CEA
Center for Economic Analyses

CEA Journal of Economics.....

ISSN 1857-5250
UDK 33

Price: 300 MKD (5 EUR)

Volume 4
Issue 2
1-58 pages

Skopje, Macedonia
December 2009

CEA Journal of Economics

ISSN 1857-5269
UDK 33
Volume 4, Issue 2
Skopje, December 2009

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CEA Journal of Economics
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DISCUSSION ABOUT THE NEEDS TO INTENSIFY THE PPP AT THE LOCAL LEVEL

Marjan Nikolov,
President of CEA

Abstract

This paper was prepared in order to provoke debate about the needs in the Republic of Macedonia for capital investments, to illustrate own capacity for capital investments and to promote the needs to intensify the use of Public-Private Partnership-PPP. This discussion paper is neither intended to make an exhaustive and systematic analysis of the transition period economic results in Macedonia, nor to analyse the potential of the Macedonian economy for sustainable development. Therefore, the beginning of the text is an attempt to illustrate the status of Macedonia with its infrastructure and basic resources, i.e. needs for capital investments, and then to provide basic information about the potential for investment. It follows a brief description of competencies which are decentralized, basic cost drivers for the decentralized competencies and finally what are the challenges for the local government in Macedonia. This paper should motivate a request for preparation of an exhaustive study, if the central and local governments are considering effective provision of a package of services on medium and long term, to the general satisfaction of the citizens.

Key words: *Public-Private Partnership-PPP, capital investments, infrastructure, decentralization.*

STATUS WITH THE INFRASTRUCTURE IN MACEDONIA AND THE NEEDS FOR CAPITAL EXPENDITURES: LONG AND INEFFICIENT TRANSITION

Since the independence in 1991 Macedonia has been a subject of monitoring by EBRD on the speed with which it is transiting towards efficient market economy. It is a transition story about lack of recognition of all costs in the calculation of prices for public services as well as a story about giving higher priority to employment (i.e. higher priority for payment of salaries, instead of recognizing the costs of maintenance and depreciation and the long term marginal costs) rather than more efficient maintenance of assets. The problem is that in transiting to efficient market economy the relative prices should've change and the consumers should've pay the full economic cost of production, supply and new investments in public services regardless if the operator is private or public. Calculating the full cost of public services is imminent, in order to ensure that the operator will be able to further cover the needs for additional investments. The choice for appropriate revenues (due to weak purchasing power of Macedonian consumers, the availability and willingness to pay and the free riding) is either to provide subsidies to operators from the government (central or local) or to increase tariffs and/or fees.

Authorities in Macedonia through the transition were sensitive to the need to increase the prices of public services, often tolerating over-employment, political employment and nepotism and unregistered operators, which through unfair competition do not provide equal treatment for all operators. At the same time through a system of quasi-fiscal spending, authorities were further strengthening and fixing their political power at the expense of the value of assets owned by the state (local and central)

