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# I. CRIZA ECONOMICO-FINANCIARĂ. CONȚINUT, CAUZE ȘI SOLUȚII

## CRISI FINANZIARIA IN CORSO ED INSEGNAMENTI CHE SI POSSONO TRARRE

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#### Abstract

#### The current financial crisis and lessons which can be gained

Since the development of modern banking in Italian renaissance, financial crises have from time to time affected institutions and markets and have raised concern about stability of financial systems. Authorities and scholars around the world are investigating the matter discussing on the proximate and more distant causes of crises and gaining lessons from the experience of the past, on the steps that could be taken to minimize vulnerability of financial systems. The paper focuses on the analysis of the most important factors contributing to the triggering of the current financial crisis, the peculiarities and the lessons of the crisis.

**Key-words**: *financial crisis, financial globalization, subprime, securitization, mortgage backed securities, financial regulation* 

#### JEL Classification: G01

#### 1. Introduzione

Le crisi che hanno colpito la finanza nei vari paesi nel corso dei secoli a partire dalla crisi delle banche fiorentine del XIV secolo ci hanno tutte insegnato qualcosa (Cipolla, 1980). Oggi sappiamo che tutte le crisi, sia con riferimento alle cause determinanti sia alle modalità di svolgimento, hanno mostrato almeno alcuni caratteri comuni. Tuttavia sappiamo inoltre che ogni crisi ha proprie specifiche caratteristiche, diverse da quelle delle crisi precedenti e che le crisi, pur essendo tutte sottoprodotti dell'economia di mercato e frutto di incompetenza e/o disonestà dei banchieri e di errori e manchevolezze da parte delle autorità di controllo (Fratianni, 2008), sono diverse l'una dall'altra anche per il fatto di essere inserite in contesti socio-economici e legislativi differenti. Proprio per questa circostanza, le misure studiate per prevenire, combattere, ridurre l'intensità e facilitare la ripresa fondate sulle esperienze passate, pur presentando indubbi elementi di validità, non si dimostrano compiutamente idonee ad evitare o fronteggiare le nuove crisi che si succedono nel tempo.

#### 2. La crisi attuale

La presente crisi finanziaria che ha colpito l'economia globale è apparsa grave sin dall'inizio a causa dei suoi effetti profondi che si prospettano non brevi nel tempo e diffusi su scala globale. La crisi, come è noto, è stata innescata nel 2007 dalle difficoltà incontrate dagli intermediari finanziari che avevano massicciamente investito in prodotti finanziari strutturati legati ai mutui ipotecari *subprime* americani.

Questi prestiti erano accordati per l'acquisto di abitazioni ai clienti con basso merito di credito e contrastavano fortemente con i prestiti accordati ai debitori di primo rango (*prime borrowers*). Nel periodo precedente lo scoppio della crisi, il volume ed il valore dei prestiti *subprime* sono aumentati notevolmente. Da sottolineare che questo aumento si è prodotto in condizioni di bassi tassi di interesse decisi dalla Fed a partire dal 2000 al fine di stimolare il credito e, implicitamente, la crescita economica.

Spinte dall'obiettivo di massimizzare i profitti e potendo trasferire il rischio di credito associato ai *subprime* agli investitori finali attraverso il processo di cartolarizzazione, le banche hanno promosso una politica di credito molto rilassata, che si è concretizzata nell'aumento del volume e del valore dei mutui *subprime*. In questo senso possono essere menzionate le seguenti condizioni:

• acconti per l'acquisto di abitazioni molto piccoli o inesistenti;

• concessione di crediti a clienti che non avevano né redditi, né lavoro, né garanzie (crediti nominati sugestivamente "Ninja");

• mutui per i quali le rate iniziali erano molto piccole, ma che in tempi successivi crescevano sensibilmente;

• mutui le cui rate iniziali consistevano solo negli interessi.

Una volta apparsi i primi cedimenti nei prezzi delle abitazioni anche in relazione all'aumento dei tassi di interesse, è cominciato a registrarsi anche l'aumento dei casi di morosità (specialmente di quelli che avevano ottenuto prestiti *subprime*) come pure dei casi di insolvenza.

In queste condizioni si è prodotta una serie di turbolenze sui mercati finanziari degli Stati Uniti e dei paesi che avevano legami con il mercato immobiliare americano. Si è registrata la riduzione drammatica delle attività finanziarie basate sulla cartolarizzazione dei mutui *subprime (mortgage backed securities* e *collateralized debt obligations*). La caduta di fiducia degli investitori si è estesa poi su tutti gli strumenti garantiti da prestitit (*asset backed securities*), indifferentemente dal tipo di *assets* alla base del processo di cartolarizzazione, e infine sugli altri settori del mercato del credito. Le tensioni apparse hanno condotto all'aumento generalizzato dei premi per il rischio, alla caduta del valore delle azioni, alla riduzione della liquidità e alla contrazione delle emissioni di obbligazioni e dei collocamenti di prestiti sindacati. Sono state anche colpite le operazioni di fusioni e acquisti, il numero delle entrate alla quotazione di borsa delle nuove società, i mercati interbancari dei depositi nelle principali valute ecc.(Banca d'Italia, 2007, p. 9-10).

La crisi partita dall'economia finanziaria si è propagata in un secondo tempo all'economia reale causando una recessione economica generalizzata.

Se guardiamo al recente passato possiamo notare fenomeni demografici e macroeconomici che, se opportunamente interpretati, in una fase di incubazione della crisi, avrebbero potuto forse mettere in guardia i *policy makers*. Grandi cambiamenti si erano manifestati negli ultimi due decenni in concomitanza con il processo di globalizzazione. Ci si riferisce anche alle innovazioni introdotte sia in campo tecnologico sia in campo finanziario, all'espansione dei volumi degli scambi 12

internazionali di beni e di servizi, agli investimenti diretti esteri. Basta pensare che dalle economie emergenti asiatiche proviene oggi più di un quarto del totale delle esportazioni mondiali. Anche gli investimenti diretti hanno fatto un grande balzo nell'ultimo decennio passando dal 10% del prodotto mondiale al 25%.

In campo finanziario erano emerse rilevanti trasformazioni ed innovazioni. Era cresciuta la cartolarizzazione nelle banche e con essa la creazione di strumenti finanziari strutturati complessi, poco trasparenti e difficile da valutare.

Si sono rilevate in particolare gravi carenze sia nell'operare delle agenzie di *rating* sia nella regolamentazione dei mercati e nei controlli, a diversi livelli, sul rispetto delle normative vigenti. Sono emersi inoltre macroscopici conflitti di interessi riguardanti i principali attori dei mercati finanziari e comportamenti opportunistici, e non improntati ai canoni tradizionali della *business ethics*, da parte dei *managers* delle istituzioni finanziarie. Comportamenti biasimevoli alimentati, a ben vedere, da insaziabile sete di guadagni combinata con schemi di remunerazione dei *manager* orientati ai risultati ottenibili in tempi brevi.

Si creava, sotto gli occhi indifferenti delle autorità di controllo, una situazione di opacità dei mercati e di evidente asimmetria informativa a danno dei risparmiatori clienti che venivano indotti ad acquistare strumenti finanziari senza conoscere pienamente i rischi dell'investimento che stavano facendo. I rischi procurati dai *manager* per aumentare i loro guadagni venivano scaricati sugli altri *stakeholder* (azionisti, risparmiatori-creditori, dipendenti). In più, l'instabilità sui mercati aumenta anche perchè c'è una pro-ciclicità del sistema finanziario che tende ad aumentare l'intensità delle alterne fasi dell'andamento dell'economia.

## 3. Ruolo della cartolarizzazione dei mutui ipotecari nello scopio di crisi

La crisi dei prestiti *subprime* che è scoppiata negli Stati Uniti nell'agosto 2007 propagatasi su altri segmenti del mercato finanziario che ha infine colpito l'economia reale anche a livello globale, ha avuto più cause, fra le quali ha avuto un ruolo fondamentale il processo di cartolarizzazione.

La cartolarizzazione dei crediti ipotecari si è sviluppata negli Stati Uniti ancora dagli anni 1970, ma si è estesa a partire dalla seconda metà degli anni 1990. È una forma di innovazione finanziaria che consta nella vendita dei crediti ipotecari da parte delle banche ad una entità esterna (società emittente o *special-purpose-vehicle*). Questa, per procurarsi le somme necessarie al pagamento, emette titoli finanziari garantati con i rispettivi crediti. I titoli finanziari così risultati (*mortgage backed securities*) vengono comprati dagli investitori finali, che possono essere altre banche, investitori istituzionali ecc. dal mercato interno o dall'estero. I titoli cartolarizzati sono emessi in diverse classi, conformemente al rischio di credito afferente. A loro volta, gli investitori nei titoli cartolarizzati sono remunerati attraverso la raccolta delle rate scadenti dei crediti che hanno costituito il *pool* sottoposto alla cartolarizzazione.

Fra i fattori che all'epoca hanno promosso lo sviluppo di questa forma di innovazione finanziaria si annovera la possibilità di ridurre i rischi attraverso la loro redistribuzione fra una pluralità di investitori e di aumentare la capacità di concedere

credito da parte delle banche. Tuttavia molto importanti sono state le pressioni fatte dalle autorità di vigilanza con lo scopo di migliorare la capitalizzazione delle banche.

Tramite la cartolarizzazione dei mutui ipotecari gli investitori degli Stati Uniti, ma anche del mondo intero, avevano la possibilità di fare investimenti finanziari con un rendimento più elevato, visto che i tassi di interesse applicati ai depositi non erano molto attraenti.

Attraverso il processo di cartolarizzazione, il rischio di credito viene trasferito dalle banche agli investitori finali. Condizione necessaria per il trasferimento del rischio di credito è la vendita degli crediti senza garanzie rilasciate dalla banca che ha iniziato l'operazione, garanzie di coprire le eventuali perdite risultate dal mancato pagamento delle rate scadenti e degli interessi.

Così, con l'operazione di cartolarizzazione, le banche che inizialmente hanno accordato i mutui ipotecari non li mantengono più in bilancio, come nel caso delle modalità tradizionali di attivita creditizia, ma li vendono ed i proventi incassati non assumono più la forma degli interessi, ma quella di commissioni afferenti all'iniziazione dell'operazione. In questo contesto, non mantenendo più i crediti nel bilancio e, dunque, non assumendosi il rischio di credito, le banche non sono più interessate di effettuare una analisi rigorosa della documentazione presentata dai clienti con la domanda del mutuo. Come conseguenza si ha il deterioramento del processo di concessione dei crediti, che implicitamente conduce alla crescita del rischio di morosità e di insolvenza.

Accanto alle politiche di erogazione del credito ed al processo di cartolarizzazione, nello scoppio della crisi un ruolo importante spetta anche le agenzie di *rating*. Queste sono accusate di aver accordato *rating* troppo generosi ai titoli cartolarizzati relativi ai prestiti *subprime* allettate dai proventi, sotto forma di commissioni, offerti dai clienti che sollecitavano i *rating* (banche di investimenti, società emittenti), in presenza quindi di palesi conflitti di interesse.

Su questo sfondo, sul piano internazionale si sono prese misure destinate a condurre alla stabilità dei mercati finanziari e alla crescita della capitalizzazione del sistema bancario. Una tappa importante in questo senso è stato l'incontro G7 di Washington del 10 ottobre 2008, dove è stata stabilita una serie di misure eccezionali per la stabilizzazione dei mercati finanziari ed il ripristino del processo di concedere crediti:

1. Sostegno delle istituzioni finanziarie importanti per evitare il fallimento e il rischio sistemico.

2. Adozione di misure necessarie per sbloccare il mercato del credito e del mercato monetario.

3. Rafforzamento dei programmi nazionali di garanzia e assicurazione dei depositi.

4. Quando necessario, adozione di misure idonee a riattivare il mercato secondario dei titoli cartolarizzati (mortgage backed securities e asset backed securities) (G7 Finance Ministers and Central Bank Governors Plan of Action, 2008).

Successivamente, il 12 ottobre 2008, vi è stato l'incontro dei capi di stato e di governo dei paesi della zona euro, che ha stabilito un piano di uscita dalla crisi basato sull'azione coordinata di tutti i paesi della zona euro. Anzi, i principi stabiliti in questa

occasione sono stati sostenuti dal Consiglio Europeo, nell'incontro del 15-16 ottobre 2008, che ha deciso che devono essere adottati da tutti i paesi membri dell'Unione Europea, indifferentemente dall'appartenenza alla zona euro.

## 4. Gli squilibri internazionali

Uno sguardo retrospettivo a livello globale ci mostrava un crescente squilibrio tra un tasso di risparmio negli Stati Uniti in continua discesa e con valori negativi per il risparmio del settore delle famiglie. Di contro il Giappone, la Cina ed altri paesi emergenti mostravano un elevato tasso di risparmio. Come conseguenza si avevano nel commercio internazionale disavanzi degli USA (in rosso ininterrottamente dal 1982) e surplus nei paesi ad alto tasso di risparmio che investivano acquistando *financial assets* americani (Targetti & Tamburini, 2009). Si era formato quindi un modello di sviluppo nel quale l'espansione della più grande economia nazionale del pianeta era finanziata con i capitali provenienti dal resto del mondo, inclusi paesi emergenti (in particolare Cina e India) e paesi in via di sviluppo.

Gli intermediari finanziari americani, infatti, si indebitavano all'estero e finanziavano gran parte delle famiglie in patria, consentendo loro di mantenere un tenore di vita che i loro redditi non avrebbero consentito (a causa di una tendenza in corso da tempo verso la concentrazione dei redditi, fenomeno che penalizzava le classi medie). Le famiglie americane erano eccessivamente indebitate anche a causa dell'acquisto di immobili (per lungo tempo sopravvalutati), che, a loro volta, costituivano la garanzia di strumenti finanziari. La possibilità che questi macroscopici squilibri dessero luogo ad aggiustamenti repentini e disordinati come cadute del valore esterno del dollaro e brusche frenate nella domanda interna americana non era da escludere. La crisi poi è esplosa non a seguito di una fuga dal dollaro, ma come inversione di tendenza dei prezzi immobiliari e conseguentemente perdita di valore degli strumenti della finanza strutturata fondati sulle garanzie immobiliari di dubbia solidità. I consumi americani si sono fortemente ridotti con conseguenze anche sulle importazioni.

## 5. La crisi manageriale

Sarebbe tuttavia errato soffermarci solo sugli squilibri macroeconomici, perché, a ben vedere, anche le carenze manageriali individuabili nel settore finanziario hanno concorso a scatenare e ad alimentare la crisi. E non solo a causa di diffuse ed accertate carenze di professionalità e di valori etici in una classe di *manager* autoreferenti super-retribuiti, ma anche per un disallineamento negli incentivi nei sistemi retributivi. Per esempio, nel mercato dei mutui *subprime* americano il meccanismo delle commissioni creava un forte incentivo ad assegnare i mutui senza un serio controllo preventivo della capacità di rimborso di chi li otteneva e della dinamica di valore delle garanzie reali.

Anche nello stadio successivo, quello della vendita ai clienti, la struttura delle ricompense spingeva le reti commerciali a collocare a tutti i costi, sulla base delle istruzioni ricevute dai vertici delle banche, i prodotti finanziari poco trasparenti senza preoccuparsi di illustrare ai clienti il grado di rischio (talora assai elevato) a cui andavano incontro e senza valutare la propensione al rischio dei singoli clienti-risparmiatori. Anche la retribuzione del top *management* era incentrata nel premiare i risultati di breve termine (talora gonfiati ad arte) invece che i risultati, ben più attendibili, di medio e lungo termine.

## 6. L'eccesso di liquidità

Negli ultimi decenni, in assenza di gravi spinte inflazionistiche, nelle economie avanzate hanno prevalso politiche monetarie espansive caratterizzate da basso livello di tassi di interesse sia nominali che reali e da una forte crescita degli aggregati monetari e finanziari. Questa crescita si è combinata con un aumento del grado di liquidità dei mercati finanziari e con una forte e non giustificata riduzione dei premi di rischio. Si creavano perciò le condizioni per rapide correzioni dei mercati a seguito di possibili mutamenti nella percezione dei rischi e nella propensione ad assumerli. All'aumento della liquidità e quindi dell'offerta di credito è corrisposto un forte aumento della leva finanziaria, favorito da nuovi modelli di intermediazione (di cui si è già detto in precedenza). L'aumento dell'indebitamento, anche con finalità speculative (specie nel settore immobiliare) ha aumentato notevolmente il rischio di collasso del sistema (Fornasari, 2009).

# 7. Mancanze ed inadeguatezze nella regolamentazione e nel controllo delle istituzioni e dei mercati finanziari nelle economie avanzate

Questa crisi finanziaria presenta connotazioni nuove rispetto alle crisi del passato. Gli effetti della crisi non si sono manifestati nelle forme tipiche delle esperienze passate, come ad esempio il panico dei depositanti e la conseguente corsa agli sportelli bancari per il prelievo dei depositi da parte del pubblico (Kindleberger, 1978; Wicker, 1996). Queste esperienze del passato tuttavia stavano alla base delle legislazioni emesse nei vari paesi per disciplinare l'attività bancaria ed ancora vigenti. Le difficoltà, questa volta, sono emerse invece con riferimento ad innovazioni finanziarie come la cartolarizzazione dei crediti. I primi gravi problemi si sono manifestati nei mercati interbancari, che erano cresciuti notevolmente nelle economie più avanzate (tipicamente USA e UK) negli ultimi decenni (Brescia Morra, 2009). Tale aumento, soprattutto alimentato da fonti estere, consentiva un aumento della massa dei prestiti bancari nettamente superiore rispetto quello della raccolta di depositi all'interno di ogni paese. Non a caso le maggiori difficoltà e i dissesti, soprattutto negli Stati Uniti, non hanno riguardato, come nelle crisi del passato, le tradizionali banche di deposito che raccolgono depositi dalla gente, ma le investment bank, cioè intermediari finanziari che non raccolgono depositi dal pubblico ma che operano in titoli.

Negli Stati Uniti, sin dagli inizi, le banche di investimento hanno potuto beneficiare di una legislazione meno vincolante anche in base al presupposto che la loro operatività nei mercati finanziari non avrebbe potuto avere effetti devastanti sul piano sistemico come per le banche che raccoglievano depositi tra il pubblico e che svolgevano anche funzioni monetarie. Il quadro legislativo appare articolato e farraginoso. Vi sono più autorità di controllo con compiti non sempre ben definiti dal momento che le loro sfere di competenza ed i loro compiti sono stati tracciati in tempi diversi e con interventi episodici. I controlli sono distribuiti fra le varie autorità federali e statali non sempre in modo coerente (Brescia Morra, 2009).

Oggi si ritiene che l'intero sistema di controllo e di vigilanza sulla finanza debba essere ripensato con una visione unitaria abbandonando le precedenti visioni parziali e soggettive incentrate su singole tipologie di intermediari finanziari e di operazioni. Si deve cioè instaurare un sistema efficiente ed efficace di controllo dei rischi di varia natura che gravano sugli attori dei mercati finanziari e sugli investimenti finanziari capace non solo di scoraggiare comportamenti scorretti e disonesti a mezzo di sanzioni severe ex post, ma di individuare e bloccare in anticipo questi comportamenti anche ricorrendo alla rimozione tempestiva di *managers* coinvolti.

In conformità con il FMI (2009) gli iniziali insegnamenti della attuale crisi finanziaria hanno tre dimensioni che riguardanno:

(1) *la regolamentazione finanziaria*, che non è stata adeguata e che deve essere migliorata e correlata con le innovazioni finanziarie;

(2) *le politiche macroeconomiche*, che non hanno considerato il rischio sistemico nel sistema finanziario e nel mercato immobiliare;

(3) l'architettura globale per la stabilità.

## 8. Guardando il futuro

Oggi si guarda la crisi forse con meno ansia. I mercati finanziari, e in particolar modo quelli azionari, dopo aver toccato il fondo sembrano in fase di ripresa anche se non sono da escludere cadute e incidenti di percorso nella fase di ascesa (es. Dubai). I tassi di interesse, superata la fase di panico ed il clima di sfiducia tra le banche che avevano generato impennate per qualche mese, sono scesi a livelli inconsueti e nulla fa pensare ad un loro rialzo in tempi brevi. Nel medio andare i tassi di interesse potrebbero gradualmente risalire, soprattutto se la ripresa alimentasse spinte inflazionistiche in relazione anche con movimenti ascensionali dei prezzi delle materie prime ed in particolar modo delle fonti di energia. Non dobbiamo poi dimenticare che il forte aumento del debito pubblico in numerosi paesi potrebbe spingere i governi e le autorità monetarie a non contrastare con decisione l'inflazione al fine di alleggerire il rapporto fra debito pubblico e PIL.

Nei prossimi mesi la disoccupazione in molti paesi potrebbe continuare ad aumentare così come il numero di dissesti di imprese, soprattutto di piccole e medie dimensioni, tutto ciò avviene per un normale sfasamento temporale. In seguito la disoccupazione, in presenza di una decisa crescita dell'economia reale, verrebbe gradualmente riassorbita. Ma indubbiamente certe classi di età, soprattutto dove vi è presenza di abbondante offerta di lavoro da parte degli immigrati, troverebbero serie difficoltà a reinserirsi soddisfacentemente nell'apparato produttivo.

In ogni caso, traendo esperienza da questa crisi, i vari stati dovrebbero riformare il sistema dei controlli, riconsiderare il mito dell'innovazione finanziaria cessando di vederla come un fenomeno sempre e solo positivo da incoraggiare ad ogni costo e senza le dovute cautele.

## 9. Conclusioni

Le crisi finanziarie che si sono succedute nel tempo e che, inizialmente, hanno avuto in passato un carattere locale mentre oggi, grazie alla globalizzazione, hanno assunto carattere mondiale, hanno palesato una serie di lacune nel processo di regolamentazione e di vigilanza. Tuttavia le evoluzioni e i mutamenti in corso sul piano economico, sociale, politico, tecnologico ecc. rendono impossibile l'evitare in futuro altre crisi finanziarie.

La più recente crisi, ancora in corso, ha avuto effetti devastanti inizialmente sul piano finanziario per propagarsi poi all'economia reale provocando una recessione economica generalizzata. Le cause della crisi sono molteplici e variano dalla diminuazione del prezzo delle abitazioni fino allo sviluppo del processo di cartolarizzazione, alla politica di rimunerazione dei *manager* finanziari, all'attività delle agenzie di *rating*, all'eccesso di liquidità ed infine alla mancanza di una regolamentazione adeguata.

L'intensificazione dei legami tra le banche statunitensi e gli istituti finanziari di altri paesi che hanno acquistato i prodotti strutturati risultati dopo la cartolarizzazione dei crediti ipotecari *subprime* ha condotto alla propagazione della crisi sul piano globale.

In questo contesto le autorità di molti paesi del mondo si sono mosse in modo coordinato e hanno preso misure idonee a ristabilire la fiducia sui mercati finanziari ed a rafforzare la capitalizzazione del sistema bancario.

Gli insegnamenti che possono essere tratte dalla attuale crisi finanziaria sono molteplici. Innanzitutto, com'é successo anche in seguito ad altri crisi finanziarie internazionali, è evidente la necessità di migliorare la regolamentazione finanziaria, che deve essere molto più estesa sino a comprendere tutte le istituzioni finanziarie. Molto importante al fine di evitare lo scoppio di una futura crisi finanziara è anche l'instaurazione di una politica di remunerazione sana nel campo finanziario. I dipendenti del settore finanziario non devono avere incentivi ad assumere maggiori rischi che possano minacciare la stabilità dell'istituzione finanziaria in cui lavorano, con effetti a largo raggio sui sistemi finanziari.

Infine, molto importante per la costruzione della futura regolamentazione finanziaria internazionale è la necessità di aumentare la cooperazione fra le autorità di supervisione dei diversi paesi e fra gli organismi internazionali che hanno compiti in tema di regolamentazione finanziaria.

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## CRISIS AND DEVELOPMENT (ONE YEAR OF CRISIS IN ROMANIA)

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#### Abstract

The papers show the impact of financial crisis in Romanian economy. In the middle of 2008, when the current financial crisis had begun to be felt in many developed countries of the world, like the U.S., but also with the European countries as Germany, Britain, France, Spain, Italy, Romania is still considered far from these influences, and after some even immune to the effects of the crisis. Romania being part of European financial and economic system and world, could not escape the effects of the crisis that began to manifest with virulence in late 2008 and fully in 2009, with a certain gap with developed countries affected by crisis even in 2007. Besides the contagion determined by foreign markets, the Romanian economy has been affected by the influence of internal factors (high current account deficit to be financed, high external debt, mainly short-term delay of effective anti-crisis measures).

**Key-words**: economic and financial crisis, macroeconomic indicators, credit, non-government, economic growth resumption in Romania

JEL Classification: G01, G15

#### I. Introduction

In the middle of 2008, when the current financial crisis had begun to be felt in many developed countries of the world, like the U.S., but also with the European countries as Germany, Britain, France, Spain, Italy, etc., Romania is still considered far from these influences, and after some even immune to the effects of the crisis.

Until the outbreak of financial crisis, the Romanian economy passed several years of sustained economic growth with annual growth of 6-7 and even 8%, but in the same time with background accumulation of huge external deficit (over 15% of GDP) and a foreign debt high 56.42 billion euros at end 2008, of which 43% short term.

Contracting by Romania of a huge loan from the International Monetary Fund (IMF), European Commission, World Bank and European Bank for Research and Development in the amount of 19.95 billion euros in the spring of 2009, it was considered the seat belt to save the country from the current financial crisis which is increasingly the globalization. Moreover, it is included in its nets not only financial markets, but also production, trade, labor.

#### II. Macroeconomic situation

Romania being part of European financial and economic system and world, could not escape the effects of the crisis that began to manifest with virulence in late

2008 and fully in 2009, with a certain gap with developed countries affected by crisis even in 2007.

Besides contagiunea determined by foreign markets, the Romanian economy has been affected by the influence of internal factors (high current account deficit to be financed, high external debt, mainly short-term delay of effective anti-crisis measures, etc..) And a very specific general and presidential elections that have generated a series of populist measures with dramatic effects on the balance of the country's economic finanicar.

## II.1. Macroeconomic indicators

Thus, macroeconomic indicators have suffered a strong deterioration in mid-2009 compared to June 2008.

Table 1

	Explanation	Variation percentage		
		January 2009/	6 months 2009/	
		January 2008	6 months 2008	
1.	Industrial production	-5.90	-10.80	
2.	Labor productivity in	12.70	3.70	
	industry			
3.	Retail Trade	-16.30	-9.70	
4.	Foreign Trade			
	- export	-17.50	-20.30	
	– import	-38.00	-36.60	
5.	Market services provided to the population	-22.20	-13.40	
6.	Average monthly earning			
	– gross	8.30	12.70	
	- net	2.30	5.90	
7.	Consumer prices of population	5.86	6.42	
8.	Exchange rate (RON/EUR)	-13.20	-13.20	

#### **Macroeconomic indicators**

Source: NBR, Monthly Bulletin, June 2009

With the exception of labor productivity, growth recorded mainly to the reduction in the number of employees thanks to the removal job, which made the unemployment rate to rise by a further 0.3% compared to May, reaching 6.3% at June 30, 2009, to review all macroeconomic indicators are registered negative evolutions.

A special mention for earning that rose in the first half of 2009, compared to the same period the previous year (+12.7%), as a result of populist measures taken by authorities during the election. In correlation with labor productivity, increase gross earning (12.7%) was almost 3.5 times higher than labor productivity (3.7%) in the first half of 2009 compared to the corresponding period of previous year.

## II.2. Specific risks for Romania

In this context, the economic environment and international financial crisis, amplified by the negative effect of specific national factors influenced dramatically and will continue to adversely affect economic and financial situation of the country by:

– Difficulties in financing the current account deficit;

 Major issues in reimbursement of foreign debt (about 25 billion short term only) to which is added to the loan rates reached with the IMF in EC which starts in the spring of 2014;

- Contraction of foreign markets;

- Entry into the crisis of liquidity and solvency of a growing number of economic operators;

- Cease to halt access to credit;

- Difficulty in maintaining the exchange rate of national currency against the euro, by changing the destination of the second tranche of the loan from the IMF and the EC to support the pension fund and insurance payroll in the public system.

A recent IMF report on the evaluation stage of the Romanian economy presents a serious deterioration in the evolution of GDP in 2009 from a decline of about 4% estimated in April needle to an approximately 8% - 8.5% in September 2009.

#### **II.3. External Comparisons**

Compared with its neighbors in the region, Romania is the champion at the 2009 drop in GDP (-8.5%), inflation (+5.8%), inregisteaza Among the highest rates of current account deficit (-7.4%) and final deficit (-5.1%) in gross domestic product, but looks good in the share of external debt to gross domestic product with only 18.2% compared to Hungary (80.8%), Poland (53.6%), with the mention that in the case of Romania, foreign debt short term is a problem, as is 43% of total external debt. Thus:

Table 2

		2			
	Explanation	Forecast 2009			
		Hungary	Romania	Bulgaria	Poland
1.	Gross domestic product	-6.30	-4.00*	-1.60	-1.40
2.	Gross fixed capital	-10.60	-6.50	-12.70	-6.20
3.	Unemployment	9.50	8.00	7.30	9.90
4.	Inflation	4.40	5.80	3.90	2.60
5.	Account Deficit/GDP	-5.00	-7.40	-18.80	-4.70
6.	Public Debt/ GDP	80.80	18.20	16.00	53.60
7.	Final Deficit/GDP	-3.40	-5.10	-0.50	-6.60

Foreign debt short term

Source: European Commission, spring forecast, May 2009

\* September 2009 IMF assessment of the Romanian economy indicates a decline in GDP of about 8-8.5%.

#### III. Credit to economy

In the years preceding the outbreak of the current global financial and economic crisis, a registered non-government credit which has accelerated dynamics found in annual economic growth rates among the highest among European countries. Thus:

## III.1. Evolution of non-government credit

Table 3

		<ul> <li>millions lei –</li> </ul>	
	Non-government credit		
Period	Amount	% growth from one	
		year to another	
2005	59800.30	100.00	
2006	92378.50	154.50	
2007	148180.70	160.40	
2008	198055.70	133.70	

#### **Evolution of non-government credit**

In this case, economic growth of 6-7% and even 8% of GDP by Romania in the years preceding the outbreak of global financial and economic crisis was possible due to a strong expansion of credit in the economy which recorded nominal growth rates of 54.50% in 2006 from 2005, of 60.40% in 2007 compared with 2006 and 33.70% in 2008 compared to 2007.

Basically, the end of 2008, mass non-government credit registered a growth of over 3.3 times compared to the end of 2005. Unfortunately, since the second half of 2008, when the effects of economic and financial crisis began to be felt in Romania, the financial system has not provided the increase "uid"unctionality needed economic mechanism, dynamic non-government credit to June 30, 2009 compared to June 30, 2008 presenting the following:

Table 4

milliona lai

		- m	111100 le1 –
Explanation	June 2008	June 2009	%
Total loans, which:	178180.30	198056.30	111.20
In lei thereof:	80043.90	80929.00	101.10
- Short-term	25183.80	25287.90	100.40
– Medium term	21113.00	20979.80	99.40
- Long-term	33747.10	34661.30	102.70
In currency (equivalent in lei) thereof:	98136.20	117127.40	119.40
– Short-term	17374.10	20236.20	116.50
– Medium term	18220.30	20303.40	111.40
- Long-term	62541.80	76587.80	122.40

#### The dynamic non-government credit

Source: NBR, Monthly Bulletin, June 2009

Therefore, the annual growth rate of 50%-60% in the years preceding the economic and financial crisis, in this year of crisis from Romania (June 2008-June 2009), non-government credit increased only 11.20% of which not to lei by 1.1% and at the foreign currency (expressed in lei) with 19.40%.

If you adjust loans in foreign currency (expressed in lei) with exchange rate depreciation of domestic currency against the euro, which in the same period was 13.20%, results that in fact the real growth of forex loans and overall credit was more reduced as:

Exchange rate depreciation

Table 5

		– millio	ons lei –
Explanation	June 2008	June 2009	%
Total credit-government:	178180.30	184398.40	103.50
of which			
– in lei	80043.90	80929.00	101.10
– expressed in foreign	98136.20	103469.40	105.40
currencies during the			
June 30, 2008			

## III.2. Situation loans granted to households

Lack of credit in the economy was reflected negatively on both companies were forced to restrict/close work, but also on households who have suffered so to finance their consumption needs but also for the investment (houses, land etc.).

Between June 2008-June 2009, loans to households and total population by currency, have evolved as follows:

Table 6

millions lei –

			- millions lei $-$	
Loans to households population				
Period	Total	of which:		
		lei	Foreign currencies	
			(equivalent in lei)	
June 2008	86918.20	38045.00	48873.20	
July 2008	87822.70	39297.90	48524.80	
August 2008	90558.60	40249.40	50309.20	
September 2008	96047.40	41016.60	55030.80	
October 2008	95765.20	41377.90	54387.30	
November 2008	96825.20	41299.70	55525.50	
December 2008	99204.70	40940.90	58263.80	
January 2009	102975.30	40585.90	62389.40	
February 2009	102889.10	40383.70	62505.40	
March 2009	101226.60	40091.40	61135.20	
April 2009	100176.30	40017.60	60158.70	
May 2009	99900.00	40034.70	59865.30	
June 2009	99587.10	39606.70	59980.40	

Source: NBR, Monthly Bulletin, June 2009

Basically, the figures show that the population has suffered most from lack of credit, whose nominal constant dropped from January 2009 until June 2009 inclusive. If you adjust loans to the population of the depreciation in currency exchange rate of

the leu against the euro (-5.5, from 3.98 lei/euro on December 31, 2008 at 4.20 lei/euro at June 30 pin), it follows that in fact the decrease of population lending was more dramatic. Thus:

## Table 7

93.70

97.60

91.10

%

- millions lei -

June 2009

96460.10

39606.70

56853.40

## **Population lending**

January 2009

102975.30

40585.90

62389.40

Sub-lending of economy in general and especially of the population was
reflected practically in all sectors of loans destination: housing, consumption and other
purposes as:

- millions lei -

Table 8

Loans to households in which:				
Period	Dwellings	Other purposes	Total	Consumption
June 2008	65521.20	17328.10	4068.90	86918.20
July 2008	66583.10	16957.50	4282.10	87822.70
August 2008	68328.30	17603.80	4626.60	90558.60
September 2008	72045.30	19085.80	4916.30	96047.40
October 2008	71960.70	19142.80	4661.60	95765.20
November 2008	72564.30	19730.10	4530.80	96825.20
December 2008	73694.60	20898.60	4611.50	99204.70
January 2009	75793.50	22349.60	4832.20	102975.30
February 2009	75999.90	22029.20	4860.00	102889.10
March 2009	74787.90	21655.70	4783.00	101226.60
April 2009	73924.70	21506.90	4744.70	100176.30
May 2009	74330.70	22133.00	3436.30	99900.00
June 2009	73901.00	22283.70	3402.30	99587.10

#### **III.3. Required reserves**

Credit granted to

households Of which: – in lei

- in foreign

(equivalent lei)

Although, last year (June 2008-June 2009) table credit in the economy recorded lower growth rates and even contraction in some sectors (destinations), the monetary authorities continued to maintain very high rates of reserve requirements, damage as the real economy important sources of funding, as follows:

Table 9

Reserve requirements					
		(%)			
Period	The period of mi	The period of minimum reserve ratios			
	in lei	in foreign currency			
June 2008	20	40			
July 2008	20	40			
August 2008	20	40			
September 2008	20	40			
October 2008	20	40			
November 2008	18	40			
December 2008	18	40			
January 2009	18	40			
February 2009	18	40			
March 2009	18	40			
April 2009	18	40			
May 2009	18	40			
June 2009	18	40			

#### **Reserve requirements**

Measures to reduce/cancel the reserve requirements have been taken much later, in the second half of 2009, when the economy was already affected by lack of financing.

## III.4. The cost of credit

Financing the economy through credit was not only insufficient, but has become very expensive on the one hand, due to the increasing cost of funds, and on the other hand, because of reluctance of banks to grant loans in May, and when given are the interest very high, although it is known that in conditions of crisis economic recovery can be achieved only through adequate financing, the costs (interest) as low.





Fig. 1. Interest rates applied by monetary financial institutions in loans and deposits

#### IV. Premises of the resumption of economic growth

Financial and economic decline is a hard reality of Romania, persisting uncertainty regarding date of resumption of economic growth.

Assessment of September a.c. IMF show that for 2010 is likely to halt the decline in production and even registering a slight economic growth (0.3 - 0.5% GDP growth rate).

Established to halt the decline and resume growth in Romania are:

- Growth of public investments, particularly in infrastructure, tourism, agriculture (farming).

- Continuation of public and private investments in construction and housing market stabilization, which, through dynamic may give weight in the economy in the economic and financial stability.

- End of the electoral cycle by completing the presidential election (November 22, 2009), reformulation Romania's political area and develop a budget based on 2010 and the next, which was safe to return to a healthy development of economy and restore fundamental equilibrium (investment/consumption, productivity/wages, export/import, income/expenditure budget, etc.).

- Resume lending economy through effective measures of facilitating access to credit to businesses and householders population at reasonable interest rates.

– Intensifying efforts to attract European funding or grants in favorable benefits for Romania during the EU post-adherence opportunity ending in 2013.

– Maintenance, including tax levers, firms able to take the effort to unfreeze the foreign markets (Germany, France) through export controls.

- Strengthening prudential measures for financial markets, including by creating a unique and independent body to oversee both the banking market, capital market and that the insurance model BaFin (Germany), Banking Comision (France), FSI (UK).

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# II. ABORDĂRI ECONOMETRICE ALE UNOR PROCESE ECONOMICE COMPLEXE

## LEAST DEVIANCE ESTIMATION BOOTSTRAP TECHNIQUES APPLIED TO AGGREGATED PRODUCTION ELASTICITY COEFFICIENTS. EMPIRICAL EVIDENCE FROM THE PALESTINIAN INDUSTRY

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#### Abstract

The aim of this paper is to provide production elasticity estimates for the aggregate production functions of developing countries. We use aggregate data concerning the production sectors from two Middle Eastern countries. Unfortunately, the available data are quite of bad quality (small samples with high variability and time inconsistency), implying that the traditional OLS-estimates are biased. We propose an estimation procedure based on the bootstrap least deviance technique and find that the estimated elasticity is both significant and robust. For time-saving purposes, we repeat estimates for three available cross-sections of 71 manufacturing aggregates, and obtain increasing returns to scale for the manufacturing sector, which are supposed to reflect the imperfect competition of the market and/or the existence of high set-up or sunk costs, that are mandatory in order to produce at all.

**Key-words:** aggregate elasticity estimation, bootstrap LAD estimator, production elasticity, developing countries

#### JEL Classification: C32, C10

## Literature review

The Semiparametric approach of Least Deviance Estimator is already found in the studies of Butler, McDonald, Nelson and White (1990) and McDonald and White (1993)<sup>1</sup>. This technique historically precedes the Ordinary Least Squares family of estimators (OLS) and was successfully applied to the estimation of production functions in small samples with high variability for the transportation industry in US, by Eellner & Revankar (1970), to show that economies of scale vary with output. They demonstrated therefore that bootstrap LAD estimates were unbiased.

In this paper, we found that the same conclusion applies to production estimates from the Palestinian manufacturing sector. We inspect on simple Cobb-Douglas production aggregates and obtain both statistically significant and

<sup>&</sup>lt;sup>1</sup> For a technical implementation of the LAD estimator, see Hardle (1970).

robust elasticity for output with respect to labor and respectively intermediary consumption in the manufacturing sector.

Production elasticity for the Palestinian *stone* industry are available for the year 2003 and they are OLS-estimates of a CES-production function proposed by B. Makhool<sup>2</sup>, whereas Cobb-Douglas production functions of the Palestinian *stone cutting* industry are dated back in 1997 (the same author). Results of the study revealed that the stone industry, in general, was characterized by decreasing returns to scale, while small firms enjoyed constant returns to scale. Also, it was found that the output elasticity with respect to labor was greater than the output elasticity with respect to capital. In addition, a significant statistical difference at 1% significance level was found between large and small firms in the sense that large firms faced a low elasticity of substitution between labor and capital, while small firms had higher possibilities of substituting labor for capital.

## Data description

## The economic background

The manufacturing sector in WB&G has constantly decreased its contribution to GDP since 1994 (from 22% in 1994 to around 12% in 2004) and gave more and more space to a service-based economy (which on the contrary to manufacturing, increased its contribution from 53% to 72% in the total GDP<sup>3</sup>). The failure in establishing growth patterns for the Palestinian private sector, in particularly the manufacturing industry, are also caused by fundamental changes in the economy. The local industry developed to produce low value-labor intensive goods for the Palestinian and Israeli domestic markets. Often, this was done by collections of small Palestinian enterprises serving as sub-contractors for larger Israeli firms who designed and marketed the goods<sup>4</sup>. Also, between 1994 and 2004 the manufacturing sector's share in total employment fell from an estimated 14% to 12%.

