more importantly, they have strengthened Anti-Corruption Commission, they have relatively a transparent budget process.

The financial crisis couldn't have come at a worse time for Liberia. At a time when they were about to do a major takeoff, it came as a strong headwind. But thanks to good monetary and the fiscal team and other actors in government, they have managed to steer through the critical part of the crisis and they are on the way to seeing the recovery.

Uganda

In Uganda, the financial crisis had minimum impact and this was mainly because of the prudent financial management of the financial sector and also because Ugandan financial sector was disintegrated. It was not part of the integrated system and therefore it was not a carrier of the toxic assets. Uganda indeed suffered from secondary effects of the crisis and this involved reduction in direct foreign inflows into the country. When the countries abroad got problems, and most of the Ugandan investors were from abroad, the inflow is reduced. There was also a capital flight by the multinational companies which invested in the country to go and rescue their principles. That also had impact on the currency of Uganda.

It is to note that a good number of Ugandans working abroad and the remittances went down because of the effects in places where they're working. These remittances are a major contributor to the fast-growing residential construction sector. Most of the houses for residential which are being constructed are people working abroad so this affected--this slowed down the construction. Uganda also had effects of imported inflation from its trading partners because they need importers and rely so

much on imported, manufactured goods. So wherever they are importing from, they took of that inflation and also--and it affected them significantly. Some of Ugandan imports--exports were affected, but this was not much, it was mainly the flowers sector. Although the revenue collection went down by 10 percent below the target, however, it was still higher than what they had collected in the previous year. It has been felt that the global financial crisis effects were quite minimal, but the main mitigating factor was regional trade. Uganda had some effect on the--arising out of the fuel crisis, but of course this was short-lived and it has given them lessons, since Uganda is on the verge of becoming an oil producing--oil producing countries. So, all in all, they were able to weather through the financial crisis because of the reasons given, but most importantly, because of the advice and assistance they were getting from partners like the IMF, the finance and the concessional lending they were getting from multilateral donors like the World Bank and others.

Support from developed countries towards the Crisis

At the Group of 20 (G-20) summit in London in April 2009, member states agreed to inject \$1 trillion into the world economy in order to combat the effects of the global crisis. This included a commitment to support growth in emerging market and developing countries. For example, the G-20 committed to increase lending resources available to the IMF by \$250 billion through immediate contributions from some IMF member countries, and to use additional resources from agreed sales of IMF gold to provide \$6 billion in additional financing (including concessional lending) for poor countries over the next two to three years. At the same time, some observers contend that “the legitimate concerns of LICs [low-income countries] in general, and Africa in particular, have not featured prominently in international rescue efforts. In August 2009, the Obama Administration notified Congress that four African countries - Ghana, Liberia, Tanzania, and Zambia—would benefit from funds appropriated by Congress in 2009 for “assistance for vulnerable populations in developing countries severely affected by the global financial crisis,” with various eligibility requirements. A total of \$255.6 million in Economic Support Funds (ESF) were appropriated for this “crisis fund” in the Supplemental Appropriations Act, 2009 (P.L. 111-32). As of early 2010, \$32.5 million had been obligated for programs in Ghana, \$25.2 million for Liberia, \$37.9 million for Tanzania, and \$25 million for Zambia(as quoted by Arieff, et al., 2010).

Amid signs that the crisis has peaked, policymakers’ attention has again shifted toward emphasizing longer-term policies to ensure that growth increases and contributes to broad socioeconomic development. In November 2009, U.N. Secretary-General Ban Ki-moon stated that Africa’s future economic prosperity would require industrialization, improved access to global markets, and a “green agricultural revolution.” International attention has also focused on stemming Africa’s illicit economies, including bribery, theft, money laundering, and trafficking in people, narcotics, and weaponry. A March 2010 study by Global Financial Integrity showed illicit capital outflows from Africa totaled \$854 billion between 1970 and 2008, creating a “staggering” negative economic impact (Arieff, et al., 2010).

4. Conclusion

Sub-Saharan Africa has been strongly affected by the global recession, despite initial optimism that the global financial system would have few spillover effects on the continent. The International Monetary Fund (IMF) estimated in 2009 that average economic growth in Africa would slow to 1%, from an annual average of over 6% to 1% over the previous five years, before rebounding to 4% in 2010. As a region, Africa is not thought to have undergone a recession in 2009. However, most African countries including Namibia are thought to require high rates of economic growth in order to outpace population growth and make progress in alleviating poverty. The crisis has implications on the macroeconomic fundamentals of the Namibian economy with regard to the dimension of growth, trade, investments and development concerns.