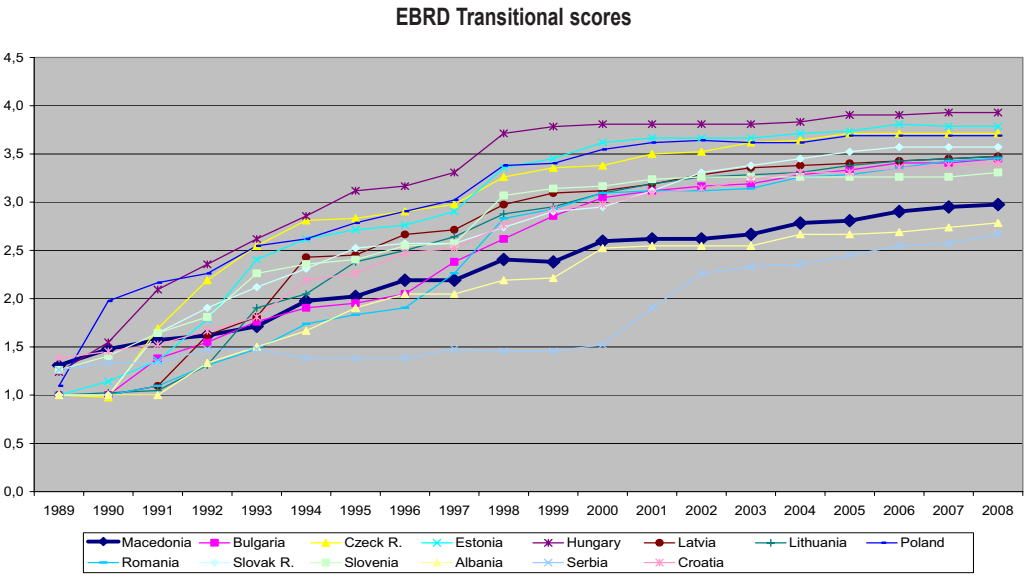
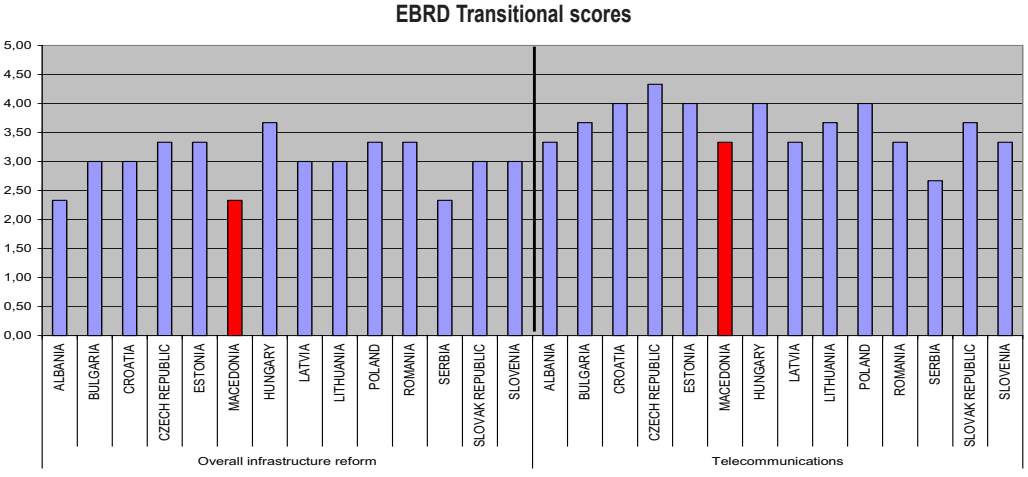


Figure. Macedonia according EBRD's Transitional Indicators[1]

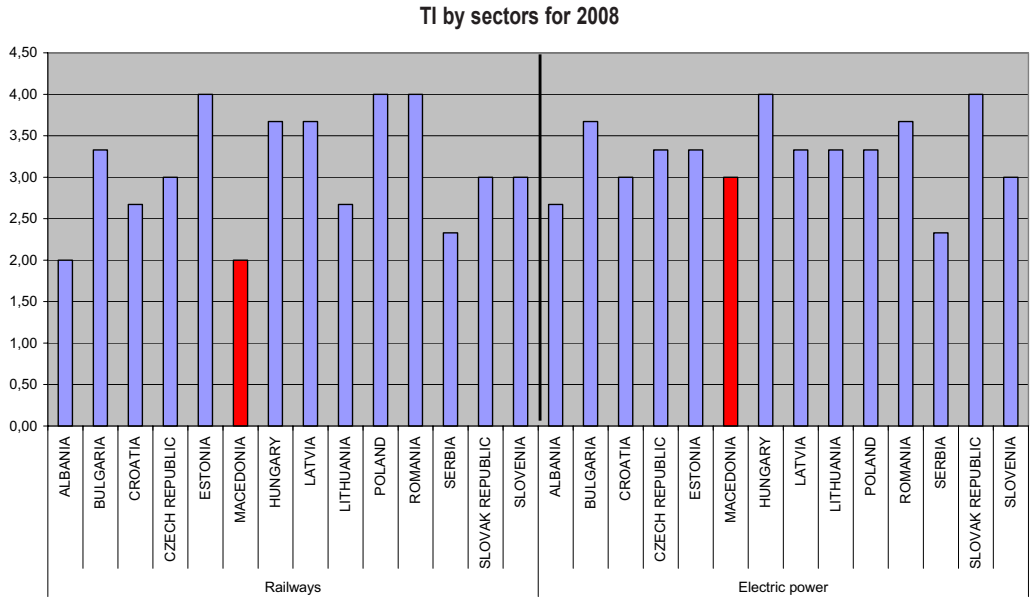
From the figure above we can see how Macedonia in these two decades slowly falls behind the other transition economies.

EBRD Transitional Indicators-TI for different infrastructure in Macedonia is shown in the following graphs and for comparison, the situation in selected peer economies are also illustrated.