From the microeconomic point of view, we expect to obtain increasing production returns to scale which may find the explanation in two main causes:

- they reflect the imperfect competition on the market (typically oligopolistic) and/or
- the fact that any feasible input-output vector may be scaled-up (or in other words, units of a good can be produced at a constant cost of input, given that fixed set-up costs are required in order to produce at all).

## Datasets

We use three cross section datasets for the years 2000, 2002 and 2006 containing 71 aggregates at the subsector level of the manufacturing in West Bank and Gaza (source: Paltrade & PCBS). We present a summarizing distribution of Gross Value Added (output) over these industries grouped in 23 aggregates (of which we present

<sup>&</sup>lt;sup>2</sup> Basim Makhool, 2003 (see the References part for a detailed citation).

<sup>&</sup>lt;sup>3</sup> Source: PCBS, 2006 National Accounts.

 $<sup>^4</sup>$  According to the "Investment climate assessment 2007 Report No. 39109 – GZ" – World Bank Organization.

the 10 most relevant ones – situation in 2006). Remark that not necessarily the most productive sectors are the ones that absorb most resources (labor/intermediary goods): the two extreme cases are the *manufacturing of tobacco* (resource-intensive and less productive) and *manufacturing of metal products* (less resource intensive and highly productive).



Since the data available are often declared inconsistently across the years, for time-saving purposes, we do not use a panel dataset, but rather select three crosssections: one for 2000, one for 2002 and a third one for 2006, and compare the results. Therefore, the main issue that arises when it comes to estimate elasticity is the small sample problem – there are on average 71 industries by period – characterized by a high variability of data between aggregates and across time. In this case, asymptotic approximations need not be very good, especially with small sample sizes and unusual features of the population distribution (i.e. thick-tailed distribution of dependent variable across data). Therefore, simulation methods, while always special, can help determine how well the asymptotic approximations work, whereas resembling methods can allow us to improve on the asymptotic distribution approximations. They also may simplify the calculation of standard errors, confidence intervals, and p-values for test statistics, and we can get a good idea of the amount of finite-sample bias in the estimation method. In addition, is well known from the literature that under certain assumptions and for certain statistics, resembling methods can provide quantifiable improvements to the usual asymptotics.

In the following tables, we present summarizing statistics of the three datasets, in which variables of the form  $l_variableN$  stand for the logarithm transform of the value *variable/number of enterprises* and we use them for estimation purposes.

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
year	64	2000	0	2000	2000
id	64	46.09375	28.4949	1	98
vad	38	13012.63	21766.66	82.73149	83799.2
icons	38	16206.55	26569.38	116.0025	128807.9
output	38	29219.18	44889.19	240.3014	179217.2
wages	38	4732.529	9976.636	25.00681	53700.54
noempl	38	1529	1529	3778.211	22050
noent	38	227.9763	480.6635	11.65098	2078.409
exp	38	4965.079	10923.88	0	62476.32
local	38	21032.89	35605.02	29.01351	169978.9
finprod	38	26280.39	41472.91	29.01351	178281
l_vadn	38	3.910689	1.406147	1.393999	7.938782
l_laborn	38	1.791587	.8962016	1.803845	3.977748
l_iconsn	38	4.142978	1.603312	1.423005	7.22785

*Year 2000* 

Year 2002

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
year	89	2002	0	2002	2002
id	89	47.52809	27.51986	1	94
vad	51	8889.166	12591.48	-3699.396	57600.46
icons	51	15660.98	25748.49	52.21857	128807.9
output	51	24550.15	35308.46	237.5958	147780
wages	51	3382.55	5885.408	10.21638	33978.19
noempl	51	1340.238	2692.835	30.72759	16837.19
noent	51	282.0943	563.8627	10.61408	2886.372
exp	51	2776.191	6080.892	0	33797.75

local	51	19881.51	30240.98	68.10924	147739.8
finprod	51	22875.8	33918.38	69.30115	147770.9
l_vadn	49	3.605849	1.337986	1.393999	7.938782
l_laborn	51	1.693411	.7268931	.6546682	4.300247
l_iconsn	51	3.888265	1.529946	.9065158	8.283315
	· · · · · · · · · · · · · · · · · · ·		Year 2006		
Variable	Obs.	Mean	Std. Dev.	Min.	Max.
id	55	45.45455	27.08069	1	92
vad	47	9211.788	24010.62	27.50754	139969.7
icons	47	11195.92	24101.78	28.05374	113765
output	47	20407.71	45796.55	81.86168	239352
wages	47	2002.3	4674.008	6.4207	22944.48
noempl	47	665.45	1630.676	11	8802.271
noent	47	109.0168	251.2563	4	1016.277
exp	47	1665.41	5891.217	0	39193.18
local	47	17531.98	41812.1	3.3675	233788.2
finprod	47	19246.94	44987.16	3.2777	237940.1
year	55	2006	0	2006	2006
l_vadn	47	4.049711	1.365381	1.928166	8.66451
l_iconsn	47	4.352924	1.56788	1.542363	7.524533
l_laborn	47	1.860212	.7530818	.4519851	4.318272

Remark that the average number of firms by industry decreases by more than a half between 2000 and 2006 (from 227 in 2000 to 109 in 2006). This could be an effect of some administrative barriers (i.e. more rigid regulations for firm-creating bureaucracy), which may lead to an oligopolistic market structure particularly accentuated, given that the market power is already concentrated in the hands of few powerful and rich owners. Another effect may be the high barriers to enter on the manufacturing industry market, due to existing high levels of fixed set-up costs. Also, the average number of employees by industry decreased dramatically, from

1529/sector in 2000 to an average of 665 in 2006. This value may represent the cause of a twofold effect:

- the *follow-up effect*, which is due to the presence of a smaller number of companies on the market in 2006 with respect to 2000, which are not able to absorb as much resources as before; and
- the *migration* effect, which is due to the fact that the non-tradable sectors are the principal labor-donors in the West Bank (Ramallah, in particular) and they absorbed resources, which initially were employed in manufacturing sectors.

We consider that two additional remarks are important at this point:

- there is a relatively important variability of data across periods (*time variability*);
- the high variability in productivity among industrial sectors (*sector-variability*) announces a thick-tailed distribution of prediction error terms (see the graphic below for 2006 distribution of log(value-added) across industries).



Log-Value Added distribution across industries in 2006

We also expect a linearly positive effect of labor and intermediary consumption on the industry output in each period, as Value added distributions in the three samples suggest (see the following graphics).




Panel 1. Value-added distribution with respect to Labor employment and Intermediary consumption in WB&G

#### The model

#### Notation

The model to be estimated is the following log-log Cobb-Douglas production aggregate:

$$\ln\left(\frac{y_i}{N_i}\right) = \beta_0 + \beta_1 \ln\left(\frac{C_i}{N_i}\right) + \beta_2 \ln\left(\frac{L_i}{N_i}\right) + \varepsilon_i$$
  

$$\Leftrightarrow \qquad (0.1)$$
  

$$\overline{P}_v vadn = \beta_0 + \beta_1 \cdot l_v iconsn + \beta_2 \cdot l_v laborn + \varepsilon_i$$

in which i=1...n are the industries (corresponding to *n* observations in each cross section dataset),  $y_i$  is the output of each industry (value added),  $N_i$  is the number of firms for each industry *i*,  $C_i$  is the intermediate consumption and  $L_i$  is the value of labor employed in industry i (equal to the number of employees multiplied by the total number of hours worked in a month and normalized by the number of firms).

#### Some remarks on LDA and Bootstrap estimations

In our case, we found bootstrap technique particularly useful in obtaining estimates of the standard errors of quintile-regression coefficients. *Stata* software performs quintile and obtains the standard errors using the method suggested by Koenker and Bassett (1978,1982). Rogers (1992) reports that these standard errors are satisfactory in the *homoscedastic* case but that they appear to *be understated* in the presence of *heteroscedastic* errors. We follow the traditional notation used in the econometric theory<sup>5</sup>, therefore the OLS estimates are as usual, while we provide a refreshment for LAD estimates, which are the solution to the minimization problem:

$$\min_{b_0} \sum_{i=1}^{n} |y_i - x_i b_0| \tag{0.2}$$

which is a special case of the quintile regression:

$$\Pr{ob[y_i \le x_i'\beta]} = q \tag{0.3}$$

In particular, LAD estimation corresponds to the median regression (i.e. q=0.5). Results suggest an estimation for the asymptotic covariance's matrix of the quintile regression:

$$Est.Asy.Var[b_q] = (X'X)^{-1} XDX (X'X)^{-1}$$
<sup>(6)</sup>

in which D is the diagonal matrix containing the weights associated to different variances  $d_i$  defined as following:

<sup>&</sup>lt;sup>5</sup> See Greene, *Econometric Analysis for a summary discussion on LDA method*.

<sup>&</sup>lt;sup>6</sup> See Koenker and Bassett (1978,1982), Huber and Rogers (1993) that have analysed this regression and found the estimator for the asymptotic covariance matrix of the quintile regression estimator.

$$\begin{cases} d_{i} = \left[\frac{q}{f(0)}\right]^{2} if : y_{i} - x_{i}\beta > 0, and \\ d_{i} = \left[\frac{1-q}{f(0)}\right]^{2}, otherwise. \end{cases}$$

$$(0.4)$$

in which f(0) is the true distribution of disturbances. Now we obtain an estimate for f(0), supposing that it is normally distributed with variance  $\sigma^2$ :

$$d_{i} = \sigma^{2} \frac{\pi}{2} (X'X)^{-1}$$
(0.5)

For small sample estimates, which is in our case, estimation of f(0) is computed as:

$$\mathcal{F}(0) = \frac{1}{n} \sum_{i=1}^{n} \frac{1}{h} K \left[ \frac{e_i}{h} \right]$$
(0.6)

in which *h* is the bandwidth,  $e_i = x_i - x$  represents the set of residuals and *K[.]* is a weighting, or the *kernel function*. We used the software *Stata Version 10.0*, which assumes the following forms for *h* and *K*:

$$h = \frac{0.9s}{n^{1/5}} \tag{0.7}$$
$$K[.] = Logit$$

Bootstrap estimator for the asymptotic covariance matrix is known as:

$$Est.Var[b_{LAD}] = \frac{1}{R} \sum_{r=1}^{K} (b_{LAD}^{r} - b_{LAD}) (b_{LAD}^{r} - b_{LAD})'$$
(0.8)

where r=1...R are the number of replications chosen,  $b_{LAD}$  is the LAD estimator of  $\beta$  based on a sample of n observations drawn from the original dataset. This estimator is robust to the fact that some marginal observations may exert a high influence on sample's estimates, due to the fact that  $b_{LAD}$  penalizes those observations, which tend to *matter mostly* in the sample, by the means of their variance's weighting. The standardized LS residuals would otherwise suggest different results, according to the exclusion or not of the *distorting observations* from the sample.

### Results

We first present OLS results and compare them with LSD results for the Palestinian economy in the three periods. In the appendix, we also include auxiliary OLS estimates for the Israeli manufacturing sector. Unfortunately, these results have a low degree of comparability due to incongruencies in data registration and industry nomenclature, which is changing from one economy to another. We also provide (in the appendix) OLS estimates for 5 periods (years).

Furthermore, OLS estimates on log-technology intercept (the constant term), intermediary consumption and labor coefficients are provided for the complete datasets as well as for the "corrected" datasets for the three periods 2000, 2002 and 2006 (from which we excluded the industries which caused distortions in the

results<sup>7</sup>). Most coefficients are significant for all three periods (except for the intermediary). Consequently, we estimate a median regression of production (value added) on intermediary consumption and labor input for the same period. We obtain LAD estimates along with Koenker–Bassett standard errors, which are invariant for the two types of dataset (complete vs. corrected).

Table 1

Dependent variable: <i>l_vadn</i> Independent variables:	OLS Complete dataset	ESTIMATES Dataset without 2 <sup>a')</sup> observations:	LAD ESTIMATES Bootstrap (500 replications)	COMPLETE DATASET Conf. Interval (95% Norm. based)
l_iconsn l laborn	$\begin{array}{c} 0.47^{***} & (0.07)^{a} \\ 0.78^{***} & (0.16) \end{array}$	$\begin{array}{c} 0.49^{***} (0.06)^{a} \\ 0.77^{***} (0.13) \end{array}$	$0.47^{***}$ (0.06) $0.64^{***}$ (0.18)	[0.351; 0.607]
Const	$\begin{array}{ccc} 0.78 & (0.16) \\ 0.52^* & (0.28) \end{array}$	$\begin{array}{c} 0.77^{+++} (0.13) \\ 0.54^{**} (0.23) \end{array}$	0.64 (0.18) 0.76 (0.56)	[0.269; 1.011]
R-squared	0.79	0.85	MaxLhood: - 33258.41	-
***significant at 1% level	**significant at 5% level	*significant at 10% level	a) in parenthesis: Standard Errors	a') missing obs.: Man. of diary prod; Man. of rubber; Man. other texts

# OLS vs. LAD estimates for output in 2006 manufacturing industries of WB&G

Table 2

# OLS vs. LAD estimates for output in 2002 manufacturing industries of WB&G

Dependent variable: <i>l_vadn</i>	OLS Complete dataset	ESTIMATES Dataset without 2 <sup>b')</sup> observations	LAD ESTIMATES <i>Bootstrap (500</i>	COMPLETE DATAS Conf. Interval
Independent variables:			replications)	(95% Norm. based)
l_iconsn	$0.30^{***}$ (0.10) <sup>b)</sup>	$0.33^{***} (0.06)^{a}$	0.35* (0.13)	[0.1014; 0.6117]
l_laborn	1.05**** (0.21)	1.04*** (0.13)	0.92*** (0.26)	[0.4105; 1.4446]
Const	0.62*** (0.24)	0.54** (0.23)	-	-
R-squared	0.79	0.85	-	-
***significant at 1% level	**significant at 5% level	*significant at 10% level	b) in parenthesis: Standard Errors	b') missing obs.: Man. of vegetable & animal oil; Man. of grain mill prod.; Man. of soap and detergents

<sup>&</sup>lt;sup>7</sup> See the appendix for a scatter-plot representation of the prediction errors by industry.

Dependent variable: <u>l_vadn</u> Independent variables:	OLS Complete dataset	ESTIMATES: Dataset without 4 <sup>c)</sup> observations	LAD ESTIMATES Bootstrap (500 replications)	COMPLETE DATAS Conf. Interval (95% Norm. based)
l_iconsn	$0.32^{**}$ (0.16) <sup>c)</sup>	0.27** (0.12)	0.35*(0.25)	[-0.1460; 0.8573]
l_laborn	0.79*** (0.28)	0.87***(0.21)	0.79*** (0.36)	[0.0732; 1.5219]
Const	1.29*** (0.29)	1.31***(0.22)	-	-
R-squared	0.79	0.85	-	-
***significant at 1% level	**significant at 5% level	*significant at 10% level	c) in parenthesis: Standard Errors	c') missing obs.: Man. of soft drink & mineral water; Manufacturing of articles of paper;

OLS vs. LAD estimates for output in 2000 manufacturing industries of WB&G

First of all, remark that distortion of OLS coefficients is worst in the case of the year 2000 (variations between 8%-20% for OLS estimates when we rely on the whole dataset compared with estimates done on the dataset without the two observations: manufacturing of soft drink and mineral water and manufacturing of articles of paper). By difference, the bootstrapped LAD coefficients are invariant from one dataset to another (therefore we only present estimations for the complete dataset). We also remark that throughout estimated coefficients suggest a strong reliability of industry value added on labor resources (coefficients associated to the normalized log-labor are 0.79 in 2000 and 0.92 in 2002).

# Conclusions

We presented a method of estimating robust coefficients in a context of small sample size, with high variance in data, as is the case of the uncertain situation on the Palestinian manufacturing market. Nevertheless, this technique may be improved once we will have the appropriate data to test it: for instance, a more complete pooled dataset and eventually microdata tests must be taken into account. Also, explaining the impact of fixed capital on value added and eventually estimating cost functions in the future may be revealing. Precedent studies on the Palestinian market identified some factors that are responsible for low rates of increase in productivity for the Palestinian manufacturing sector. The first is related to low rate of embodied technical progress resulting from negative rate of growth in physical capital. The others are related to factors causing inefficiency and they are: the misallocation of factors of production among sectors and firms caused by various impediments to free mobility of persons and goods, and finally the inefficiency resulting from the existence of idle resources (both labor and capital). Also, the cost structure of the sector reveals that wages account for one fourth (25.3%) of the total cost. It concentrates on three types of cost constituting the remaining three fourth of total cost and calculates their growth rates, and a weighted average of which is usually found to be negative. It observes that, despite the negative rate, the level of certain non wage costs are relatively high (cost of utilities – electricity and water, the cost of transportation and the cost of clearing imported goods through Israeli customs).

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### APPENDICES



# A. Summary statistics



Output distribution on industrial sector 2006 (by industry id)

# **B.** Estimates and predictions



OLS Linear prediction of log value added (normalized by Ni)



Linear kernel density estimation of *l\_vadn* (vs. Normal density)



Linear prediction Errors after OLS, distribution by industry sectors (id)

# C. Auxiliary estimates

In this section, we report OLS estimates for 2000 and 2002 from the Israel manufacturing account<sup>8</sup>. In this case there is no reason to apply bootstrap techniques, given that linear prediction errors are normally distributed (there are no distortionary observations in the sample and coefficients are both unbiased and efficient). Remark that we obtain even in this case increasing returns to scale, which causes will be furthermore investigated in more detail (we do not have data on the sector firms number).

The estimated model is:

$$Y_{i} = A \cdot C_{i}^{\alpha_{1}} \cdot L_{i}^{\alpha_{2}}$$

$$\Leftrightarrow$$

$$\ln(Y) = \alpha_{0} + \alpha_{1} \ln(C_{i}) + \alpha_{2} \ln(L_{i})$$

$$\Leftrightarrow$$

$$F_{-}output = \alpha_{0} + \alpha_{1} \cdot l_{-}totin + \alpha_{2} \cdot l_{-}totlab + v_{i}$$

where, as before,  $l\_totin$  is the log-transform of the total input,  $l\_totlab$  is the log-transform of total labor input in the industry and  $\alpha_0$  is the technology constant term.

Table 4

Dependent variable: <i>l_out</i>	OLS	ESTIMATES
Independent variables:	With constant term	Without the constant term
L_totin	$0.30^{***}$ $(0.10)^{b}$	$0.33^{***} (0.06)^{a}$
L_totlab	1.05**** (0.21)	1.04*** (0.13)
Const	0.62*** (0.24)	0.54** (0.23)
R-squared	0.79	-
***significant at 1% level	**significant at 5% level	*significant at 10% level

OLS estimates for output in 2000 manufacturing industries of Israel

Table 5

OLS estimates for output in 2002 manufacturing industries of Israel

Dependent variable: <i>l_out</i> Independent variables:	OLS With constant term	ESTIMATES Without the constant term
l_totin	$0.30^{***}$ (0.10) <sup>b)</sup>	$0.33^{***} (0.06)^{a}$
l_totlab	1.05**** (0.21)	1.04**** (0.13)
Const	0.62*** (0.24)	0.54** (0.23)
R-squared	0.79	-
***significant at 1% level	**significant at 5% level	*significant at 10% level

<sup>&</sup>lt;sup>8</sup> *Source*: Central Bureau of Statistics of Israel.



Labor use/Intermediate consumption and Value Added in Israel

# MULTICOLLINEARITY IN APPLIED ECONOMICS RESEARCH AND THE BAYESIAN LINEAR REGRESSION

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#### Abstract

This article revises the popular issue of collinearity amongst explanatory variables in the context of a multiple linear regression analysis, particularly in empirical studies within social science related fields. Some important interpretations and explanations are highlighted from the econometrics literature with respect to the effects of multicollinearity on statistical inference, as well as the general shortcomings of the once fervent search for methods intended to detect and mitigate these effects. Consequently, it is argued and demonstrated through simulation how these views may be resolved against an alternative methodology by integrating a researcher's subjective information in a formal and systematic way through a Bayesian approach.

**Key-words:** *multiple linear regressions, classical normal regression, collinearity, multicollinearity, classical inference, subjective probability, Bayesian linear regression, prior information, posterior distributions, simulation* 

#### JEL Classification: C11, C12

# 1. Introduction

*Multicollinearity* is the exotic term accorded by econometricians to denote strong linear relationships (e.g. collinearity) amongst explanatory variables in a multiple linear regression analysis. Indeed, multicollinearity and its effects on statistical inference are well explored topics in econometric literature (for an extensive overview and analysis see Judge, Hill, Griffiths, Lütkepohl, & Lee, 1988, pp. 859-881). Why is collinearity in explanatory variables of such emphasized importance in econometrics? The fundamental problem for an economist engaged in an applied study, as for almost any other social science related statistical investigation for that matter, is that strong linear relationships amongst explanatory variables pose not only a formidable impedance on statistical inference regarding individual parameters, but a vastly elusive one at that; since economists rarely have direct control over the *data generating process*, they neither control the variation in explanatory variables, nor possess the option to obtain larger and/or different samples for their application.

From a statistics perspective, the common view projects that collinearity undermines accurate inference through its effect on the standard errors of individual parameter estimates: *ceteris paribus*, stronger collinearity proportionately increases standard errors, leads to wider confidence intervals, and lower test statistics (in absolute value) in significance tests.<sup>1</sup> Accordingly, when an empirical study yields a particular regression parameter *statistically insignificant* (i.e. *fails to reject* the appropriate hypothesis test), there are two reasons why this occurs: (i) the *true* value of the parameter of interest is in fact zero, or (ii) the data sample is not informative enough to conclusively distinguish this parameter as *statistically significantly* different from zero. Since the latter is strongly related to the degree of collinearity in explanatory variables, a researcher particularly interested in demonstrating a statistically significant relationship may, therefore, be motivated not only to employ techniques intended to alleviate (ii), but also to search for a reasonable justification of rejecting (i) informally by arguing that the failure of the significance test is more attributable to (ii) through the presence of multicollinearity.

Countless methods of "detecting" multicollinearity and containing its effects *ex post* have been proposed. In lieu of redesigning experiments that generate the data or obtaining larger samples (options which are most often simply not available to economists), the operational "solutions" in the literature almost exclusively focus on either the systematic inclusion/exclusion of certain explanatory variables, or the reconditioning of explanatory variables such as to induce orthogonality and yield lower degrees of collinearity according to some predetermined measure, depending on a particular case of interest.

It is important to emphasize, however, that all such detection mechanisms and ex post data-manipulation solutions have almost unilaterally fallen victim to a criticism that consistently resounds a common theme – they are all invariably *ad hoc*. That is, there is no formal argumentative justification, neither from the perspective of probability theory nor classical statistics inference, for the general use of such proposed solutions. Simply put, colliniarity in explanatory variables is one feature (among several) of the data that is directly related to the amount of information provided by the sample. When the sample is not informative enough to lead to decisive conclusions, the only potential "solution" to this is to introduce more information, but if the new information does not manifest itself in the form of additional/different data, such information can only be subjective. Insofar as classical statistics inference outright rejects subjective information, however, it is not surprising that the search for operational solutions within this framework has failed to produce generally accepted techniques to combat multicollinearity: techniques incorporating subjective information within an objectivist paradigm are indeed ad hoc.

The fundamental premise of the present paper is that there is in fact an appropriate place for subjective information in statistical inference. With this as a basis, it is argued that properly characterizing one's subjective information and formally incorporating it into an empirical study is indeed an effective way to obtain conclusive statistical inference where the data alone may not offer definitive answers.

<sup>&</sup>lt;sup>1</sup> This is, however, not generally true for linear combinations of parameters. For an example where multicollinearity leads to increased power in a hypothesis test on a sum of regression parameters see Goldberger, 1991, pp. 250-251.

This is generally accomplished by formulating subjective information in terms of *prior beliefs* and employing Bayesian methods to systematically integrate the prior beliefs with the information available in the data.

To support the proceeding argument, section 2 provides an overview of the multiple *Classical Normal Regression (CNR)* model with emphasis on the properties that are of particular interest to our discussion, as well as an in-depth, formal description of the effects of multicollinearity in this context. Accordingly, section 3 introduces the Bayesian linear regression and concludes with a simulation example that demonstrates how multicollinearity may be handled from the Bayesian perspective in empirical applications within an economic study.

## 2. Classical Normal Regression and Multicollinearity

Recall that the multiple linear regression postulates a linear relationship between a dependent variable y and k explanatory variables  $x_1, \dots, x_k$  of the form

$$y_{l} = \beta_{0} + \beta_{1} x_{l1} + \sum_{j=2}^{n} \beta_{j} x_{lj} + e_{l}$$
(1)

where in accordance with the assumptions of the CNR model,  $e_i \stackrel{\text{fid}}{\sim} \mathcal{N}(0, \sigma^2)$ . Without loss of generality, we designate  $\beta_1$  to be the parameter of interest and  $\beta_0, \beta_2, \dots, \beta_k$  and  $\sigma^2$  to be the *nuisance* parameters. Moreover, we will denote the Ordinary Least Squares (OLS) estimators of  $\beta_i$ , and  $\sigma^2$  with  $\beta_i$ , and  $\sigma^2$ , respectively.

In what follows, it is convenient to express the estimators employing the following matrix notation: let y be the  $n \times 1$  vector consisting of dependent variables  $y = (y_1 \cdots y_h)^t$ ,  $\hat{\beta}$  the  $(k + 1) \times 1$  vector  $(\hat{\beta}_0 \cdots \hat{\beta}_k)^t$ , and let X denote the  $n \times (k + 1)$  matrix with elements X(t, 1) = 1 and  $X(t, j) = x_{t,j-1}$  for t = 1, ..., n and t = 2, ..., k + 1. Furthermore, define  $Q = (X'X)^{-1}$ , with  $q_j$  representing the  $j^{th}$  row of Q and  $q_{jh}$  denoting the element of Q located at row j and column h. Then,

$$\mathscr{E}^{2} = \frac{(y - X\widehat{\beta})'(y - X\widehat{\beta})}{n - k - 1}$$
(2)

$$\hat{\beta}_1 = q_2 X' y \tag{3}$$

It is well known that  $\hat{\beta}_1$  and  $\hat{\sigma}^2$  are stochastically independent and marginally follow the distributions

$$(n - k - 1)\vartheta^2 / \sigma^2 \sim \chi^2 (n - k - 1)$$
(4)

$$\beta_1 \sim \mathcal{N}(\beta_1, \sigma^2 q_{22})$$
 (5)

By letting  $\mathbb{R}^{2}_{t,k}$  represent the *coefficient of determination* obtained from regressing  $x_{1}$  on all other explanatory variables  $x_{2}, \dots, x_{k}$ , and  $s_{n_{1}}^{2}$  the sample variance

of  $x_1$ , we may write  $q_{12} = \frac{1}{n(1-R_{1,k}^2/R_{1,k}^2)}$ . From this expression, the conventional view on the effect of multicollinearity is immediately evident: as collinearly between  $x_1$  and other explanatory variables increases,  $R_{1,k}^2 \rightarrow 1$  and for a fixed sample size  $var(\beta_1) \rightarrow \infty$ . Thus, multicollinearity is typically related to imprecise estimates, which is in turn, reflected in wide confidence intervals as well as weak *power* in hypothesis tests on individual parameters.

Because the computation of confidence intervals and individual test statistics related to the parameter  $\beta_1$  involve only the statistics  $\hat{\beta}_1$ ,  $\hat{\sigma}^2$ , and  $q_{22}$ , it is evident that the epicentre of the multicollinearity effect lies in the variance of the individual parameter estimate under consideration. Yet the reason that a higher degree of collinearity in explanatory variables increases the variance of parameter estimates (or equivalently, the standard errors) is that larger collinearity means *less variability* in the sample, and hence, less information. Less informative data, in turn, naturally leads to more imprecise (or less certain) estimates. The central question, however, is how much collinearity is too much?

To that end, it should be noted that the effect of collinearity on the variance of parameter estimates is significant *only* relative to the sample size. In fact, if the joint explanatory vector  $(x_{f1} - x_{f2})$  is independent across observations *i*, the effect (on the variance of an individual parameter estimate) of an *increase* in the sample size by one observation is equivalent to the effect of a *decrease* in the auxiliary coefficient of determination  $R_{f1}^{i}$  by  $\frac{1}{n}(1 - R_{f2}^{i})$ . Intuitively, both collinearity and sample size may be viewed as two very similar factors that determine the variability in the sample, which is the primary source of information offered by the data for statistical inference. Hence, the extent of either effect (high collinearity or low sample size) on individual parameter inference must be interpreted accordingly.

A succinct and elegant interpretation of the severity of collinearity is best offered by the esteemed econometrician Arthur S. Goldberger (Goldberger, 1991, p. 252):

To say that "standard errors are inflated by multicollinearity" is to suggest that they are artificially, or spuriously, large. But in fact they are appropriately large: the coefficient estimates actually would vary a lot from sample to sample. This may be regrettable but it is not spurious.

Note that from a purely classical objectivist perspective that obstinately refutes all prior information in statistical inference, this claim is undisputable. That is, one certainly cannot commit inferential exclusivity to a set of data, and upon receiving vague inference from that data, dismiss this vagueness on the grounds that the data is "poorly conditioned." Within the bonds of data exclusivity, one simply has no way of judging to what extent is a confidence interval "unreasonably" wide, since there exists no basis for comparison in succinctly defining "unreasonably." Indeed, a larger degree of collinearity reduces the ability of the data to identify the statistical significance of individual parameters, as does a lower sample size, lower sum of squared residuals in explanatory variables, etc., and without an ulterior source of information this data deficiency is incircumventable; different techniques of manipulating the data can only exploit more efficiently (or less efficiently) the variability already present, but will never induce more variability.

On the other hand, it is entirely reasonable to gauge the degree to which "standard errors are inflated" by admitting prior information because the prior belief provides exactly the basis for comparison lacking in a purely objectivist paradigm. More specifically, one may justifiably claim that a confidence interval is "too wide" if it extends into regions where *a priori* the researcher assigns a low degree of probability in the sense that the information offered by the data regarding the parameter of interest contradicts the prior information. In addition, the extent of this "contradiction" may be sensibly measured when the prior information is formalized in a probabilistic manner. It is in this sense that prior information provides an additional instrument, which in the presence of collinearity provides the crucial supplement to variability lacking in the data.

As a matter of fundamental principle, classical statistics inference offers little in terms of accommodation for subjective prior beliefs, and incorporating such beliefs in this paradigm, even when formulated probabilistically, is an awkward exercise at best. Bayesian methods, on the other hand, are well known to be the most efficient way of systematically combining prior information with the data in generating robust statistical inference (for introductory Bayesian texts, see (Koop, 2003) and (Gelman, Carlin, Stern, & Rubin, 2003)). To that end, we provide a simple demonstration of how prior information may be employed in alleviating adverse effects of collinearity within the Bayesian linear regression framework (Koop, 2003, pp. 15-85), (Gelman, Carlin, Stern, & Rubin, 2003, pp. 351-385), (Poirier, 1995, pp. 524-580).

# 3. Bayesian Linear Regression

In concept, Bayesian inference differs fundamentally from classical inference in the following sense: the focus of Bayesian inference is on what the parameter is *most likely to be*, whereas the most common concern of classical inference is on what the parameter is *definitely not*. Nevertheless, there are strong practical parallels between the two approaches. For example, given a particular significance level  $\alpha$  the  $(1 - \alpha)$ % *posterior probability interval* (commonly constructed as the *highest posterior density (HPD)* interval) bears a close resemblance to the  $(1 - \alpha)$ % *confidence interval* for either individual parameters or a combination of parameters, while the *mode* of the posterior distribution is comparable to the parameter *estimate* generated by classical techniques. More importantly, as the sample size increases, both the posterior modes and posterior probability intervals converge to the corresponding *Maximum Likelihood* estimates and confidence intervals (Poirier, 1995, pp. 306-307).

Note that the latter fact reflects exactly the previously outlined intuition regarding the effect of collinearity relative to sample size. Insofar as the effect of collinearity is most apparent in smaller samples and diminishes proportionately as n increases, it is crucial that whatever instrument is adapted to offset the effects of collinearity in smaller samples reduces in relative importance as the sample size

grows. Employing prior information through Bayesian techniques achieves just that: prior information is most influential on the posterior distribution, and hence most effective in combating collinearity, when n is small, while this influence is proportionately reduced as n increases and vanishes altogether as  $n \rightarrow \infty$ .

We illustrate the Bayesian approach in this context through a simple simulation example based on some well-known results of the Bayesian linear regression. Accordingly, suppose the model of interest is

$$y_{l} = \beta_{0} + \beta_{1} x_{l1} + \beta_{2} x_{l2} + e_{l}, \ e_{l} \stackrel{\text{fig}}{\sim} \mathcal{N}(0, \sigma^{2}) \tag{6}$$

and the *true* parameter values are

$$\beta_0 = 15$$
,  $\beta_1 = 1$ ,  $\beta_2 = -4$ ,  $\sigma^2 = 2$ 

Using a *pseudo-random* number generator, we simulate three data samples of  $\{y_1, x_{11}, x_{12}\}$  for n = 100, n = 1.000, and n = 10,000, respectively, and compare the inference one would obtain under the Bayesian framework to that of the classical framework. Since our primary interest lies in the influence of collinearity on statistical inference, the simulated data is generated to yield a relatively high sample correlation between the explanatory variables while each pair  $\{x_{11}, x_{12}\}$  is sampled independently. Moreover, the experiment is designed such that the correlation between  $x_1$  and  $x_2$  emits a stronger effect on the precision of the estimates of  $\beta_1$  relative to  $\beta_2$ . Summary statistics of the simulated datasets are reported in Table 1.

Table 1

	standard		correlation			
	n	average	deviation	У	$x_1$	$\boldsymbol{x_2}$
у	100	-70,424	2,411	1,000	-0.738	-0,840
$x_1$	100	5,033	0,258		1,000	0,891
$x_2$	100	22,596	0.554			1,000
у	1,000	-69.976	2,421	1.000	-0.703	-0.815
$x_1$	1,000	4,987	0.246		1.000	0.893
$x_2$	1,000	22.487	0.559			1.000
у	10,000	-70.007	2.470	1.000	-0.702	-0.811
$x_1$	10,000	5.003	0.247		1.000	0.893
$\boldsymbol{x_2}$	10,000	22.504	0.551			1.000

Simulation Data Summary Statistics

Now, consider how an econometrician might approach the task of estimating this model aware only of the descriptive properties of the data and operating under the assumption that the linear model is *correctly specified* as given in (6). Assume further that the econometrician is in possession of the smallest sample (n = 100) and is concerned that the *strength* of collinearity relative to this sample size may lead to uninterestingly vague inference regarding her primary parameters of interest  $\beta_1$  and  $\beta_2$ . On the other hand, her theoretical training endows her with some key intuition regarding the values of these parameters. She summarizes her beliefs as follows:

1) centered at  $\beta_1 = 2$ ,  $\beta_2 = -2$ ;

2) symmetric (i.e.  $\beta_1 = 0$  is just as likely as  $\beta_1 = 4$ , etc.);

3) highly unlikely that  $\beta_1 > 5$  or  $\beta_2 < -5$ .

These beliefs may be formalized in terms of *prior probability distributions* regarding  $\beta_1$  and  $\beta_2$ . Consequently, we shall proceed with a general form of the prior distribution given by

$$\beta_j \mid \sigma^2 \stackrel{\text{nid}}{\sim} \mathcal{N}\left(m_{j+1}, \sigma^2 v_{j+1,j+1}^2\right), \quad \sigma^2 \sim \mathcal{I} \mathcal{G}\left(\frac{g}{2}, \frac{h}{2}\right)$$
(7)

where  $\mathfrak{P}(\cdot)$  denotes the *inverse gamma distribution* (for example, see (Gelman, Carlin, Stern, & Rubin, 2003, pp. 573-577)). It can be shown that the implied *marginal* distribution of  $\beta_i$  is

$$\frac{\beta_j - m_{j+1}}{\nu_{j+1,j+1}\sqrt{h/g}} \sim \mathcal{E}(g) \tag{8}$$

where  $\mathbf{t}(g)$  student-t distribution with g degrees of freedom, and therefore, all three prior beliefs described above may be accommodated in (8) by appropriately setting the parameters  $\mathbf{m}_{j+1}$  and  $\mathbf{v}_{j+1,j+1}^{*}$ . Specifically, let  $\mathbf{m}_{2} = 2$ ,  $\mathbf{m}_{2} = -2$ ,  $\mathbf{v}_{2,2}^{*} = \mathbf{v}_{2,2}^{*} = \frac{3g}{k}/\Psi_{g}^{-1}(\mathbf{c})$ , where  $\Psi_{g}^{-1}(\mathbf{c})$  denotes the *cumulative distribution function* (*cdf*) of the student-t distribution with g degrees of freedom This ensures that the modes of the distributions for  $\beta_{1}$  and  $\beta_{2}$  are 2 and -2, respectively, while  $\Pr(\beta_{1} > 5) = \Pr(\beta_{2} \leq -5) = c$ , where c may be set to any reasonably small value, (e.g. the ensuing results are based on c = 0.01). The symmetry condition is, of course, automatically satisfied since the student-t distribution is naturally symmetric.

Note that Bayesian methods require that prior distributions be properly specified for *all* parameters. Since, the researcher is neither particularly interested in  $\beta_0$  and  $\sigma^2$ , nor does she posses very specific beliefs regarding their values, she may specify g, h,  $m_1$ , and  $v_{1,1}^2$  in such way that results in *mildly-informative* prior distributions for  $\beta_0$  and  $\sigma^2$ . Such mild beliefs, for example, are sufficiently represented with the following values: g = 2, h = 2,  $m_1 = 0$ ,  $v_{1,1}^2 = 100$ .

The essence of Bayesian inference is the focus on *updating* one's prior belief by the observed data sample. This, in turn, requires the construction of the *likelihood* function, which is operationally expressed as the distribution of the dependent variable conditional on the parameters:

$$\mathbf{y} \mid \boldsymbol{\beta}_{i} \, \boldsymbol{\sigma}^{2} \sim \mathcal{N} \left( \boldsymbol{X} \boldsymbol{\beta}_{i} \, \boldsymbol{\sigma}^{2} \boldsymbol{I}_{\mathbf{n}} \right) \tag{9}$$

where  $I_n$  denotes the  $n \times n$  *identity matrix*. Using (7) and (9), the *joint posterior* distribution is obtained through Bayes' Rule as

$$p(\boldsymbol{\beta}, \sigma^2 | \boldsymbol{y}) = \frac{p(\boldsymbol{\beta}, \sigma^2) \, p(\boldsymbol{y} | \boldsymbol{\beta}, \sigma^2)}{p(\boldsymbol{y})} \tag{10}$$

and contains all information necessary to carry out statistical inference on the parameters. While exact analytic expressions for posterior distributions are, in general, intractable (most often, posterior inference is based on *simulating* from the posterior distribution), the Bayesian linear regression model yields fairly simple and practically straightforward posteriors.

Consequently, define the following notation: let  $\mathbf{m} = (m_1 m_2 m_3)^t$ ,  $\mathbf{V} = \text{diag}\{(v_{1,1}^2, v_{2,2}^2, v_{3,3}^2)\}$  (i.e. a  $3 \times 3$  diagonal matrix), and

$$\begin{split} \hat{V} &= (V^{-1} + X'X)^{-1} \\ \hat{m} &= \hat{V}(V^{-1}m + X'v) \\ \hat{h} &= h + (v - X\hat{m})^{i}(v - X\hat{m}) + (\hat{m} - m)^{i}V^{-1}(\hat{m} - m) \\ \hat{g} &= g + n \end{split}$$
(11)

The joint posterior distribution of all model parameters in our case is then given by

$$\boldsymbol{\beta} \mid \boldsymbol{\sigma}^{2}, \boldsymbol{y} \sim \mathcal{N}\left(\boldsymbol{\hat{m}}, \boldsymbol{\sigma}^{2} \boldsymbol{\hat{V}}\right), \quad \boldsymbol{\sigma}^{2} \mid \boldsymbol{y} \sim \mathcal{I} \mathcal{G}\left(\frac{\boldsymbol{\hat{\sigma}}}{2}, \frac{\boldsymbol{\hat{n}}}{2}\right)$$
(12)

whereas the marginal posterior distributions of interest are obtained as

$$\frac{\beta_j - \hat{m}_{j+1}}{\vartheta_{j+1,j+1} \sqrt{h/g}} | \mathbf{y} \sim \mathcal{E}(g)$$
(13)

The marginal posterior distributions for each of the three cases (of varying sample size) under examination are plotted along with the corresponding prior distributions for the parameters  $\beta_1$  and  $\beta_2$  in Figure 1, Panels (A) and (B), respectively. More specifically, Panel (A) illustrates the evolution of the posterior distribution of  $\beta_1$  from the prior as the sample size grows while Panel (B) depicts the analogous phenomenon for  $\beta_2$ . The intuition regarding the influence of prior information on posterior inference as *n* increases is immediately evident. In both cases, with each increasing sample size, the posterior distribution *collapses* around the mode, which in turn, converges to the true parameter value.