The mechanisms through which the crisis has affected Africa include a contraction in global trade and a related collapse in primary commodity exports, on which many countries are dependent. Foreign investment and migrant worker remittances are also decreased significantly, and some analysts predict cuts in foreign aid in the medium term if the crisis persists. Africa’s most powerful economies have proven particularly vulnerable to the downturn: South Africa has experienced a

recession for the first time in nearly two decades, and Nigeria and Angola have reported revenue shortfalls due to the fall in global oil prices. Several countries seen as having solid macroeconomic governance, notably Botswana, have sought international financial assistance to cope with the impact of the crisis. At the same time, a number of low-income African countries are projected to experience relatively robust growth in 2009 and 2010, leading some economists to talk of Africa's underlying economic resilience.

References

- [1] Africa Development Bank. 2009. *Impact of the global financial and Economic Crisis on Africa*: Office of the Chief Economist, Tunis.
- [2] Allen, B. 2000. *The Financial Crisis and world Economy*. Bank of England. London.
- [3] Arieff, A., Martin A. Weiss, and Vivian C. Jones. 2010. *The Global Economic Crisis: Impact on Sub-Saharan Africa and Global Policy Responses*. Congressional Research Service, available at <http://www.fas.org/sgp/crs/row/R40778> retrieved on 22 August 2010.
- [4] Barbu, Cristina (2010), Does The Economic Crisis Affect Oltenia's Environment?, *Journal of Applied Economic Sciences*, Volume5. No.1, pp. 23-29. Available http://www.jaes.reprograph.ro/articles/spring2010/VolumeV_Issue1_11_Spring2010_fulltext.pdf retrieved on 15 September 2010.
- [5] Brana, S., and Lahet, D (2009), Capital requirement and financial crisis: The case of Japan and the 1997 Asian Crisis, *Japan and the World Economy*, Volume21, No.1, pp. 97-104.
- [6] Furphy Claire (2010), *Becoming a global economic power: Africa's people hold the key to success* available at <http://www.consultancyafrica.com/index.php?option=comcontent&view=article&id=512:becoming-a-global-economic-power-africas-people-hold-the-key-to-success&catid=87:african-finance-a-economy&Itemid=294> accessed on 21 August 2010.
- [7] Goodhart, C.A.E., (2008), The Background to the 2007 financial crisis, *International and Economics policy*, Volume4 No. 4, pp.331-346.
- [8] International Monetary Fund (IMF) (2009), *World Economic Outlook: Crisis and Recovery*, (April) Washington, D.C.: IMF.
- [9] Kenen, P. B. (1994), *The International Economy*, Cambridge: Cambridge University Press.
- [10] Mwinga, Martin (2008), *Namibia: Global Financial Crisis and Future of Economy*, New Era published on 12 December 2008 available at <http://allafrica.com/stories/200812120452.html> retrieved on 21 February 2010.
- [11] Rena, Ravinder (2006), *Developing Countries and Their Participation in the WTO in Making Trade Policy – An Analysis*, New Delhi (India): Indian Journal of Social Development – An International Journal, Volume6, No.2, pp.43-156.
- [12] Rena, Ravinder (2010), *Economic Growth and Development*, Windhoek: Polytechnic of Namibia.
- [13] Roxburgh, C. et al.,(2010) *Lions on the move: the progress and potential of African economies*, McKinsey Global Institute, 2010, <http://www.mckinsey.com>.
- [14] Willson, Simon (2010), *Private sector gains ground in Africa*, IMF Survey Magazine, 4 March 2010, <http://www.imf.org>.
- [15] World Bank (2009a), *Global Development Finance: Charting a Global Recovery*. Washington: World Bank.
- [16] World Bank (2009b), *Migration and Development Brief 10* (13 July 2009) Washington: World Bank.
- [17] World Bank (2010), available at <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/0contentMDK:20563739~menuPK:1613741~pagePK:146736~piPK:146830~theSitePK:258644> retrieved on 28 May 2010.