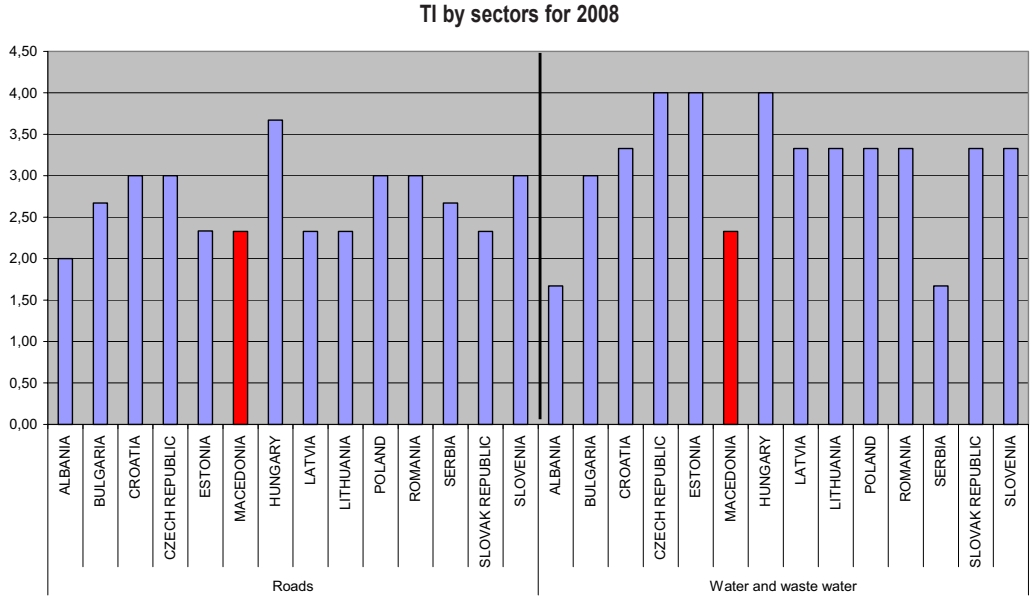


Graph. TI by sectors - Total and Telecommunications

1) TI is measured from 1 to 4, where 4 is an efficient market economy.



Graph. TI by sectors - Railways and Electric power



Graph. TI by sectors - Roads and Water and waste water treatment

We can easily see that Macedonia is lagging behind substantially compared with its peer countries in all infrastructure sectors where large financial resources are needed (and where PPPs are welcomed as world-wide experience) to improve situation.

This situation has been confirmed with the World Bank's Public Expenditure Review - PER from 2008 as well. There among others it is stated: *"Years of under-spending on road maintenance have left a large maintenance backlog that the authorities will be well advised to tackle within the available budget envelope.*

Moreover, new spending may be required to support the country's EU accession process" and more: "Years of under-spending on maintenance in the transport sector has led to a significant deterioration of the quality of public assets". But also, "Looking forward, the Government faces a number of challenges in improving the quality and effectiveness of public spending".

All this led to a situation of depreciated fixed assets in Macedonia, for which less and less money are detached for maintenance, while procurement and construction of new fixed assets are not considered in the past nearly two decades.

Just for illustration, the depreciation in Macedonia as consumption of the fixed capital is around 18% of GDP annually, or one billion euros to be invested annually in order to break even.

An EAR project results on strengthening Ministry of environment and physical planning capacity illustrates that some of the other needs at local level for capital investments in Macedonia are estimated around 1 billion euros.

Table. Assessment of the total required investments in million euros/million euros per capita for approximation with EU regulations.

	Macedonia	Romania	Bulgaria
Treatment of urban wastewater, sewage	229/113	1,385/63	2,056/267
Large polluting factories.	274/136	402/18	1,627/211
Solid waste management, landfills	80/40	NA	NA
Management of municipal waste, and other installations.	120/59	NA	NA
IPPC Licenses	381/187	806/36	3,261/424
Total	1,084/537	10,593/475	6,944/902

Source: CEA Publication: The future of local public finances: Case studies from Macedonia, Romania and Bulgaria 2006, www.cea.org.mk.

POTENTIAL FOR INVESTMENT IN MACEDONIAN ECONOMY - EXPERIENCE

The following data can illustrate the allocation of capital expenditures in Macedonia but also can indicate what is the vertical equalisation between the central and local government in Macedonia.

The central government for capital expenditure is allocating around 4% of GDP annually which is about 300 million euros and local governments for capital expenditure are allocating around 70 million euros which is around 1% of GDP. The central Government is transferring to local government additional 150 million euros through earmarked and block grants. Local authorities, according to the law, are able to borrow long run in a total volume of around 130 million euros (in amount of the total budgets for 2008). On the other hand, according to the Ministry of Finance, in the period 2003 - 2008 the FDI amounted to an average of 5.3% of GDP per year or nearly 300 million annually.