Fig. 1. Prior and posterior distributions for  $\beta_1$  and  $\beta_2$ 

Observe, however, that the *collapsing* effect is distinctly slower for  $\beta_1$  in comparison to  $\beta_2$ . This is precisely a reflection of the influence of collinearity, which is by design more influential in the posterior distribution of  $\beta_1$  than that of  $\beta_2$ . In fact, a closer examination of Panel (A) reveals that the posterior of  $\beta_1$  for n = 100 is not noticeably less *dispersed* relative to its prior distribution, but rather only exhibits a shift in *location* towards the true value. A more illuminating interpretation of the latter may be formulated as follows: the posterior distribution of  $\beta_1$  at n = 100 reflects a *joint* effort on the part of the prior information and the data whereby the information from the data is incorporated into more accurately centering the posterior while the prior maintains the dispersion contained by substituting for the lack of certainty projected by highly collinear data with *a priori* information. As a result, even with a relatively low sample size (i.e. relative to the degree of correlation in the explanatory variables), posterior inference regarding  $\beta_1$  is sufficiently informative.

The important trade-off is, of course, that this gain in precision at n = 100 is strongly reliant on the prior beliefs, and hence, accentuates the importance of introducing prior information cautiously and in a manner that is convincingly justifiable. On the other hand, as the sample size grows and the information projected by the data gains in vigor, the need for the prior to contain the posterior precision diminishes and its role in determining the shape of the posterior distribution is marginalized. This is clearly reflected in Panel (A), by the progressive reduction of the posterior dispersion at n = 1,000 and n = 10,000 where the abundance of available observations overcomes the small sample deficiencies resulting from collinearity.

Table 2 and Table 3 further reinforce this intuition in a numerical comparison of Bayesian and classical inference that would be conventionally employed in interpreting the results for each of the three sample size levels. A quick overview of Table 3, which summarizes typical classical quantities of interest, reveals the diminishing effect of collinearity in increasing *n*: for both parameters  $\beta_1$  and  $\beta_2$ , as *n* increases regression estimates converge to the true values, standard errors decrease, confidence intervals shrink, and significance test statistics grow (in absolute value). Additionally, this phenomenon is accelerated for quantities related to  $\beta_2$ , in evident parallel with the influence of prior information on posterior distributions, and is likewise explained by the more prominent influence of collinearity on the precision of  $\beta_1$  estimates.

In this sense, the fact that the analogous posterior quantities detailed in Table 2 converge to their classical counterparts is unsurprising. In fact, at n = 10,000 the posterior modes of  $\beta_1$  and  $\beta_2$  (which for the student-t distribution are equivalent to the respective posterior means and medians) are nearly identical to the OLS estimates  $\hat{\beta}_1$  and  $\hat{\beta}_2$ , respectively. Similarly, posterior standard deviations are approximately equivalent to the standard errors, as are the 95% posterior probability intervals to the 95% confidence intervals.

Where the posterior inference differs most significantly from classical inference, however, is in terms of the parameter  $\beta_1$  for n = 100. Here, it is worthwhile to note that the 95% classical confidence interval extends over negative

values of  $\beta_1$ . Indeed, the limited sample is not informative enough to identify  $\beta_1$  as statistically significantly different from zero at the 5% significance level in the classical context (this is equivalently verified by the corresponding significance test failing to reject the null hypothesis  $H_0$ :  $\beta_1 = 0$  against  $H_A$ :  $\beta_1 \neq 0$ ). On the Bayesian side, Table 2 illustrates that with a sample of n = 100 observations, the *lower bound* of the 95% posterior probability interval is notably greater than the hypothesized null value  $\beta_1 = 0$ . In an analogous statement of significance, therefore, our Bayesian inference allows us to confidently proclaim  $\beta_1$  as statistically significantly different from zero, given our prior beliefs.<sup>2</sup>

Table 2

		mean /	standard	95% Probability Interval (HPD)		zero
	n	median / mode	deviation	lower bound	upper bound	outside interval
	100	1.113	0.510	0.111	2.115	yes
$\beta_1$	1,000	1.182	0.326	0.544	1.821	yes
	10,000	1.089	0.127	0.840	1.337	yes
	100	-3.747	0.279	-4.294	-3.200	yes
$\beta_2$	1,000	-3.951	0.147	-4.240	-3.662	yes
	10,000	-4.064	0.057	-4.175	-3.952	yes

**Bayesian/Posterior Inference** 

Table 3

#### **Classical/Frequentist Inference**

	n	estimate	standard	95% Confidence		significanc	e test
			deviation	Interval		£	significantly
				lower	upper		different
				bound	bound		from zero
$\beta_1$	100	0.743	1.135	-1.510	2.996	0.655	no
	1,000	1.201	0.399	0,419	1.983	3.013	yes
	10,000	1.090	0.130	0.836	1.345	8,392	yes
$\beta_2$	100	-3.965	0.528	-5.012	-2.917	-7.511	yes
	1,000	-4.001	0.175	-4.346	-3.657	-22,802	yes
	10,000	-4.069	0.058	-4.183	-3.955	-69.964	yes

<sup>&</sup>lt;sup>2</sup> In fact, the Bayesian paradigm defines a formal methodology of Bayesian Hypothesis Testing which is based on Bayesian Posterior Odds and is generally unrelated in terms of inference to the HPD interval approach demonstrated here; for more details see (Poirier, 1995, pp. 376-392, 540-551). However, the technical and conceptual complexities involved in a satisfactory discussion of posterior odds are beyond the scope of our purpose. We only mention here that in the simplified setting of our example, and particularly insofar as our focus is on comparing posterior inference to classical inference, the HPD interval approach is sufficiently appropriate.

# 4. Conclusion

The simulation example of the previous section serves to illustrate a simple case where incorporating subjective information through Bayesian methods yields a more conclusive statistical inference relative to its strictly objective, classical counterpart. This should be by no means misinterpreted as suggesting that subjective beliefs offer a general solution to the multicollinearity problem. A better way to perceive the role of subjective information in a particular application is to ask the question what kind of prior belief(s) would yield the affirmative results sought by the researcher? If such beliefs are justifiable through theoretical considerations related to the subject of interest, then Bayesian inference may offer convincing support for definitive empirical claims that cannot be asserted by objective inference alone, be it due to multicollinearity or other data sample related deficiencies. If the said beliefs, on the other hand, cannot be justified on a theoretical basis, conclusions drawn based on *ad hoc* claims will once again be subject to doubt and inevitable rejection.

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# III. DEZVOLTAREA DURABILĂ – DE LA TEORIE LA PRACTICĂ

# **RESHAPING THE WORLD FINANCIAL SYSTEM – AN IMPERATIVE OF SUSTAINABLE DEVELOPMENT**

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#### Abstract

This paper presents the general and specific causes which led to the actual financial and economic crisis, the principal consequences of this crisis like some other theoretical considerations regarding the cyclical normal evolution of the economies and the major disequilibrium instauration between the market's components which generates crisis. A critical analysis of the actual financial and monetary system emphasizes its pro-cyclic character. On the following pages, the weaknesses and vulnerabilities of the present system are put into light, starting with: lack of an international reserve currency to ensure stability and development, use of complex and opaque financial instruments, making decisions taking into account the rating agencies statistics which have serious problems especially in operating actions, unsecured procedures for the financial assets' evaluation, existence of the so called "fiscal havens", inefficiency of "the market's invisible hand and aspects related to the current issues and sustainable development. Furthermore, the paper underlines the context of change and reform initiatives, governments' concerns for re-building the financial and monetary actual system and, finally, action lines and intervention to change completely the system and introduce a new international reserve currency. The need of change, key word for the prevention of future crises and necessity in the context of sustainable development represents the basic conclusion of this work.

**Key-words:** *financial and monetary system, international reserve currency, pro-cyclic phenomenon, sustainable development, the single currency* 

JEL Classification: G01, G42, F33

# 1. A system that generates instability, polarity, crisis and inequity

The worse crisis after World War II, which started in 2007<sup>1</sup> spread very fast across the globe and its effects are suffered by the whole planet. The regional crisis affected, step by step, the entire economical and financial space in the world. The financial and monetary system itself was engulfed by the crisis and its weaknesses were demonstrated. As a result of this, a local crisis became a global systemic crisis. Thousands of billions of dollars and euros were necessary to save the system and to avoid a planetary catastrophe. And together with the system were also saved many of the techniques and procedures existing inside the system and many of the financial entities that caused the unprecedented crisis.

<sup>&</sup>lt;sup>1</sup> The american ipotecary crisis, known under the name of sub-prime crisis.

Among the fundamentals that caused the crisis we mention:

- ✓ The neoliberal doctrine and the market economy based on this, which bears inside itself the germs of crisis.
- ✓ Excessive permittivity, de-reglementation, lack of civil or state control and new economic order based on globalization, non-ethics, which permitted the development (during the last 50 years), inside an almost anarchic regime, of the wild capitalism.
- ✓ Undervaluation of risks and transfer of those risks through sophisticated financial instruments which were proven "toxic".
- ✓ Lack or poor performance of the self-regulatory systems of the international monetary and financial system which made possible the sub-prime crisis and its global propagation.
- $\checkmark$  FED's expansionary policy.
- ✓ Lack of an international reserve currency un-anchored to a national currency and the growth of the interest rates as elements that caused the crisis.

The most important consequences of this crisis manifested and are continuing to manifest at national and global level (table 1).

Table 1

Globa	l consequences	National co	onsequences
Financial	Economic	Financial	Economic and social
Liquidity crisis	Recession	For companies	Drop in consume
Credit rationalization	Drop in demand	For the state	Rising unemployment
Rising budget deficit	Insolvency	Increasing lack of credibility of the financial system	Sector crisis
Growing public debt as ratio of GDP	Globalization of the crisis	Market frictions	Structural crisis
Changing the current financial system	Economic policy to counteract the crisis	Adjustments	Destabilization of the financial and economic system

## The most important consequences of this crisis

The normal evolution of the economies, figure 1, respective of the global economy (line 1) represents the fluctuations on a rising trend like in a tunnel marked by lines 3. The line 2 represents the periods of major rupture of the equilibrium among the components of economies and represents the crisis periods.



Fig. 1. The normal evolution of the economies and the crisis periods

The economic cycles evolve simultaneous with inflation and deflation. As we can observe in Fig. 2 the periods of economic expansion E are characterized by inflation and the periods of recession by deflation. The point S represents the changing of tendency E-R and the C point represents the continuation of economic growth after the minimum point of the period was already reached. As we can observe the general trend is ascending over time. As long as the components of the system are in a dynamic equilibrium, inside this tunnel, the economy is in a state of normality. The breaking of this equilibrium leads to crisis.



E - expansionary period and rising inflation

- R-recession and deflation
- S the point of changing the E-R tendency

 ${\rm C}-{\rm starting}$  point of the new cycle of economic expansion, after the minimum point of the period was already reached

#### Fig. 2. The economic cycles, inflation and deflation

A critical analysis of the current financial and monetary system puts into evidences the deficiencies and weaknesses that we mentioned previously:

- A strong and manifest pro-cyclical character<sup>2</sup> which leads to periodic major imbalances between the market components and to manifestation of crisis Fig. 1 curve 2.
- Lack of an international reserve currency to ensure global financial stability and facilitate economic growth worldwide. The origins of the current crisis are monetary in nature. Thus one can say that the current international monetary disorder is driven largely by using the standard dollar, fig. 3 and fig. 4, which became the standard currency etalon and replaced the system related to the use of gold. In the context of the economic crisis caused by U.S. and, therefore, its sharp depreciation, the dollar has led to the erosion of international reserves of countries that have such large USD holdings. Therefore, first China, the largest holder of dollar reserves, and then the countries identified by the initials BRIC, Brazil, Russia, India and China, and also UN demand more strongly, that the dollar be replaced in the role of money for international reserves. Besides, China is advancing the idea that DST<sup>3</sup>, the currency used by the International Monetary Fund, could be the currency able to ensure the stability of the new system, at least in an initial transition period, until the eventual establishing a new international currency that could be the basis for a new international financial system that is expected to be realized. Zhou Xiaochuan, governor of the People's Bank of China, said that the purpose of the proposal to replace the dollar as international reserve currency with a new global system controlled by the International Monetary Fund is to create a reserve currency "unplugged individual nations and that can remain stable on long-term, thereby removing the deficiencies created by the use of currencies based on monetary emission<sup>4</sup>". Russia criticized increasingly more the international monetary system dominated by U.S. dollars and launched strongly the idea of using more the ruble which should reach the status of the dollar.
- Possibility of using new global financial instruments increasingly complex, sophisticated and transparent.
- Basing decisions on ratings given by rating agencies, few in number, and operating without any control by civic or governmental nature on their work. When the crisis appeared it highlighted the major deficiencies of the rating agencies.

<sup>&</sup>lt;sup>2</sup> http://www.consilium.europa.eu/App/NewsRoom/related.aspx?bid=93& grp=15487& lang=EN&cmsId=339 COUNCIL OF THE EUROPEAN UNION, Council conclusions on pro-

cyclicality 2954th ECONOMIC and FINANCIAL AFFAIRS Brussels, 7 July 2009, Procyclicity is the term used for the exaggerated fluctuations witnessed by the markets.

 $<sup>^{3}</sup>$  At present, the value of a DST is compounded by a basket of currencies – usd, yen, euro and sterling.

<sup>&</sup>lt;sup>4</sup> Financial Times, Mar 24 2009, Jamil Anderlini in Beijing, China urges switch from dollar as reserve currency.



Source: Bloomberg, University of Michigan, Schroders. October 2008/Lyxor. December 2008 Fig. 3. The value of 100 USD invested into gold in 1913





Source: Bloomberg, University of Michigan, Schroders. October 2008/Lyxor. December 2008 Fig. 4. Today's value of 100 USD from 1913

- The existence of conflicts of interest between rating agencies and entities evaluated.
- Valuating and scoring procedures at least questionable and sometimes arbitrary. For the innovative, complex and usually without transparency financial instruments, evaluation and grading procedures are developed in small circles and then they are provided without a critical analysis and especially without any control.
- The existence and tolerance of non-transparent tax havens.

The main lesson of the current crisis is that financial markets are not able to establish fair prices. This led to the realization of the fact that the current financial system, generating greater inequalities, failures, imbalances and biases, must be fundamentally reformed.

It was thus demonstrated that "invisible hand of the market" alone cannot bring order in the market. We need also responsibility, civic or governmental control and ethics.

By not reforming the system and limit only to save it at the cost of injection of trillions of dollars and euro could have, over several other years, as a consequence, a new crisis much stronger and with truly devastating effects.

Sustainable development cannot be achieved using the current international financial system because its weaknesses and vulnerabilities mentioned above clearly contradict with the principles of sustainable development. Thus, principle 85 which states that "in order to achieve sustainable development and a better quality of life for all people, the states should reduce and eliminate unsustainable models of production and consumption [...]" and the current financial system proved to be unsustainable. For that is generating major imbalances – crises of all sorts – is at the base of the development of wild capitalism, unethical globalization and produces a immoral high polarization of the world that is a potential carrier of a conflictive potential that sooner or later will be manifested. The current financial system comes into contradiction with the 12<sup>th</sup> principle of sustainable development: "States should cooperate to promote an open international economic system conducive to economic growth and sustainable development in all countries, in order to better address issues of degradation of the environment. Trade policy measures for environmental purposes should not constitute means of arbitrary or unjustifiable discrimination or any kind of disguised restraint on international trade. [...]"

As seen, the current financial system cannot ensure long term stability and, instead of leading to growth and sustainable development, they lead to crises, recession, extreme rich-poor polarization and environmental destruction thus coming into conflict with future generations. If we also mention the financing of the economy, meaning breaking the correlation of the financial system from the real economy, where speculation comes first, the rethinking of a new international monetary-financial system becomes imperative.

# 2. Context change

The idea that dollar is no longer a good reserve currency, safe and able to offer stability, is not something new. The "need" of a new global single currency "bancor" was expressed by JM Keynes and that of the "unitas" by FD Roosevelt. Recently, a Nobel laureate, Joseph Stiglitz, expressed his preference for a new reference currency, other than the dollar, since the dollar poses a high degree of risk.

The consequences of many of the actions of the financial gods of Wall Street, which are *de facto* responsible for the crisis that has reached across the globe, are examined and criticized by more countries. And obviously people are looking for those responsible. Thus the Kremlin often criticized the global currency status of the dollar. Also Russia has seriously diminished its dollar reserves and the Russian President Dimitry Medvedev and the Prime Minister Vladimir Putin have repeatedly tried to promote the use of ruble as a reserve currency, even for regional use. China, given the significant investments it has made in U.S. government securities, fearing that it will depreciate because of major recession and the U.S. budget deficit amid the global crisis, has asked and continues to seek the introduction of new currencies. Against this background, the republican Michele Bachmann introduced a law in the House of Representatives which prohibits replacing the dollar with any other foreign currency. In response to the request of the Chinese government.

The Finance Ministers from Saudi Arabia, Bahrain, UAE, Kuwait, Oman and Qatar signed an agreement establishing a single currency and a currency board which would become the Gulf Central Bank, currency that would be launched no later than 2010.

Secretary of the Treasury and Federal Reserve chief, Ben Bernanke, have rejected the idea of creating a single global currency, but even if they returned and nuanced, the U.S. Treasury Secretary Tim Geithner, has caused a real earthquake in global markets, saying that Washington is "pretty open" to China's proposal for gradual implementation of a global reserve currency, under the coordination and management of the International Monetary Fund.

"Replacing the dollar in favor of a system based on the SDR will be a major break with a policy determined now more than 60 years," says in an open letter Onno de Beaufort Wijnholds and Detlef Kotte said in an interview quoted by The Telegraph that "replacing the dollar with an artificial currency would solve some problems related to the accumulation of huge deficits and would stabilize the situation".

Russia calls the foundation of a new global currency to replace the dollar and China is considering a currency basket of currencies extended by including all the major economies of the world and establishing a system of rating between the SDRs and other currencies, so that the SDR can be used as currency reference to financial transactions and international trade. The Kazakh President proposes, as a solution to the current financial crisis the "acmetal", the single world currency.

Another Nobel laureate, Robert Mundell, father of the European single currency "euro", was in favor of the proposal made by the President of Kazakhstan, Nursultan Nazarbayev, to introduce the single world currency, "acmetal", saying that the plan of introducing such currencies is feasible and that it offers very good prospects for the world economy. Mundell proposed that Asia should also create a single currency having U.S. dollar as anchor and also said he was in favor of the need to create a global single currency with fixed rates against the currencies of the most developed economies: the U.S. dollar, the single European currency and Japanese yen.

There is information published by the "The Independent" newspaper, according to which several Middle East states are in talks with Chinese officials, Russian, Japanese and French to withdraw from trading oil in U.S. dollars.

Since 2007, inside the United States is circulating a theory according to which the global economic crisis will lead to a major geopolitical restructuring: the formation of the North American Union (UNA), as a replica of the European Union. UNA would include the U.S., Canada and Mexico and will have "Amero" as the single currency. The dollar will no longer be necessary because it will depreciate until extinction. This scenario started from an event occurred on March 13, 2007. At that moment, the U.S. Senate held its fifth secret and informal meeting (in its 182-year history), the agenda appears to have been the following: the imminent collapse of U.S. economy, declining public finances and the imminent triggering of a civil war caused by the economic collapse. UNA would be provided with cheap labor from Mexico, raw materials from Canada, the currency would be the "Amero" and the dollar would remain without coverage and will be waived off.

Japan and Asian Development Bank together support the establishment of a common currency ACU (Asian currency unit), equivalent to the ECU (European currency unit), the ancestor of the euro.

# 3. Courses of action to reform the current monetary-financial system

From all the above we can see the preoccupation to reform the current financial and monetary system and the urgent need to achieve this goal. Unfortunately because of the need to save the system, the curative effects of any crisis, which is manifested by brutal and necessary bankruptcy of the non-performing entities which violate the market rules, were not allowed to manifest. And the role of crisis to clean up the market was taken over by the global management, and we refer here to the G20 made by transforming the G8, towards the interventionist regulatory way and by the way of introducing a necessary and appropriate control. That is, a "peaceful revolution" of the system will be difficult. For that, once saved, the entities responsible for the production crisis regain their power and influence will oppose hard changes that threaten their privileges. An example is the opposition to the taxation of financial transactions and the refusal of the proposal to limit bonuses received by bank's managers.

Proposed since JM Keynes, the introduction of financial capital charges in order to reduce speculation and the creation of a world currency and a supranational management institution could have prevented such a major crisis or at least it could have lessen the effects. Moreover, the need for a new international reserve currency, a separate national currency is still very necessary and one of the courses of action to achieve the new system. Also, with all the major difficulties raised, some of them of technical nature, we still think that the taxation on financial transactions and the establishment from that charges of a fund of international solidarity with poor countries, or at least implementing the Tobin tax, is also an important direction for action.

As the crisis is not considered a circumstantial, lack of adequate control and the deficiencies of the rating agencies have been superimposed on top level relating to the structure and functioning mechanisms of the current monetary and financial system that are the root causes of the current crisis. Of which we mention the dominant role of the U.S. dollar as international reserve currency, and the huge deficits that it is based upon and the creation of money and injecting it into the market through sophisticated and non-transparent instruments, bright and packed, disseminated with the support of some big names of banks. Therefore, there is necessary a severe legislation in both the financial and the banking circuits.

A very important direction of action is to strengthen the banking and financial regulations and to rethink the functioning of credit rating agencies: binding the creation of risk provisions to the loans, non-acceptance of security (financial instruments) off balance, refusing refinancing by the central banks to the banks that hold securities with speculative proposes, the solvency ratio increased to  $\geq 8\%$  of the risks undertaken, the development of regulations to eliminate the black holes of derivatives markets, hedge funds, including the OTC market. Evaluation of financial return for investors and traders, in order to reduce the speculative hedge spiral and to diminish the financial arrangements, perhaps even the certification of the titles introduced in the market by an independent authority. Also requires a rethinking of rating agencies by diversifying and increasing their numbers and their evaluation and approval by an independent authority. Also there should be developed uniform criteria for risk assessment by rating agencies.

Another direction is to increase the role of global governance in order to increase the role of the IMF and the restructuring and modernizing them with increased financial resources and providing new powers in particular as regards market surveillance. We can say that the crisis has brought again the state on the economic scene, which so far was dominated by the neo-liberal doctrine and the minimalist state, almost nonexistent.

Finally, the return of the financial economy to the real economy and providing it with the necessary funds for healthy and sustainable productive activities that produce goods and services for the man who, under new management models, should be seen anthropocentric, that puts man in the center of all activities of technical, economic and financial nature.

Let us not forget two of the judgments of the European Council from 18-19 June, which "has agreed on a new supervisory structure to be introduced at

European level, inspired by the work of a group chaired by Jacques de Larosière." The new framework aims to strengthen the supervisory system and restore confidence in the financial system, affected by global financial crisis. It involves the creation of a European Committee for the valuation of the global systemic risks and three supervisory authorities respectively banking, insurance and the securities, which to cooperate with the national authorities in a organized network. "The Council welcomes the GLPC report, which focuses on four main policy responses to reduce the potential pro-cyclical effects of financial regulation and the development of anti-cyclical measures, namely: 1) monitoring risk throughout the system, 2) creation of cyclical reserves through the provision of capital, 3) improving accounting standards and 4) establishing a solid framework for pay systems. The report focuses on developing a macro prudential approach through various means, including the inclusion of automatic stabilizers in the regulatory framework and through better information on the discretionary surveillance measures and amendments to the framework through enhanced monitoring regulations."

# 4. Conclusions

1. The current financial and monetary system cannot provide exactly what such a system is meant to ensure, stability and development, and therefore should be mandatory to change it to the ground. Otherwise another crisis with effects far greater and more disastrous will happen. The question is not if but when will happen will happen.

2. It is necessary to create reserve currency that is not a national currency, to avoid future conflicts between internal and external interests that a currency issued by a central national bank usually involves and thus bears the seeds of vulnerability of any financial and monetary system based on such currency. The U.S. dollar has exhausted all possibilities for founding an international financial and monetary system.

3. We consider that a new currency would be based on a commodity-type anchor and a basket of currencies weighted to represent the world economies. For reasons of political acceptability type, in this basket there should be placed all the national currencies. Such a global single currency could be denominated monemo, monem or other similar names, in order to suggest the global nature of it.

4. It is required a swift implementation of a harmonized set of regulations to provide a rigorous discipline on monetary and financial markets, and a certification of the financial instruments that are introduced into the market.

5. It is necessary to rethink the institutional credit rating agencies and how they are operating under harmonized procedures and subjecting them to control and authorization of the autonomous and independent international authority.

6. We need to establish a civic or governmental control of the system and to strengthen the role of states in the operation of the new system.

7. We need at least a debate on the taxation of financial transactions and to establish an international fund for solidarity.

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## THE BEHAVIOR OF THE BUCHAREST STOCK EXCHANGE DURING THE CURRENT FINANCIAL MARKETS CRISIS AND PROPOSED MEASURES FOR ITS SUSTAINABLE DEVELOPMENT

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#### Abstract

Our day to day study of the Romanian stock market during the period July 2007 – September 2009 revealed in many cases a specific behavior. Although all the emerging markets from the region evolved in correlation with the more established exchanges, the negative impact of the crisis on our exchange was in many aspects deeper and more powerful than it should have been if we look at the actual macro and micro economic situation, considering the empirical evidence that the capital market is positively correlated with the long term economic growth. We think that this overreaction to the negative side is the direct result of the lack of maturity of our local exchange (in terms of capitalization, liquidity, participants, legislation and surveillance) and we propose a few measures that are supposed to render a sustainable development and may improve its stability during times of financial turbulences.

**Key-words:** contagion, correlation, financial crisis, emerging capital markets

JEL Classification: G01, G14, G15

# 1. Two very important characteristics of Bucharest Stock Exchange's evolution during the first 24 months of the financial crisis

Given our privileged position inside the Romanian capital market, we were able to monitor the behavior of the stock exchange, day by day, in real time, since the early beginning of the current crisis. Actually, it is our strong belief that in Romania, the Bucharest Stock Exchange (BSE) was in fact the first institution, and the Romanian brokers were the first community that felt the effects and consequences of the subprime collapse in United States of America. This happened because the local stock market was already in the process of getting correlated with the major stock markets around the world. At the moment when the stocks' decline started in USA and Western Europe, the main indexes of Bucharest Stock Exchange started their long and abrupt downtrend.

This is in our opinion the first important characteristic of the way our local exchange behaved during the crisis: it was highly correlated with the global markets.

In the paper Contagion across Central and Eastern European Stock Markets: A Dynamic Conditional Correlation Test the authors argue that the conditional correlations become more statistically significant with the global market as we go from the early stages (2005) to spring of 2009.

We can offer a visual demonstration of the correlation between BSE's main index BET and the New York Stock Exchange's SP500 in the chart presented in fig. 1.



Source: BSE, NYSE data and authors' calculations

Fig. 1. Correlation between BET and S&P500

Between July 2007 and August 2009 we had periods with higher and lower intensity of the correlation, but the major peaks and troughs were almost at the same time. Also the overall direction was almost always the same for the two indices.

The second important characteristic of our stock exchange during the crisis was that **for a long period of time it was decoupled from the local economy**. Bucharest Stock Exchange reached its peak at the end of July 2007. Still, for the local economy, 2007 was a great year. Also, for the most part of 2008, Romania registered a very good economic growth both in terms of GDP and in terms of companies' profits. In the late autumn of 2008, the economic problems started to show signs (or in some cases become evident) for the first time in Romania. By that time the BSE's main indexes had already lost more than 70% as we show below in fig. 2.



Source: BSE data and authors' calculations

Fig. 2. BET evolution between June 2007 and August 2009

Data from Eurostat are showing that Romania's GDP continued to expand until the third quarter of 2008 and only after that the economic activity began its decline. Thereafter, we can say that the stock market anticipated the downturn in the real economy with four quarters in advance. The early decline of the BET and other local stock indices are the result of the sell orders issued by the foreign institutional investors who made their exits from the emerging economies as they anticipated that the crisis will also spread towards them. They acted before the actual economic data could confirm their supposition, which is absolutely normal behavior in the stock market. The only surprising element is that this time, in Romania's case, the period of time between the anticipation and the confirmation was extremely long.

Below we present quarterly GDP data for Romania and the performance of the BSE during the same period.

Table 1

	GDP (mio EUR	%QoQ GDP growth	BET value (points)	%QoQ growth
2006q01	22276.7		7499	
2006q02	23616.1	6.01%	7056	-5.91%
2006q03	24391.1	3.28%	7952	12.71%
2006q04	26413.7	8.29%	8050	1.22%
2007q01	27861.1	5.48%	8547	6.18%
2007q02	30255.1	8.59%	9665	13.08%
2007q03	32152.6	6.27%	9635	-0.31%
2007q04	31868.3	-0.88%	9825	1.97%
2008q01	32161.9	0.92%	6920	-29.57%
2008q02	33692.3	4.76%	6502	-6.03%
2008q03	35607.9	5.69%	4258	-34.52%
2008q04	33797.1	-5.09%	2901	-31.87%
2009q01	30159.8	-10.76%	2367	-18.39%
2009q02	28699.9	-4.84%	3434	45.07%

Romanian GDP and BET performance (quarterly data, 2006q1-2009q2)

Source: GDP data from Eurostat, BET values from BSE and authors' calculations

#### 2. Particularities of the correlation between BSE and the global markets

While being correlated with the global markets is something normal for an emerging stock exchange, the exact way that our local market behaved during the first part of the crisis presented some particularities that worth being mentioned and studied.

First of all, we witnessed higher average intraday volatility at BSE's indexes compared with S&P500, DJI, DAX or FTSE100. During the 2 years of turbulence in the markets there were quite many days when local indexes fluctuated more than 5% (either positive or negative) while mature markets rarely exceeded 3%. Also, BSE had a few panic days (not consecutive though) when blue chips raised or declined 15% (maximum permitted by the electronic trading system) and there were no more buyers/sellers willing to put orders into the market.

Also, during the 2007-2008, most of the time, the negative days for S&P500 were followed by extreme declines on BSE, while positive days for S&P500 were followed by only minor recoveries. We could say that BSE copied and exaggeratedly amplified all the negative events from the international markets, but had only small reactions to the positive events. This behavior is partially explained by the contagion effect.

Very often, BSE opened the day with large gaps that reflect the overnight exchange activity in USA and Asia. Usually these gaps range between 1% to 3%, positive or negative, comparing with the closing price of the preceding trading day.

And last but not least, during the whole period, BSE had very limited or almost no reaction at all when local macro indicators were announced, but fluctuated wildly at 8:30 EST when important US macroeconomic indicators were made public.

#### 3. Characteristics of BSE that made it more vulnerable to the global downtrend

The emerging economies are more volatile on short and medium term and less resilient to macroeconomic turbulences than larger and developed economies. As a result, the corresponding emerging stock markets will be less credible for global institutional investors. The speculative capital is tempted to rush out of these markets when a global crisis is anticipated and this will put a powerful downward pressure on the local stock markets. Romania is such a vulnerable emerging economy and because of that, BSE felt the negative impact of the foreign speculative capital outflows since the early beginning of the crisis. Bellow we present the monthly flow of foreign capital at BSE during the period January 2007 – July 2009.

During the first year of the stock market decline foreigners were very active on the Romanian stock exchange, mostly selling stocks and repatriating capital. They contributed a lot to the daily market turnover and influenced the prices with their sell orders.

Table 2

Designat	E	<b>F</b>	Net feeting and the (EUD)
Period	Foreign buys	Foreign sels	Net foreign activity (EUR)
Jan-07	167,861,953	110,046,899	57,815,055
Feb-07	194,375,850	84,884,038	109,491,812
Mar-07	240,202,443	130,385,212	109,817,231
Apr-07	131,266,827	79,685,998	51,580,828
May-07	240,533,847	263,877,433	-23,343,586
Jun-07	331,610,743	234,235,729	97,375,014
Jul-07	273,897,795	202,185,126	71,712,670
Aug-07	156,477,511	182,582,953	-26,105,442
Sep-07	97,578,695	88,758,231	8,820,464
Oct-07	182,007,663	150,201,694	31,805,970
Nov-07	147,408,377	175,968,263	-28,559,885
Dec-07	193,157,724	195,550,487	-2,392,763
Jan-08	74,065,223	126,539,832	-52,474,609
Feb-08	58,386,874	55,151,865	3,235,009
Mar-08	58,880,412	69,790,899	-10,910,487
Apr-08	59,163,899	55,104,257	4,059,642
May-08	101,997,700	47,575,245	54,422,456
Jun-08	48,461,149	53,709,609	-5,248,460
Jul-08	89,312,338	96,500,405	-7,188,067
Aug-08	57,503,942	60,564,583	-3,060,641
Sep-08	53,862,886	51,859,047	2,003,839
Oct-08	36,271,901	47,282,786	-11,010,886
Nov-08	35,712,130	26,461,585	9,250,546
Dec-08	27,108,542	25,208,744	1,899,798
Jan-09	16,538,864	15,032,503	1,506,361
Feb-09	12,738,619	14,792,675	-2,054,057
Mar-09	15,570,435	21,861,596	-6,291,162
Apr-09	40,302,608	25,705,952	14,596,656
May-09	29,284,472	28,670,047	614,426
Jun-09	18,925,893	20,609,600	-1,683,707
Jul-09	5,357,116	4,831,631	525,486
50.50	5,555,776	.,,	

#### Foreign speculative capital inflows/outflows (January 2007 – July 2009)

Source: Data from Romanian National Securities Commission and authors' calculations

In time, most of the active foreign players (foreign financial investors) liquidated their positions and became inactive. They no longer had stocks or liquidities in Romania so they no longer participated to the daily transactions.

The strategic investors (fewer in number than financial investors) mostly kept their positions but did not buy any more. They were quite inactive during most of the crisis period (until now) and, as a result, they had very little contribution to the daily transactions during all periods.

As a consequence, during the second part of the crisis, the foreigners' activity on BSE declined dramatically. Not being sustained by large players from outside the country, the liquidity dried up on BSE and the market began to be more and more influenced by local players.





Among local players, the portfolio investors were also inactive during the second part of the crisis, mostly because they had sustained heavy losses or because they had already sold everything and preferred to wait on the sidelines. So, during the second part of the crisis period only local speculators remained active. The market became highly speculative and unpredictable. The main habit of the local speculators was to trade in the direction of the global markets. As a result, the correlation between BSE and foreign indices remained very high.

This normal vulnerably was accentuated by the lack of maturity of our stock market, specifically by its reduced total market capitalization, also by its low capitalization of the free float, by the small number of the companies listed on the stock exchange, the low daily turnover and scarcity of the financial instruments available for hedging/risk management.

Also, the reduced influence from local investors (because of their lower financial strength) compared with the pressure exercised by foreign institutional investors was a feature that accentuated the vulnerability of BSE during the crisis.

The local investors that participate in trading at BSE can be described using two main categories: institutional investors and private investors.

The local institutional investors are:

a) general insurance companies that have weak participation in the stock market because they prefer to invest mostly in bonds;

b) life insurance companies (selling unit linked products) that actually have some participation in the local stock market, but very limited;

c) opened-end investment funds, which are the oldest institutional investors on BSE. They invest an important part of their net asset value into Romanian stocks but unfortunately (because of their troubled history) don't succeed to attract significant amounts of capital to manage and invest;

d) level III (facultative) and Level II (mandatory) privately managed pension funds: still very young and until now seriously undercapitalized.

Private investors are very small in number compared with the total active population and on average have little capital available for investing in stocks (most of them prefer fixed income).

# 4. Proposed measures to render a sustainable development for BSE and to improve its stability during times of financial turbulences

In our opinion, the vulnerabilities described above are the result of the lack of maturity of BSE. In order to improve its stability during times of financial turbulence, we need to further develop the exchange and stimulate the development of the local investors in order to increase their participation in the market.

Among the things that can be done by the exchange officials and stock market professionals, we consider that the most important is to encourage new large private owned companies to float on the market. By bringing more issuers to the exchange, the market depth will increase (in terms of total capitalization, free float, daily market turnover and total number of daily stock transactions). One particular way of development may be to promote companies that are currently traded/listed on the Rasdaq OTC market to the second tear of BSE. These are small but dynamic companies, mostly private owned, with a very diversified field of activities and with potential for the current investors.

Of course, the fastest way to improve the market depth would be to float on the stock exchange the companies where the state is currently the major shareholder. This could be done as part of faster and more transparent privatization process. Also, if the Ownership Fund will eventually be floated on the exchange, this will represent a powerful boost for BSE. While many promises were made during the last years from the government officials, these large state owned companies will probably not be floated in the near future. This is why although they will represent the most important breakthrough in the sustainable development of the BSE, the exchange officials and the local brokerage community must only rely on their own efforts directed towards convincing private owned companies of the advantages of being traded on our local stock market.

Regarding the local investors, the participation of both private persons and institutional investors is deficient and has a lot of room for improvement. If the local capital will grow and will begin to represent a larger share of the average daily market turnover, the BSE's vulnerability at the movements of foreign speculative capital will be significantly reduced (as the Poland's experience clearly shows). The easier way would be to attract more private persons to invest on the local exchange, but the most efficient way remains to convince the institutional investors (mainly the Level II and Level III private managed pension funds) of the long term profitability of investing in companies traded on BSE.

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#### SUSTAINABILITY, MANKIND SINGLE CHANCE

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#### Abstract

Starting from the conception of Norway's ex-prime minister Gro Harlem Brundland about "Sustainability" (1987) and from "Rio statement" (1992), the paper analyzes both the complexity of this concept and economyenvironment ratio. Starting from the pattern of sustainability, it is presented the strategy of this type of development, as the only chance of mankind evolution, which should assure the balance between the environment preservation and economic development.

**Key-words:** *sustainability, human system, environment system, pattern of sustainability, strategy of sustainability* 

#### JEL Classification: Q01

#### 1. Concept of sustainability (D.D.)

Sustainability (D.D.) is development corresponding to present needs without compromise for the possibility of future generations to meet their own "necessities".<sup>1</sup>

This message is found as *principle 3* of *Rio Declaration* regarding Environment and Development (June 3-14, 1992) according to which "right to development should be exercised so that needs for environment and development of present and future generations should be equally met".

D.D. concept supposes interaction and compatibility of four systems (fig.1).



Fig. 1. Interaction and compatibility of four systems

<sup>1</sup> Report "Our common future" presented by Norway's ex-premier *Gro Harlem Brundtland in 1987* as president of World Commission for Environment and Development.

D.D. concept was born from actual world reality characterized by: accelerated economic growth and accelerated demographic growth

This development should be accompanied by severe measures of environment protection and saving the resources.

On the contrary, *Earth risks to become non-habitable*.

## 2. Economy – environment relation

There are two main directions to approach this relation:

- a) *technocentrism*, supposing the wide possibility to substitute the production factors;
- b) *ecocentrism*, supposing the existence of restrictions to substitute the production factors and severe limitation of production level, consumption level and demographic growth level.

# 3. Model of economic sustainability

This model presents the following *characteristics*:

- a) *optimization* and not maximization of economic objectives;
- b) universality of *constraints imposed by physical laws* in the manipulations of substance and energy;
- c) recognition of *ecological rarity* (abandon the principle of ecological abundance);
- d) underling the economic models by *exhaustible finished resources* and by finished rates of renewable resources;
- e) improving the methods of *quantifying the ecological impact* and resources, assuring the proecological character of all the economic decisions (internality of negative externalities);
- f) assuring the proecological character of all the economic decisions (internality of negative externalities);
- g) subordination of economic micro liberty, economic and ecological macro constraints;
- h) resetting up the ecological taxes for rare resources.

## 4. Strategy to achieve the sustainability

Because development of a country depends on 5 factors mutually influenced: population, natural resources and environment; industrial production; agricultural production; and pollution, it results that sustainability has 3 dimensions (fig. 2).



Fig. 2. Sustainability dimensions

Elements to be taken into account to achieve economic sustainability are:

- 1. Obligation to keep or *increase inherited natural resources*.
- 2. Long term consequences of *diminishing the natural resources* and higher pollution.
- 3. More and more international and even global characteristic of environment issues.
- 4. Dependence of *general welfare* not only on economic growth rate, but also its quality.
- 5. Welfare depends on *3 types of capital* we should leave inheritance for future generations: *natural* capital, capital *created by man* and human capital.
- 6. Possibility to achieve the *substitution between various types of capital*.

Therefore, it is necessary to find a *way of development* to mix: economic interests, social interests and environment interests.

It supposes to cross *two stages*:

- *improve actual technological systems*, to stop negative effects amplifying;
- carry on the researches in the field of *future technologies* to assure the sustainability.

Strategic components and actions to be developed from one stage to another are given in fig. 3.



Fig. 3. Strategic components and actions

## **Conclusions**:

a) economy and environment are closely related, while development planning should integrate ecological elements to reach sustainability;

b) it is necessary economic and ecological international cooperation;

c) sustainability strategy becomes operational by adequate national policies, able to achieve compatibility of systems inter conditioned in time and space, regional or international collaboration and cooperation.

## 5. Economic sustainability – the only chance

Taking into consideration the etymology of words development – economic – sustainable, Earth population and of each country should have in view: *Earth production capacity* and *quality of wished life*.

It results the necessity of *family planning*, which supposes: control of population number, increase in population quality, keeping the population health, family care, keeping the health of social environment and less illiterates.

It is necessary to create jobs *not export of jobs and import of unemployment* from developed countries, as well as application of *comparative theory of social and ecological advantages*.

There are not standard models as development level to be taken as examples (Swedish, Chinese, Finish, Korean, Japanese, American etc.). If today average consumption in the world is aligned to the *level of North-American one*, we would assist the disparity of fossil natural resources, and food production should increase four times (practically impossible).

*Solving the problem* – build up a *sustainable economy* based on *a new model of industrialization* less desolating and savage, on intermediate technologies, man holding the first place. Therefore, "to think globally and to act locally".

It should be found a *balance between environment preservation and economic development*, to benefit of economic growth, without significant degradation of natural resources base, which in fact supports economic activity as well.

*Economic sustainability* supposes administration of economic life to limit dysfunctions taking place in the economy (crisis, unemployment, inflation) harmonizing the economic growth with evolution of social issues.

*Environment* should be considered itself a production factor because its exploitation effectively takes part in economic growth, increasing the production potential. Improving the environment situation supposes at the same time *efficient exploitation of resources* resulting in *positive consequences over economic growth*.

There is no conflict of objectives between sustainable economic growth and environment protection. Economic sustainability supposes the *coordination in time of policies* of economic growth and those of environment protection.

*European Union* considers that economic sustainability wished a *sustainable* and non inflationist economic growth, observing the environment. Economic sustainable growth should stop to be an objective to be followed by all means. It should be extended the principle "who pollutes, should pay", by internality of negative externalities.

*Limitation of natural resources* besides *demographic explosion* creates special problems for sustainability.

*Economic sustainability supposes to eliminate destructive effects over the environment*, such as: climatic changes; ozone stratum destruction; acidification; biodiversity; waste; noxious effects of chemical substances; soil degradation; inward waters; marine and coast area; natural and technological risks; urban area etc.

Sustainability supposes economic growth keeping the jobs, with the possibility that future generations could meet their own needs.

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### ECONOMIC SUSTAINABILITY: CONCEPTS AND INDICATORS

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#### Abstract

When confronting fundamental challenges such as climate change, population growth, human rights and resource constraints – businesses and public sector organizations face a daunting new imperative. It is an axiom of current business thought and practice in most Western European enterprises that they must use fewer resources to produce their goods and services – a responsible use of those resources that benefit society and the environment and still meet their traditional demands: from customers and citizens for price, quality and availability; from shareholders for outstanding performance and returns; and from politicians for economic growth and prosperity in both developed and developing economies.

**Key-words**: system analysis, economic sustainability, drivers for change, Strategic options, high performance, performance anatomy

#### JEL Classification: Q01

The imperative for sustainable production and consumption builds on the principles of reduce, reuse and recycle, but it requires much more than that. It requires innovative thinking and fundamental alterations in business models. It requires making the most of fast-changing regulations, leading-edge technologies and shifting consumer expectations and demands. Above all, this new imperative requires that sustainability be woven into the core strategies of companies and public sector organizations.

As sustainability moves from the periphery to the heart of business and the public sector, organizations are finding that it comes with a price and a prize.

• The **price** is the fundamental transformation that fully integrated sustainability requires in the face of an aggressive social, environmental and economic agenda.

• The **prize**, however, is tantalizing: the opportunity for organizations to outperform their peers and achieve high performance.

So what are top executives to do? I believe opportunities abound to both preserve and create value by integrating sustainability into business strategy and operating models.

• New and differentiated products and services can increase revenue and generate market-leading innovations and technologies for a renewed path to profitable growth.

- Higher resource efficiency and lower emissions can reduce cost.
- Proactive responses can better manage regulatory and operational risk.

Together these opportunities also can build the intangible – and invaluable – assets of brand and reputation.

**So how can sustainability be defined in terms related to this article?** Sustainability affects all industries and governments. Issues encompass an integrated agenda of environmental, social and economic impact – sometimes referred to as "planet, people and profit." In this context I define sustainability as the way a company or organization creates value for its shareholders and society by maximizing the positive and minimizing the negative effects on social, environmental and economic issues and stakeholders to:

- grow revenue;
- reduce cost;
- manage risk and;
- build intangible assets.

# 1. The Drivers of change

So, what are the drivers for the necessary change? The challenge is getting from here to there and delivering the benefits. In a rapidly changing business context, gaining competitive advantage can be daunting. I believe there are **six key drivers of change** on which executives should begin acting now.

# 1.1. Changing Supply

## 1.1.1. Natural resources

Robust economic growth in emerging economies, combined with the high requirements of Western economies, has caused fierce competition for natural resources, particularly energy and water. It also has increased carbon dioxide (CO2) emissions, which contribute to global climate change. The UN Framework Convention on Climate Change estimates that the private sector will need to invest more than 400 billion Euros every year through to 2030 to stabilize CO2 emissions. The **price is huge, but so is the prize**. Dealing with climate change can galvanize an extraordinary wave of technology, service and business model innovation and drive coordinated global action on a scale not seen before. The level of venture capital investment in clean and "green" technologies is already significant, on a par with the early phases of the dot-com boom. Cleantech investments in the United States rocketed from US\$500 million in 2005 to more than US\$4 billion in 2007. European growth is slower but still significant, more than doubling to US\$1 billion in the same period.

#### 1.1.2. Employees

In the face of an aging workforce and global competition for talent, organizations that take sustainability seriously are well positioned to attract and retain the most qualified employees, studies indicate. In developing countries, companies that offer above-average working conditions and health care benefits can have an easier time finding skilled employees in areas with limited educational systems. But benefits for companies go beyond employment. As a number of global human resources executives have commented, leadership and performance on sustainability also can directly contribute to productivity and to customer sales and satisfaction by increasing employees' motivation and commitment and their propensity to go beyond what is expected of them.

# 1.1.3. Capital markets

Investors have begun to consider sustainability performance as an indicator of business performance – and a new lens through which to scrutinize the quality of management. Banks and pension funds are starting to view the longevity of a business and its environmental, social and governance impact as part of their financial rating process. Increasingly they are willing to praise – and punish – sustainability performance. JPMorgan, Citigroup and Morgan Stanley have developed lending guidelines that make it tougher for investor-owned utilities to build coal-fired power plants because of the risks associated with CO2 emissions. We also see significant growth in sustainability reports and indexes from leading global financial institutions like Goldman Sachs, Lehman Brothers and Morgan Stanley, which weigh the impact on valuation and investment decisions.

## 1.2. Changing demand

## 1.2.1. Consumers as citizens

Changing consumer expectations and behavior have a material impact on value creation, profitability and growth. Nine out of 10 consumers around the world say they are ready to switch to energy providers offering products and services that help reduce carbon emissions - and two-thirds are willing to pay on average11 percent more for the privilege. Consumers read labels more avidly than ever, scrutinizing not just a product's content but also the process required to put it in their hands. They pay more attention to ethical and environmental concerns, including the use of child labor, the procurement of conflict diamonds, the spread of HIV/AIDS, human rights abuses and the rising amount of non-recyclable waste. Sustaining high performance means meeting these rising consumer expectations and competing for trust to secure growth, reputation and brand strength. In the area of climate change, this is no small task. Consumers have little faith in government and business to advise them on ways to address climate change. Asked who they most trust, 43 percent of consumers "always" believe academics and nongovernmental organizations (NGOs) and 37 percent believe consumer associations, but less than 15 percent believe governments and energy companies.

Nonetheless, 18 percent of consumers believe that the responsibility for tackling climate change lies primarily with government and business.

# 1.2.2. Stakeholder influence

Businesses and public sector organizations must answer to an expanding group of stakeholders, including NGOs, the media, academia, and influential individuals and celebrities. All of them have fresh demands and increasing power to threaten a company's commercial viability. Their perception is your reality, regardless of the facts. Social capital can determine a company's license to operate. Companies today must take responsibility for both the social and environmental impact of their operations or leave themselves open to retrospective legislation and stakeholder backlash in the future. If you want to do business in Africa, you must contend with HIV/AIDS and its effect on the health of your workforce and the communities in which you operate. If you want to establish a presence in a developing country but do not have on-the-ground connections to local people, your chances for success are diminished.

However, companies' reactions to stakeholder pressure can demonstrate leadership in sustainability. Global Witness lobbied De Beers to stop trading in conflict diamonds in 1998; today the company leads advocates of the Kimberley Process Certification Scheme to ensure that rough diamonds are conflict-free. Nike suffered consumer boycotts in the 1990s over the use of child labor in its contractors' sweatshops; today the company is viewed as a sector role model for human rights policies because it implemented changes.

## 1.3. Changing rules of the game

National or global regulation on sustainability creates winners and losers. While it can disrupt and even destroy existing business models and industry structures, it also can create a positive platform for change by reducing business uncertainty and creating new market opportunities. In the area of climate change, four out of five business leaders want governments to take a central role in tackling the issue. They feel this way even though there is no agreement over how best to standardize requirements across countries and incentivise businesses and consumers to change their behaviour. Proactively partnering with policy-makers, stakeholders and even industry rivals in shaping regulation and policy solutions that benefit business and society makes sense in managing healthy competition. Increasingly this will be a feature of smart strategy.

## 1.4. Difficult trade-offs

In the face of these changes and pressures, organisations must grapple with difficult trade-offs and major changes to business models.

Electric Utility Companies, for example, must meet ever-increasing demand and still find ways to reduce emissions from generating electricity. The industry is responding not only with investments in renewable energy and clean-coal technology but also with new business models that make energy demand management a core component of the business and a competitive advantage. Companies in extractive industries still need to grow despite scarce resources, so they are moving deeper into remote locations and frontier geographies where they are unaccustomed to operating. These moves demand new levels of corporate responsibility – since their revenues can equal the entire gross domestic product of the host country – as well as higher costs.

When BP led several consortia of petroleum companies to develop oil and gas fields in Azerbaijan, Georgia and Turkey, the company opened an Enterprise Center in Baku to help develop an effective local supplier base and strengthen the Azerbaijani economy.

The center, run on behalf of BP's international oil and gas partners in the Caspian region, offers training in management, finance, IT, quality control and marketing. Experts also provide technological assistance to improve engineering and manufacturing know-how.

BP's local supplier development program benefits BP and local Azerbaijani firms alike. More competitive local firms offer BP a greater choice of costeffective suppliers. Building local skills encourages improved business practices, staff development, technology investments and better safety performance.

#### 1.5. Complex conditions

Facing sustainability challenges isn't easy. It is important not to make the wrong choice of policies and technologies. Early regulation, for example, can unexpectedly handicap business for the longer term. Germany decided in the late 1990s to close all its nuclear power reactors by 2020. As a result, renewable energies grew too slowly, and the carbon footprint of German electricity remains very high. Meanwhile, numerous other countries today are considering major investments or reinvestments in nuclear facilities to reduce their carbon emissions. It is also important to understand the full impact of sustainability up and down the supply chain and the expected extent of responsibility now and in the future. Timberland was surprised to discover that its major carbon impact occurred before the company even got involved in the making of shoes. It was the manufacture of the raw materials, not the manufacture and transportation of the final product that caused the greatest impact. To understand the full vulnerability – and opportunity – that supply chains represent, companies must develop new relationships with their suppliers to influence them effectively.

For their part, suppliers can gain first-mover advantage in some cases by making the shift to more sustainable production and influencing their customers. Integrating sustainability into business strategies is further complicated by the speed, intensity and aggressiveness of globalization, which many business leaders still struggle to address or even understand. Fast-moving globalization is one reason execution is especially difficult in global organizations with critical global processes and complex operating models and organization structures. Add to the mix the unprecedented change and complexity that organizations face with the advent of the multi-polar world – a world characterized by multiple centres of economic power and activity. Established global companies now compete with emerging-market multinationals for natural resources, capital and talent as well as for consumers and innovations. In the future, they might also contend with hybrid organizations such as public-private partnerships or social enterprises, which operate as for-profit businesses with social or environmental missions. In the face of such sweeping changes, little wonder that senior executives say their biggest challenge is shifting from strategy to execution.

## 1.6. Seizing competitive advantage

Despite the complexity of the issues, sustainability can create substantial value and innovation – a point validated by the world's largest research study to date on corporate responsibility.(7) Companies with the highest levels of social performance view social and environmental challenges as drivers to innovate and unlock new opportunities. The study also found that businesses excelling in their approach to corporate responsibility tend to be those that integrate the principles of sustainability into both their everyday business processes and their strategic decision making. Leading companies already are demonstrating how integrating sustainability into their business helps them achieve high performance. UK Supermarket giant, Tesco measures 60,000 suppliers on their ability to develop environmentally friendly packaging and conserve natural resources. Local products are sourced in every UK region to reduce "food miles", save transportation costs and increase product freshness. The company projects that reducing product and logistics packaging by just 5 percent will yield a savings in its supply chain of £5 billion by 2013, including £1.4 billion flowing directly to Tesco. Sustainability labelling is also emerging as an opportunity for companies to differentiate and grow market share.

Fair-trade is a fast-growing, multi-billion Euro annual global markets for coffee, chocolate and other agricultural commodities. In the United Kingdom – where Fair-trade is already estimated to be worth £400 million in 2007, up from £290 million in 2006 – significant competition is emerging among retailers and consumer goods companies. Tesco already stocks more than 140 Fair-trade products. Tate & Lyle intends to move its entire line of retail cane sugars to Fair-trade by 2010, the largest switch to Fair-trade by any major UK food or drink brand.

#### 2. Strategic options

Organisations that effectively weave sustainability into the fabric of their core strategy and operating model can drive new capabilities and innovation with far-reaching effects in four areas:

- revenue growth from new or differentiated products and services;
- cost reduction and efficiency improvements;
- better risk management;
- brand and reputation enhancement.

To achieve these benefits, it is important to prioritize and leverage core strengths and opportunities in the short term and execute accordingly. Businesses generally employ four types of competitive strategies.

• Go it alone. Some companies differentiate based on sustainability by virtue of having a first-mover advantage and a clear way to profit from a new market segment or consumer preferences. Philips invested 400 million Euros in "green" lighting technologies from 2001 to 2005. By 2006, the company's total portfolio of "green" products had grown to 4 billion Euros, accounting for 15 percent of its total turnover.

• Collaborate in partnerships and clusters. Other organizations partner with NGOs, development agencies or across their value chain with suppliers, distributors and new business partners to develop new technologies and solutions or win stakeholder and consumer trust. Lafarge, the French cement and building materials producer has a long-standing partnership with the World Wildlife Fund to better understand and manage its environmental impact. Demonstrating credible performance makes it easier for the company to secure access to land and resources. UK retailer Marks & Spencer works with supply chain partner MAS Holdings in Sri Lanka on a broad range of sustainability initiatives, from sharing best practices and co-investment in environmental management systems to a "Go Beyond" label that supports women's issues and diversity. Joint efforts like these play an important part in raising performance and underpinning credibility in the battle for consumer trust.

• **Collaborate at an industry level.** Leading players in an industry can voluntarily band together to regulate themselves, setting and agreeing on voluntary codes of conduct. This is critical where there is a first-mover disadvantage or collective action problem and little chance of formal regulation. The long-standing Forest Stewardship Council, set up to avoid unsustainable forestry, is an example. Begun in partnership with leading NGOs and UK retailer B&Q, it now includes many leading industry players worldwide.

• Shape regulation and policy. Companies can proactively engage in efforts to shape regulation that benefits business and society, particularly when they are well placed to take advantage of new markets. Alcoa, DuPont, Duke Energy, GE and others have teamed with Climate Action Partnership to lead lobbying to limit carbon emissions and introduce cap and trade mechanisms at the regional and National levels.

• **Combine options.** None of these strategies are mutually exclusive. Companies often implement more than one at the same time. GE is going it alone to develop its Ecomagination suite of "green" industrial products while it actively works to shape regulation for its future markets. To make the right choices, organizations considering their options should ask themselves the following questions:

➤ Is there a first-mover advantage or disadvantage?

> What is the chance for formal regulation and policy support? How can we attempt to influence and shape it?

> Do we have the capabilities ourselves to succeed?

> Who are the right partners, and what are the most effective forms of collaboration?

# 3. Adopting an Integrated Approach

It is also critical to take an integrated approach to action. Organizations that create value from sustainability exhibit two features:

• Sustained and public leadership commitment – absolutely necessary for symbolic, financial and motivational reasons.

• An integrated framework across their organization and value chain.

True integration is essential, as opposed to random, isolated efforts with narrow impact and little measurement. Integrated sustainability means:

• Integrated into core business strategies based on a rich understanding of industry trends, with execution based on deep industry insights.

• Integrated across environmental, social and economic issues.

• Integrated and aligned across business segments.

• Integrated into strategy and execution across the value chain from design to operation

• Integrated into performance management measures so sustainability indicators can help manage stakeholder expectations and deliver both direct and indirect business benefits.

To achieve sustainable value creation for shareholders and society, sustainability must be integrated throughout an organization's strategy and operating model, and the enabling effects of innovations and technologies. True integration will require new tools, technologies, processes and metrics, as well as changes in human behaviour, to align strategy and operations.

# 4. Integrating sustainability throughout an organization

Sustainability is an engine to drive high-performance businesses and public sector organizations by:

• Focusing on business imperatives – growing new business, optimising assets and protecting long-term business value.

• Creating value through appropriate levers; emissions reduction, materials safety, waste reduction, land sustainability, water use optimisation, energy reduction and social value

• Applying levers to core business areas – value chain, products and services, physical assets, operational execution and stakeholder influence.

• Guiding organisation moves toward sustainability – through rigorous strategic analysis, programme management, performance measurement and leadership.

It is recognised that the most efficient and effective way to achieve these objectives is through the three building blocks of high performance:



Source: David, L. (2006), Strategic Management Fig. 1. Turning Sustainability into a Lever of High Performance

**Market focus and position:** Market focus and position define the best business strategies on where and when to compete. Activities to integrate sustainability include stakeholder analysis, enhanced customer analytics and business intelligence, best practices for internal and external benchmarking, new product development, strategic portfolio management and considerations on how to win in both high-value and high-potential markets. Market focus and position enable top management to consider such key questions as:

• Are our strategies aligned with strengths, and are they realisable? In particular, where are the opportunities for sustainable growth?

• Do we have the right governance structure to deal with changing environmental issues, public agencies and stakeholders?

• Are we in the right businesses for the future?

• Are we making the right investments in the right areas of our business? What is the right pace? The right level?

• Does a shareholder/stakeholder value perspective permeate our metrics and decision making?

• Are we at risk from a specific stakeholder's point of view? Do we systematically map and prioritise stakeholders and issues?

• Do we manage to multiple horizons or do we focus excessively on one time frame?

## **Distinctive capabilities**

Distinctive capabilities in sustainability allow managers to manage and integrate stakeholder expectations across a social, economic and environmental agenda, either working alone or in partnership. They produce actionable insights, optimised supply chains, smart technologies, product life-cycle innovation and optimal customer segmentation.

Distinctive capabilities provoke action on such key questions as:

• Do we monitor external developments in the political, economic, social and technological arenas and act accordingly?

• Do we set, communicate and measure long-term sustainability goals that guide and motivate our actions and behaviours across all functions and processes?

• Do we measure and manage integrated performance? Do we track qualitative and quantitative key performance indicators and their impact on core business performance?

• Do we plan for multiple scenarios – and do we have the organizational capability to adapt to a changing business environment?

#### **Performance anatomy**

Performance anatomy drives a flexible, scalable and integrated sustainability business model. It promotes long-term competitive advantage by multiplying talent and rewarding activities that support the organization's sustainability agenda. Above all, performance anatomy creates a culture of sustainability consciousness and strengthens new processes and activities. It helps executives support sustainability and communicate regularly on the progress they make.

Performance anatomy inspires deep insights into such questions as:

• Do we have the right balance between making markets and executing effectively?

• Do we get more from our employees than our competitors get from theirs? Are our employees committed to delivering the discretionary effort that drives higher productivity? Are they personally engaged with our organization's strategy? Are we giving them the right training and development on sustainability to drive business performance?

• Do we use IT as a strategic weapon across the enterprise?

• Do we adequately balance intangibles that drive long-term success against financial measurement?

• Does our organization demonstrate the required agility in the face of uncertainty?

• Do we know – in real time – how we are performing against our targets?

• Do we have the operational data available to understand our challenges and opportunities in enough time to adjust for them?

# 5. Achieving high performance through sustainability

There is no doubt that sustainability can and will drive dynamic change for industries and companies. In France, more than eight in 10 companies consider sustainable development to be a differentiating factor and believe their customers will demand new sustainable products and services. Most respondents also expect an increase in customer expectations over the next three years. The market shifts that make sustainability a pressing issue today will continue to evolve. They require companies to address sustainability's most immediate demands and also develop the ability to enable additional change as new sustainability driven market shifts emerge.

To achieve high performance in the short term, companies must understand their existing risks, competencies and opportunities across their supply and value chains. They must consider strategic options and develop new competencies to move from strategy to execution. Creating high performance for the long term will require more than new processes or technologies or regulatory compliance. It will entail new strategies and a transformation of organizational structure, culture and behaviour to thrive, not just survive, in a complex and fast changing landscape.



Source: Morgan, B.J. (2008), Sustainable Value Creators Fig. 2. Integrated view of sustainability and value creation

Future sustainability leaders will align their strategies and operating models and the drivers of internal performance with the key building blocks of high performance. They will recognize that the way they create value is changing, and they will redefine what value means for their company and their industry. The imperative is daunting, but the prize is worth it – the opportunity to integrate sustainability into a repeatable formula for high performance, competitive advantage and value creation that benefits both shareholders and society at large.

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## ECOTOURISM FOR SUSTAINABLE DEVELOPMENT

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#### Abstract

The concept of ecotourism is widely misunderstood and it is often used as a marketing instrument in order to promote tourism businesses related to nature. It is well-known that from all sub-sectors of the tourism industry the ecotourism has experienced the fastest growth in the recent years, but we have to see beyond the appealing and fashionable "eco" label and "green-washing" of the travel industry. The true ecotourism represents only "responsible travel to natural areas that conserves the environment and improves the well-being of the local people" (TIES, 1990). This paper clarifies the definition of the ecotourism concept versus related concepts as "sustainable tourism", "responsible tourism", "nature based travel" or "green travel", presents the principles and benefits of ecotourism, the relation between ecotourism and sustainable development, and the challenges for Romania as an ecotourism destination at international level.

**Key-words**: *ecotourism*, *business biodiversity*, *sustainable development* 

JEL Classification: Q01, Q26, Q57

#### 1. Ecotourism - conceptual framework

The International Ecotourism Society (2009) defines ecotourism as *responsible travel to natural areas that conserves the environment and improves the well-being of local people.* (TIES definition from 1990). Considering its logo *uniting conservation, communities and sustainable travel,* The International Ecotourism Society (2009) states the following ecotourism principles:

- Minimize impact.
- Build environmental and cultural awareness and respect.
- Provide positive experiences for both visitors and hosts.
- Provide direct financial benefits for conservation.
- Provide financial benefits and empowerment for local people.
- Raise sensitivity to host countries' political, environmental, and social climate.

Another definition of ecotourism and ecotourist is that of Ziffer, K.A. (1989): "A form of tourism inspired primarily by the natural history of an area, including its indigenous cultures. The ecotourist visits relatively undeveloped areas in the spirit of appreciation, participation and sensitivity. The ecotourist practices a non-consumptive

use of wildlife and natural resources and contributes to the visited area through labour or financial means aimed at directly benefiting the conservation of the site and the economic well-being of the local residents. The visit should strengthen the ecotourist's appreciation and dedication to conservation issues in general, and to the specific needs of the locale. Ecotourism also implies a managed approach by the host country or region which commits itself to establishing and maintaining the sites with the participation of local residents, marketing them appropriately, enforcing regulations, and using the proceeds of the enterprise to fund the area's land management as well as community development."

*Honey, M. (2008)* defined ecotourism as travel to fragile, pristine, and usually protected areas that strives to be low impact and (often) small scale. It helps educate the traveler; provides funds for conservation; directly benefits the economic development and political empowerment of local communities; and fosters respect for different cultures and for human rights.

Efforts for conceptual framework of ecotourism were also made by our country, where Association of Ecotourism in Romania (2009) adopted and promoted the following ecotourism definition: *Ecotourism is a form of tourism in which the main motivation for the tourist is the observation and appreciation of nature and local tradition in natural areas, and which must fulfill the following conditions:* 

- 1. contributes to nature conservation and protection;
- 2. supports the well being of local people, stressing local ownership, as well as business opportunities for local people (especially in rural areas);
- 3. has an educational component that creates awareness about nature conservation, both for tourists and local communities;
- 4. requires the lowest possible negative impact on the environment and on the socio-cultural component.

Untamed Path (2009) focuses over the main characteristic of ecotourism: *the trip will help "conserve and improve" the places the tourist visits*. Also, Untamed Path (2009), trying to define the experience of ecotourism, presents on its web-site the definitions of other related concepts: sustainable tourism, responsible tourism, nature-based tourism and green-tourism. In its view:

- *Sustainable tourism* represents any form of tourism that does not reduce the availability of resources and does not inhibit future travelers from enjoying the same experience. For example, if the presence of large numbers of tourists disturbs an animal's mating patterns so that there are fewer of that species in the future, then that visit was not sustainable.
- *Responsible tourism* represents tourism which operates in such a way as to minimize negative impacts on the environment.
- *Nature-based tourism* is a more generic term for any activity or travel experience with a focus on nature. These types of trips may or may be not environmentally sustainable or responsible.
- *Green tourism* is a term often used inter-changeably with eco-tourism and sustainable tourism but more accurately described as "any activity or facility operating in an environmentally friendly fashion". The core of this concept is

where resources are coming from and where wastes are going, solar powered lighting etc.

It is very important to mention that ecotourism can be (but it is not automatically) a form of sustainable tourism. Achieving sustainable ecotourism involves a balance between economic, environmental and social goals, and ethical values and principles. The principles of a real sustainable tourism are: using resources sustainably, reducing over-consumption and waste, maintain diversity, integrating tourism into planning, supporting local economies, involving local communities, consulting stakeholders and the public, training staff, marketing tourism responsibly, undertaking research and monitoring the industry.

The *global importance of ecotourism* is highlighted by several international agreements including: The UN Commission on Sustainable Development, 7<sup>th</sup> Session 1999; the UN World Tourism Organization Code of Ethics (1999); The Guidelines on Biodiversity and Tourism Development issued by the CBD (2003); The Quebec Declaration on Ecotourism (2002); and the World Summit on Sustainable Development (2002). Guidelines and standards relating to sustainable/responsible tourism (including specific reference to biodiversity) are also being developed by the Tour Operators' Initiative for Sustainable Development which has created environmental guidelines for hotels, resorts and tourist attractions.

#### 2. Ecotourism - a successful Business Biodiversity model

We can define Business Biodiversity concept as *commercial enterprise that* generates profits through production processes which conserve biodiversity, use biological resources sustainably and share the benefits arising out of this use equitably (Building Biodiversity Report 2008). The business case for biodiversity is easy to make when a company depends directly on biodiversity to operate (the case of nature-based tourism), but examples can be found in other business sectors too, where greater biodiversity is associated with lower costs, increased productivity and higher profits. The concept of Business Biodiversity is related with *Potsdam Initiative – Biological Diversity 2010* (G8 Environment Ministers Meeting, Potsdam, 15-17 March, 2007), when it was initiated the process of analyzing the global economic benefit of biological diversity.

Also United States Agency for International Development (1995), in Synthesis Report Stemming the Loss of Biological Diversity: An Assessment of USAID Support for Protected-Area Management) identified ecotourism as an enterprise with potential positive contributions to the conservation of endangered biological resources. Ecotourism is seen as a win-win solution and its contributions include the raising of local awareness about the value of biological resources, the increasing of local participation in the benefits of biodiversity conservation, and the generation of revenues towards the conservation of biologically rich areas.

The Building Biodiversity Report 2008, analyzing the business biodiversity landscape, considers ecotourism a sector of potential business opportunities, together with other sectors as 'biodiversity-friendly' agriculture, sustainable forestry, business with non-timber forest products, sustainable fisheries and aquaculture, carbon sequestration in biomass, watershed protection, bioprospecting, biodiversity offsets, biodiversity management services, recreational hunting and sport fishing5. Ecotourism, as a biodiversity business model, has already begun to have success in European economy.

Ecotourism is promoted as a means of achieving community development and preservation of natural environments. An ideal model of ecotourism is an integration of conservation and development, in which entrepreneurs, government and tourists create sustainable development while improving the welfare of local people. There are a lot of examples of how ecotourism is making direct, significant contributions to biodiversity conservation. One approach is through revenue generated to support protected areas. Some protected areas generate significant revenue from visitor fees collected at the point of entry or as user fees applied as, for example, part of an overall package cost (South Africa). In addition to the payment of fees, financial contributions may be generated through the sale of licenses, concessions and leases. Public authorities often delegate responsibility for managing tourism operations in protected areas to private businesses, NGOs, individuals or local communities (Indonesia). Many countries also impose indirect taxes on tourists and tourism facilities, with a proportion of the revenues earmarked for conservation (Belize, Caicos Islands).

In Building Biodiversity Report 2008 are identified the following investment opportunities in ecotourism:

- Invest in ecotourism companies that can then take on the management of tourism concessions in national parks. These companies could also create or invest in private ecotourism facilities in areas of important biodiversity. Such investments could range from joint partnerships with existing ecotourism or hotel management companies to the creation of new companies. Any tourism facilities/operations would need to be certified according to credible standards.
- Investment in joint ventures (public–private partnerships), particularly between communities and the private sector (and government), based on participatory and equitable negotiations.
- A variation on this theme would be to invest in and/or create a 'chain' of ecotourism hotels and related operations with well-designed facilities, professional management, centralized 'back office' operations, and a common promotional strategy to create a brand that is synonymous with the highest ecotourism standards. This goal could also be achieved by buying a number of leading ecotourism operations.
- Invest in existing eco-funds, and/or create new investment funds, that include ecotourism in their portfolios.
- In the generation of sustainable livelihoods via businesses that value biodiversity there are opportunities to improve marketing (from product development to distribution); performance indicators to measure conservation results and poverty reduction; improved procedures for knowledge transfer between different projects, and investment in small/community-based operators whose services and products can be integrated in the mainstream tourism industry.

#### 3. Commodification and ecotourism – implications for local cultures and people

Generally, "commodification is the process of changing a cultural element, such as a household craft, or a natural object such as a native plant or animal community, into a commodity that can be exchanged in a monetary market: in essence, taking something that was not marketed and turning it into something that it is." (King, D., Stewart, W., 1996). Commodification of local culture and environment is a widely reported social impact of ecotourism with implications over indigenous people, too. *Ecotourism can have both positive and negative effects on indigenous people*. Indigenous people are considered the descendents of original inhabitants, distinct in language, culture or religion from the dominant population, who see themselves partly in terms of their habitat, who have a subsistence economy involving direct dependence on their habitat, and who manage resources collectively, often by a consensus of elders.

The negative impact of ecotourism is determined by the injection of the contrasting, external cultural influences and by the commodification that accompanies ecotourism development. The commodification of nature implies a change in the meaning of indigenous people environment, from a source of direct sustenance with a use value to a commodity with an exchange value. (King, D., Stewart, W., 1996). This represents a shifting in the relationship between the indigenous people and their environment: now they are working for tourism, not for land anymore, what is in fact a shifting from traditional, life-sustaining activities to service activities. The process of commodification is facilitated by concepts as "national park", "protected area", "endangered species", "virgin forest", "intact ecosystem" that have become artifacts for the ecotourists of the developed world. The problem is that the ecotourism industry can produce contrasts in values of the local cultures, because not only does the indigenous people's environment become commodified, but also their work: their lifestyle turns to serving the tourists, so, in consequence, the authentic aspects of their lifestyle become blurred.

Positive implications of ecotourism are likely to be the greatest when the indigenous culture is already in a state of decline as a result of natural resource scarcity. In such situations, the local people may realize that change is needed and may be prepared for it. Negative cultural impact of ecotourism can be reduced if indigenous people become decision-makers regarding the amount, location, timing and nature of tourist visitation to protected areas. In this way local people are empowered to control the direction of cultural change, and the commodification of some cultural events and places may be viewed as desirable. It is very important to be understood the fact that ecotourism does not represent a panacea, an instrument for financing the protected areas. It requires cooperation and even partnerships between government and indigenous people, and managers really involved in understanding the cultural issues that could arise from establishing protected areas.

The key of a successful ecotourism is the incorporation of local cultures and populations into the industry. In this way is reduced the local resentment to being cutoff from the benefits of ecotourism. (For example, there are well-known the cases of the Galapagos Islands of Ecuador, which suffered considerable socio-cultural conflict due to the fact that most of the tourism labor force was brought from mainland Ecuador, and of Maasai nomadic pastoralists who considered inadequate the compensation paid to them for their displacement from traditional lands because of the establishment of national parks and killed the wildlife in protest.)

As conclusion, we can summarize the outstanding issues regarding ecotourism: risk (unregulated, ecotourism can damage the environment and corrode local cultures), distribution of benefits (the local economic impact may be reduced), perceptions (developing countries fear that their parks and protected areas will become playgrounds for tourists and their land will not be available for farming, to feed and employ their indigenous population), lack of information (more and better information is need about the actual and potential economic contributions of ecotourism enterprises and practices).

#### 4. Romania's Case: discover Eco-Romania

Association of Ecotourism in Romania (AER) has the initiative to pave the way forward in ecotourism sub-sector, of course, together with Ministry of Tourism and all business stakeholders. This is facilitated by the fact that in 2009 the ecotourism area Marginimea Sibiului and the Danube Delta Biosphere Reserve have got the Golden Apple Award for tourism in 2009. Golden Apple is awarded every year by the World Federation of Travel Journalists and Writers. Since it was set up in 1970, Golden Apple went to 41 destinations, so, Romania having at present 4 trophies (1975 – Moldovița Monastery and an award for an air company this year) could be considered a tourism destination.

The Association of Ecotourism in Romania has achieved a partnership for nature conservation and tourism development among tourism associations, non-governmental associations acting in local development and nature conservation, nature conservation projects and travel agencies. Therefore, the innovative idea promoted by AER is to bring together the public and the private sector in a partnership for nature conservation and sustainable tourism development. Its main objectives are: the creation and promotion of a well-defined image of Romania as an Ecotourism Destination, at an international level, the development of ecotourism services and infrastructure at the level of the proposes Eco-Destinations in Romania, and nature conservation and sustainable development in Romania. AER adopted and promoted principles based on two international models: Nature and Ecotourism Accreditation Program, developed by the Ecotourism Association of Australia, and Nature's Best, the certification system of the Swedish Ecotourism Association. AER's approach is that these principles should be put into practice by those who offer ecotourism products as well as by those who plan the ecotourism-based development of an area. These principles are:

- ecotourism takes place in natural areas;
- ecotourism contributes to a better understanding, appreciation and enjoyment of discovering and protecting nature and traditional local culture;
- ecotourism offers the best tourism practices from the point of view of nature protection and sustainable development;
- ecotourism contributes actively to the protection of natural areas;

- ecotourism contributes to the development of local communities in natural areas; ecotourism must ensure the reduction of the negative impact on the local community and contribute to the conservation of local culture and traditions;
- ecotourism must respond to the tourists' expectations. Potential eco-tourists have a high level of education and expectations, so the degree of satisfaction in terms of the ecotourism product is essential;
- ecotourism marketing offers visitors complete and responsible information which leads to an increase in their respect for the natural and cultural environment of the areas visited.

AER considered of critical importance to create the Ecotourism Certification System as a mechanism for putting into practice the basic principles of ecotourism, in order to ensure nature conservation and sustainable development of local communities through tourism. This is an important step in the wider context given that since March 2003 the World Tourism Organization has recommended governments to support the initiatives that promote the certification in sustainable tourism. The Ecotourism Certification System developed by AER has adapted the international experience to the Romanian context. It is based on the Nature and Ecotourism Accreditation Programme promoted by the Australian Ecotourism Association (NEAP is the first accreditation system in ecotourism) and on Nature's Best developed by the Swedish Ecotourism Association (the first accreditation system in ecotourism in the northern hemisphere). The Ecotourism Certification System addresses three different categories of applicants: ecotourism programmes/tours provided by tour-operators or guides (i.e. eco-tours of maximum 15 participants), small-scale accommodation structures in rural and natural areas (eco-lodges and guesthouses of maximum 25 rooms), eco-destinations (one or several communities within natural areas). The Ecotourism Certification System has been developed in partnership with Green Cross Romania and co-funded by the Environmental Partnership Foundation.

It is remarkable the involvement of the *Environmental Partnership Foundation*, which was established as an independent foundation in 1998 and is member of Environmental Partnership. From its programmes and projects, we can mention (EPF 2009, selection from the web-site):

Strengthening partnerships for Nature Conservation and Tourism in Romania – a grant-making and capacity building program that stimulates the development and promotion of ecotourism in Romania, through supporting sustainable initiatives. The goal of the program is to promote the concept and the development of ecotourism, in order to support nature conservation and local communities. The program has a grant-making component that aims to support pilot projects in the following counties of Romania: Alba, Arges, Bacău, Bihor, Bistrița Năsăud, Braşov, Buzău, Caraş-Severin, Cluj, Covasna, Dâmbovița, Gorj, Harghita, Hunedoara, Maramureş, Mureş, Mehedinți, Neamţ, Prahova, Sălaj, Satu Mare, Sibiu, Suceava, Vâlcea and Vrancea and a capacity building component through training, technical assistance, information and support for the beneficiary and potential beneficiaries of the funds.

- *Green Spaces* a grant-making program of the Environmental Partnership Foundation and MOL Romania which has a new component with the goal to promote the protected areas of Romania in order to increase the acceptance level of them through the involvement of NGOs, schools, local communities and administrators of the protected areas. Through this component there will be funded projects that intend to run the following type of activities: Junior Rangers, Day of Protected Areas, Biodiversity Day, Educational Trail development in protected areas. Permanent exhibition development in the visitors' center of the protected areas.
- *Living Heritage* a grant and capacity development programme aimed at enabling local community development in Southern Europe through the promotion of sustainable culture and heritage initiatives. In Romania, the Living Heritage programme is implemented by the Environmental Partnership Foundation (Miercurea-Ciuc) and the Romanian Carpathian Foundation in partnership with the King Baudouin Foundation from Belgium. The programme's aim is the long-term support of local development through community involvement in the identification, conservation and sustainable use of heritage related resources.
- *Greenways* are successful and well recognized initiatives in Western European countries and in the United States. Greenways are routes, trails and natural corridors that are used in harmony with their ecological function and offer the opportunity for sports, tourism and recreation. Greenways offer plenty of benefits for our environment, improvement of the quality of life and presently an opportunity for sustainable economic activities for the local population in towns and the countryside. The "*Mineral Water Trail*" *Greenway* is one of the first initiatives of this kind in Romania. This trail was created in Harghita County in central Romania. The Romanian Environmental Partnership Foundation and the Csík County Environmental and Nature Protection Association took the first steps in 2000 in order to make this initiative a reality
- *Eco-Business* a program which contributes to the sustainable economic regeneration in Romania. The method is to establish a framework for assisting Romanian small and medium size enterprises that wish to improve their environmental practices by promoting public/private sector partnerships. Romania will need to earmark larger financial resources in order to protect the environment, develop the administrative capacity required to implement the necessary measures, and to achieve proper legislation in accordance with EU regulations. The Eco-Business program can play a significant role in achieving the above-mentioned goals by increasing the environmental knowledge of SME's located in Harghita County, Romania. The success of the program will impact SME's attitudes towards the environment and at the same time increase their profits, therefore making it a win-win situation.
- *Transylvania Authentica* seeks to protect the region's unique natural and cultural heritage by promoting and developing sustainable livelihoods. The Transylvania Authentica project is seeking to establish ways in which to ensure the survival of

Transylvania's incredibly rich agrarian culture and its traditional foods and agricultural products, by bringing together the regions smaller producers and manufacturers. Transylvania Authentica is a joint project of the Romanian Environmental Partnership Foundation and The Prince's Charities Foundation.