Now, we have the main elements for an indicative static analysis (dynamic analysis would require data on the demographic development, socio-economic development and planning at least which in Macedonia do not exist). So on one hand we have about 500 million euros capital expenditure from the central and local government, including the potential for borrowing of local government, and if we add those 300 million euros FDI annually again we still cannot reach those required 1 billion euros of annual depreciation.

The conclusion is simple, that Macedonia cannot cover even the depreciation even if FDI is included. Given that, what remains for Macedonia is issuing bonds, borrowing and/or utilizing public-private partnership.

ILLUSTRATION OF THE STATUS WITH THE TRANSFERRED COMPETENCIES AND THE LOCAL GOVERNMENT IN MACEDONIA

In Macedonia there are around 1000 primary schools with around 230 thousand students and around 15 thousand teachers, 100 secondary schools with around 95 thousand students and around 6 thousand teachers. The number of kindergartens is around 50, which serve more than 20 thousand children and the number of employees is approximately 3.5 thousand. These data simply show the main cost drivers and the needs for maintenance at local level for the transferred competencies.

The process of decentralization and the system of financing the local government is reduced to the system of funding of existing facilities instead of funding functions and services. The system at the moment is covering wages with few opportunities and funds for proper maintenance of facilities, much less to build new facilities and none to improve the quality of service or increased coverage of services to more citizens (for example, the total number of children under 5 years of age in Macedonia is about 120 thousand, and the capacity of kindergartens is around 25 thousand children, which is coverage rate of only 21%).

Another calculation from another EAR research on costing of services from 2007 shows that the fiscal gap for the provision of services for the transferred competencies: education, roads, child care, homes of elderly, fire protection and the culture is approximately 25 million euros for the existing coverage of citizens.[2] This means that transfers from the central government in addition to what local government are earmarking to the competencies each year is less for about 25 millions euros in order to cover the needs of all costs for these competencies with existing quality and existing coverage of citizens.

CHALLENGES FOR THE LOCAL SELF-GOVERNMENT

Overall

From the discussion above we can see that the resources and potentials of Macedonia are limited and needs for capital expenditure is over the capabilities of the budgets of the central and local government in Macedonia, also we are not a particularly attractive destination for FDI. So, what remains as an option is borrowing, issuance of bonds and Public Private Partnership-PPP (less ethically yet known in Macedonia and possible options for local and central government are reducing the quality of services, further decline of the assets, non-payment of obligations). The challenge is how local governments, in real life re-centralization, can increase private and public investment in order to ensure higher quality of public services, while at the same time to strengthen the economic growth of the economy and to preserve macroeconomic stability.

One alternative is a PPP, where private partner for appropriate compensation and opportunity for cooperation and through partnership relations can substitute the local government in providing public services, increasing the quality of the same and/or increase the coverage of citizens. First element of PPP is the volume of capital expenditures for a particular purpose for PPP to be affordable, i.e. on macro level should be fiscally sustainable. Second element is to ensure proper allocation of the risks according to the capabilities of the partners for their effective management. The third element is to have a proper value for money for the public partner. For example, if the municipality decides to go for PPP, it will be obligated to make payments to the private partner annually. These discounted cumulative annual payments to the private partner, for a certain period should be lower than the discounted cumulative costs that the municipality would pay, for the

2) EAR's project for estimation of the costs for the transferred competencies.

same period, if it provides that public service by itself. Only then there will be value for money for the taxpayers and only then will PPP makes sense. Care should be taken that the concept of "value for money" is not replaced for the term "cheapest offer" from the public procurement, because in the PPP, opposed to public procurement, subject to the agreement is the service and its attributes, and not how that service will be provided.

Specifics after the financial crisis

Special types of risks for Macedonian Local Government are the effects from the global crisis. Lower revenues from the planned in the central budget, for the local government will mean lower transfers, poor planning of the central government will be downloaded to the local budgets and can mean possible further increase of contingent liabilities, reducing the credibility of the local government, increased amount of unpaid obligations, termination of contracts and much less likely (due to small size of LSG in Macedonia) but possible, jeopardizing macroeconomic stability.