#### Conclusions

Maybe the most suitable conclusion of this paper is the presentation of two ecodestinations, which can guarantee the success of Romanian ecotourism in the future. It is about two wonderful places of Romania: Retezat National Park and The Hateg Country, *Retezat National Park* – "It is maybe the over 80 alpine lakes reflecting the beautiful blue sky like in the innocent eyes of a child... or the deep green of the superb forests covering the mountain sides... or maybe the peace you find when staying in this wonderful place that make Retezat special. It is here that you can find yourself, in that state of innocence from the beginning of time, and you can revel in the purity of nature, charging yourself with the positive energies released by this magic land." (AER, 2009). The Hateg Country, sometimes named "a small-scale representation of Transylvania" is another remarkable eco-destination of Romania. "To describe Hateg Country best, try to picture mountains with high pastures grazed by flocks of sheep, beech and oak forests that cover the hills, with patches of orchards and valleys that host fields and small villages." (AER, 2009). These examples, and also the unique ecosystems of Danube Delta, The National Park Nerei Gorges - Beusnita which is protecting the longest karstic mountains from Romania, Apuseni Nature Park, Putna – Vrancea Nature Park, Touristic Area of Natural Reservation Iron Gates and other nature wonders means eco-Romania: a huge potential for ecotourism in the context of sustainable development, with unique traditions and cultural heritage in the European context.

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## STRATEGIC ENERGY SOURCES AND TRENDS OF ALTERNATIVE ENERGIES IN THE EUROPEAN UNION

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#### Abstract

The present dynamic security environment forced organizations or countries to radically restructure their objectives and strategies. In the last years, the European Union energy strategy has been in the process of a profound objectives transformation. The paper deals with the problem of the energy security in the European Union and the role of renewable energies to security supply in the context of the global energetic crisis, and the role of multiple factors which destroy the equilibrium among the energetic security, economical development and environmental evolution. There are a large range of proposed European projects in the energetic sphere that intend to fulfill the request to increase the security supply in order to weaken the dependence of European countries on the Russian energetic resources.

European energy demand and import dependence continues to increase and primary energy sources are mainly used to cover European energy needs. Considering the energy security is very important for European Union, this paper presents an overview of strategic energy sources and underlines the importance of renewable energy in the way to ensure security supply of energy. Today, the international energy system is characterized by a high level of interdependence, the energy supply and climate change security are the central concerns for policy makers and they give significant dimensions of the long-term quest for a sustainable energy system. In this context one of policies developed by European Union is to promote the renewable energy.

**Key-words:** *energy, security of supply, classical fuels, renewable energies, European Union* 

JEL Classification: Q40, Q41, Q42

## 1. Introduction

Access to energy is fundamental to our civilization, and economic and social development is fuelling a growing demand for reliable, affordable and clean energy. Energy security is back on political and public agendas and geopolitics is a major factor shaping the world today. Recent events, including the increasing tensions in Middle East and the crisis between Russia and Ukraine, frozen conflicts from Caucas and, of course, the Russian military intervention in Georgia raise the fragility of the world's energy supply system and the concerns over politically motivated supply disruptions and resulting price volatility. These concerns are not based on the overall availability of resources, but on the concentration of strategic energy resources in a few countries.

Global main fossil fuels (oil, gas and coal) reserves will continue the energy supply dominance for the near future. The past couple of years have clearly demonstrated the volatile nature of oil and the world's continuing dependence on this leading energy resource. The doubling of oil prices during the last few years has not, however, been caused by dwindling reserves. The studies demonstrates that global reserves of oil are still large enough to meet the demand for the next few decades, and the continuous improvement in exploration, processing, conversion and end-use technologies may extend this period even further. Concentration of oil resources in a few regions with problems and long supply routes to the main markets are important problems for energy security of European Union.

Security of energy supply is a recurrent concept in national energy policies and also at the European and worldwide levels. In November 2000, the European Commission issued a green paper named "Towards an European Strategy on Energy Supply Security". This report carried a strong warning about European dependence on imported energy that could increase from 50 percent in 2000 to 70 percent in 2020-2030.<sup>1</sup> The European Parliament and the Council passed their agreements, stressing the importance of minimizing the risks of dependency both by the European Union and the member states.

# 2. Energy dependence and supply security

The European Union is consuming more and more energy and importing more and more energy products. Community production is insufficient for the Union's energy requirements. As a result, external dependence on energy is constantly increasing.

At this moment, according to statistic reports, current energy demand is covered by 41% oil, 22% gas, 16% coal (hard coal, lignite and peat), 15% nuclear energy and 6% renewable energies. If nothing is done, the total energy picture in 2030 will continue to be dominated by fossil fuels: 38% oil, 29% gas, 19% solid fuels, 8% renewable energies and barely 6% nuclear energy.<sup>2</sup> Oil reserves are very unevenly distributed across the world, and the European Union in particular has very few. In the applicant countries, the situation is even worse. The Community has eight years of known reserves at current consumption rates (assuming no change in consumption patterns and/or related technologies). Thanks to the North Sea, whose reserves belong mainly to the United Kingdom, the Union produces some 158.3 million toe (1997), representing scarcely 4.4% of world output<sup>3</sup>. Today, the cost of extracting one barrel of oil in Europe ranges between USD 7-11, compared to a range of USD 1-3 in the Middle East<sup>4</sup>.

<sup>&</sup>lt;sup>1</sup> Green Paper – Towards a European Strategy on Energy Supply Security, European Commission, Brussels, 29 November 2000 (COM(2000) 769 final).

<sup>&</sup>lt;sup>2</sup> Ibidem.

<sup>&</sup>lt;sup>3</sup> World Energy Technology Outlook – WETO H2, European Commission, European Communities, Belgium, 2006.

<sup>&</sup>lt;sup>4</sup> http://www.timesonline.co.uk/tol/news/world/.

Natural gas reserves are more evenly distributed on the global level, but the European Union is once again unfortunate, having barely 2% of world reserves, or 20 years consumption at present rates, 223.2 million toe were extracted in 1997, representing 12% of world production. Most of these reserves are located in the Netherlands (56%) and the UK (24%). While world energy consumption has risen since the first oil crisis, the EU also succeeded in reducing its energy dependence over this period, from 60% in 1973 to 50% in 1999<sup>5</sup>. Policies focusing on demand management (energy conservation), development of internal resources (North Sea oil) and diversification (revival of nuclear programs research into renewable energies etc.).

It is essential for the Union to maintain satisfactory relations with transit countries in order to have stable access to the energy products it needs. This is especially true for gas, where the main risk lies in transit conditions and continuing diversification of transport routes, not in the status of world reserves. With regard to supplies originating in Russia, the Caspian Sea basin, North Africa and the Middle East, two regions deserve special attention, eastern and north Europe on the one hand and the Mediterranean basin on the other. Russia plays an essential role, providing the Union with more than 40% of its natural gas needs. However, there is also considerable potential for oil and gas production in the countries of the Caspian Sea basin. As a producer, Russia is the world's leading natural gas exporter. It would also like to export more oil, and even electricity, to Europe, establishing new transport routes. A range of transport routes will also be necessary if the resources of the Caspian Sea basin are to be fully exploited. Particular attention should therefore be paid to transit States such as Turkey, the Ukraine, the Baltic States and the Caucasian countries. North Africa is also an important producer region for Europe (Algeria, Libya). In the light of their intention to join the European Union energy policies and objectives should consider what support it could give to Turkey, Bulgaria and Romania, to develop transit facilities for Caspian basin gas and oil, in addition to existing plans for transporting Russian supplies. The natural gas interconnection project linking Greece and Turkey opens up the potential for European access to new sources of natural gas, providing an alternative to seaborne trade. It could also provide an export route for Middle Eastern production. The northern, central and Mediterranean dimensions of energy policy assume primordial importance in this context.

Generally, oil contribution to world primary energy consumption is 37 percent. In European countries, oil contribution varies from 16 to 90 percent of total energy demand<sup>6</sup>. After the first oil shocks, some countries like France or Belgium have lessened their oil dependence by developing nuclear power while others have accelerated natural gas or coal substitution. The world geopolitics of natural gas is very similar than for oil, except for the exceptional position of Russia which holds about one third of world natural gas resources. Russia accounts for about 35 percent of European natural gas imports. Other imports come from Norway, Algeria, Nigeria and Libya.

<sup>&</sup>lt;sup>5</sup> World Oil Outlook, Organization of the Petroleum Exporting Countries, Vienna,

<sup>2008.</sup> <sup>6</sup> Global Energy and Energy Security: A New Agenda, Cambridge Energy Research Associates (CERA) 2001.

The rapid development of LNG and the building of new gas lines should enable Europe to diversify its sources of supply.

A standard definition of supply is a flow of energy supply to meet demand in a manner and at a price level that does not disrupt the course of the economy in an environmental sustainable manner.<sup>7</sup> The concept is vast, multiform as it encompasses the whole physical and non physical supply chain. It has also important time and space dimensions. It can be more precisely defined as: a reliable supply of energy. Choices both for primary energy sources and geographical suppliers ought to be as plentiful as possible, within a competitive framework, in order to reduce dependence on only one or two. Diversification in these two areas, primary energy sources and suppliers, is the key to ensuring of supply, a reliable transportation of supply. Transportation networks ought to be physically available to gualified players, well maintained, and expended as required, and should offer as many competitive route options as possible, a reliable distribution and delivery of supply to the final customer. Energy ought to be efficiently delivered to the final customer according to particular time and quality standard without discrimination. At reasonable price over a continuous period. As far as oil and gas are concerned, imports of which are increasing, a stronger mechanism ought to be provided to build up strategic stocks and to foresee new import routes.

## 3. Trends of renewable resources

Although the worldwide production of renewable energy is expected to grow quickly, its share of the global energy mix will hardly increase. Hydropower is the largest and most important renewable resource and generates about 17% of the world's electricity<sup>8</sup>. It is estimated that only 33% of the technically and economically feasible global potential of hydropower has been developed to date, although there are significant regional variations. In Europe and North America, the majority of sites have been developed, while considerable potential for new development remains in Africa, Asia and South America. Large hydropower schemes, however, often face challenges due to their environmental impacts and long-term returns on investment.

Non-hydro renewable are expected to make a growing contribution to global power generation, even if their total share is likely to reach only about 5% in 2030.<sup>9</sup> Biomass has the potential to become the world's largest and most sustainable renewable energy source. To progress from this potential stage, both production and end-use technologies must be modernized.

Wind is often considered to be the most advanced of the renewable, after hydropower. Offshore projects spur the development of larger machines and wind turbines of up to 5 MW are about to enter the market. However, the electricity systems with an increasing share of wind power in their fuel mix will have to face new challenges. Experience in those countries with a high share of wind in their electricity production demonstrates the problems of integrating an intermittent energy source into

<sup>&</sup>lt;sup>7</sup> Ibidem.

<sup>&</sup>lt;sup>8</sup> Survey of energy resources 20<sup>th</sup> Edition, World Energy Council, London.

<sup>&</sup>lt;sup>9</sup> Ibidem.

the grid and the implications this can have for the global power system performance, including the need for new concepts for power plant operation scheduling and system control. Geothermal is an important renewable resource and it can be used for base-load electricity production. The best geothermal fields are located within well-defined belts of geologic activity. Geothermal energy converting systems are able to provide electricity with an annual capacity factor of over 90%.<sup>10</sup> Solar radiation, the earth's prime source of energy, is being increasingly used. While photovoltaic (PV) power generation is still the most expensive solar technology, costs are falling and its versatility enables it to find many stand-alone applications.

We live in an increasingly interdependent world. And central to this is the global energy system. Given that fossil fuels will continue to satisfy the overwhelming share of the world's commercial energy needs for the foreseeable future and that there are adequate resources, the challenge going forward is clear. It is making sure that the emphasis is placed on how to develop, produce, transport, refine and deliver oil to endusers in an efficient, timely, sustainable, economic and reliable manner.

Beyond 2012, non-OPEC supply is expected to maintain its growth, particularly from non-crude sources, such as oil sands, and biofuels, mainly in the US, Europe and Brazil. In total, almost 11 mb/d of non-conventional oil supply comes from non-OPEC by 2030 in the reference case, an increase of more than 8 mb/d from the 2006 level. By 2030, total non-OPEC supply reaches 60 mb/d. These forecasts suggest that an additional 12-13 mb/d of OPEC crude will be required by 2030, but the share of OPEC crude is not expected to be markedly different from that of today. Total demand for conventional crude will not exceed 82 mb/d by 2030<sup>11</sup>. Of course, bringing these supplies to market implies major challenges for the oil industry.



Source: World Energy Technology Outlook – WETO H2 Fig. 1. Primary energy demand in Europe

<sup>&</sup>lt;sup>10</sup> Ibidem.

<sup>&</sup>lt;sup>11</sup> World Oil Outlook, Organization of the Petroleum Exporting Countries, Vienna, 2008.

Security of demand is a real issue. It is intrinsically linked to security of supply. It is not just a question of whether there will be enough supply to meet demand; it is a question of whether there will be enough demand to meet current and predicted supply. All of this points to a growing energy interdependence. This, if anything, is the new world of energy; something that all stakeholders will increasingly need to embrace. This new world is nothing new for the energy industry, and the oil industry in particular, which has a long and successful history of adapting to change, and will continue to do so. One fundamental way forward is for a pragmatic dialogue among all parties, a positive dialogue that is cognizant of the needs and responsibilities of oil producers and consumers, oil exporters and importers, developed and developing nations, and present and future generations.

Next figure shows a forecast that by 2050 more than 60% of electricity in Europe comes from renewable energies or nuclear energy.



Source: World Energy Technology Outlook – WETO H2 Fig. 2. Electricity production and fuel-mix in Europe

Europe's citizens and companies need a secure supply of energy at affordable prices in order maintaining our standards of living. At the same time, the negative effects of energy use, particularly fossil fuels, on the environment must be reduced. That is why EU policy focuses on creating a competitive internal energy market, on developing renewable energy sources, on reducing dependence on imported fuels, and on doing more with a lower consumption of energy.

#### 4. Conclusions

Europe's increasing dependence on external energy resources, and the evergreater distance at which those resources are located are set to increase the burden of both transport costs and transit requirements. The challenges posed by the transit problem have also been significantly complicated by the emergence of the New Independent States (NIS) out of the ruins of the Soviet Union. The gas crisis underlines one of the fundamental weaknesses of European energy policy. Because of national interests, there is no real common European energy policy and efforts to create an internal energy market are also hampered by all kind of obstacles. Securing a diverse energy mix has been identified as a key policy objective in order to shield Europe from potential external energy crises and achieve supply-security and environmental sustainability in the long term.

Some objectives majors of EU energy policy overriding the European agenda: increasing security of supply, ensuring the competitiveness of European economies and the availability of affordable energy, promoting environmental sustainability and combating climate change

Renewable energies are essential contributors to the energy supply portfolio as they contribute to world energy supply security, reducing dependency on fossil fuel resources, and provide opportunities for mitigating greenhouse gases. A diversified fuel mix is a prerequisite for energy security, stability of prices and supply, and should be taken into consideration when developing national energy plans or long-term business strategies, in particular against the background of the growing short term focus of the liberalized energy markets.

The European Council reaffirms the strategic importance of global warming, together with the need to ensure security of supply and enhance business competitiveness, make it ever more vital and pressing for the EU to put in place an integrated policy on energy combining action at the European and the Member States' level.

The Black Sea region is a production and transmission area of strategic importance for EU energy supply security. It offers significant potential for energy supply diversification and it is therefore an important component of the EU's external energy strategy. Energy supply security diversification is in the interest of our partners in the region, as well as the EU.

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# **ROMANIAN SHIPPING AND THE INTEGRATION CHALLENGES**

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#### Abstract

The specialists from the European Commission say that the most efficient method for reducing the fuel consumption for transports as well as reducing pollution and increasing the safety circulation, which is also rapidly increasing for the transport on navigable ways.

The European Commission is establishing a strategy for the next 15-20 years to develop the intra-communitarian transport so that 40-45% of all goods to be transported on water.

Romania has the opportunity to develop this kind of transport because of the Danube River and Sulina and the Danube – Black Sea channels. However, it could be the same situation with the Danube as it is on roads, with too much traffic on it. The Danube ports' infrastructure on the Romanian side is the same from the middle of the  $20^{th}$  century and it is not navigable all year long.

Key-words: ships, water transports, Danube

## JEL Classification: M11

Shipping is one of the oldest human activities.

Maritime and river waterways, mostly natural, offer all ships, regardless of the flag they sail for, wide travel possibilities.[3] Since 2006, there are in Romania 1,731 km of navigable waters, out of which:

- 1,075 km on the Danube;
- 524 km on secondary rivers;
- 132 km on channels. [7]

Commodity transport on internal waterways has certain advantages as compared to the other types of transportation:

- it is suitable for the goods' transport at low costs;
- it is "environmentally friendly";
- it is relatively cheaper;
- requests a relatively low maintenance and network development;
- can be an important connection for the development of combined transport system.

Waterways transport is focused on the Danube, in the south of the country. Moreover, it includes the secondary transport branches of the Danube and the Danube's Channels – The Black Sea and The White Gate – Midia Navodari, between

the Danube and the coast near Constanta. Moreover, there are different small navigable channels, including natural lakes and tanks in the river system, which are especially used for entertainment and local traffic of goods at a small scale. The Danube is an international waterway which spreads from the Black Sea to Sulina in Romania via Belgrade in Serbia, Croatia, Budapest in Hungary, Bratislava in Slovakia and Vienna in Austria to the source point in the Back Forest Mountains in Germany. It has a total length of 2,845 km. It is navigable 2,411 km until Bamberg, where it meets the Rhine via Bamberg/Kelheim Channel with a length of 171 km. The river's length in Romania or along the Romanian border is of 1,075 km. The 170 km distance between Braila and the Black Sea is open for shipping. The Danube is part of the waterway axis TEN-T – 18: Rhine/Meuse-Main-Danube and it offers Romania and the other countries transits major possibilities to develop water transport. Therefore, there are under development or design workings for the improvement of shipping conditions. Moreover, the Danube is a natural barrier for the road/railway transport. It has only three bridges on the Romanian section, although the building of a fourth bridge is planned at Vidin-Calafat and there are a few other passing possibilities by ferry. [6] Transport on internal waterways, although evolving, is not sufficiently enough exploited, therefore having a great development potential, all the more so it has a major advantage from the other ways of transport: it is economical, non-pollutant and has a high level of safety. In addition, a possible development of it would help relieve the road traffic in the north-west of Europe (probably the most affected by this situation).

Shipping represents a very important aspect under the context of the European Union development, which depends on it, in view of its geographical situation but also its historical legacy.

Therefore, 90% of European Union's external commerce and 43% of the internal one is made by means of maritime connections. Like road, air or internal waterway transport, the process of liberalization and opening national markets within the European Union, is almost completed.

Shipping will benefit from improvement workings of navigation conditions on the two sectors on the Danube: the Iron Gates II-Calarasi, respectively Braila-Calarasi. In order for the projects of over 50 million euros to be considered for approval at the European Commission, and because the procedures necessary to start the workings are difficult, the MTCT leaders search for solutions to accelerate investments. [5]

Strictly according to the investments stipulated by the authorities, the shipping industry is among the last as far as infrastructure is concerned. Romania is on top of the European classification from the point of view of the proportion of resources assigned to river transport: as compared to the EU average of 1,1%, Romania gives 3,7% for the transport on the Danube.

River Administration of Lower Danube representatives consider that much more is actually needed. The EU should offer bigger financial support to river transport, since nowadays funds are fewer than for other ways of transport. The ship does not bring the goods, but the goods bring the ship. This scenario supposes the existence of infrastructure: we need a unitary approach of infrastructure elements near the Danube. Terminals in ports, a railway connection Targu Bujor-Albita and a bridge near Braila-Galati are necessary, and, by simultaneously financing these projects, river traffic development could be encouraged.

Ministry representatives stated that there is money for the development of the danubian ports – 25 million euros – but the money will only be given to the private operators willing to invest in specialized terminals. Upstream of Braila however, the improvement of navigation conditions is requested. For Calarasi-Braila sector all studies and projects are ready, financing is provided, but some ecologist organisations made everything stop. It is strange that these organisations have not expressed their opinion, or criticised or given suggestions during public consultations for the projects. They now claim that sturgeons are being killed, but the specialists who have designed the projects actually believe that, by increasing the current's speed it will come to the Danube's flow regime from 50 years ago, before the building of the Iron Gates.

According to the port's administration representatives, the problems concerning projects on the Danube are much serious for Constanta than delaying the construction of Sun Highway. This is because terrestrial infrastructure (road and railway) cannot take the traffic from the port. "Constanta keeps its hub position for the Black Sea for containerized transport, with a traffic increase of 35% this year, up to 1,4 million TEU, according to the last estimations. The Danube's improvement will probably give Constanta the opportunity to become a distribution centre for Central Europe. For this reason but also because the present container terminal barely faces the transit for the countries bordering the Black Sea, the next stage in the port's development concerns the accomplishment of 3 South Mole, with a platform of 35 ha, for which 70 million euros are provided. Also, the extension of 2 South Mole, through an investment from DP World. Once this investment is completed, the present terminal for containers will increase its capacity to 2,5 million TEU", stated Adrian Bratu, commercial division manager of the Maritime Ports Administration Constanta. [5]

The Administration for Navigable Channels (ANC) published the statistics regarding traffic on the first semester, also estimating that until the end of 2008 the limit of 28 tons capacity, which means an increase of almost 10% as compared to last year.

According to ANC, the traffic of goods during the first half of the year was affected by the decrease in activity of Mital Steel Galati, where, for 3 months, people have worked in crash situation and barges have been blocked with raw material, remaining unloaded. Moreover, the cement produced at Medgidia has no longer been exported in barges, as during the last years. However, the total volume of traffic of goods reaches the level registered last year and it has recently improved seriously, reaching a top of 2,45 million tons capacity (92,4% of the estimated level) in June 2008. The navigable have been transited in June by 1,647 ships and 829 sea locks have been made. Cumulated during the first 6 months of 2008, a traffic of 12,653,936 tons capacity was registered. The most transited types of goods were ferrous and non-ferrous ore, coal (export for Austria, Hungary and Serbia), coking coal (export for the Ukraine). Also, during this period, the frequency of urea transport for export from Turnu Magurele enterprise has increased.

It has been estimated that the 2008 traffic will exceed the one in 2007. According to the first estimations, it was stated that it will reach 28 million tons capacity if the

Danube's levels will be the same as last year. During July-September 2008, a period during which serious problems were encountered due to the barriers from different sectors, but the water reserve in the river's basin make us estimate good levels of the Danube for 2008.

The National Company Administration of Navigable Channels (ANC) published an optimistic prognosis of the river traffic for the current year: according to estimations, a traffic increase of 13% might be registered in 2008 (expressed in tons capacity). In order for the navigable channels to come to the 30 million tons capacity value, the Danube's debit should keep within normal limits. If navigation will not encounter extreme hydrological conditions, the ANC management estimates that the traffic level from 2005 might even be exceeded, due to certain new flows of goods. Beyond the traffic prognosis, ANC has announced that it will try to find, together with the European partners, solutions for eliminating navigation problems. At the same time, the company intended to use starting with this year a new indicator for traffic measurement, meant to eliminate the repeated registration of the same quantities of goods.

According to the company's records, in 2007, the traffic on the navigable channels totalled 26,587,991 tons capacity, a level considered relatively low. This low level is blamed on drought, which has influenced especially the production and transport of grain. Also, in navigation conditions on small waters at the Danube, the iron ore traffic decrease towards Serbia and Hungary was registered, and the export of rolled steel – both internal and in transit – has considerably diminished. Moreover, the decrease of Romanian exports and of other countries bordering the Danube was the main reason of traffic diminution on navigable channels. [5]

A recovery was, however, estimated for 2008. In December 2007, a flow of iron ore and coal towards Austria and Germany was registered, which can improve in 2008 if navigation on the Danube is not affected by low water levels. If we take into consideration the flow of goods towards and from Serbia, Hungary and Bulgaria, as well as the resumption of transport to the metallurgical enterprise in Tulcea, it can be anticipated the achievement and possibly the exceeding of 2005 traffic level (32 million tons capacity).

In order to better quantify the ANC efforts, the company makes, starting this year, statistical records using a new indicator: tons capacity-km. Usually, in the European Union, this indicator is not a port one and it eliminates the possibility of double recording a quantity of goods, if it is transported from start to finish on the two channels. The indicator takes into consideration the covered distance and it allows a better quantification of incomes from traffic (these have a percentage of approximately 80% of the total incomes of the ANC).

For 2008, the ANC has estimated a level of 1,825 million tons capacity-km, up with 13% as compared to 2007, when 1,617 million tons capacity-km were registered.

The total traffic of goods developed through the Romanian ports had an increase of around 1.14% as compared to 2007, reaching 57.784 million tons. The National Company Administration of Navigable Channels (NCANC) Constanta published on the 23<sup>rd</sup> of January the information regarding the traffic in 2007, the reporting showing notable increases for shipping and transit, respectively decreases of 10% for the river

traffic and 12% for coastal trade. The most spectacular results have been registered by the container terminals in Constanta, which totalled a traffic volume of 1,411,370 TEU, 36% more than in 2006. As for the container traffic, the quantitative growth was of 29%, from 9.816 million tons to 12.643 million tons.

Shipping totalled 47.015 million tons, 4% higher than 2006. The total transit had a 21% increase, from 12.835 million tons to 15.571 million tons. River traffic totalled 10.769 million tons and coastal trade -7.055 million tons.

The goods with the highest quantitative increases have been various articles, iron ores, iron and steel waste, blast furnace slag, solid mineral fuels, metallic products and chemical products. The grain, non-ferrous ore and products and also oil traffic decreased.

Shipping suffered in 2007 the biggest rise in prices.

Continuously growing for two years now, the shipping costs for shipping of raw materials reached an unprecedented level during the last months of 2007. Practically, in some cases, the cost of transport exceeded the goods' value, but the effects are not yet entirely felt, since 70% of the raw material transport market is based on long term contracts. The situation is the same around the world as well. If in 2006 the rental of a ship for raw material transport from Brazil to China cost 65,000 dollars, the price tripled today, reaching 180,000 dollars. Baltex Exchange Dry Index, the most important worldwide index for shipping reached a record level last month, with an increase of 169% as compared to the same period in 2006. According to market specialists, suppliers, merchants and buyers will face high transport rates next year, too, stabilizing only in 2009, due to the water release of some new bulk carriers. Good profits for amateurs! [5]

Some experts simply claim there are not enough ships! The crisis is blamed on the explosion of the volume of global commerce, because of certain extremely developing countries, such as India and China. On the other hand, the Chinese production industry absorbs huge quantities of raw material, which makes it search for resources in far distances. If Australia were the traditional source of iron ore for the Chinese giant, demand reached such a high level that most of imports now come from much furthermore mines. Practically, those ships that until recently sailed on a relatively short course in South-East Pacific are now blocked for long periods of time for voyages in the Indian Ocean and the South Pacific.

It is true that the ship crisis is not the only explanation for transports' increase in prices. The inadequate equipment of ports is also to be blamed. For example, in Brazilian ports, ships hold on shore even for two weeks because of the insufficient operating capacity. And Brazil is not the only example: according to Global Ports Congestion Index (an index which describes waiting times in ports), the biggest Australian ports were suffocated at the middle of October by 131 bulk carriers of coal and iron ore, exporters having to reduce supplies because of the congestion.

If causes are not very clear, the result is much easier to be estimated: the high cost of raw material transport will reflect in higher prices for finished products. While long term transport contracts are renegotiated, there is the risk of having a chain reaction, which will have as effect speculative increases in prices for steel or aluminium. If such intermediary products will get more expensive, the increase in

prices of finished products is possible. And this time transport costs can no longer be blamed, because manufactured goods are usually delivered on containers and there is not a port container crisis. While searching for solutions, some giant miners found the answer: they buy their own ships. Rio Tinto Plc is a happy example, because it ordered in 2004 a bulk carrier for bauxite and it received it exactly when transport tariffs went wild. The company is now waiting for the delivery of four brand new ships, for not having to contract transports at stiff prices on the "spot" market. Others have tried to rent ships, but such options are not always available to anyone: the ones who have the financial resources are ready to stop unprofitable deliveries. A possible alternative might be offered by port administrations, but the congestion is rather a support for taxes increase rather than for improving the equipments. Such an example is the decision of Shanghai International Port Group to increase tariffs by 10%-21% for operating the containerized goods starting with the 1<sup>st</sup> of January 2008. What is true is that, at a global level, the need for new operating capacities is aware, because statistics do not lie. According to Simpson, Spence&Young, a British naval broker, also acknowledged for relevant market researches, world's great ports registered tonnage records operated during the first eight months of this year. Quoting only two of the British statistics, South Correa's imports increased by 3% only for coal, exceeding 58 million tons, while Brazil sent 167.1 million tons of goods through ports, 10 million tons more than last year.

In the end, it all comes down to shipyards' capacity to build new bulk carriers. And the news from South Korea, China and Japan are optimistic: After having released, years in row, especially port containers, builders now began to take orders for bulk carriers. The only problem would be that honouring the orders is done after 36 months, which means that there will be new ships for balancing the demand for raw material transport only in 2010. In Eastern and Central Europe, the percentage of internal navigable transport is at the moment of only 7% of the total, while in Benelux reaches 40%. In Romania, however, the waterways traffic of goods does not have the same development rhythm as the one of road transport. Romania and central European countries are interested in the development of transport on the Danube, because the river provides the shortest connection between markets within the centre of the continent and the ports in the Far East. Besides arranging the Danube and the Romanian danubian ports, problems on the river sectors from the other countries bordering Romania need to be settled and the river fleet needs to be modernized. Ships have to sail with the same speed as on the Rhine and they have to consume less fuel. By attracting harbour transit and terrestrial transport on internal waterways, the incomes of the Romanian companies involved in type of activity might increase and the GNP would grow, as well as incomes from taxes collected to the budget. For example, Hamburg harbour area, because of the transit and transport activities, gets 16% of the incomes from transports, while the average at the level of Germany is of only 7%.

The value of a port's traffic capacity can be improved by a better labour organization, by expanding and improving mechanization, by the most judicious use of deposits, increasing the turnover of goods, by increasing the level of double operations for ships and the other means of transport or by increasing the level of specialization of working sectors and operations, therefore, by an efficient scientific management. [4]

Shipping in Romania is not used at maximum efficiency. All opportunities offered by this type of transport have to be superiorly capitalized through an adequate management.

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## **RESTRUCTURING OF THE INSTITUTIONAL TRAINING OF ADULTS**

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#### Abstract

Profound restructuring registered particularly by the economies of developing countries were caused by speeding up technical progress and increasing competition. Structural adjustment programs in these countries have led to radical reorganizations, of large scale with a serious social impact, affecting large groups pf employees who, left without work had to be reintegrated into work. In this context was strongly reaffirmed the need for state intervention or private organizations in the process of solving problems of available employment labour resources.

Key-words: adult training, intervention, labour market, regulation

#### JEL Classification: J24

Two conflicting features define the situation of the transitional period in our country in training the adults: despite some serious incompatibilities in the market training for adults Romania faces a very low degree regulation, of operational order, regarding the intervention of secondary factors. From this point of view, we can determine the characteristics of adult training market in Romania in the last two decades:

• despite implementation of projects with non-repayable external financing or cofinancing, which had the effect of accumulation of positive experiences, the developments were not generalized, but only punctual and temporary, and the results poorly recovered;

• although it worked and continues to work that number of structural elements mediating between demand and supply for training (economical agents, training centres for unemployed, education institutions, non-governmental organizations), their frequency of manifestation is sporadic and, when it takes place, to very low parameters;

• another obvious contradiction specific to the market training for adults in Romania is its monopolistic nature despite the fact it is closely related to other markets by which is influenced and that influences.

Despite the growing influence of radical liberal economic philosophy (*orthodox*) especially in the early years of transition, economic and social pressures, tensions accumulated in the labour market and in other market segments in the states in transition to market economy have determined the growing appeal to state intervention, including in the market training for adults.

Interventionism should facilitate the synthesis of positive experiences into coherent concepts contributing to the development of new institutional forms whose mission would be mediation training for adults.

A number of *developing* countries in Central and Eastern Europe (in the last decade), Central America, Africa and in Asia actively intervened in the effective building process of market training for adults. It became widespread the establishment of *regional centres for adult training*, both the institutions subordinate to the central administrative structures, regional or local, and as independent organizational structures created and funded by state up to the performance indicators when they can go on self-financing.

Taking as a model the experience accumulated in the U.S. institutions, Canada and Western Europe, regional centres for adult training pursue specific goals determined both by the requirements of this market segment and by state intervention embodied in the policies and appropriate strategies. Institutional restructuring in this area envisage a series of complex activities with the following purposes:

 increasing the flexibility of demand and supply of adult training that contribute concretely to increase employment of labor;

- introducing a system of indicators to quantify the training needs of adults;

- training of trainers able to initiate training activities appropriate to market requirements;

- adoption of standards, working methods and techniques to meet operatively and efficiently the requirements regarding quality in the training and assessment training for adults;

- labor incentives in decision making so that the solutions adopted meet the needs of performance in economics but also social peace;

- stimulating the competitive spirit, aimed at increasing economic efficiency and normalization process of the adult training market.

We also mention here the fundamental principles of the system objectives pursued in the institutional restructuring process, impregnated principles of pragmatism, namely:

- the decisive role is due to specialists who are best able to describe or define their job;

- generally, work can be characterized effectively and sufficiently by the tasks the specialized workers carry out in the respective occupation;

- all tasks have direct implications on knowledge and attitudes that workers must possess in order to meet the task correctly.

The new institutional structures are based on a number of new ways of working for the development of training programs for adults, as follows: exchange ideas followed by their real and effective revaluation, constructive suggestions developed in a more intimate, less formal work and analysis.

Specific key-words used are not always new: stages of work, responsibilities, job analysis, job tasks, task analysis, etc. Novelty take the increased pragmatism vision and the formalism and superficiality reduction of these institutions, the adopted solutions being direct, prompt and effective in meeting the demand for adult training. In this respect, the training process itself is considering:

- previous work experience and professional knowledge gained are underlying the acquisition of new skills that enable the deployment of new types of activities required in the labour market;

- the light of past experience is expected a superior ability of adult communication and understanding of concepts and specialized terms in preparing a market expanding in the context of European and international labor market;

- priority attention be paid to fostering entrepreneurship spirit inhibited to a great extent before 1989, adults being thus initiated into the deployment of some activities on their own;

- specific reassessment for both preselection and during the adult training process;

- alignment with national and international standards requirements concerning the certification of training quality.

The network centres for the professional training of adults established in recent years in Romania is a true catalyst for market formation that targets areas becoming wider areas of activity but also an increasing number of competitors in a market of vital interest to the human factor of production. Among adult professional training centres established since 2002 we list those in Călărași, Craiova, Cluj, Râmnicu Vâlcea, Turnu Măgurele, based on a project financed with external credit provided by the World Bank. Modern conception underlying the organization and operation of regional centres began to influence market training for adults by the degree of openness of these institutions to all forms of learning, by promoting new teaching methods and techniques and interpersonal communication, by considering the quality of training as a priority in the training process, by training specialists and instructors for adult education, and by providing facilities with equipment at the highest level in support of training. As the network of such regional centres will expand, techniques, modern working methods and procedures will enter into both the activity centres for the qualification and re-qualification of unemployed and traders, institutions or nongovernmental organizations, which have as main activity the professional training of adults.

Institutional restructuring achieved by establishing regional centres for the professional training of adults revaluates capital investments on the line of market consolidation for the professional training of adults.

Profound restructuring registered particularly by the economies of developing countries were caused by speeding up technical progress and increasing competition. Structural adjustment programs in these countries have led to radical reorganizations, of large scale with a serious social impact, affecting large groups of employees who, left without work, had to be reintegrated into work. In this context was strongly reaffirmed the need for state intervention or private organizations in the process of solving problems of available employment labor resources.

Interventionism is the way by which such policies are promoted by virtue of state monopoly on financial resources established at the budget level especially to boost employment and social protection of people looking for a job. An important role in reducing the monopoly have the international financial commitments by which the International Monetary Fund and World Bank intervene positively, this time, in macroeconomic stabilization strategies.

In this context we shall present further a series of measures and targets, which will have the effect of market liberalization for the professional training of adults, as follows:

- limiting state intervention in the relation between demand and supply in order to stimulate demand and supply of training by sustainable and coherent macroeconomic policies and strategies for the professional training of adults;

- self-financing gradual stimulation through progressive reduction of budgetary subsidies or of another kind;

- performance criteria to ensure quality of training to be the single criterion of indiscriminate accession to funds for training of adults;

- ensuring an adequate legislative framework to discourage unfair competition;

- recognition of domestic and international labor certification after raising the level of quality standards used in preparing the current market requirements for the training of adults;

- devoting the continuous character for the training of adults.

Restructuring itself, regardless the nature of the institution being involved in such a process, implies a technical part aimed at reorganizing production, some social restriction on the number of staff and a financial part regarding financing expenses with the retraining.

Solving highly complex problems in this area means in fact other jobs, other activities, other conditions and not least other professional knowledge, skills, abilities. Only thus can be understood the fundamental role of training in the efficiency of labor employment process.

In connection with the emphasis, at least temporarily, on the decisive role of state intervention, whereas employment is a consequence of public and private investments, becomes essential to know the investment process in volume, structure and impact on demand for training. On the other hand, it is also important to know the offer of training in terms of its compatibility with current and future technical requirements reflected in the appropriate occupational standards.

Decrease by removing automatism, routine and negative conservatism – as far as they are obstacles that are inaccessible to the process of assimilation of new occupations or activities for adults – depends on a number of activities, such as vocational guidance, career counselling, selection, recruitment preceding adult education. One of the effects followed by continuous training of adults is increasing the supply of training, increasing flexibility and mobility.

Intermediaries, also, play an important role to ensure contact between demand and supply training, naturally provided by educational institutions, specialized traders and non-governmental organizations. They focus all human and material resources that have traditionally been mobilized to respond to the offer of training.

Efficiency of mediating factors (institutions) action of professional training on the training market for this segment of population is expressed by the normality of such relations, subject itself to compatibility and communication opportunities between demand and supply for adult training.

Traditional educational institutions have not been able to adapt operatively to the new requirements for adult training, showing a relatively high degree of stiffness. Thus, vocational education, secondary, post-secondary and specialized higher education has not the necessary flexibility to receive and respond "on the fly" to the transformation rhythm of knowledge society of the early era called New Age.

Necessary links between demand and supply for adult training, given the characteristics and particularities of this type of market are facilitated by identifying the mechanisms of a new type of socio-economic environment and its structural elements. If in the countries with a developed economy such structures exist, have seen evolution and involution influenced by market demands, in countries with transition to market economy they are in early stage either as a result of play of market forces or as a consequence of strategies and policies promoted in this area.

Given that the target population able to work, adult training, as an independent activity, confronts with the inherent problems in education and training spread out over a **wide range of** ages, respectively from the completion of a form of education until retirement, characterized by:

• different degree of retention of knowledge acquired during initial specialized training;

• different degree of information and improvement of training during professional life;

• different receptivity of knowledge that are required to be assimilated from other professions and specialties, leaving the routine and involve training in an active process of learning;

• increasing resistance to change;

• low resistance to fatigue and competitive climate, as ageing;

• the need for performance and increased efficiency in carrying out trade as a result of the training process;

• difficulty assessing the training of adults.

Based on these realities, in countries with advanced market economies, were established organizational structures, and have been promoted and improved methods of growing pragmatic appropriation of knowledge in the adult training. They have primarily focused on theoretical part, practical training, balance between practical training and theoretical training as well as methods of evaluation and certification training. To these were added continuously at least two essential conditions:

• distribution of the modules in the volume of knowledge that are required to be learned;

• times when the assessment of the degree of assimilation of knowledge must be ensured so that the occupation or profession acquired following the process of training, be successfully applied.

Economic decline registered in Romania, after 1989, adversely affected the training of adults which was and is increasingly marked over worsening gap between demand and supply for training.

If traders are the basic factors of demand and people who want and intend to change their job or profession, or to raise their level of specialized training, are the basic factors of supply market training for adults it is certain that, to the extent that between them appear incompatibilities, there is a series of secondary factors influenced differently depending on the nature and intensity of relations between basic factors.

It is important to note that secondary factors, in turn, intervene in the relation between demand and supply, to the extent required by incompatibility. Their intervention is subject to the legal regulations but also the policies and strategies promoted in the training of adults area. The degree of regulation is higher the freedom of action of the basic factors of demand and supply on the market training is more restricted.

The contradiction between the need for state intervention, respectively the regulations and the need to increase the freedom and initiative degree hinders in turn the rhythm of removing the new traders from the institutional initiator trusteeship. To this it is also added the reduced flexibility of these new mediators concerning the acquisition on the fly of innovations aimed at increasing the attractiveness of permanent training activities.

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# LA PHYSIOCRATIE: DOCTRINE POLITIQUE ET SOCIOÉCONOMIQUE DOMINANTE EN FRANCE AU XVIIIe SIÈCLE

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#### Abstract

# Physiocracy: Leading political and social-economic system of the XVIIIth Century in France

In France the XVIIIth century was characterized by the Enlightenment as a philosophical phenomenon and Physiocracy as an expression of new economic thinking. But the Physiocrats were not merely a school of economic thought, they were also a school of political action. Kings, princes and high public servants were among their pupils. The great French Revolution itself was influenced by their writings. And the force of their work is still not fully spent. In order to appreciate the theory and significance of the Physiocracy it is necessary to take into account the circumstances of its time. Physiocracy is a doctrine which esteems that agriculture is of more importance than industry and commerce. In the above article the following subjects of the physiocratic doctrine are dealt with: the natural order, property and liberty; the relations between the government and the individual citizen, the theory of the produit net and the Tableau Économique of François Quesnay. The evaluation also includes the question about the expansion of Physiocracy. Indeed, it had many followers in several countries of Europe and was also the first real School of economic thinking. By its systematic approach, Physiocracy established the economy as a science. All the aspects of Physiocracy which have been mentioned above are intimately bound together and are in several aspects the economic precursor of the French Revolution.

**Key-words:** *the relations between the government and the individual citizen, physiocracy, the authority of individuals, the sovereign authority* 

#### JEL Classification: Z13

# 1. LA PHYSIOCRATIE AU SIÈCLE DES LUMIÈRES

Au Siècle des Lumières la France connut l'avènement et la propagation d'une doctrine à préséance économique intitulée "Physiocratie". La vulgarisation du nom semble liée à la publication de l'œuvre principale de Dupont de Nemours "Physiocratie ou constitution naturelle du gouvernement le plus avantageux au genre humain" (1769). Il est néanmoins certain que ce nom fut déjà utilisé en 1764 par le fondateur de cette doctrine, le médecin François Quesnay dont la prédilection pour le vocabulaire classique était devenue légendaire. "Physiocratie" est dérivé des mots grecs <fusis> et <kratos> désignant <force de la nature>.

Partant de cette étymologie mentionnons à présent l'objectif principal de cette doctrine: la priorité de l'agriculture face à l'industrie et le commerce.

Quoique intitulés au début "Philosophes économistes" à l'instar des Philosophes des Lumières, les physiocrates ne sont nullement les "traducteurs" des principes philosophiques en jargon économique puisque même les notions courantes telles que liberté> et <droit de propriété> diffèrent: en tant que doctrine la physiocratie est moins abstraite que les idées évoquées par une majorité des Philosophes.

Les différences sont d'ailleurs nombreuses. En effet, le Siècle des Lumières s'étale sur une grande moitié du 18e siècle contrairement à la physiocratie qui ne débute qu'en 1758, prenant son essor cinq ans plus tard. Les idées des Lumières se réalisent en majeure partie sous la Révolution française, principalement en 1789-1790. Les principes de la physiocratie sont appliqués aux environs de 1770-1780, surtout mais non exclusivement en France, comme nous verrons par la suite.

Quoiqu'il en soit, François Quesnay (1694-1774) est généralement considéré en tant que fondateur de la physiocratie. Pour lui l'économie est étroitement liée à l'ordre naturel de la société (voir infra). Parallèlement il préconise la liberté d'action tout en développant ce postulat dans son "Droit Naturel" (1768). François Quesnay, docteur en médecine et médecin du roi Louis XV à Versailles, est également à l'origine d'un Tableau économique de la France partant de ses recherches sur la circulation du sang.

Son analyse schématique, publiée à Versailles en décembre 1758, fut en économie la première présentation raisonnée du circuit socioéconomique. Mirabeau l'appela la plus grande invention du 18e siècle. Les écritures de Quesnay sont essentiellement dogmatiques remettant l'application du système aux mains de ses disciples dont Victor Riquetti, marquis de Mirabeau, ainsi que Pierre-Samuel Dupont de Nemours étaient deux des plus ardents défenseurs. Mirabeau (1715-1789) eut pour mérite principal la vulgarisation du Tableau économique en y ajoutant une longue "Explication" à l'usage de tous dans la vie quotidienne. Sa "Théorie de l'impôt" et surtout sa "Philosophie rurale" (1763) sont restées célèbres. Dupont de Nemours (1739-1817) est à l'origine d'une véritable École physiocratique et œuvra avec plusieurs autres disciples, pour la propagation et la vulgarisation de la doctrine sur le Continent européen (voir infra).

# TURGOT ET LA PHYSIOCRATIE

Á l'intérieur de la France mentionnons Anne-Robert-Jacques Turgot (1727-1781). Sans appartenance directe à l'École physiocratique il nous apparaît par ses convictions et ses écrits en tant que homme politique très imprégné des idées physiocratiques mais demeurant réaliste quant à la mise en pratique de certains principes.

Les années soixante voient Turgot président de la Société Royale d'Agriculture de Limoges. Par le biais de prix et d'autres récompenses financières il essaya de favoriser un renouveau économique: un développement accéléré de l'agriculture pour faire face à la croissance démographique. Mais il s'agit également d'une mentalité changeante depuis quelques décennies: la priorité de la recherche appliquée au détriment du raisonnement abstrait tel qu'il fut pratiqué par René Descartes au siècle précédent. Cet accent pratique est une des caractéristiques dominantes de la physiocratie.

Á l'apogée de sa carrière politique Turgot était contrôleur général des finances sous Louis XVI. Il avait pour objectif des réformes économiques fondamentales et durables en appliquant certains principes de la physiocratie.

Il commença par supprimer plusieurs péages provinciaux et locaux réalisant ainsi une plus grande circulation du commerce du blé et d'autres denrées. Aussi envisageait-il de supprimer les corporations de métiers qui selon lui entravaient le libre commerce tout en gênant une baisse significative du prix des produits finis.

<sup>1</sup> Á l'instar de Louis Jean Bertier de Sauvigny, intendant de Paris dans les années 1760, Turgot envisagea nullement d'introduire le principe physiocratique de l'impôt unique à charge de la classe des propriétaires (voir infra) estimant que celle-ci en chargerait la classe productive, donc les laboureurs, déjà écrasée par des impôts indirects régionaux et locaux. Tout comme Bertier, le contrôleur général Turgot dénonçait également le principe d'une décharge fiscale de l'industrie et du commerce.

<sup>2, 3</sup> Mais voulant supprimer les dîmes et les corvées dont souffrait surtout la population rurale, Turgot s'attaqua aux vestiges mêmes de la féodalité et aux privilèges des Ordres, c'est-à-dire de l'Église catholique et de son clergé (premier Ordre) et la noblesse (second Ordre). Cette noblesse était principalement foncière à l'époque.

La critique croissant de jour en jour, Turgot fut désavoué par le roi et perdit sa charge de contrôleur général le 12 mai 1776. Dès lors il se limita à des activités honorifiques et à quelques écritures destinées à des académies et des sociétés. Dans ses écritures il ne manqua pas de critiquer son successeur Necker ayant supprimé tout ce que Turgot avait réalisé en une période de quelques mois.

Retenons également que Turgot fut à l'origine de deux maximes restés célèbres. En voici le texte complet:

"Supprimer dans l'intérieur du pays toutes les gênes qui grèvent le Commerce et tous les droits qui se perçoivent à quelque titre que ce soit, sur le bled, la farine et le pain; que le Commerce de la première denrée ne soit plus désormais gouverné que par ces deux maximes, si simples, si conformes à l'ordre, si faciles à mettre en pratique: laissez faire et laissez passer". (1)

<sup>&</sup>lt;sup>1</sup> Intendant: représentant du roi, établi dans une généralité. Il disposait d'un pouvoir très étendu. Généralité: circonscription financière de la France avant 1789, à la tête de laquelle se trouvait un intendant.

<sup>&</sup>lt;sup>2</sup> Dîme: impôt qui consistait dans le paiement d'une redevance en nature ou espèces au clergé, en général le dixième de la valeur de la transaction ou du service professionnel.

<sup>&</sup>lt;sup>3</sup> Corvée: travail gratuit qui était dû par le paysan à son seigneur. Surtout les corvées routières retenaient les paysans du travail agricole. C'est pourquoi les physiocrates optaient pour la suppression immédiate des corvées.

*Laissez faire*: il s'agit de la suppression des privilèges des corporations qui sclérosent le commerce et l'industrie et enchérissent les prix.

*Laissez passer*: c'est la suppression des barrières intérieures qui est demandée car les barrières freinent les échanges et empêchent la concurrence de jouer.

Ni la Révolution française ni les libéraux de l'ère industrielle sont donc à l'origine de ces deux maximes, devenus célèbres par la suite. Le mérite en revient à Turgot paraphrasant les principes de la physiocratie. Au 18e siècle lesdits principes étaient révolutionnaires puisque rompant avec les institutions féodales mais devenant réactionnaires dès que le travail professionnel fut pleinement soumis aux mécanismes de la libre concurrence à une époque ultérieure.

## LES MAXIMES DES PHYSIOCRATES

Nous évoquions les deux maximes de Turgot. Ils ne sont pourtant pas uniques puisque la physiocratie s'est dotée d'un éventail de maximes ayant pour objectif l'explication claire et nette au public des principaux éléments de cette doctrine. Á l'avis des physiocrates l'opinion publique exigeait une information permanente de la part des autorités mais également des institutions privées influentes. Déjà le cardinal Richelieu utilisait ce moyen de persuasion mais avec les physiocrates il devenait une réelle "arme" offensive.

En voici quelques exemples éloquents.

• Que l'autorité souveraine soit unique et supérieure à tous les individus de la société et à tous les intérêts particuliers. (Maxime I)

• Que la nation soit instruite des lois générales de l'ordre naturel qui constituent le gouvernement le plus parfait. (Maxime II)

• Que le souverain et la nation ne perdent jamais de vue que la terre est l'unique source de richesses et que c'est l'agriculture qui les multiplie. (Maxime III)

• Que la propriété des bien-fonds et des richesses mobilières soit assurée à ceux qui en sont les possesseurs légitimes. Car la sûreté de la propriété est le fondement essentiel de l'ordre économique de la société. (Maxime IV)

## COMMENTAIRE

■ Ces quatre maximes nous offrent le cadre constructif de la doctrine physiocratique. L'ordre naturel nous est présenté comme un ensemble de lois naturelles voulues par Dieu auquel tout être humain doit obéir pour son bonheur et celui de la société. Le droit naturel a pour tâche de rechercher ces lois et de les expliquer à tous. (2)

Ni les hommes ni les gouvernements ne les font point (...). Ils les déclarent et ils les portent au milieu de la société.

C'est pour cela qu'on dit *porteur de loi, législateur et législation* et que l'on n'a jamais osé dire *facteur de loi, légisfacteur, ni légisfaction.* (3)

■ L'autorité du souverain est unique et supérieure à celle des individus. Le souverain n'a pas à partager ses pouvoirs, contrairement aux principes de la distinction des pouvoirs telle que l'avait formulée Montesquieu en son œuvre célèbre *De l'Esprit des Lois* (1748).

L'autorité des individus n'est que source de discorde car liée à des intérêts particuliers.

■ Insistons également sur la prédominance de l'agriculture face à l'industrie et le commerce. Nous verrons cela plus en détail au chapitre suivant.

■ La propriété foncière et les richesses mobilières aux mains de leurs possesseurs légitimes: c'est la pierre d'angle socioéconomique de toute société.

■ Quant à la libre circulation des denrées entravée par de multiples barrières: elles causaient à l'époque des disettes voire des famines répétitives dans différentes régions de la France et d'autres pays de l'Europe.

# LA THÉORIE DU PRODUIT NET ET LE CIRCUIT SOCIOÉCONOMIQUE

Selon la physiocratie seule l'agriculture engendre un produit net. Après la déduction des multiples frais de production, il reste une plus-value réelle, dénommée le produit net. L'activité industrielle ou commerciale ajoute une certaine valeur aux produits mais la libre concurrence la neutralise. Telle activité n'engendre donc aucun produit net. Ladite activité est néanmoins très utile voire indispensable, façonnant les biens dont l'être humain a besoin. Pourtant cette activité est économiquement stérile n'engendrant pas de produit net.

Pour les physiocrates toute société est constituée de trois classes socioéconomiques: la classe productive (les laboureurs), la classe des propriétaires (les propriétaires des terres; classe vivant du produit net annuel transmis par les laboureurs; sur ce produit net est prélevé annuellement l'impôt unique). Enfin la classe stérile: industrie et commerce, y compris les professions libérales.

# LE TABLEAU ÉCONOMIQUE

Le Tableau économique nous démontre les transferts entre les trois classes: la circulation des revenus et des dépenses de chacune de ces classes.

Conçu en tant que système fermé et annuellement répétitif, il fait apparaître aussitôt la relativité d'un tel système. En effet on y découvre rapidement quelques omissions.

Par exemple: l'impôt prélevé au détriment de la seule classe des propriétaires: il s'agit d'un montant non négligeable mais échappant aux mouvements du Tableau.

Ainsi peut-on s'interroger sur la homogénéité de la classe stérile. Et encore ceci: les dépenses du gouvernement général, des régions et des communes sont réalisées grâce à l'impôt unique.

Malgré son existence réelle et ses activités multiples le secteur public n'est pas évoqué au Tableau. Pourquoi cette omission? Elle semble voulue, les physiocrates agissant contre le colbertisme et les manufactures privilégiées, source de corruption et d'abus de pouvoir. Au 18e siècle l'État perdait annuellement des millions de livres par les malversations des manufactures.

La fabrication des munitions de guerre en est un exemple éloquent. Dès 1785 Antoine Laurent Lavoisier, le célèbre chimiste et fermier général de profession (1743-1794), fit produire de la poudre à canon d'une meilleure qualité et à un prix bien inférieur que celui de la manufacture détenant le monopole et dont Lavoisier venait de prendre la direction. Cela nous permet d'avancer l'hypothèse que la France de la Révolution a su gagner plusieurs batailles grâce au génie de Lavoisier.

Il y eut plusieurs versions du Tableau: de très précises et des vulgarisantes, celles-ci utilisant des nombres entiers et uniquement à titre d'exemple.



Admettons que l'agriculture produit annuellement pour cinq milliards (de livres) dont le secteur (la classe productive !) réserve deux milliards pour sa subsistance et le maintien de l'entreprise. À la classe stérile sont achetés pour un milliard de produits finis: vêtements, mobilier, outils, etc. Les deux milliards en excédent reviennent à la classe des propriétaires en guise de fermage. Que fait la classe des propriétaires ? Elle achète pour un milliard de produits à la classe stérile et pour un milliard à la classe productive. Conclusion: déjà un milliard retourne à la source.

La classe stérile achète à la productive pour un milliard de matières premières et pour un milliard de vivres. Finalement ces deux milliards retournent donc également à leur origine.

L'année révolue, la classe productive est à nouveau en possession du montant total et le circuit des dépenses peut reprendre. (4)

# COMMENTAIRE

Les physiocrates furent les premiers à utiliser le produit net en tant que plusvalue. Les économistes libéraux, en premier lieu Adam Smith, récupérèrent ce principe pour en faire un élément constitutif de leur propre doctrine. Adam Smith rencontra deux fois François Quesnay à Versailles: en 1763 et 1764 en vue d'étudier les principes de cette doctrine dont Quesnay était le fondateur. Smith constata qu'elle se répandait rapidement à travers le Continent européen, à l'époque principalement agraire. Elle ne pouvait que partiellement s'appliquer à l'Angleterre s'industrialisant à toute vitesse depuis la moitié du 18e siècle par l'utilisation à grande échelle des machines à vapeur.

## L'INFLUENCE INTERNATIONALE DE LA PHYSIOCRATIE

Il s'agit d'une influence indéniable, d'ailleurs activée par le contact de plusieurs physiocrates avec les Cours étrangères et leur gouvernement respectif.

Le Mercier de la Rivière fut invité à la Cour de Saint-Petersbourg en 1767. Le roi Gustave III de Suède ainsi que l'archiduc Léopold de Toscane se disaient partisan de la physiocratie. Le comte de Bade (Allemagne) fit venir Mirabeau tout en appliquant en 1769 et 1770 le principe de l'impôt sur le produit net.

Á Varsovie une commission pédagogique décida en 1773 une réforme de l'enseignement économique ayant pour base la doctrine physiocrate, référant surtout aux idées de Quesnay, <sup>4</sup> Condillac et Dupont de Nemours.

Mentionnons également l'influence des idées physiocratiques sur la politique des Pays-Bas autrichiens, constitués d'une territoire plus ou moins comparable à la Belgique actuelle.

Principal adepte de la doctrine fut le vicomte Jean Jacques Vilain XIII (1712-1777), président du Conseil des Flandres. Il l'appliquait au libre commerce avec une attention particulière pour la construction de chaussées et de canaux dont profita également la révolution industrielle naissante. L'objectif principal du vicomte était un approvisionnement plus efficace et plus rapide des villes menant à une baisse des prix pour les denrées de première nécessité. Vilain XIII œuvrait également pour la modernisation de l'enseignement agricole et il neutralisa la peste bovine qui sévissait en Europe occidentale vers les années 1770. Ensuite cet homme politique prévoyant combinait ses vues économiques et les principes humanistes évoqués par les philosophes de son époque. C'est ainsi qu'il allégeait le régime pénitencier et rendit possible aux détenus l'apprentissage d'un métier avant de retrouver leur foyer.

## POUR CONCLURE

Les physiocrates n'étaient pas qu'applaudis. Ils furent en effet vivement critiqués par certains philosophes tel Voltaire qui en 1767 mettait en scène la satire *L'Homme aux quarante écus*. Le dogmatisme de quelques physiocrates était devenu insupportable à certains philosophes qui ne trouvaient pas mieux de railler cette doctrine au lieu d'essayer d'en saisir les avantages pour une France qui fit banqueroute en 1788 suivie d'une Révolution qui balayait en quelques mois et sans ménagement un régime féodal vermoulu.

Plus sérieuses furent les attaques de l'historien et abbé Ferdinando Galiani (1728-1787) accusant Quesnay d'être l'Antéchrist et la Philosophie rurale l'apocalypse. (5)

En général toutefois la physiocratie fut considérée positivement par le public pour ses multiples applications dans la vie de tous les jours. Mentionnons par exemple l'essor de l'enseignement économique et commercial; l'attention systématique portée aux récoltes; les soins hygiéniques et médicaux administrés

<sup>&</sup>lt;sup>4</sup> Etienne Bonnot de Condillac (1715-1780) nous est connu en tant que promoteur de l'enseignement expérimental. Pour lui le seul objectif de la science économique réside en la connaissance des phénomènes économiques et leurs rapports réciproques.

aux animaux domestiques se conjuguant d'une formation plus scientifique des futurs vétérinaires.

En dernier lieu, abordons une question restée jusqu'à présent sans réponse. Si Turgot et d'autres partisans et adeptes de la physiocratie n'avaient point échoués, la Révolution française aurait-elle eu lieu ou se serait-elle déroulée avec une aussi grande intensité alors que le système féodal aurait évolué sous l'influence durable de la physiocratie vers une société plus ouverte et plus équitable à plusieurs points de vue?

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# ADDENDUM Á LA BIBLIOGRAPHIE

1762-1767. Quesnay fait paraître des articles, en général assez brefs, dans divers périodiques où il examine plus en détail certains points de son système. Du Pont de Nemours réunit la plupart de ces articles en un recueil publié en 1768-1769 intitulé <Physiocratie, ou constitution naturelle du gouvernement le plus avantageux au genre humain. Recueil publié par DU PONT, des Sociétés Royales d'Agriculture de Soissons et d'Orléans et correspondant de la Société d'Émulation de Londres > 6 vol., Yverdon (Suisse), 1768-1769.

Depuis 1763 plusieurs économistes avaient rejoint l'École physiocratique dont G.F. Le Trosne, Paul-Pierre Le Mercier de la Rivière et l'abbé Nicolas Baudeau. Ce dernier fait don de son périodique <Éphémérides du citoyen> qui devient désormais l'organe officiel de l'École (1768).

## LABOUR FORCE MOBILITY – FACTOR OF ECONOMIC GROWTH IN ROMANIA

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#### Abstract

The paper aims to identify and synthetically present some factors (demographic–economic, technologic, socio-politic, educational of cross regional disparities) which produced, at the beginning of the 21<sup>st</sup> century, a series of new migration characteristics compared to previous periods, which generated the potential for transformation of the migration processes from the point of view of the typology, level, structures, intensity, costs and benefits.

Also, the paper has in view to perform a multiple analysis of labour force mobility in Romania, by regions, with the aim to identify the social and economic impact of Romanian migration.

**Key-words**: *labour force mobility, socio-economic impact of migration, economic growth, remittance* 

JEL Classification: J21, J30, J61, J62, J82

#### 1. Introduction

In 1849, Victor Hugo said: *It would come a day when all nations of this continent, without losing distinctive characteristics or glorious individuality, would fusion and would form European brotherhood. It would come a day when would exist only battlefields on spiritual level. It would come a day when bullets and bombs would be replaced by votes.* It took more than a century that his utopia predictions to become a reality.

The enlarged European Union belongs to a world that exists in a rapid and radical process of changing; this is the reason for a new stability. In this conjuncture, Europe should not concentrate only on its development, and should be involve in globalization phenomenon. Although it had been obtained remarkable results in the field of commercial policy, European Union had a long road before it would be able to express with a single voice, or it would be present itself as a credible actor at world politics level.

The enlargement of European Union and concomitantly the liberalization of labour force movement determine substantial increase of migration flows' dimension. This phenomenon had an impact on economic growth both on short time and in long time, both on national and regional level.

For the European area, the main incentives for an intensified circulation and migration of persons and labour force are the EU enlargement in successive waves, accelerated demographical ageing of the (West) European countries and economic reasons. To these add up the pressures of globalization, which require new migrating attitudes and behaviours, an increased flow of territorial movements, and a peculiar significance attached to the temporary migration.

Integration of Romania within the EU means, among others, an increase in the EU population by 22 million persons and quite high labour resources, relatively young, but incompletely used and turned to the best account. To these add up an economy in full transformation/adaptation, which has not yet fully defined its development directions. In such a context, integration of Romania is a true challenge, and labour migration and mobility some of the main problems.

Labour force mobility is approached both theoretically and practically in connection with the need of a balanced social and economic development at the sectors and regional levels, combining the structural aspects with the functional ones.

Labour force mobility in Romania represented a complementary result to privatization and restructuring and not a factor of economic development. The labour market was characterized by lack of opportunities for professional development, precarious jobs, weak functioning of the mechanisms/policies active on the labour market, seldom defective (re)allocation of labour force.

## 2. The social and economic impact of migration

The mobility of people in general but mostly of labour force, can influence in a different way the quality of human capital of a country/region of origin, but also that of a destination country/region.

The quantification of socio-economic impact of migration both origin country/region and destination country/region is a very complex process that means the knowledge of costs and benefits at individual, local, regional, national and international level of migration, of world conjuncture analysis.

The effects of massive external and internal migration, on short and medium term are important for economy. The high flow of younger workers has impact on demography and contributes to labour force ageing, reducing the dimension of active population and the number of contributors to social assistance budgets, this it would increase the pressure on social insurance expenses.

In the same time, migrants send important money transfers to families that contribute substantially to the surplus of payments balance. These transfers formed a network of private social insurances that compensate the defects of public system. The research had pointed out that workers had send to Romania, average 200 euro per month, a total of 2 billions euro per year, a sum higher than annual flows of foreign direct investment. That increases private consumption and investment; is clearly than in some Romanian cities and villages it had been gained constructions and services sectors.

Studies made by internal and international organisms indicated the fact that Romanian people have the higher tendency for migration for medium (few years) and long period of hiring, comparatively with other countries from Central and Eastern European countries.

This fact had repercussions on some sectors of national economy, when it feels the lack of labour force. For example, in constructions, one of the most affected sector by the shortage of qualify workers (as carpenters or joiners, etc.), data from National Institute for Statistics indicates that the value of constructions works is increasing from year to year, an important weight is represented by the new constructions.

If EU countries will continue to attract human capital from Romania, then their economy will evolve faster and in this time the Romanian economy will be left behind. As a conclusion, on long term, the EU and Romania economic growth will have divergent configurations.

# 3. The impact of Romanian accession to the European Union on migration

People mobility/movement and especially of labour force could influenced differently the quality of human capital of origin country/region, but also of destination country/region.

The quantification of socio-economic impact of migration both on origin country/region and guest country/ region is a very complex process that means the knowledge both of costs and benefits on individual, local, national and regional migration, and the analysis of world conjuncture in which takes place this process.

The European Union enlargement process means growth and development strategies for member states (the scope being the adaptation to the imposed requests) and, also, corresponding policies for the institutionalization and legitimatization of these European strategies.

The policy of structural funds allocation is integrant part of European regional policies and had as scope the diminishing of socio-economic development departure between members states the increase of economic and social cohesion between regions. It represents also, an answer to the effects of European economy principles.

The European financial instruments have as main role co-financing in member states of interventions in principal domains, both on those that have a region impact and on horizontal interventions that favour the communication between responsible institutions and beneficiary states. The European principles that permit intervention in European funds are: subsidiary, additional, complementarities, partnership, compatibility, multiannual and concentration. All these principles converge to the accomplishment of European Union main objectives, considerate principal axes of European policy for financing through structural funds: convergence, competitiveness and labour force occupation, European territorial cooperation.

For Romania, the occupation's evolution was divergent and it was characterized through the allocation of work resources mostly in the sectors with a reduced efficiency: agriculture and industry. The main identified problems regarding the structure of Romanian labour force, comparative with EU15 and EU25 are:

i) high weight and slightly decreasing of occupied population from agriculture, starting with 2003;

ii) increasing weight, but still reduced, of occupied population from services (approximately half from the EU ones);

iii) the diminishing of occupied population from industry;

iv) weak mobility of labour force from agriculture and industry to services sector.

In Romania is recorded a *reduced cost of labour force*; this fact influences the localization of activities intensive in this production factor (fig. 1).



Source: Eurostat statistics, www.eurostat.eu

Fig. 1. Relative levels of labour force hour costs (EU15=100, (%))

The reduced level of Romanian economic technology leads to a reduced productivity of work, comparatively with the new EU member states; and that erodes a part of reduced wages advantage.

#### 4. Determinants of interregional occupation

Many specialized papers deal with the problem of factors that determinate, generally, regional behaviours of migration. It could be said that from all migration's components, the demographical ones are most volatile and interact directly with other domains of society, as labour market, politic and institutional factors. Non-demographical characteristics could constitute useful information for the stipulation of regional distribution of international migration.

There is an important difference between migration determinants at national level and the ones at regional level. Determinants that could vary between regions are classified in groups:

- economic factors (economic structure, labour market, etc.);
- dwellings market (quality);
- metropolitan character (urban level, infrastructure);
- location (regions borders, distance against borders);
- regional advantages (clime, relief, etc.);
- immigrants' networks.

The first five determinants refer to external characteristics, especially at non-demographical characteristics of regions. The last determinant is related directly with immigration flows.
Traditionally, migration is clearly related with regional differences from economic development. Migrants are often attracted by the regions with rapid economic growth, and in the same time regions less prosperous tend to experiment important flows of emigration.

Empirical studies for the investigation of relative impact of different determinants on migration flows' dimension and distribution had been made by a series of researchers. For example, Zagórski had formulated and tested a number of hypotheses regarding the impact of regional economic structure on regional immigration from Australia. One of its study conclusions was that independence from economic factors, between immigration and metropolitan character of region is a negative correlation. Those regions where an internal emigrant released living space attract international immigrants. Also, a number of other socio-economic characteristics of regions represent a determinant factor of immigrants' destination.

Another tested hypothesis was the one that affirmed that economic power of region and its metropolitan character have an indirect impact on conditions from labour force market. High unemployment implies reduced immigration and vice-versa. This hypothesis had been not confirmed in the analysis made by Zagórski. The unemployment has not contributed to the explanation of regional distribution when it was replaced with other factors.

The industrialization had created changes on labour market, but had destroyed, also, the traditional mechanism of personal insurance. When industrial sector stagnated, workers could not move so easy from a sector to other. Rapid immigration and population' increase had mean that an increasing weight of labour force market had lost the connections with agriculture.

Keyssar suggests that many institutions had initially appeared as a defence modality against labour force market. At the end of 19<sup>th</sup> century, commercial unions had increased in power and one of the most important functions of these was the offering of different modalities for protections against unemployment and inconstant income.

In Sweden, industrialization had begun only at the end of 19<sup>th</sup> century. Montgomery and Olofsson papers indicate the fact that unemployment problem in Sweden appeared long before the apparition of industrialization society and that the first attempts for an unemployment policy (in modern sense) had been recorded only at the beginning of the 19<sup>th</sup> century.

# 5. Determinants of Romanian interregional occupation

Internal migration's flows played an important role in the configuration of regional demographical typologies. Both intra- and inter-district migration are influenced by the general level of economic development and by the presence of big urban centres.

In 1990, in Romania it had been recorded the higher migration flow from rural areas to urban ones, due to the elimination of restrictions regarding residence's stabilization in some cities (over 616,000 from a total of 786,471 persons implied in internal migration flows in the year 1990 had left rural areas to urban areas). After 1992, in the context of increasing urban unemployment, dwellings and utilities' costs had increased; Law of land fond had appeared and it had been recorded a return

tendency, from urban to rural. Thus, in 1997, for the first time in Romanian social history, migration flow from urban to rural had outrun the migration flow from rural to urban (fig. 2).





Fig. 2. Evolution of Romanian migration movement rural-urban

Internal migration flows are determinate mainly by the regional difference from a series of indicators, from which:

• from demographical point of view, Romania is characterized by important regional differences. Sub-Carpathians areas and those strongly urban are characterized by high densities of population, in contrast with mountain areas or the ones from Danube Delta and meadow. Most of the cities are in south, in centre of Transylvania and Moldavia. Regarding the structure of population age, this is relative equilibrated in urban areas, but strongly older in rural areas;

• labour market represents another specific characteristic of current Romanian society and presents important regional variations. Restructuring and transformation process of economy, from all Central and Eastern European countries, had imposed the adopting of a new model of labour market. Beginning with politics, ideological and economic reforms, central-planned model was over fulfilled, old and it had been replaced by a new model, characterized by the liberalization of labour market, the increase of workers in private sector, the extension of state regulation functions, regarding the used of labour force;

• the collapsed of economic activity, especially in the first years of transitions, had profoundly marked Romanian labour market. Occupied active population had decreased, due to production's decline, and the unemployment had increased up tot over 10% from active population – at middle 1995, and new increase are estimated in the context of new reform policies, settled by Romanian Government;

• the higher unemployment rates are visible, mostly, in the regions with forced industrialization, as Moldavia, Oltenia and North Transylvania. At present, private sector includes almost 50% from labour force, but many public factories maintain a supra-dimensional number of employees.

The analysis of internal migration after age shows a higher mobility of adult persons, with ages between 20 and 34 years. This represents over 43% from total migrants. If are taken into consideration their children, it means that over 63% from migrants are younger persons. As causes of interregional or external migration can be enumerated: wages differences from an area to another (fig. 3), unemployment rate (fig. 4).



*Source*: Romanian Statistical Yearbook, 1995-2007, National Institute of Statistics. Fig. 3. *Evolution of nominal average net earnings in Romanian main regions* 



*Source*: Romanian Statistical Yearbook, 1995-2007, National Institute of Statistics. Fig. 4. *Evolution of unemployment rate in Romanian main regions* 

These factors, together with the ones that are characteristic for regions made that population from Romanian main regions to be different, and the analysis of available statistics data distinguished a diminishing trend in all these regions, more emphasized after 2001. Data analysis from fig. 5 showed that, in 2006, the evolution of population number in North-East region is net superior to all other regions, even if after 2001 was recorder in this region the same trend – slightly decreasing – with a stabilization tendency after the year 2002.



Source: Romanian Statistical Yearbook, 2007, National Institute of Statistics.

Fig. 5. Population's evolution from Romanian main regions

# 6. Labour force and migration at Romanian regions levels

In **Bucharest-Ilfov** region, occupation rate of labour force was approximately 50% in the year 2005.

The demand of qualify labour force was higher in Bucharest-Ilfov region, thus – combined with the opportunities offered by capital (urban life style, prestige) – occupied population had a higher level of qualification and education.

Unemployment rate from 2005 is reduced (2.4%) comparatively with national average (5.9%) and the possibility to find a job is real. Mostly registered unemployed have reduced level of education, that means that Bucharest-Ilfov region is confronted with a demand for qualify labour force. In these administrative components, unemployment rate had values of 2.0% in Ilfov and 2.4% in Bucharest.

Regarding internal migration, beginning with 2001, the balance of migration increase had become positive for capital, having an annual average of approximate 5,000 units.

Civil occupied population in **South Muntenia region** was, at the end of 2005, 1,188.9 thousand persons.

Region's south districts are mainly agricultural, with a high weight of occupied persons in agriculture: Teleorman, Giurgiu, Călăraşi. Prahova and Argeş districts are characterised by a high-occupied population in industry and services.

Regarding unemployment rate, at December 31<sup>st</sup> 2005, was 7.3% at region level, pointing out the difference between south and north; the highest unemployment rates are recorded in Ialomita and Călăraşi districts and the smallest ones in Prahova and Dâmbovița districts. The lack of work places in rural areas determinate a massive outflow to Bucharest and younger' migration to Western Europe and this way small villages and cities are depopulated.

The weight of civil occupied population in total population in **Southwest Oltenia region** recorded a reduced level against country average. At district level, the higher occupation level is recorded in Vâlcea district and smaller ones in Olt district.

Labour market reflected tendencies from national level. On economic sectors, civil occupied population is concentrated in agriculture and forestry (42.1%), industry (26.9%) and services (31%).

The unemployment rate in 2005, in region, was 7.4% – a higher value than the average at national level (5.9%).

The lack of adequate work places had determinate also population's outflows to unqualified work abroad. Thus, in '90 the outflow was recorded to Serbia, but after the Yugoslavian crisis, the privileged destination had become Italy and Spain. A relative reduced level, comparatively with other regions; remarks the external migration from South-West Oltenia region but this phenomenon is intensified in the conditions of delayed measures for economic growth and increasing population's pauperization.

Labour force of **West region** represents a factor that contributes mostly to the socio-economic development; this is motivated, flexible and innovative, with a high level of specialization and contributes to the development of a dynamic entrepreneurial medium.

In 2005, civil occupied population represented 834.9 thousand persons, with a significant weight in tertiary sector, followed by industry and agriculture. The weight of civil occupied population had recorded the highest values in Timiş and Arad districts.

Unemployment rate had known fluctuations in the interval 1991-2005, from 2.5% in 1991, to 12.6% in 1999, with a maximum of 21.3% in Hunedoara district, due to cuttings off from mining sector, continuing to decrease and reaching in 2005 a value of 5.1%.

After 1990, due to the possibility of departure abroad for work, an important number of specialists had left the country, following old traditional relations, to German countries and Hungary. These are missing today, when more important investors based on factories in this region.

Civil occupied population in **Northwest region** was, in 2005, 1,145.5 thousand persons. Intraregional differences are strongly related to the industrialization level, the districts with more and sooner industrialization – Cluj and Bihor – have higher weights

of civil occupied population, and the districts with less and delayed industrialization – Satu Mare and Bistrița-Năsăud – have reduced weights.

Industrialization level has strongly influenced the unemployment rate. Due to the industry restructuring, in the last years, Bistrița-Năsăud and Cluj districts had recorded the higher unemployment rates. Reduced unemployment from western districts (Bihor and Satu Mare – less than 3%) is due to the higher foreign investment. These have attenuated, partially, the effects of industry restructuring.

A direct consequence of industrial restructuring process and of unemployment increase is the appearing of a unique phenomenon in Europe – population migration from urban areas to the rural ones and the increase of rural population weight in all the districts of region. At present, there are 3 districts where population is mainly rural (Bistrita-Năsăud – 63.8%, Sălaj – 59.3% and Satu Mare – 53.8%).

Another effect of economic restructuring and of work places diminishing is the emigration process – especially the younger ones where is recorded an important migration. Many places from rural areas (especially Maramureş and Satu-Mare) have a very small weight of younger population, but prosperous through the constructions financed by the money send from abroad. Civil active population of **Centre region** was, at the end of 2005, 1,008.1 thousand persons. In Braşov and Sibiu districts, the weight of occupied population in industry and services was high; these are also the districts with a predominant industrial activity, in contrast against Harghita and Mureş.

Population migration from the last years has been recorded to other activity sectors and immediately after 1990; it recorded a massive outflow to Western Europe, especially to Germany.

Unemployment rate from region recorded in 2005 a percentage level of 7.3. The region, through its complex economic structure, had had an important capital of professional knowledge, especially in technical sector. The diminishing of industrial activity had determinate specialists' migration to other activity sectors or abroad.

Civil occupied population of **Northeast region** is 1,265.16 thousand persons. The highest weight of occupied population is recorded in agriculture, especially in Botoşani and Vaslui districts. The weight of occupied population in industry and services is under national average, Botoşani and Suceava districts recording the smallest occupation level in industry and Vaslui district in services sector. Also, these districts are confronted with an evident small level of industrial and agricultural technology and with a reduced level of population qualification.

Many ageing persons from this region worked temporary or permanent in economic activities in Bucharest, Banat, Transylvania, Western Europe and Israel. In villages from Bucovina, after the departure of young masculine population, it had been recorded an emigration tendency of women; thus in many areas had remained only children and older people. In many areas the construction activity is impressive. The raw material is wood. In this way it has been accentuated the difference between regions' areas from the point of view of general level of development and infrastructure.

The unemployment recorded a higher value (6.8%) than the national ones (5.9%)

In 2005, civil occupied population of **South-east region** was 1,028.2 thousand persons, mainly in services and agriculture, followed by industry. It is remarked high 150

weight of occupied population in services in Constanța and Galați districts, due to the health resorts seacoasts and due to Constanța, Mangalia and Galați harbours. In contrast, in Vrancea district, over 50% from occupied population was working in agriculture and 62% of district's population lived in rural areas.

The unemployment, with a value of 6.4% (at the end of 2005) is higher than national average (5.9%). The cutting offs from the metallurgic industry (MITTAL GROUP) had determinate Galați district to have the higher unemployment rate, followed by Brăila and Buzău.

The lack of adequate work places, inadequate wages and inappropriate qualification had determinate massive outflow to areas with economic growth, national or international. The most accentuated migration is recorded in Vrancea district, especially due to fragile economic structure, where younger population had left places to work abroad.

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# THE APPROACH OF EDUCATION IN THE VIRTUAL SPACE

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#### Abstract

The main objective of this paper is to analyse some particular aspects on collaborative environment focusing on educational applications. Stating collaborative space, defining its own workspaces and sharing mechanisms become the most important tool in order to perform actors' actions and interactions. Consequently, the mutation produced in educational area is also drawn, concerning: learning procedures flexibility, learning objectives dynamic covering, evolving sensitive curriculas as feed-back Portfolio Method is used to customize the different states of evaluation in learning collaborative environment.

**Key-words**: Lifelong Learning, Portfolio Method, collaborative space, education

#### JEL Classification: I21

#### 1. Collaborative environment

Combining computer networks and telecommunication had inspired a new application class focused on group activities support. Such an application may be used by individuals in order to mediate their interactions in performing collaborative actions. Designers are faced with new challenges: no space borders, teams' activities coordination, provide common view of shared sensitive information for entire team. Because a lot of this requirements are generic to any collaborative activity it's naturally to define basic generic services and building blocks in order to quickly develop specific solution covering a given area.

The main feature of a collaborative aspiration consist in: many players commit a suit of transactions in order to perform some common objectives. In a such approach, each player shares its own experience or information (part of), documents, databases, different computer application and so on. Such partners will exchange data entities and knowledge reaching common and individual objectives. Deploying this approach the implementation of new learning methods are needed. A new dimension – collaborative environment specific – has a large impact on the learning process (methods and methodologies) because of the essential collaborative nature of learning. An entire age face to face meeting was the appropriate way in communication. But sometime this become a strange barrier for acquirements. Technical statement of collaborative environment allows come back to the former definition of communication: not one

way information transfer, but peer to peer knowledge connections, giving up relevant tools for laerning, in a dipper fashion.