Is PPP is a solution for local government in Macedonia

According to the World Bank, in the period 1990-2001 year, investors worldwide invested about 754 billion US dollars annually for PPP projects. Studies from IFIs indicate that although the authorities provide various subsidies to the private investors, still investors are reluctant to invest in developing countries, because of commercial, financial and political risks. In such circumstances, central governments are developing special funds in order to reduce transaction costs, increase transparency and consistency in evaluation and allocation of public support. Here should be considered that the PPP as an option for increasing the quality of the services and coverage of people who use these services requires increased awareness for this instrument and strengthening the partnership between central and local governments, and then between the public and private partners in Macedonia.

In Macedonia it is necessarily to strengthen the legislation, not so much for the concessions as for the Private Finance Initiatives-PFI, which are attractive models of PPP for the needs of municipalities in Macedonia, taking into consideration, how Macedonia is organized and what is the legal framework in the area of transferred competencies. Macedonia doesn't have many things that can be praised as competitive advantage, but macroeconomic stability is definitely a public good that can be used as an additional argument for attracting investors and private partners. Financial capabilities of local governments are generally modest, and there must be considered establishing a fund for investments in municipalities (the Centres for Regional Development can be a good instrument if they are really equipped with professional staff) who will not only provide funds but will assist in the preparation of tenders and contracts for PPP.

CONCLUSION

Needs of capital investments, increasing the quality of service, increasing the quantity of services, achieving standards that reflect a country contender for EU membership, increasing the coverage of citizens is anecdotic truth in Macedonia. It is obvious that Macedonia went through ruinous and unsuccessful transition, and couldn't strengthen the capacity for economic sustainability, or even to cover basic fixed costs. This situation leads to the need of funding sources, for which we neither have much choice regarding the terms nor much comfort for negotiation, and therefore we will have to strengthen the knowledge and skills for partnership thinking, but first in our country, then among foreign and domestic private partners. In this constellation, the local government in Macedonia is in extra difficult situation, because is actually brought to the role of payment agency of the central government. In such conditions one way to break a cycle of inefficiency, is to study and use the fundamentals of PPP - partnership between central and local governments and then partnership between local government and private sector.

UDC 336.748.12
339.743

A CRITIQUE ON INFLATION TARGETING

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Abstract

The objective of this paper is to offer some critical argumentation on the merits of inflation targeting. The literature on inflation targeting is dominated by the views that it has been a successful strategy in lowering or maintaining the achieved low inflation and in supporting the real economic activity. Yet, a thorough analysis of the mechanism through which it works might suggest that this performance might be a result of the relatively shock-free period in the 1990s and 2000s. Moreover, the role of the exchange rate is examined.

Keywords: *inflation targeting, exchange rate, output volatility*

1. Introduction

In the real world, inflation targeters are not "inflation nutters" (King, 1997), but rather demonstrate the needed flexibility in order not to sacrifice too large a proportion of output in order to quickly return inflation on target when shock hits the economy. Furthermore, monetary authorities observe exchange-rate developments and by foreign-exchange interventions prevent large exchange-rate fluctuations, but without the aim of preventing the exchange rate reaching its market equilibrium over the longer horizon. To put that in simple words, by introducing inflation targeting (hereafter IT), countries: i) provide an anchor for inflation expectations (Svensson, 1996; 1999a); ii) put a positive weight on output stabilization (Svensson, 1998; 2000; Debelle, 1999); and iii) introduce a managed-floating exchange rate in order to prevent large exchange-rate volatility (Goldstein, 2002; Gersl and Holub, 2006). The aim of this paper is to evaluate and critique the theoretical arguments in favour of inflation targeting, through further analysis and a critical literature review on the latter two aspects of the IT regime. The crucial question is if IT, in the manner in which it is defined, contradicts the theoretical consensus and empirical findings on the existence of a short-run trade-off between inflation and output volatility.[3] Namely, since inflation and inflation volatility dwindled after IT was introduced (Nadal-de-Simone, 2001) and since both ERT and IT anchor inflation expectations, we aim at putting our emphasis on the aspects in which these two monetary regimes are different - output volatility and exchange-rate issues. However, this does not mean that our discussion will not include issues related to inflation.

3) For a summary of the discussion on the inflation/output volatility trade-off, see Clarida et al. (1999) and the brief discussion in Chapter 4.

The paper is organized as follows. Section 2 focuses on further theoretical analysis of the trade-off between inflation and output under IT, while Section 3 reviews some of the arguments for the role of the exchange rate within IT. Sections 4 and 5 pose a critique on the empirical literature on IT. The last section concludes the paper.