# Reusable service library

One of the most important challenge refers to re-building information systems and integrating them in collaborative environment keeping in use legacy applications. The usual approach is to expose specific aspects as services hosted in a library. Designing this services in a appropriate level of abstraction, OSI architecture low levels compliant it become possible to have different instance for different area, for heterogeneous software platforms, for different type of computers. Because of high level of costs reuse each slight of information, application, structure or hardware/software architecture became essential. Stating, designing and deploying collaborative services in educational area became effusive.

*Information management:* a service which enable actions on date for decision making, in any field, to be modelled and instantiated in order to process and record collaborative transaction.

*Group communication:* this service is used for synchronizing distributed member's interactions.

*Team Management:* service which enables team building, both for structured groups and ad-hoc groups. The main task should be: team structure's statement, the identity and roles for each partner, and actions allow for them to operate, to build the team and team decommissioning.

*Process Management:* this services operate over enterprise formalized (coded) rules, coming from different departments, being accomplished through repetitive usage and storage. This services provide support for ad-hoc process usage (using informal relationship and connections for usual task performance).

*Infrastructure support:* this sort of services states a basic level for connectivity and data transport protocols between computers (ensuring the efficiency, interoperability and location transparency in order to control access to critical resources). These are needed in order to have a real access control to the restricted resources, as well as to have an appropriate security level for data exchange.

Sharing information became an essential feature of collaboration. Information is transformed in an explicit knowledge, which allows making decision for team members, having a collaborative objective. This sort of information may be private (owned by an individual) or may be shared. In this way we state the concept of Information Space, which concern stored data containing information. The sort of information contained may be any type, meaning any storage facility for managed data: file names, databases and so on. People work usually with that public data in a private way. Working Information Spaces identification is needed to support group collaborative activity:

- personal Space - the information is owned by a group member, usual solely;

- group Space – the information is owned by the group, all group members share it; the information is available to each of them;

- organization Space - the information is owned by the organization (the reunion of different teams), being available to different groups belonging to the organization;

- project Space - the information is available to each organization involved in that project.

The applications working on data belonging to such spaces allow team members working in a collaborative way. The information used by application (and the resulting information) will be a data combination from different relevant Information Space. This is shown in figure below.



Fig. 1. Information scope and communication template

Information management services enable: members' access to such spaces and information identification conflicts. Typically, this services must be able to: create, delete, modify, search, update, transfer and authenticate. In behalf of these, some validation service for information management should work: information modelling and information mapping.

Sating collaborative space and its referred services open a new way to think educational process. A new environment is born defining working space for each player involved:

The student will have:

- his or her own working private space;
- a shared space fellows and teacher (optional);
- a shared space stating only teacher-student relationship;

- a public space – the student publish the activities results here.

The teacher will manage:

- his or her own working private space;
- student shared spaces, defining access rights for each student;
- a shared space collaboration with other teachers;
- a public space containing activities result published.

Teachers' community:

- a shared space – with the participation of each member of teachers' group;

- a shared space - between different teachers' groups;

- a public space - containing activities result published.

In the same way, it will be structured shared spaces, common and collaborative, for faculty, university, social community (town, county, etc.) level, having a specific granularity of views.

These spaces allow interaction on all the levels and granularities in order to accomplish the objectives of social community, university, faculty, individual, etc.

Such a structure allows in an operational way defining and redefining politics, strategies and immediate actions having a strong and effective feed-back, assessable, automatically conveyed to each cell of the system.

It's important to define all services, at each granularity level, publishing measured results and pointing out non-standards compliance behaviour, in order to accomplish such a functionality. More, the portability of appraisable results and activities on heterogeneous hardware and software platforms and business environment become really a necessity.

Of course, the heterogeneous environments, the different approach and authentification methods become a challenge for evaluation. Obviously, there are more approaches in evaluation methods. We focus our research on Portfolio Method because of a high level of portability assured.

# e-portfolio

A e-portfolio is a container, heterogeneous as format, and containing different types of information concerning subject's activities:

- about digital and non-digital work papers created by subject (or with subject's participation);

- about other activities where the subject was involved;

- the competencies accomplished by subject;

- about subject's bias;

- assessment notes issued by any actor involved, reflections or simply evaluations;

- about the results on all tests' performance;
- contextual information supporting results' interpretation;
- integration in informational context;
- about e-portfolio authoring and intellectual property.

Generally speaking, e-portfolio service and, especially, the needed storage are not the e-portfolio subject.

Based on objectives of use, there are stated different sort of e-Portfolios:

- Assessment e-Portfolio - are used to demonstrate achievement to some authority by relating evidences within the e-Portfolio to performance standard defined by the authority. Rubrics are commonly used to score assessment portfolios.

- **Presentation e-Portfolio** – are used to evidence learning or achievement to an audience in a persuasive way. Presentation e-Portfolios often contain instructions about how their contents should be depicted. This type is frequently used to demonstrate professional qualifications.

- Learning e-Portfolios – are used to document, guide, and advance learning over time. They often have a prominent reflective component and may be used to promote meta-cognition, to plan learning, or for the integration of diverse learning experiences. Learning e-Portfolio most often is developed in formal curricular context.

– **Personal Development e-Portfolio** – is defined as "a structured and supported process undertaken by an individual to reflect upon their own learning, performances and/or achievement and to plan their personal, educational and career development. This could include a learning e-Portfolio, but goes beyond that.

- **Multiple owners' e-Portfolios** – are used to allow more than one individual to participate in the development of content and presentation.

- **Working e-Portfolio** - combine elements of all the proceeding types. They often include multiple views, each of which may be analogous to an assessment, presentation, learning, or development e-Portfolio.

In an historical view the five degrees of e-Portfolio maturation are defined mainly based on portability degree and the interaction between the main factors involved in creation, certification and simply use of e-Portfolio.

Level 1 - Scrapbook – These portfolios are simply collections of selected assignments completed in a course or awards they received along the way, having different presentation forms, unstructured. These portfolios are not a usual tool and is difficult to assess the real student performances evolution (even for a specific assessor).

*Level 2 – Curriculum Vitae –* These sort of portfolios are traditional too, containing both student's personal data and the performances connected to a given curricular area. Curricula are in this case a natural and formal framework which allow performance criteria to be defined and, therefore, a formal and procedural assessment of accomplished tasks. Many concerned parts are manual edited, having a low degree of portability.

Level 3 – The organization able to support such a portfolio needs to have very clear defined curricula requirements or to be compliant with standards defined by an formal authority against which the evaluation should be done. Such a portfolio is build from examples stored in a database. The database access is controlled by creator (student) and refers individuals whose feed-back are summative or formative for published documents, influencing student's evolution. The portability depends a little bit on platform, but is limited to technical aspects.

Level 4 – This sort of portfolio is similarly with the previous one, inside adding some important features for infrastructure needed: including portals referring performed activities, some tools for mentor (coach, teacher) – student connection, feedback from mentor (coach, teacher) processing, making possible to assign and reassign tasks, re-formulate at all or partial a previous approach. The added value due to the organization is relevant and consists in a strong functional infrastructure (technical, educational, informational, available analysis, access control, networking etc.). The portability is platform independent including some criteria accepted by both organization and social environment.

Level 5 – This type of portfolio adds features in order to authenticate activities and certificate competencies and ability. The organization proofs by itself or by a recognized body the evaluations and reports concerning authenticated activities, objectives accomplished. These proof a inserted in a way (directly, by a portal, by a database of organization, by references, etc.) into portfolio content. To be effective, the credibility of organization is significant. Here are involved the executed policies of organization, the accurate evaluation of results and the impact due to the organization in social environment. The portability is at the highest level.

Starting with the Level 3 it is possible to reuse information contained in portfolio. At Level 3 the certification authority is limited to the Faculty level where results on courses and practice are accepted and recognized, covering a curricular area. At Level 4 the information is available at University level ensuring the portability over University's space. At Level 5 the portfolio aims to be an integration tool between student, organization and society. Of course, the organization itself needs to have such a portfolio, needs to positively respond to relevant requirements as: a strong infrastructure in order to ensure the informational portability, at faculty, university and society level, to be able to certificate performances against relevant accepted standards (ensuring professional portability) etc.

As example we will use the results developed in Grundtvig PELLEA project, no. 110510-CP-1-2003-1 DK-Grundtvig – G1: Portfolio Evaluation in Lifelong Learning improving Employability for Adult Learner.

# Learning process

Portfolio based evaluation method involve two main actors: student in one side and in another teacher (coach, mentor, tutor). The relation between the both sides is based on collaboration and it become obvious that student is guided and assisted by teacher in order to develop competencies.

Portfolio based evaluation methodology means a suite of documents published by student being commented by fellows and teacher in order to assess the progress performed by student in a new competence development.

The development competences process is an interactive complex one. The teacher's role refers: monitoring, guiding and assessing not only the student's activity but the whole learning process. The role of the student essentially consists in reflection and progress.

We refer a model for learning process having fife stages:

1) enrolment;

2) initial Assessment;

3) assignment;

4) final Assessment;

5) presentation.

During learning process arise both legacy educational feature and new features virtual space specific.

Virtual space work as a specific toolkit available to all the actors involved. The semantic side of educational process is human specific. It is a measure of acceptance of educational needs in knowledge based society. The learning process need to fill, the gap between professional requirements and personal competencies and abilities covering a main need both for potential learners and society. We try to define the new

image of teacher based on legacy experience and having a new view about the new context, focused on quick changing needs.

### Essay on mentor definition

We remember that the mentor is a rudder, managing learning process. The mentor assess the actual competences, make the assignments in a dynamic way for learner, evaluate in each stage the performances and continues this iterative process until the new required competence is reached. Is someone alike a teacher but more and more. The new image of a teacher as a mentor is stated by European Commission mentioning that e-learning need new models for teacher and formatters highlight the role of mentor to support learners in the age of new technologies. European Commission state: "Traditional academic mission consisting in knowledge transfer from an undoubted expert point of view is inadequate in an open, flexible learning space supported by IT&C. Teachers and tutors need to be focused on cooperative building of knowledge in order to perform eLearning" (Attwell 2003). The learner is collaborative involved in this role conferring the initial semantics of concept (for instance: Academos)

#### Services type

As mentor, the teacher plays this role on several distinct directions. The cardinality of role is due to many factors as: personality of learner, previous competencies, organization resources, infrastructure ensured etc. Its mentor's ability to be addressed as model by learner, as a personal reference model able to offer that that learner attempt (knowledge, behavior, social position, dialog, collaboration). The learner perceives the teacher as a coach, guide, or somebody able to manage portfolio area. More specifically, a mentor need to support the learner to focus on his/her personal aspiration and to well define the objectives by sharing knowledge, competencies, attitudes, abilities needed to reach the final educational target.

The mentor will support the learners to: define their weakness and strength, stating competencies needed, making a good action plan, a good schedule in order to manage organizational aspect. Over formal and professional communication the emotional support is important.

In order to define the collaboration mechanism it's important to share the common space in three slices:

learner area – is owned by learners who have the entire access control. This
area is used by learner to do homework, to reflect about, to store the information, to try
anything about the subject, being both formal and informal;

- teacher&learner area – owned both by learner and teacher, the learner having a limited access rights. It's the most important area. Here the communication and collaboration will take place. It's a formal area; any essay will be assessed and the learner receive a feedback from teacher;

- teacher area - owned by the teacher. This is s the evaluation, monitoring and feedback trace area. It may be used for teacher evaluation and educational process performance assessment too.



*Source*: David Tosh, University of Edinburgh, "EUCEBS and the e-portfolio", presentation made at the Seminar on e-portfolio, Regina, Canada, June 2004

Fig. 2. Overview of the learning process

Collaborative approach empower semantics of contextual communication between community's actors, event the community is a small one, a state or an union. The entities conveyed are not information or knowledge but competencies and abilities. Each actors need to learn from each other. Ensuring a good functionality is not enough. It's needed to have a flexible and efficient behavior and to perform this requirement it is necessary to learn.

Creating and maintaining a portfolio, especially on higher levels of maturation, allow to evaluate author's (authors) activity following a many sort of criteria from the educational criteria to employer specific, from quantitative to qualitative, from individual instances to whole activity, functional and behavioral

It's obvious that the organization's role grows significant. Learning in virtual environment is enabled if and only if the organization is able to comply with defined, accepted and implemented standards. Standard poverty should lead to a poor social efficiency. The organization's role concerns flexibility, that means that the student's objectives math environment objectives, defined occupation fit market requirements, applied curricula meet the demand of occupation. A lot of opportunity arises due to this new approach both in educational field and business environment. The educational role becomes more and more important. Nobody have time enough to have an effective educational choice. Information amount is huge and personal and social needs refer competencies and abilities not separate information or knowledge. Learning is not enough. Efficient learning is a necessity.

#### Learning process integration

We drew some features for the two main actors: learner and mentor. We drew an evaluation model resulted from contextual dialog between learner and mentor. It is important to understand that this type of dialog is not insulated. Is not insulated because mentor him/herself may be a learner having his/her dialog with another mentor, faculty become a learner for university, university is a learner for environment and so on.

Such an approach takes advantage even if unforeseen regarding learning process integration. Learning about environment needs means understand them and translate these needs in educational process means integration.

A good evaluation process is essentially, because the complexity of studentmentor roles grows exponentially at each level in hierarchical tree. It is more and more difficult to manage functionality but is better to assess the results. Speeding evaluation process on different views about subject's activity and aggregate results may be efficient. Even if is a large amount of data processed is better to shift toward competencies and abilities evaluation rather than information and knowledge. This provide a great flexibility in learning process management being able to states finest granularity for learner's objectives, course's learning objectives, faculty strategies or university politics. It was already stated that the learning basic process running at low level (learner-mentor communication) can't be insulated but it is a part of real environment's life.

In this approach mentor's evaluation is focused on defining a learning strategy for student. In order to certificate the learner's performance it is necessary to have a defined authority doing that. In this way the learning process become more efficient, more objective embedding all levels performances (university, faculty, course, mentor, student). Measuring educational result by amount of resources deployed is not enough. Measuring effects due to education in real life is in turn o valuable reason. That is why contemporary Return of Education (ROE) is a frequently used criteria. ROE allows modelling, deploying and implementing educational policy architecture. We can define levels of such architecture:

- European;
- zonal;
- national;
- local;
- organizational;
- curricula;
- course;
- actors directly involved: learners and mentors.



Fig. 3. Learning process integration

Now, we have a balance between the two approaches: society to education (topdown approach) and education to society (bottom-up approach). There is a permanent dialog between the two approaches. The society (administrations, social and business environment) asks competencies and education answer result in competent people. This life cycle becomes shorter and shorter.

Moving toward the new education's technologies is a necessity.

This integration itself allow managing effects, allow to effective assess student's competence level. Because of dynamic of technologies, because of the challenge of changes it is necessary to permanently upgrade competencies. That is why Lifelong learning concept is born. Collaborative approach coupled with virtual based learning process seems to be answer to change management.

# Conclusion

The society is changed. The new sort of society named sometime Knowledge Based Society already reached a certain level of maturity. This approach regarding learning in new age is an integral part of Knowledge Based Society, as Lisbon declaration states. This main change influences new opportunity arising, determining new and unforeseen needs. It's difficult to perceive the whole society as jointed issues, but as a complex sum of all aggregate events. That is why education can't be disrupted from the new age technologies characterizing the extent and complexity for each component. The identified part of society needs, coupled with new technologies leads defining educational policy architecture.

Therefore, this approach is not (and can't be) an extension for traditional approach. It is different, even it use some experienced results, tools and attached methodologies. Reusing valuable results from past in a new approach, defining new relationships between actors and fills them with new semantics; structuring education in a well built architecture is a chance to face the Knowledge Based Society challenge.

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# IV. MARKETING, MANAGEMENT – DOMENII PRIORITARE ALE POLITICILOR DEZVOLTĂRII DURABILE

# ROLE OF MARKETING IN IMPROVING DIDACTIC ACTIVITY QUALITY IN HIGHER EDUCATION

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#### Abstract

Increasing the competence level in teaching services has to be based on a thorough knowledge of both customer needs and the way they are willing to receive the information contents.

Applying rigorous scientific marketing principles to the organization and operation of education services offers the fundaments of such a development.

The present article outlines the results of a qualitative research – focus group – conducted on a sample of Spiru Haret University students, which had as a main goal identifying the most effective ways of communication in the student-professor relationship in order to design creative teaching materials, perfectly adapted to present educational needs.

The conclusions of the research emphasized both the perception of the students regarding the definition of their own position during the education process, and the willingness to actively take part in developing the informational support suitable for educational services. The study also revealed aspects regarding the perception of scientific research, of the willingness to be involved in such a systematic and complex effort.

**Key-words**: *educational marketing, educational market, focus-group research, perceptions, direct communication, educational offer, scientific research* 

#### JEL Classification: I21, I23, M31

The development of marketing theory and practice during the last decade has also brought in the specialist's focus the problem of applying marketing in education.

For the offer of education services, implementing the marketing activity involves adapting it to the specifics of educational services, and, moreover, integrating some principles that belong to social marketing. Although private education had a constant evolution both in our country and abroad, the meaning of the education act regarded as a cultural act is still essential at this level.

A whole series of basic concepts from the classical marketing theory were adapted to the new domain, so that, at present, we can talk about concepts like: educational supply and demand, education services market, consumers, contact personnel in education, etc. At the heart of marketing activities lies the satisfaction of the extremely complex needs of the consumers, the dynamic adaptation to those needs, as well as anticipating the need of well-being on the social, general level. All these will be based on a complex system of services – the education process. Education will represent a complex phenomena consisting of a series of measures, systematically applied in order to create and develop the intellectual, moral, or physical features of (young) people. Education is a system of educational goods, and, in the same time, the totality of institutions and activities involved in its promotion and spreading. Education looks at values regarding human needs. The demand of goods and services from this domain depends on the intensity of consumer motivation, of them relating to a larger framework, characteristic to their society. The concrete need attached to offering education services is in a dynamic and complex relationship with all the other superior individual needs, being one of the catalysts for their social integration, for their cultural belonging to a specific national space.

The education process, considered in all its complexity, includes training the individuals, integrating them in the socio-economic dynamics, developing competences that allow the graduates of different forms of education to creatively assert their personality.

Inside certain limits, educational products can be thought of as goods which can be purchased, deposited, distributed or sold. They can be assimilated to a distribution and production process similar to the one encountered in the case of classical goods and services.

Education represents now an international product, offered by institutions which, at the same aggregation level, are competing for students and for finding more and more creative ways to satisfy their needs and preferences.

Taking into account the continuous increase in preferences for flexible ways of distance learning, teaching institutions notice that, when students come from different cultural environments, they could also have different learning styles, which leads to the need to establish both flexible teaching curriculums and teaching methods adapted to this cultural diversity.

The organization specific to distance university learning, electronic learning, is the model closest to the situation in which the organization which offers the education service will develop a marketing strategy similar to any other organization.

The conceptual area of educational services is continuously developing, always adapting itself both to consumer needs and to the cultural changes of society in its entirety. The diversity of educational services can include, at present: courses, seminars, e-learning services, simulations, scientific communications, conferences, theme contests, shows, extra-curricular activities, etc. This variety of educational services will be completed by a series of products which support the service (teaching materials, other information resources), connected services and a specific environment needed for offering the service. In each case, the educational activity cannot take place and does not find its meaning outside the painstaking process of preparing, creating and synthesizing the educational support – the sum of essential information without the education process would be impossible.

The present article studies, based on the methodology specific to focus-grouptype qualitative research, this problem itself – the activity of creating educational material for university education by identifying the most creative solutions of active collaboration between the service provider – professor, assisting professor (teaching personnel) and the service customer – course participant, student.

The focus-group-type research was chosen because its characteristics allow the successful identification of the motivations, perceptions, complex relationships which appear in the student-teacher communication process. The focus group method was initially developed in the sociological environment, being subsequently adapted to the specific needs of the marketing activity. It enables obtaining qualitative information, unable to measure by classical, questionnaire-type surveys. The statistical relevance of the acquired information cannot be validated, unlike quantitative research, but behavioural or perceptual models resulted from the analysis accurately reflect the decision processes, the response mechanisms, the initiatives of different classes of consumers subjected to this type of demand.

Understanding the role and importance of qualitative marketing research starts with knowing the structure of human psyche. Specialists refer to the three successive psychological levels:

• Cognitive level (to know) deposits information received from the environment, the total of information and beliefs from an individual's memory;

• Affective level (to like) includes what the individual feels in reaction to the elements of the surrounding world;

• Cognative level (to act) includes the unconscious factors which form the foundation of the compartment. Modern psychologists think that most of an individual's actions are determined unconsciously; deliberation is only "a posteriori" rationalization.

In correspondence to the three psychological levels, three response levels can be identified, which express the individual's reaction (for example, in the buyer's position) at external stimuli (coming from the producer who pursues certain objectives).

• The cognitive answer – refers to information held by the individual and to his knowledge; it is rational, in accordance with social norms (notoriety, product awareness, etc.). For example, considering as a stimulus a message issued by an institution for higher education in order to announce a new master program, the response of the target audience can be cognitive, as the receivers of the message will know about the existence of that master's program.

• The affective answer – is evaluative; consists of the appearance and development of feelings, preferences, judgements, favourable or not, regarding a brand or organization. For a brand which benefits from an image campaign pursuing its association with a set of values like youth, dynamism, well-being, an effective response is expected from the target audience, which is supposed to share the same values, followed by establishing a preferential relation with the brand.

• The cognative response – its concrete form of manifestation is the purchase; identification of the most hidden (unconscious) reasons to buy is imposed. For

example, a sales promotion campaign, with the help of an adequate technique and by a specific message, can determine, in a certain time interval, the increase of the frequency of purchase.

It is recommended to use a focus group discussion especially in the following situations:

• When information about general or collective problems (for example, financing culture) are wanted:

• When the perception, attitude or buying and consumer behaviour are subject to the influence of groups, of norms (medical prescription); in these situation the perception and interpretation of reality by individuals is determined;

• When the discussed problem is difficult, anguishing, and the decrease of anxiety is needed (as in life insurance).

The difficulty of interpreting results in the case of qualitative research lies in the fact that the resulting information are the fruit of a permanent dialogue between the moderator and the group members, the objectives of the request being approached using a semi-structured interview guide.

The quality of information is closely related to the process of filtration by the group members, by the experience of the moderator and by the concrete environmental conditions of the research. In the present case, filtration was based on the quality of active student involved in the teaching process, the day form – a characteristic predisposing the bearers of information to the most complex feedback related to the research objectives.

The research was based on an interview guide applied to a total of 38 students of *Spiru Haret* University, in three working sessions. Among the research objective there were: identifying the students' perception about the position of student, identifying the students' perceptions about the ideal model of teacher, the opportunity of involving students in establishing teaching materials, the student's perception about scientific research, etc.

After the content analysis of the discussion, the following aspects were revealed.

Thus, from the perspective of the students' perception about the quality of student, they defined their status themselves, both from the point of view of their own experience, directly involved in the teaching process, and idea-wise, referring to the social model. Individually, students perceive themselves by a series of attributes like: unfulfilled, misunderstood, staunch, high aspirations, dreamers, insufficiently prepared according to their own standards. They perceive themselves as persons involved in a voluntary effort of information gathering, by interacting with a large numbers of information transmitting modalities: course frequenting, seminars, dialogue, interaction. It was also apparent their sensitivity toward the need of a higher degree of interaction with teachers – the motivation is represented by being aware of the fact that without dialogue, preparation becomes one-sided.

Another defining topic for their quality of students is the lack of knowledge and skills characteristic to the work of scientific data gathering, most participants believing that they do not know how to gather data, they lack methods, they are unfamiliar with the basic steps of the information gathering procedure, their efforts are discontinuous, irregular, and without a well-defined strategy.

From the point of view of attributes which can define the picture of the ideal teacher, respondents synthesized attributes like: open, involved, talkative, serious, professional, very well informed – flexible, keeps up with information in his speciality. A special importance, in this profile, belongs, according to students, to the teacher's ability to adapt himself from the perspective of the dialogue with different generations of course participants, to the practical way by which he manages to keep the innovative character of information and of teaching methods.

The efficiency in the information gathering process is measured by attributes such as: perseverance, ambition, discipline, quick information processing, responsibility, dedication. We noticed the lack of ability to define long-term and largescale objectives, and the inability to measure the long-term effectiveness.

The objective of the research regarding the students' direct involvement in designing teaching materials by an active dialogue with teachers was quantified from more perspectives simultaneously. When asked by the teacher to take part in developing practical material attached to the already existing courses, the respondents expressed their agreement, as long as an equally shared study theme is established. They also agreed that such an involvement increases the teacher's ability to better appreciate the degree of interest for the course. It is also remarkable that this request becomes a motivational factor that stimulates a more fluent dialogue among all the participants in the education process.

The most attractive teaching material is considered the one with the greatest interactivity, which assumes transmitting information in a way as active as possible. This discussion topic revealed an extremely suggestive aspect, both by the nature of the gathered information and by the high degree of adherence from respondents. It is about the fact that involvement at the dialogue level, in case of an interactive teaching material is, in all the respondents' opinion, motivated mainly by the result of the act of studying – awarding the students' activity.

The communication of a teaching material which focuses on active involvement in knowledge and in the teaching process itself has the smallest success chances if it is conducted outside an official framework which implies quantification by a marks system of this involvement. In other words, students are motivated by passing exams, outside this motivation, the study will be conditioned by the degree of each student's particular interest toward the object of study, not necessarily related to the teaching system.

On the other hand, there is the perception according to which the status of interactive material also stimulates competition among students, even a kind of compensation mechanism for the teacher's active efforts.

From the point of view of student participation to the development of teaching materials, not only to the information transmission process, most of them saw this initiative as a challenge, as a way to remove the sometimes false perception regarding that particular teaching material. The factors regarded as important in the involvement decision are: course type, theme, other possible collaborations with the teacher, the degree of information anterior to the prepared course.

Most of them want an involvement at the courses perceived with the "specialization" status. The involvement is measured by the data gathering work, by

ensuring of a vision on the discipline, the veracity of the information sources – the pertinence of the information presented to the teacher. Some respondents expressed reticence toward a continuous, long-term involvement, considering it "boring".

On the other hand, assuming personal opinions outside the official information sources was seen as a positive challenge only if the student emotionally adheres to the object of the specific course. A certain perception was also revealed here, for the first time in the discussion, about the scientific research activity – the involvement in a future teaching career.

The respondents considered that they can personalize the relation with the teacher only if there is a feedback in this direction from the teacher.

As for the means of motivating the involvement in developing teaching materials, besides a series of direct advantages which the institution can offer (free access to various courses, subscriptions to speciality magazines, websites, workshops, the possibility to conduct practice sessions, etc, the opinion was noticed according to which the official recognition of the involvement in realizing teaching materials represents a very important motivation factor.

From this point of view, the focus group members agreed on the need of a personalized quantification of each one's contribution – the specification, within the structure of the teaching material, of each author's personal contribution. The recommendation from the teacher was also regarded as a very important way of motivating. When asked to what extent they agree with the involvement in developing teaching materials next to other institutions, firms, organizations, administrations, apart from teachers, students responded affirmatively, when they are offered the possibility of an active involvement. Also, if after realizing a teaching material the quality of collaborator is acknowledged as practical experience, promoted by the teaching institution itself within an organized framework – establishment an individual chart with the student's involvement in developing teaching material throughout the university years, this is considered a substantial motivation and advantage.

The last discussed topic was the students' perception on the scientific research activity, also the topic was also briefly approached previously. Students regard scientific research as a vast domain, requiring lots of time, patience, data gathering work, synthesizing. Maybe the most important aspect is the perception according to which a certain personality type is necessary for those involved in this activity, as well as a professional profile. The perception was also revealed according to which scientific research implies an imbalance between practical activities and theorizing the subsumed concepts.

The focus group-type study revealed a series of aspect, which can be synthesized as follows:

- the subjects' capacity of introspection and self-analysis;
- lack of essential attributes for scientific data gathering;
- interest and motivation determined by formal recognition of the results;

• need for dialogue from teachers, based on dynamic relation ability, co-interest and ensuring a competitive environment;

• lack of initiative throughout the dialogue – the perception that the teaching

institution and, implicitly, teachers, have the obligation to initiate any form of dialogue or supplementary involvement of students in the educational activity;

• lack of method in approaching the individual training effort;

• general willingness to take part in initiatives that would assume co-interest in elaborating teaching materials.

• well-developed critical spirit, doubled by a relatively homogenous capacity of supporting their point of view;

• lack of a coherent perception about scientific activity.

• great willingness for building relations between the teaching institution and other entities which can help the easier integration of the students in a social value circuit (other teaching institutions, firms, associations, etc.).

Taking into account these considerations, further research can elucidate the students' behavioural models in the conditions of the development of educational programs built on the "lifelong learning" principle.

The study was conducted on micro-samples homogenous from the perspective of the cultural environment – all participants were from the urban environment, of close ages and of Romanian nationality.

However, one must also take into account the possibility that, as previously underlined, applying the conclusions to a statistical population which includes students from a larger cultural space (European, regional, etc.) implies a re-evaluation within the framework of a more ample research.

The main aspect identified will also be valid to a large extent in this case, but further research could elucidate the problem of adapting teaching methods to each student's cultural background.

Motivation and involvement in designing teaching materials with teachers will vary considerably from case to case, the more technical the student's socio-cultural background is, the quicker he will respond to the teacher's initiative of transmitting complex information and knowledge throughout up-to-date educational technology – internet, multimedia, etc. The advantages of fast distance communication, of real-time linguistic conversion, etc, can make a decisive contribution to the increase of the students' degree of involvement, even at the level of scientific, academic activities.

Further analyses can also be conducted from the point of view of students' perception on the dominant existing means of organizing the teaching activity – student centred learning experience, versus teacher centred learning experience.

The first one focuses on a greater involvement of students in the knowledge transmission process, most teaching materials having a practical basis, a large degree of interactivity.

The second one implies a greater effort from the teacher, knowledge gathering being accomplished more by individual study, and less by a close contact between students and teachers.

The development of a competitive educational marketing strategy for a modern educational institution should be built based on both the type of conclusions signalled by the present study, as well as on a larger effort of quantifying the perceptions and motivations of students, who make up the effective market of the institution. Multiple research will establish the degree of segmentation of the educational services demand, the socio-demographic profile of these segments, as well as the bearers of the demand relate to each method of pedagogical approach mentioned above. The large teaching institutions, which operate on a national and international level will have to adapt the education strategy to the students' different cultural backgrounds and different degrees of familiarity with different technologies.

Finally, we can assume that only a substantial effort, consisting both of qualitative and quantitative, transversal and longitudinal research, can constitute a sufficient information fund for making competitive decisions from the point of view of developing modern education services. This effort is required especially because of the considerable dynamics of the 21<sup>st</sup> century information society, and of the fast evolution of information and educational technologies.

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# ASPECTS REGARDING THE ROLE OF THE FINANCIAL MANAGEMENT IN ELABORATING AND IMPLEMENTING THE ORGANISATION'S STRATEGIES

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#### Abstract

Globalisation, increasingly harsh competition, more demanding clients, continuous technological progress – are factors which are now influencing all activities. Organisations have to be as flexible, adaptable and able to permanently reinvent themselves as possible, in order to survive in an environment which allows increasingly less the existence of weak competitors. Most companies function in a business environment where changes, the unpredictable and the uncertainty are the only certainties. In this environment, one of the basic challenges is the company's survival through strategy and competitive advantage, all of this leading to the financial performance. But it is impossible for managers to elaborate and implement a strategy without the knowledge, the abilities and competences of the ones involved in the financial management.

Key-words: strategies, financial, management

#### JEL Classification: G11, G30, M40

We are living in a global economy characterised by rapid changes, the acceleration of scientific and technological processes and an unprecedented level of competitiveness. These mutations have forced the company to evolve, to eliminate what used to be and look towards the future. Not in any way, but with certainty.

The challenges that companies face today are well known: boundaries in change, rapid development of global markets, explosive competition, demographical changes and an increasingly rapid change rhythm. Companies struggle to get adapted, by building the organisations of tomorrow based on the new operation strategies and techniques and on a new way of thinking things through.

Elaborating a strategy seems to replace improvisation with rationality, and, following the same path, to limit the investigation fields. As we know, the strategy as a process has a heuristic character. We are not only talking about having a reference framework for judgements in distributing the company's resources, but it is necessary to generate alternatives, to make projects. Fuelled by a managers' prospective attitude, the strategy is an incitation to question the products, the procedures and methods, it is a calling, a challenge to a prospective reflection, an impulse for a permanent quest. At the same time, an active strategy demands for a flexible organisation, open towards its

environment and where creative spirit overcomes the resistance towards changes and factors which hinder imagination and enterprising spirit<sup>1</sup>.

Improving the 21<sup>st</sup> century companies' competitiveness has become the key for their survival, especially under the circumstances of creating the European economic space, the European Union integration, the globalisation of exchanges and the growing interdependency of national economies, the international competition exacerbation, the intensification of technological, financial etc. progress. The main issue of the 21<sup>st</sup> century companies is not that of finding the best answer in time to survive the changes, but to make work an integrated system of strategic management, impossible to be accomplished in the absence of knowing the financial strategies, which would permanently allow them to meet the challenges generated by change, to elaborate hypotheses concerning the most probable evolution directions of the external environment in order to properly and rapidly adjust the strategy.

Analysing the theory and practice of the contemporary market economy underlines a considerable typological variety of strategies which actually outlines how companies can ensure the fulfilment of their mission and the adjustment to change. The specialised literature shows a number of classifications regarding the strategies, considering various reference criteria. Therefore, there are the following **types of strategies**:

- a) according to the *coverage area*, strategies can be divided into: *global strategies and partial strategies*;
- b) according to the *hierarchy level* to whom they address, there are: *general strategies, business strategies, functional strategies, operational strategies;*
- c) according to the *time horizon*, there can be: *long term strategies, medium term strategies, short term strategies*;
- d) according to *the company's level of participation to the elaboration*, we can have: *integrated strategies, independent strategies*;
- e) according to *the dynamics of included objectives*, there are outlined: *increase strategies, neutral strategies, recovery strategies, restriction strategies*;
- f) according to *the objectives' type and the approaches' nature*, there can be distinguished: *privatising strategies, reorganisation strategies, managerial strategies, economic strategies*;
- g) according to *the behaviour towards partners*, there are outlined<sup>2</sup>: *competition strategies, relational strategies*;
- h) according to *the position held on the market*, there can be distinguished: *the leader's strategy, the challenger's (the secondary) strategy, the specialist's strategy;*

<sup>&</sup>lt;sup>1</sup> Domokos, Ernö, *Management ieri, azi, mâine*, Presa Universitară Clujeană Publishing House, Cluj-Napoca, 1999, p. 23.

<sup>&</sup>lt;sup>2</sup> Naneş, Marcela, *Managementul strategic al întreprinderii și provocările tranziției*, ALL BECK Publishing House, Bucharest, 2000, p. 100.

i) the classification according to *the way of obtaining the competitive advantage* emphasizes: *strategies oriented towards costs diminution, differentiation strategies, focus (niche) strategies.* 

Under the context of the present harsh competition between organisations, it becomes absolutely necessary for managers to focus on adopting and implementing some competitive and qualitative strategies<sup>3</sup>. Expending the company's activity, analysing and anticipating business failure are fundamental issues of the financial management for the elaboration and implementation of a strategy. Expansion is one of the most important objectives of the company of the future. The development's financial implications are represented by a continuous need of financing, for the short term, but also for the long term. A good cash flow management will diminish the necessity of financing of long term growth from stakeholders and creditors, and the control practiced by the company on the floating assets will minimise short term financing necessities. An efficient financial management of an activity's development includes both previously mentioned elements.

Regardless of the chosen type of strategy, during this time of powerful changes, of intra and inter-sectorial mutations, exchanges need to be led and not imposed.

The signs of change are always present: for most companies, the difficulty consists of finding the ways to interpret them. This supposes the permanent monitoring of the business environment, the consideration of reactions, even if messages are not favourable. In fact, the elaboration of any strategy would have to take into consideration the *environment's challenges*. These are the result of a dominant feature which characterises the environmental evolution at the beginning of the third millennium – the competition's increase, which has as an effect: the increase of the market's exigencies and clients' diversification, the increase of research-development costs, respectively the necessity to develop certain production ways characterised by high productivity and flexibility.

The main challenges of the future can be grouped into **two strategic analysis axes**<sup>4</sup>:

# a. *The new characteristics of the production processes*, generated by the following strategic mutations:

- increasing costs for the research and development of new products;
- increasing period costs;
- diminishing investments' profitability;
- costs' pressure on prices;
- ➤ the flexibility;
- $\succ$  the total quality.

<sup>&</sup>lt;sup>3</sup> Constantinescu, Dan Anghel; Breban, Emilia; Niculescu, Oana, *Strategii competitive dinamice*, Colecția Naționala, Bucharest, 2001, p. 11; Drucker, F. Peter, *Managementul strategic*, translation, Teora Publishing House, Bucharest, 2001, p. 162.

<sup>&</sup>lt;sup>4</sup> Cârstea, Gheorghe (coord.), *Analiza strategică a mediului concurențial*, Economică Publishing House, Bucharest, 2002, pp. 18-22.

# b. The way of selection and concentration of advantages for development.

The main mutations from this point of view are:

- increasing activity niches;
- the flexibility of the activity's portfolio;
- > the guarantee integration by increasing the value added.

If we carefully analyse each of the challenges imposed by the future under the circumstances of change, we can notice that the financial implications are everywhere. Either they express themselves through costs, prices, the research-development activity, the activities' portfolio, quality etc., the financial consequences or implicitly the financial strategy cannot be avoided when you want efficiency, competitive advantage or just the company's survival.

Many of the existing companies face economic and financial difficulties, especially from the perspective of future challenges. Going from a company in difficulty to a viable or even efficient company requires the elaboration and introduction of an adequate strategy, which, through the adopted objectives and policies, could overcome these challenges. Such a strategy should intensify the company's advantages, turning them into competitive advantages and eliminating the existing disadvantages, therefore avoiding turning them into threats. Improving the financial situation is one of the company's most important objectives within the reorganisation plan.

The financial management of the company's activity increase faces various problems, among which the most important are 5:

- establishing the reasons for an increase of the company's activity;
- the proper selection of the activity's increase strategies;
- > analysing the financial implications in the process of the activity's increase.

The strategy's accomplishment involves certain lasting investments, especially for making the fixed assets. Thus, ensuring the financial conditions favourable to a development strategy represents the first involvement of the financial management for ensuring the company's economic development, materialised in the estimation of the main factors which determine the investments' efficiency: the total volume of expenses for investments, the investment's life, the expected profit, the investment's residual value.

Supplementary fixed assets created on the investment are characterized by long financial cycles, the recovery of fixed capital lasting a few years. Under these circumstances, the correct establishment of the investment's efficiency means to ensure comparability in time of the engaged investment effort and of the results. Therefore, the capitalization of annual expenses required to finance the investment are calculated, the reference moment being the date for launching the exploitation of the new assets.

Bringing up to date the profits from the investment shows some issues of the calculations' exactness  $^{6}$ :

<sup>&</sup>lt;sup>5</sup> Botnari, Nadejda, *Managementul în sfera întreprinderilor în contextul tranziției*, www.feaa.uaic.ro, p. 15.

<sup>&</sup>lt;sup>6</sup> Andronic, Bogdan-Constantin, *Performanța firmei*, Polirom, Iași, 2000, pp. 95-97.

- The correctness of the expectations regarding the positive cash flows, taking into account the probability of the estimations of future profits and payments;
- Selecting the updating rate by taking into account the inflation's effects, the oscillations of the interests' rate, of the average profitability rate level in the sector, the various risks.

Usually, the selection between the interest's average rate adjusted to the inflation and a risk premium, and the capital's balanced average cost is made, which includes both the economic risk and the financial risk of the investment's financial structure.

# The updating calculations help determine the efficiency indicators of the development investment:

- *b the recovery term;*
- ➤ the updated net value;
- > the profitability index;
- ➤ the internal profitability rate.

The success of the strategy mostly depends on how the development investment is made, which, together with the investment decision represents the foundation of the company's financial balance. **Choosing the most adequate way of financing and promoting a flexible and coherent financing policy, based on a rigorous analysis of the financing possibilities, represents the second implication of the financial management**. The major aspect had in view refers to the establishment of the capital's size according to the necessities imposed by each strategic option, as well as by the reimbursement and allotment possibilities for the borrowed capital. A highly important issue concerning the capital necessities refers to the size of the relation between fixed and current assets. Within a company, the financial manager must plan, get and use the capital to maximize the company's value. Since getting and allotting the capital implies specific costs, and often the capital offer might not be very rich, it is the financial manager's duty to obtain the necessary capital at the lowest possible costs, to have in view its most efficient usage and to create the favourable conditions to reimburse it.

Achieving this goal implies that, in the capitals' establishment and usage process, certain criteria and restrictions are considered, which, in the end, will give the company a level of financial independence absolutely necessary to its viability, by adapting to the changes that come along. Thus, we must consider as a criterion for grounding the financial decisions the coverage of investment requirements in fixed assets through permanent sources, while current assets shall be covered both by the circulating fund and the short term loans.

The efficiency of the capital's establishment process can be determined by comparing the estimated size of the necessary capitals and the obtainable results. Getting a monetary surplus while using the estimated capital and for the estimated destinations is proof of efficiency of the establishment and usage process of the investment funds. Estimations regarding the efficiency of establishing the capital, however, have to take into consideration the fact that the size of the monetary surplus has to cover the entire allotted capital cost as well as the financial management's objective to increase the company's value.

Elaborating a strategy might affect the debt capacity, meaning the possibilities to be granted loans whose reimbursement, including the due interest does not create major financial difficulties. This represents **the third implication of the financial management in ensuring the company's lasting development: measuring the company's maximum debt capacity**. M. Levasseur<sup>7</sup> stated that "there are never free resources in an enterprise, large or small, listed on stock or family owned. The problem is to find a way of the explicit cost of each financing source". What matters is that the efficiency of using the capital is high enough to ensure the company's development after covering the capital's cost from the remaining profit.

The behaviour of the financial management cannot limit itself only to establishing the financial needs and finding the sources to get the capital. It must be systematically concerned about the way in which the company is able to pay the falling due obligations. Under these circumstances, **the fourth implication of the financial management in elaborating the strategy is the systematic control and analysis of maintaining the company's financial balance**. This is because the company's growth, often followed by sales increase, may require significant increases of the necessary circulating fund. Another risk of liquidity reverberation is also generated by the fact that permanent capitals' allotment and orientation with priority towards increasing the fixed assets may cause decreases of the circulating fund, with negative effects on the investment of the necessary circulating fund. In order to prevent these situations, an analysis of the financial balance through liquidity indicators should be achieved.

The fifth implication of the financial management is **ensuring the actives' liquidity**, the liquidity's surveillance and control being outlined by the assets' rotation speed

A special task of the management in ensuring the company's growth is also to provide a balance between the strategic options that support the development project and to maximize the economic usefulness for capital owners. The stakeholders' interest is best represented by maximizing the shares' value, increasing its value in stock. The evolution of the shares' value in stock depends on the demand for those shares, which is even greater as the value of the main indicators which express the company's dividend policy is higher. The choice of financing the increase could be in the prejudice of share market, because it supposes the consolidation of net capacity to self-finance the economic entity by diminishing dividends given to stakeholders. If stakeholders estimate a too high self-financing capacity as compared to the received dividends or a very high debt level, they will decide to sell the shares which will cause an increase of the offer and therefore a decrease of the rate of exchange. Most of the times, stakeholders ignore the fact that a long term development strategy may bring the increase of the company's net patrimonial situation, namely the own capitals' value, being in favour of an orientation which would maximize their short term profit in the prejudice of long term profitability. For that reason, in order to

<sup>&</sup>lt;sup>7</sup> Bodnari, Nadejna, *Managementul în sfera întreprinderilor în contextul tranziției*, p. 19, www.feaa.uaic.ro.
eliminate the above mentioned risks, the financial management has to ensure a short term satisfactory and stable level of annual dividends.

Since the development's purpose has to answer, first of all, the stakeholders' and investors' interests, materialized in maximizing the value of own capitals, of the net asset financed from these capitals, the net situation being the main indicator of the increase (relation no. 1).

$$NET SITUATION = ASSETS - DEBTS$$
(1)

Another important indicator is the company's efficiency value (relation no. 2), which expresses the future updated profits, which come from the basic activity. Evaluating the company's patrimony is made according to the future profitability of the economic and financial activities.

$$VRT = \sum_{t=1}^{n} \frac{P_t}{(1+r)^t} + \frac{VR}{(1+r)^n}$$
(2)

where:

VRT = the profitability financial value;

P = future profits;

T = years of the company's economic life;

VR = the company's selling value after n years;

r = the updating rate (average profitability rate in economy or in the company's field of activity).

Given the difficulty of correctly estimating future earnings, based on the hypothesis of maintaining the company's profitability potential for the future, the efficiency financial value can be determined by capitalizing the current resources (relation no. 3)

$$VRT = \frac{\Delta_t}{r - g} \tag{3}$$

where:

 $\Delta_t =$  next year's dividends;

g = the constant ration of dividends' annual increase under the circumstances where g < r.

The positive oscillations from year to year of the efficiency financial value reflect the positive results of the company's development strategy, materialized in increasing the profitability potential.

A more expressive illustration of the development strategy can be obtained by analysing the dynamics of profitability rates, the development's purpose being the increase of the company's profitability. The growing evolution of profitability rates, the maintenance of their value over the average of the company's economic sector (in case of economic rate) and over the interest's average rate on the financial market (in case of financial rate) proves the efficiency of development investments. As a conclusion, we can state that a strategy **is not**: the result of a visionary thinking, a secret, a guarantee of success. A strategy **requires** stakeholders' involvement, the correct evaluation of the company's past and present situation. A strategy **does not require:** over humanly abilities or intelligence, external significant support. A strategy **is** a programme that helps the company develop and keep a superior competitive advantage on the market. And all these depend on the financial management.

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# THE IMPORTANCE OF FINANCE AND BANKING MARKETING IN THE PRESENT CONDITIONS

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#### Abstract

Taking into consideration the complexity and dynamics of economic and social life, in general, and especially actual environment which the economic entities and, particularly, the financial and economic crisis facing humanity, the role and the importance of marketing in the financial-banking activities is growing. This role is referring at: actual economic and social dynamism, providing financial and banking liquidity, managing financial and banking risk and customer operations. Responsible for the increased importance of the current banking and financial marketing are factors such as: significant increase in the services sector, in general, and banking one, in particular; complexity and dynamic of marketing environment, especially, the banking sector, increased competition regarding this area and, not least, the effects of the current crisis. In such a context, significant efforts are required towards the improvement of marketing activity, both macroeconomic and banking units in each part.

**Key-words:** *banking marketing, financial and banking environment, the market mechanism, the banking market, banking operations, forced banking operations, baking liquidity, evaluation of banking risks, relations with the clients* 

#### JEL Classification: G20, G32, M31

Now, during the financial crisis, economic activities are, more than ever, submitted to the rigorous examination of the market, which "rewards" (or sanctions) the "contestants" efforts. Certainly, market means both opportunities and restrictions, the efficiency of each economic agent taking part in the market "game" depending on the way he becomes integrated in the "rules" of such a game. Present life unequivocally proves that efficiency makes the difference between "players" on the market, whose present and future is the result of the way they respond to the requirements of an ever more sophisticated, complex and dynamic market.

On the other hand, as a natural consequence of demographic and especially cultural changes, consumer behavior changes radically, making them more and more demanding. Such changes are considerable and have powerful consequences, thus, economic agents, both producers and consumers, should take into account processes and phenomena like population migration (with all its forms), aging, increase of life expectancy, changes in number and family structure (for example, the decrease of the average number of family members and the increase of one person households), and, especially the increase of family and individual income, and, finally, the "cost increase" of each individual's time.

At the same time, the increasing complexity of the present economical and social life, the dynamics of the external environment for economic agents, the increase of

their exigencies, require from the participants in the market activities, new and effective ways of involvement in market mechanisms, being obliged to radically reconsider their strategies, and maybe even the object of their activity. There is a need for a new market vision, an adequate responsiveness to its signals, to the environment, a continuous market investigation, and, especially an increasing capacity to adapt to these changes, as well as to influence, and direct the market as much as possible.

Those problems are also faced by those who work in banking and finance. They are even more and more difficult, taking into account the peculiarities of the specific environment, its complexity and the acerbic competition on the financial and banking markets.

Those are only a few aspects which "remind" of marketing, especially when it includes an attitude as well as practical activities and a scientific working armamentarium.

In this context, the present material aims to present a series of brief considerations of the place and role of marketing in economic activities, especially finance and banking. We will try to present such considerations starting from the new trends, generated by the present complex conditions of economic and social life, and especially by the financial crisis. Certainly, from the many problems which could be the object of a complex marketing analysis, we shall select only the factors which contributed to the origin, development and growth of the importance of marketing in banking, to its role and place in the present conditions. We believe that such a topic can be addressed from the following perspectives:

- the role and importance of marketing in the financial and banking activity;
- the role of banking marketing in the present socio-economic dynamics;
- the role of marketing in ensuring financial and banking liquidities;
- the role of marketing in managing financial and banking risk;
- the role of marketing in dealing with customers.

Banking and financial management takes into account the relations developed when allocating and using the financial resources existent in the economy, relations which are reflected as follows: (i) in the state budget and in certain extra-budgetary public funds, which form the public finances (in this case we are talking about the marketing of public finances) and (ii) in the activity of specialized economic agents – banks, insurance societies, exchange agents, etc. – which form the sector of financial and banking services (in this case, we are talking about the marketing of financial and banking services). Of course, our analysis focuses on the second type of relations.

Even though they are not the exact object of our material, we shall briefly present, in the beginning, the main factors "responsible" for the emergence, development and increase of the present importance of financial and banking marketing.

Of course, the main factor is represented by the significant increase of the financial and, implicitly, the banking sectors in the economy. The acceleration of the rhythm of financial and banking services development created the need for "characterizing" marketing and for dedicating a separate marketing domain to those problems and activities, as banks, their management, all their personnel, have an entirely special interest for the knowledge of many aspects related to their domain,

being aware of the negative, sometimes dramatic consequences of ignoring marketing particularities in this sector.

The second, equally important factor, which contributed to the emergence and development of financial and banking management is represented, as we mentioned above, by the complexity and dynamics of the environment in general, and of the financial and banking environment in particular. It is a dynamic, unstable, sometimes even turbulent, an environment of all sorts of "deregulations", as well as a highly technologized.

Such an environment makes its mark on the banking institution. In these conditions the finance and banking market, as complex and dynamic, is more and more difficult to know, anticipate and especially to control. In such a context, finance and banking marketing finds a favorable acting ground, becoming an important mean by which the bank "tries" to cope with the "meanders" of such a environment and to ensure this way the correlation of its activities with the environment requirements.

Another important factor in the emergence and development of the financial and banking marketing is the ever more acerbic competition in this domain. A competition which imposed and still imposes changes in the banks' strategy, regardless of their "size" or position on the market. The marketing sectors from a banking institution should present those responsible with the evolution of this competition, with the competitors' actions, should propose new ideas, so that the bank can successfully face such a strong competition. Only a specialized marketing can respond to such commandments, and this is the financial and banking marketing.

The three factors presented above, even though decisive in the emergence and development of the financial and banking marketing, are not the only ones. There are also the so-called "accelerator" factors which should not be neglected, and here we think especially at the contribution of the economic theory, the works of marketing specialists, the courses taught at a series of economic universities in Bucharest as well as in other economic centres.

In general, marketing has a determining role in the socio-economic activity, being justified by its objective and goal function, a role which signifies, in fact, the emergence and development of marketing in general and of finance and banking marketing in particular. There are three such functions:

- the satisfaction, in superior conditions, of consumer needs;
- maximizing economic efficiency (profit);

• reducing the gap between the offered services, on one hand, and the expected and received services on the other hand.

Such a role is, of course, imposed by the overall evolution of society, which, in its turn, led to the change of traditional relations between production and consumption. Such a role is also found in the financial and banking segment, in this case "there are dysfunctions in the relations between the institution and its environment, dysfunctions reflected negatively in the whole activity of this economic sector, but especially in its basic components: financial and banking liquidity, financial and banking risk management, good relations with customers.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Gheorghe M. Pistol, *Marketing. O abordare din perspectivă financiar-bancară,* Editura Universitară, București, 2009, p. 34-35.

In these conditions, the role of financial and banking marketing will manifest itself in a series of clear directions, which take into account first the present socioeconomical dynamics, and then the three important components mentioned above.

I. The contemporary socio-economic dynamics, present in nearly all the domains of present life and which represented a decisive factor in the emergence and development of marketing has and will still make its mark on the financial and banking field, significantly and continually influencing the specific environment. Such dynamics generated multiple dysfunctions in the financial and banking environment as well, with negative consequences on market actions, reflected in multiple disagreements between the bank shareholders and the customer requirements. So, at present we are talking about a "time" for deregulation. The causes are deep and especially multiple, and the consequences on the financial and banking market are considerable, even ample, most of them being also noticed in the Romanian banking activity. We take into account mainly the following such consequences:

• the increase of the number of intermediates acting on the financial market and the emergence, besides classical banks, of non-banking institutions, some even with a great potential;

• the loss by many banks of the dominant position previously held on the market, many of which facing "problems";

• the placement of disposable money attracted in different economic sectors, by investments on the capital market, in commerce and tourism, on the real estate market, etc., in order to obtain extra profits, but with much higher risks;

• the reduction of differences between the financial and banking institution regarding the activities performed, services offered, prices, distribution and promotion.

All these phenomena led to the appearance of a considerable number of commercial banks, as well as the extension of their geographical areas, and diversification of the services offered. Subsequently, we are witness of an ever increasing separation between the financial services provider and consumer, thus increasing their risk of failure. In these conditions, marketing is called upon to become an important mean by which such service providers ensure the correlation between the activity performed and the customer requirements. That is why, for a banking institution marketing will represent the conception of putting into practice and realizing, with all available means, the objectives of consistent development and satisfaction of the previously determined and selected market segments. In other words, marketing appears as a response to the environmental changes, to an ever more unstable, changing, even "turbulent" environment.

Of course, the effects of applying modern marketing methods and techniques in the financial and banking sector are beneficial, both for the service provider, ensuring a high efficiency of the activities performed, and for the service consumer, ensuring the identification of his needs and requirements with the services offered, adequate information, multiple possibilities of choice, sometimes even facilities, in other words, a high level of satisfying his requirements.

II. In the framework of the functioning mechanism of a bank, the problem of liquidity is permanent. A bank is considered to have liquidities in the conditions of immediate access, at reasonable costs, at the necessary funds. This means that the bank

either has the necessary sums, or it can get them by borrowing or selling actives. In this context, bank liquidity has a series of functions, among which the most important are:

- assuring the creditors of the capacity of the institution to fulfill its obligations;
- avoiding the losses resulted from forced operations on the market;
- avoiding forced active selling;
- avoiding forced refinancing.

Banking marketing seems to have a considerable role in realizing those functions, which can be adequately managed, Thus, it is assumed that, after engaging in a series of intermediating operations, attracting short-term resources and placing these resources on the long term, the bank can find itself in a potential non-liquidity position. Such a potential lack of liquidity should be foreseen, the need for liquidity should be estimated, considering that liquidity depends on a series of present and future situations of the different markets on which the bank acts.

As we are talking about the relation between supply and demand, we are facing a typical marketing problem, of studying the overall economic conjuncture, especially those of the financial and banking markets. It is precisely the knowledge of the abovementioned situations, but especially their future prediction, which constitutes the object of marketing research. In such a context, marketing is called upon to ensure the continuous surveillance of the socio-economic environment, first by designing an adequate marketing information system, and then by feeding its database, with the help of marketing research, complete and concrete information, available at the right time. In order to do this, the management of the banking activity should be completed, during the specific processes, by a series of marketing actions.

Of course, in principle, all these problems are among the attributes of the bank treasury, a market-oriented, sales- and client-oriented treasury, concepts specific to classical marketing. In such a situation, the activity performed by the bank personnel is no longer based only on intuition, experience and flair, but, in the first place, on the modern armamentarium it requires. Such working methods allow the inclusion of current treasury operations in a strategic vision, existing the possibility of offering the managers the market information necessary to adopt the most efficient decisions.

Understanding the role and place of marketing in the banking activity, in general, in assisting the whole treasury decision process, and, implicitly, the process of ensuring banking liquidity in particular, represents a fundamental condition for a quality management, a management in which the main role is held by the modern marketing methods and techniques, with all their prerequisites (scientific armamentarium, prestigious specialists, modern methods, well-organized market research, etc.).

III. An entirely special role is held by marketing in risk evaluation and risk management. Financial and banking risks also involve a market component, the risk being determined by the degree of knowledge of the customer with whom the bank establishes a partnership at a certain time. Traditionally, knowing the customer means analysing some economic and finance indicators given by the customer through the presented documents, such indicators "not being able to present a complete image of the client's situation in a certain moment, and, subsequently to evaluate the risk correctly.<sup>2</sup> In these circumstances, marketing has, as we mentioned, a special role in

<sup>&</sup>lt;sup>2</sup> V. Olteanu, *Marketing financiar-bancar*, Editura Ecomar, București, 2007, p. 29.

evaluating the risks, because, through specific research, it can offer a series of supplementary relevant information, more complete and valuable regarding the risk of accomplishing the operations.

Thus, from the analysis of each type of financial and banking risk results the role of marketing in its management.

a. Credit risk is expressed by the losses registered by the bank as a result of the debtor's infringement of the obligations enlisted in the credit contract. Classically, in order to prevent such risks a series of known methods are employed, among which the main role is held by guarantees. Unfortunately such guarantees are also subject to specific risks, in most cases, when their capitalization is tried, it is noticed that their market value has deteriorated, being below the level estimated when signing the contract. In this conditions, marketing has an important role in risk evaluation, being required to evaluate, by a series of marketing research, the activities of potential debtors including the material guarantees offered. At the same time, marketing research will also take into account the post-credit customer behavior. These researches can focus on different aspects, especially on the "habits" of delaying and postponing rates and interest, of launching large-scale economic operation without coverage, on the debtor's experience and previous results in the economic activities performed, etc.

b. Liquidity risk, expressed by the difficulty to gather the necessary resources to respect one's obligations at a given time, appears when a bank has no longer the capacity to mobilize resources at "normal" costs.

Of course, there are a series of classical methods used by banks in such a situation, which we will not present in our article. Marketing is involved in managing the liquidity risk through specific actions, aimed at leading to the establishment of efficient activities, with high yields, and, especially, at attracting disposable money from the economy.

The second condition of decreasing the liquidity risk, related to creating and consolidating a favorable bank image, is essentially a marketing problem, this role being fulfilled by a large series of marketing-specific methods, techniques and instruments, among which an essential role belongs to the "positioning" of the bank in relation to the competition.

c. Interest risk is the risk of decrease of the bank's incomes, and subsequently its profits, as a results of the decrease in interest rates. Predicting the evolution of interest rates has a particular importance, marketing being called upon to conduct studies of the overall economic conjuncture, as well as of the main markets: for goods and services, monetary, financial, of the exterior trading balance, payment balance, etc. Although, all over the world, such predictions and evaluations are currently made by central banks they are also among the concerns of the marketing compartments of banking and financial institutions.

d. Market risk refers to the unfavorable deviations of market values, of positions, during the minimum time interval necessary to liquidate the positions. Market risk is based on the instability of market parameters, such as those of the bank, exchange rate, indices. Besides classical bank management methods to eliminate or at least to minimize market risk (for example changing the portfolio), taking into account that this risk is largely due to conjuncture, the role of marketing is not only obvious, but also decisive, the study of conjuncture being an important objective of marketing research.

e. Exchange risk leads to losses originated from the evolution of the exchange rate, being closely related to the interest rate, and, especially to its evolution in the countries which emit currencies. Also in this case, in order to evaluate risk conjuncture studies are used of world economy, financial-monetary market in general, of the situation of each country in particular, studies which essentially belong to the marketing domain.

The role of marketing also manifests itself in the proper management of other risk as well, and here we are talking first about operational risks (determined by the quantity of the bank actives, by the activity of functional departments responsible for their monitoring, etc.), and then the bank's solvability risk (the risk of not having enough funds to cover the eventual loses). Such a role will manifest itself mainly by market research, by previsions and by a careful and continuos study of the economic and financiar conjuncture.

IV. Customer operations are, of all operation categories of a bank, the closest to the problems and concerns of marketing, in this situation the institution apearing as a service provider. In this case, the role of marketing consists in aproaching such operations from a specific point of view, using in this purpose adequate methods and techniques, as well as a suitable scientific armanetarium.

Essentially, the operations with customers will find themselves in the activities performed in a logical order, whose final result will be the creation of financial and banking products followed by their delivery with the help of specific services (financial and banking services). In these conditions, and from the perspective of the final goal, the specific marketing activities will find themselves in a set of objectives, which can be summarized in four components: creating and delivering products and services adapted to consumer demands, promoting the image of the bank, of its products and services, improving the relationship with customers and designing and conducting adequate marketing programs. We shall try to briefly analyze them.

a. As a result of the previous presentation, marketing has a special role in orienting the whole activity performed by the bank in general, in creating and delivering products and banking services adapted to needs and requirements. In these conditions, the marketing occupational sphere includes a series of activities, of specific actions, which, in a logical order, can be presented as follows:

• Innovating and diversifying the financial and banking services, starting with the knowledge of needs and demands in all their complexity. In order to do this, the marketing compartment of the bank should always research the opinions of both actual and potential customers, the research beeing the basis for creating new banking products and services or for improving the performances of the existing ones;

• The increase of banking products and services quality, the role of marketing in this direction beeing related to the capacity of the network to satisfy consumer demand, to analyze the correlation between the network density, the placement of the units and their dimensions, on one hand, and the demand placement and density on the other hand. In these conditions, marketing has a strong responsability for orienting the development activity of the network of operative units and for building the bankcustomer relationship;

• Improving the bank's communication activity, and we are talking about the products and services offered, as bank services are more and more regulated, their technical character is more and more obvious, and the customer's degree of economic and financial culture remains relatively reduced. In designing the banking product (service) marketing has an well-determined role, because it is called upon to bring a suitable scientific armanetarium for resolving the possible problems of this domain;

• Studying the competitor's products and services, as the decisive element in winning the market is connected to the differentiation of the products and services offered;

• The careful analysis, the investigation of the potential workforce, the knowledge of the potential employees' degree of professional trainng.

In this context, banks have radically changed their perspective for recruiting and selecting the personnel, most of them establishing permanent relations with the higher education institutes, even with their students ( practising in the bank, giving scholarships, even signing preliminary contracts with the students that the bank wants to employ at the end of the studies).

b. An entirely special role is held by marketing in promoting the bank's image, as well as the image of its products and services. Monitoring and continously consolidating the image of the bank, of its products and services, as well as creating and maintaining the brand image are certainly actions belonging to financial and banking marketing, being the object of complex promotional activities.

c. Creating adequate relations with the customers, optimizing those relations also belongs to the marketing domain, beeing the objects of a new branch, called relation marketing, defined as "the sum of relations, networks and interactions".<sup>3</sup> From this perspective, relation marketing is called upon to contribute to customer retention, the increase of bank's degree of security and stability, of market efficiency, etc. Currently, relations with customers can be operationalized by using specific programmes, containing marketing-specific methods and techniques. In these conditions, there is obvious that the marketing vision on the bank-customer relationship mandates the transition from the traditional, simplistic, empirical approach, to a modern, scientific approach, based on knowledge, research, instruments.

d. The object of activity of financial and banking marketing also includes activities related to founding, establishing and conducting marketing programs. In the bank, marketing programs are designed and used both at the central institutional level, and at the level of the network of units. The need and utility of marketing programs are obvious for promoting and consolidating the bank's image and its offer on the market.

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## LEADERSHIP AND ORGANIZATIONAL EFFECTIVENESS

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#### Abstract

Successful leaders enjoy their work during a high appreciation and support from most members of the organization. One of the major reasons is that of how the leader acts with those around him: chief, colleagues, subordinates, etc. In many cases, the leader treats others as family members and it stimulates the professional and personal development. We returned to the definition of leadership to show that, in fact, labor leader is a sequence of decisions or actions to implement decisions. A leader situated on a higher level than that which is all circumscribed process management functions: forecasting, organization, coordination, training, monitoring-evaluation.

Key-words: management, leaders, leadership, organizational effectiveness

#### JEL Classification: L22, L26

Credibility is a quality that no one gives you one, it must be built and upheld at all times. We can say today that we are credible, we are not tomorrow, but we will believe again in two days. The term of credibility comes from "creed" – to think and become an indispensable quality for a successful leader. Leaders link their success to the values that were the basis for decisions and actions, the ability to work as a team with his colleagues. They are key elements of the evolution of an organization. The vision and energy depend on their trust and involvement of all employees of the organization. They are the ones who are able to establish attractive targets for staff organization and find the best ways for them to be achieved. But they do all these things alone. They rely on their employees, those who believe in them. The challenge for leaders is a growing, because they now interact at all levels of organization, with an increasingly educated workforce.

"The leader makes decisions and initiate actions that influence decision making and operational behavior of others". The problems led the field – business, department, section, etc. – have multiplied, their complexity and difficulty increased resolving their impact on results, etc. has grown considerably. Such cases, generalized in the Romanian firms, requires a lot leaders, regardless of their place in a hierarchy (higher, medium or lower).

Internal and external challenges that the company is subject him to remain leader of overtime, sometimes working at home. But as the answer to such challenges can be positive. It is better that way? Our leaders give due importance and proper use of their time? They know that:

- a good time is often limited;

- time can not be bought;

- time can not be stored or put away;

- time is life;

- the time may be increased;

– over time is unruffled and irrevocable?

The answer to the above questions, usually do not!

In the leader's labor – regardless of hierarchical level on which the position held and the importance – there are shown many deficiencies, under which mention:

a) overcome frequent duration of working hours (8 hours);

b) inadequate structure of working, in that:

• the work of design, in reference documentation is ready, and management, dealing with a very small share in total employment over time

• share for participation in meetings is still relatively high (we refer to intelligence production meetings, meetings of "party", etc.)

• excessive fragmentation of working – as some experts on whose opinion subscription, over 40% of the time the leaders level consists of sequences up in 10 minutes, this situation generates what the literature calls "the effect of hacksaw blade".

Cases also causes deficiencies are found in the following:

## a. objective reasons:

• lack or failure of strategies and global policies and partly realistic;

• lack of a system of objective categories "to descend" to the plan, the default performers;

• lack of pressure being put on the leader – from his superior, the colleagues, subordinates and the trade unions.

## b. subjective reasons:

• reduced power or the leaders' incompetence (lack or insufficiency of knowledge, leadership qualities and skills indispensable to the exercise of management processes);

• tendency to "bird" vertical management system to solve problems faced by leaders;

• trend to contacting leaders located on a higher level hierarchy level that is, before solving the problems, which are thought by the degree of substantiation decisions magnify;

• insufficient use (call) of the principles of scientific management, the instruments offered by science management leaders.



Fig. 1. The effect of "hacksaw blade"

Any approach involving the leaders implies efforts and effects. From their comparison results effectiveness or not. It will add efficiency, broad resonance concept and its implications on the labor leader.

• Labor efficiency leader involves:

- running all actions involving leaders;

- the commensuration of an effort that also requires steps:

a) time consumption;

b) consumption of material resources, human and financial.

- a clear identification of the effects, direct and indirect, realized in:

a) profit increases;

b) increases revenue (turnover);

c) expenses economy;

d) economy in wages (direct and indirect labor);

e) the number of personal economics;

f) labor productivity increases;

g) improving rates of return – other plans performance.

• The effectiveness of economic leader is given the extent to which it "manages to do the right thing to do", i.e.:

- to plan appropriate activities to organize a field led;

- the field led procedural and structural, so that objectives can be met commitments;

- harmonize decisions and actions of a subordinate staff, as a prerequisite for achieving the objectives;

- to review their work, in light of the results obtained;

- to evaluate these results, to detect the causes that led to "positive misconduct" and "negative" and take some decisions correction or update to be taken.

In organizing labor leaders appear ergonomic features a series of data for specific business management, compared with implementation activities. Starting from the fact that the raw material is an information management issues that raise concern on the one hand, ensuring the conditions of high efficiency, and second by turning their upper leaders organizational decisions and actions. Ergonomic organization of the driver's workplace should facilitate solving both problems, different, based on hierarchical level occupied by the specific company and organizational subdivision in carrying out their work. Based on these factors and given that staff labor leaders object information, it must design a reasonable job, to create the most appropriate working conditions necessary for the performance management process and functions.

The main requirements to be answered by such a job, held on ergonomic principles that are intended optimize the relationship "middle man work-environment" refers to:

- convenience;

– comfort;

- location and appropriate combination of furniture, of functionally and aesthetically;

- the furniture must be simple, to secure a correct position of body parts during the execution of operations and meet ergonomic and aesthetic needs – normal in terms of environment – adequate technical equipment (telephone, intercom, fax, display, printer, photocopier office, etc.).

It is clear that this last requirement is one of the most important if we consider spectacular recorded in electronic computing equipment with Romanian companies. More frequently, the leader calling services computer equipment to ensure prompt and relevant information and, on that basis, raising foundation of the decisions and actions to implement them. No one can speak of a modern management without the valuable support given by computer, enabling a restructuring of working time of the driver to increase the party affected by design.

Regarding the location of workplace and equipment is necessary to take into account the hierarchical level which is the driver. Thus, for managers and executives, area office should be sized so as to permit the installation, the driver strictly necessary furniture and furniture for the organization and conduct working meetings (meetings) of magnitude lower. Furniture leader equipment may include: classic furniture (working table or desk and chairs, ancillary furniture – cabinets, cupboards, shelves, windows, etc.) Technical means (displays, Xerox's office, telephone, fax, etc.), small office equipment (stationery, paper, notebooks, pencils, stamps, kits, drawings, gum, paper clips, pins, printed forms, stapling and hole devices, etc.); they must satisfy both functional and aesthetic requirements of ergonomics, or have a simple construction, is cheap, to occupy a space as small, to respect the rules of symmetry to achieve a restful color ambiance.

Of particular importance in the organization of work of a leader are the physical demands and nervous factors of environment which have a direct impact on the quality and productivity of its work.

Between the **physical demands factors** we mentioned: microclimate factors (temperature, humidity, air circulation, radiation), light and noise. Creating an ambiance conducive to working as requiring a harmonization of these factors, especially the color and light, the purpose of using color combinations that, beyond taste, they must satisfy other requirements, to correlate with the degree of lighting room, etc. Thus, the colors so-called "hot" (red, yellow, orange) is recommended 194

poorest in sun rooms, while the colors "cool" (blue, green, gray) will be used in rooms exposed to more sunlight.

Factors of nervous (mental) request relate mainly to:

• the level and profile of the leader training, required by the work done, experience and knowledge appropriate collateral required;

• fulfilment labor management features (intelligence, temperament, ambition, determination, courage sensitivity);

• overall climate in which work is carried out, relations between management and employees, between him and leaders located on higher hierarchical levels;

• the organization of leisure;

• etc.

To note that the action of these factors is so determinate of objective causes (how to exercise and process management functions, manner of formation of working teams, the degree of loading of the driver, promotion prospects) and subjective causes (emotional, susceptibility, personality, power to deepen, conscience, initiative, sense of observation, a sense of responsibility, ability to work in teams, etc.). They add some psycho-social factors, the decisive influence on driving style, the quality of the management. It is about family relationships, a number of problems of transport, housing, nutrition, literacy, etc., facing head examined.

Such effectiveness amplification way leaders work involving the operation in four "zones":

• promoting specific rules leader-subordinate relationship;

• effective communication between leaders and subordinates;

• reasoning maximize subordinates;

• improved control over subordinates;

Concerning the rules, we can mention:

• to treat others as you would like to be treated;

• to respect the personality of each person, his dignity;

• to take people as they are, not as you think it should be and therefore do not expect;

• impossible to her staff's concerns and aspirations known best by direct contact, as common;

• to treat each person differently, seeking to understand employees, you fall in place, based on skills, knowledge, skills and abilities that actually possess;

• not "preach", but to give personal example;

- to be impartial;
- to be severe in terms of principles and flexible in form;
- to always respect one's promise, whereas the leader must know that;

• a man of his word every employee must be informed in advance about changes that will affect his position in the company;

• to act continuously to develop the spirit of collaboration, to create a climate of mutual trust;

• use the powers and responsibilities conferred with tact, ensuring that subordinates the authority to impose in the knowledge and not through coercion;

• rumors be controlled by known or verifiable facts;

• communication and enforcement should be made tactfully;

• when failures occur due to difficulties or collaborators, the leader must first track to become part;

• recognition of the virtues, knowledge, skills and performance skills of presenting a highly stimulating subordinates at work.

In the category of the most important ways to streamline the communications we can mention:

• motivation;

- motivating a communication clear, concise;
- improving leadership;
- improving speech and listening;
- promotion, primarily, of participatory management styles;
- streamlining the organizational structure of information system;
- management computerization.

Maximizing management reasons is undoubtedly the most important way to improve relations with subordinates. Is achieved primarily through greater transparency of motivational factors that subordinates have the right to report results and retrieve the three characteristics of reasons – complexity, differential and graduality and, secondly, by resorting to instruments specific, of not missing:

-job rotation (change of leadership exercised regularly posts);

- widening items (grouping tasks and broadening the range of decisions and actions involved in them);

– enrichment items (inclusion of new tasks to help boost interest in their occupants to achieve them) Improving control supplement the list of ways to optimize relationships with subordinates.

Supervision leadership during the course management process and ultimately must take place while respecting minimum rules:

• to be constructive;

- to be realistic;
- to be continuing;
- to be causally;

• to allow the adoption of decisions and start to deactivate to facilitate the improvement of subordinates.

# Enrichment and upgrading instruments leaders

A. *Enrichment "systems, methods and management techniques"* through effective promotion and use of tools such as:

- Management by objectives;
- Management by budgets;
- Project Management;
- Management by exception;
- Cost-hours-production system (AIMS);
- Decision-making methods (ELECTRE, decision tree, etc.);

• modern methods of management by cost (regulatory, THM, standard cost, value analysis);

• ways to stimulate creativity (brainstorming, Philips 66, sinectica, Delphi, matrix discoveries, etc.);

• methods of analysis and information systems and organizational design (flow charts, OBR, organizational chart, job descriptions).

B. **Modernizing leadership** through operational systems, instruments, methods and management techniques recommended for use by the leaders placed on different hierarchical levels, based on different methodologies, which enhances efficiency and effectiveness.

# **Conclusions**:

All these aspects allow the shaping of portrait-robot **millennium leader**  $3^{rd}$ , which, according to New Millennium Journal, is characterized by:

- be able, through a single action, to achieve several objectives;
- to plan a few steps forward;
- be able to anticipate every move of competition;

• lead "battles" that is convinced that they will win and to avoid those without odds;

- try making profitable alliances;
- be patient, to improve their sense of time;
- to act exactly the situation so requires;

• to know exactly what is gained and lost and retain only the essence of unsuccessful experiences;

- not bluff in critical situations;
- to seek and exploit weaknesses, mistakes and omissions;
- to use speed and surprise elements as an advantage;
- not wasted resources in the reserve only when necessary;
- to form alliances with rivals its competition;
- to monitor the activities of its field activities;

• ensure that each member of his team knows their role and that is perfect with all the conditions to succeed;

• to be in constant offensive.

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RECENZII

## **GEORGE A. AKERLOF**

Cartea de povești a unui economist. Eseuri despre consecințele noilor ipoteze în teoria economică (An Economic Theorist's Book of Tales. Essays that Entertain the Consequences of New Assumptions in the Economic Theory) Publica Publishing House, 2009

George Arthur Akerlof (born June 17, 1940) is an American economist and Professor of Economics at the University of California, Berkeley. In 2001, he won the Nobel Prize in Economics (shared with Michael Spence and Jose E. Stiglitz), for the article, "The Market for Lemons: Quality Uncertainty and the Market Mechanism", published in *Quarterly Journal of Economics* in 1970, in which he identified certain severe problems that afflict markets characterized by asymmetrical information. He is also known for the role he played in approaching the behaviorist economy.

An Economic Theorist's Book of Tales. Essays on the Consequences of New Assumptions in the Economic Theory, translated into Romanian by the Publica Publishing House in 2009 (the sixth book in the Co-Economy Lesson series – a selection of "classical" books on how economy operates and the principles shaping the economy science and, implicitly, our life) includes eight essays that approach the consequences of the new hypotheses in the economic theory:

1. The essay that made him famous: The Market for Lemons: Quality Uncertainty and the Market Mechanism.

2. The Economics of Caste and the Rat Race and Other Woeful Tales.

3. The economics of "tagging" as applied to the optimal income tax, welfare programs and manpower planning.

4. A Theory of Social Custom, of which Unemployment May be One Consequence.

5. Jobs as Dam Sites.

6. The Economic Consequences of Cognitive Dissonance, with William T. Dickens.

7. Labor Contracts as Partial Gift Exchange.

8. Loyalty Filters.

As an invitation to reading this book on economy, Robert M. Solow, Massachusetts Institute of Technology, was stating about the eight essays: "...show how many good things are derived from the economic analysis mixed with the openness to the basic facts of social life. Many preach this ideal. But George Akerlof is one of the few truly living it, with an outstanding outcome."

A review of the celebrated essay "The Market for Lemons: Quality Uncertainty and the Market Mechanism" will follow below, focusing on pivotal and interesting issues involved by the existence of goods in different categories (superior and inferior quality) for the theory of markets and interaction with uncertainty. On the one hand, the interaction between the quality heterogeneity and uncertainty may account for important institutions on the labor market. On the other hand, this essay is a successful attempt to provide a structure for the statement: "Business is tough in underdeveloped countries."

Many markets give the possibility to the buyers to use a market statistics to interpret the quality of the future purchasing. In this case, Akerlof considers that the sellers have an incentive for trading merchandise of a poor quality, since the turnover for high quality concentrates mainly at the level of the entire group and not the individual one, thus affecting the group statistical position. Therefore, the trend of reducing the average quality of goods and of the market size emerges. At first, Akerlof used the cars market (low-quality cars are known in America as "lemons") as a practice for explaining and elaborating this issue; then, he extended the analysis by examples and applications in the area of health insurance for people of over 65 years of age in terms of employment for minorities and credit status in the underdeveloped areas. On that account, he reiterated what George Stiegler had stated: "In a political system of ignorance, Enrico Germi would have been a gardener and Von Neumann a cashier in a store". Similarly, the "lemons" pattern also brings into the spotlight the costs of bad faith (unfair transactions tend to drive the fairs transactions out of the market), where bad faith in business is a poignant issue in the underdeveloped countries.

The opening of the book with this essay is an offer that the readers should not dismiss in their attempt to approach more deeply the new hypotheses in the other essays, all making a new vision and solid arguments for a new discipline, which Akerlof calls "psycho-socio-anthropo-economics".

Cristina Barna

## PAUL KRUGMAN

# Întoarcerea economiei declinului și criza din 2008 (The return of the depreession economics and the crisis of 2008) Translated by Smaranda Nistor Publica Publishing House, Bucharest, 2009

Considering the current economic situation we are facing, people become more and more interested in reading crisis related books. The hardest is to find a book that is accessible to the society at large and pertinently analyses the theme at the same time.

"The return of the depression economics and the crisis of 2008", the latest book of the 2008 Nobel Prize winner, Paul Krugman, meets these requirements. The book, issued by the Publica Publishing House and translated by Smaranda Nistor, is an updated and improved re-edition of a book written in 1999 in response to the Asian economic crisis. At that time, the book did not have a great impact because most economists embraced Professor Robert Lucas's opinion, according to which "central problem of depression-prevention has been solved, for all practical purposes." This second edition includes new issues on the '90's economic crises, as well as documents trying to explain how the United States get involved in the current economic downturn.

The book is definitely worth reading. It is easily understandable and at the same time it calls for reflection. He built this style by writing editorials for **The New York Times** twice a week. According to Krugman himself "...As an economist in good standing, I am quite capable of writing things nobody can read. ... what the world needs now is informed action; and to get that kind of action, ideas must be presented in a way that is accessible to concerned people at large, not just those with economics Ph.D.'s. Anyway, the equations and diagrams of formal economics are, more often than not, no more than a scaffolding used to help construct an intellectual edifice. Once that edifice has been built to a certain point, the scaffolding can be stripped away, leaving only plain English behind."

The author presents a detailed history of the wide-world financial and economic downturns in the last 20 years. An emphasis was placed on the ones in Japan, Argentina, Mexico, Thailand, and of course, the United States. Krugman does not only present the evolution of these crises, but, based on the conclusions that can be drawn, he advances a set of keenest solutions belonging to the so-called the downturn economy. Briefly, the following measures should be implemented:

1) the introduction of additional capital in the banking system in order to unblock crediting;

2) the development of a direct crediting governmental programme of the nonfinancial sector;

3) a global effort to save the developing countries;

4) a fiscal incentive based mainly on public expenditure;

5) finally, after the worst had passed, the reformation of the financial system.

Of course, the readers may or not agree with Krugman's proposed measures, as well as with other theories that may raise controversy. I would mention only one of these: a recession is normally a matter of the public as a whole trying to accumulate cash (or, what is the same thing, trying to save more than it invests) and can normally be cured simply by issuing more coupons." If this were true, it would mean that the Weimar Republic implemented the best possible economic policy. But beyond these, the book reaches its goal, that to explain the current economic context to the society at large.

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