2. Theoretical analysis of output volatility and its trade-off with inflation volatility under inflation targeting

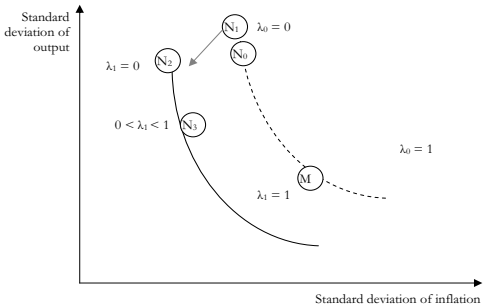
In the real world, IT is designed to bring inflation on target while minimising the sacrifice ratio, i.e. by forgoing as small a portion of output as possible. In mathematical terms, this means that the central bank's loss function - set in the quadratic form commonly found in the literature - explicitly considers the output gap and attaches it a weight, which reflects the extent to which the central bank wants to "fight" for output:

$$L_t = \frac{(\pi_t - \pi^*)^2}{2} + \frac{\lambda(y_t - y_t^*)^2}{2} \quad (1)$$

Whereby, π_t refers to the actual inflation, π^* is the targeted inflation rate, while (y_t - y_t^*) refers to the output gap. λ, refers to the relative weight on stabilizing the output gap. However, while output stabilization has a clear role to play within IT, the weight put on it (noted with λ) is an empirical question (Debelle, 1999). The general approach in the literature has been to stochastically simulate an intertemporal general equilibrium model. It consists of aggregate demand and supply relations derived under intertemporal optimizing behaviour of private agents with nominal rigidities in price and wage setting. They give an explicit account of the short-term interest rate as a core instrument and of the lags in the monetary transmission mechanism. In such models, the weight put on output stabilization (λ) is varied and a variability frontier is then established for an optimal policy response.

Stevens and Debelle (1995) establish a convex relationship (Figure 1, solid curve) between inflation and output volatility in a model described above (with inflation volatility around a given inflation target measured along the horizontal axis and output volatility measured along the vertical axis).[4] They argue that as the weight the central bank puts on output increases, this elevates the variability of inflation and reduces variability of output. When the central bank is an inflation nutter (λ=0; point N_2), a small consideration of output will negligibly increase inflation volatility but considerably decrease output volatility. Then, a large range of values for λ deliver very similar outcomes for inflation and output volatility and are concentrated in the middle of the curve (around point N_3). On the contrary, for values of λ approaching unity, large increase of inflation volatility leads to a very small portion of output saved (lower-right part of the curve). The other extreme, let's call it "output nutter" central bank (λ=1; point M), refers to a situation when the central bank targets output gap exclusively, there is no monetary anchor, a situation that is not happening in practice (Svensson, 2003).

Figure 1.
Inflation and output volatility trade-off



Source: Drafted by the author based on the arguments and figures in Stevens and Debelle (1995); Debelle (2002); and Svensson (2003).

4) Points above and to the right of the curve correspond to inefficient monetary policy, where either inflation variability or output-gap variability, or both, could be reduced by better monetary policy. Points below and to the left of the curve correspond to outcomes that are infeasible. See further details in Svensson (2003).

The curve presented on Figure 1 is called the Taylor curve (Taylor, 1979) and is a type of volatility trade-off frontier and depicts the gains that a central bank could achieve and the cost it would pay. Namely, although the literature (summarized in Petreski, forthcoming) argued in favour of both lower inflation and output volatility under IT, and although some empirical studies (Batini and Haldane, 1998; Bean, 1998 and others) found that IT is capable of smoothing both volatilities, still central banks must choose a point where to position on the trade-off frontier. A stable trade-off between inflation and output volatility would require that inflation volatility increases and output volatility decreases, and vice versa. Svensson (1998) also argues that a flexible IT framework - considering inflation, output volatility and exchange-rate movements, simultaneously - may be a preferable alternative, no matter the existent trade-off.

Albeit defined in the manner to optimize the behaviour of inflation vis-à-vis output in the short run, IT is though criticised in the literature as being associated with increased output volatility (Arestis *et al*. 2002), especially in comparison to non-IT countries. For instance, Cecchetti and Ehrmann (1999) observe that while inflation volatility fell more in IT countries than in non-ITers, output volatility fell by far less in the former than in the latter. The conventional view is that when prices are sticky, IT leads to slow adjustment of output to its natural level. For example, a supply shock will be combated with increasing interest rates which will reduce inflation but will depress real activity. Such difficulty does not arise when a demand shock hits - a monetary policy that tries to offset the effect of those shocks on demand helps to stabilize both inflation and output. Policy is capable of moving output and inflation in the same direction, as the aggregate demand shock does. "It is the aggregate supply movements that create the essential dilemma for policy, because they force a choice" (Ceccetti and Ehrmann, 1999, p.9). The choice is where to position on the trade-off curve, while the extent of the policy response to a supply shock will depend on the economic structure as represented by the aggregate demand and supply curves[5] and the weight put on output stabilization.

Erceg *et al*. (1998) demonstrated the existence of an inflation-output volatility trade-off under IT, assuming optimizing agents behaviour and staggered nominal wages and prices. They argue that only when prices are sticky and wages perfectly flexible, does the trade-off disappear. They show that when nominal wages are sticky, there exists a variance trade-off between price inflation and an output gap, regardless of the degree of price stickiness. In this case, the equilibrium real wage moves in response to preference and technology shocks, while the nominal wage only moves in response to changes in the output gap. Thus, if monetary policy maintains a constant price inflation rate, output must temporarily deviate from its potential to induce nominal wage adjustment, so that the real wage can move toward its new equilibrium value. Hence, in the real world, it is infeasible to simultaneously stabilize price inflation, wage inflation and an output gap. A model incorporating reasonable wage inertia produces increased output volatility when inflation volatility increases. Blanchard (1997) outlines a simple static model with predetermined nominal wages to illustrate the point that IT fails to stabilize the output gap.

Another strand of the literature (see Ceccheti and Ehrman, 1999; Clarida *et al*. 1999; and Bernanke and Mishkin, 1997), however, argues that it is possible that a shift to IT regime acts as a commitment device, and through increasing the credibility of the central bank, facilitates the achievement of lower inflation volatility and lower output volatility. Namely, by attaining credibility, the central bank improves in anchoring inflation expectations on the inflation target. Svensson (2003) argues that with an explicit inflation target, the credibility of an IT regime can be measured as the degree of proximity between private-sector inflation expectations and the inflation target. Shocks to inflation expectations are historically an important source of volatility in inflation and output, since shifts in inflation expectations have independent effects on future inflation (the direct expectations channel). Shifts in inflation expectations also cause additional indirect disturbances to output and inflation by affecting real interest rates and exchange rates. As a result, volatility in inflation expectations shifts the curve in Figure 1 up and to the right and worsens the variability trade-off

5) More specifically, the positioning on the trade-off frontier will depend on the slope of the aggregate supply curve and the slope of the aggregate demand curve. Whereas the shape of the trade-off curve depends on the inverse of the slope of the aggregate supply curve. The flatter the aggregate supply curve, the more the trade-off curve looks like the solid curve on Figure 1. The steeper the aggregate supply curve, the closer the trade-off curve to the axes.

(dashed curve). Conversely, more stable inflation expectations, anchored on the inflation target, improve the trade-off and shift the curve down and to the left, allowing inflation volatility, or output volatility, or both to fall. This is also because inflation expectations anchored on the inflation target create a strong tendency for actual inflation to revert to the inflation target and, everything else equal, mean that monetary policy needs to be less active. Interest rates and output need to move less to counter unfavourable movements in inflation expectations. "The economy is, to some extent, put on autopilot. This situation is every IT central banker's dream" (Svensson, 2003, p.270).

Practical experience though shows that credibility cannot be granted by law but instead has to be earned over time. In most new IT regimes, especially when the initial inflation is high and a period of disinflation is required, inflation expectations are high and credibility is low (Mishkin, 2000a). Hence, the central bank should initially put more weight on reducing and stabilizing inflation in order to achieve credibility more quickly. According to the earlier discussion, the cost would be more output volatility at the beginning of the regime, while the benefit - an improved trade-off and lower volatility of both inflation and the output - would occur later on, when credibility has improved and the central bank can afford to be a more flexible ITer. As an illustration on Figure 1, suppose, because of low initial credibility, that the economy initially is at a point to the upper-right of the efficient frontier (solid curve), i.e. on the dashed curve, implying higher volatility of both inflation and output and has some positive λ, but not far from zero (point N_0). Suppose the central bank implements strict IT - this would correspond to a move up along the dashed trade-off curve (point N_1). If credibility improves, the trade-off curve would shift to the down-left; the more credibility is achieved, the more the curve approximates the efficient frontier (solid curve); ultimately, the solid curve is achieved, i.e. the economy will operate at point N_2. If the central bank then implements flexible IT, the economy would move to point N_3. Compared to the initial situation (N_0 vis-à-vis N_3), the economy would benefit from lower volatility of both inflation and the output.

In the same line of thinking, under an IT umbrella the existence of a volatility trade-off has been doubted to be so straightforward, suggesting that IT is conducive to output volatility besides inflation. The latter, which in the jargon of Goodfriend and King (1997) became known as the new neoclassical synthesis, however does not negate the thesis of vital trade-offs among the mentioned macroeconomic indicators. The models of King and Wolman (1996, 1998) and Goodfriend and King (1997), for instance, consider economies with completely flexible wages, while prices are set by monopolistically competitive firms according to a staggered price-setting rule *à la* Taylor (1980), and conclude that IT should be adopted because it smoothes inflation and output simultaneously.

3. The role of the exchange rate under inflation targeting

Several contributions within the so-called New Keynesian synthesis have shown that, under quite general conditions, a simple, inward-looking, interest rate rule can be regarded as an optimal policy response for a closed economy (Taylor, 1999). Less attention has been paid to the choice of monetary policy objectives in an open-economy context, given that an open economy is comparable to a closed economy whenever the exchange rate pass-through to import prices is complete (Gali and Monacelli, 2002). In other words, under complete exchange-rate flexibility, policymakers in open economies should also be focused uniquely on domestic targets. Unfortunately, there is extensive evidence that, in reality, departures from the law of one price for traded-goods are large and pervasive (Rogoff, 1996; Engel, 1993; 1999; 2002). Under these circumstances, policy choices are not independent of exchange-rate dynamics and monetary conduct is liable to focus on more than just domestic stabilization. Plainly put, the question in the literature is not whether to account for exchange-rate volatility under IT, but whether to explicitly include it in the loss function. For instance, Agenor (2000) argued that exchange-rate-volatility management (a managed floating regime) under IT should be explicitly considered in the policy loss function. Hence, the loss function should be:

$$L_t = \frac{(\pi_t - \pi^*)^2}{2} + \frac{\lambda(y_t - y_t^*)^2}{2} + \frac{\varphi(\Delta e_t - \pi_t^N)^2}{2}, \lambda > 0; \varphi > 0 \quad (2)$$

where φ is a (positive) weighting of the exchange-rate fluctuations, and exchange-rate volatility is defined through the movements of the real exchange rate, i.e. through the difference between the nominal-exchange-rate changes and non-tradables inflation, (Δe_t - π_t^N). However, at this point, two questions arise: i) is the exchange rate an instrument towards achieving price and output gap objectives or it is an objective of the policy itself?; and ii) why, then, is the interest rate, which is the prima-facie instrument under IT, not explicitly included in the loss function? Cecchetti and Ehrmann (1999) oppose the arguments and formulation of Agenor (2000), suggesting that the exchange rate should not be a part of the loss function. The rationale for this is the belief that domestic inflation and output are the fundamental concerns of policymakers, while the exchange rate is only a vehicle to achieve these basic objectives. Namely, as long as there exists a positive pass-through from the exchange rate to prices, exchange-rate changes will affect inflation; if real exchange-rate changes reflect situations of misalignment, they will also affect the output gap (Edwards, 2006). Hence, an optimal policy would be to consider how the exchange-rate developments impinge on these two components of the loss function, rather than include the exchange rate in it directly. Moreover, the decision to focus on the exchange-rate path in the formulation of policy would be a choice of an intermediate target, which, in turn, is not a desirable option under IT. Policymakers are not concerned with the behaviour of intermediate targets per se, but with the domestic inflation and output outcomes produced by their use. Ultimately, intermediate targets under direct IT would lead to conflicting policy goals and might throw bewilderment on the financial markets. This argument also gives the reason why interest rates should be not included in the loss function. However, this reasoning does not say that exchange-rate behaviour should be chaotic or left to the chance, but rather than that the exchange-rate should be considered as an instrument to achieve the goals specified in (1).

Still, although exchange-rate management under IT emerges as possibly important, Svensson (2003) argues that it is difficult to find good reasons for stabilizing either the exchange rate or the interest rate at the expense of increased inflation and/or output-gap variability. In practice, flexible IT, with a longer horizon to meet the inflation target and concern for output volatility, will normally mean a more gradual approach and a less activist policy and, hence, reduced interest-rate volatility. Because interest-rate changes lead to exchange-rate changes, everything else equal, this also reduces exchange-rate volatility. Gersl and Holub (2006) argue that, ideally, IT would operate with a free-floating exchange-rate regime, so that the only instrument in the hands of the central bank would be the short-run interest rate. To the extent that the exchange-rate volatility affects the targeted inflation rate and the output gap, interest rates are used to respond to an exchange-rate shock. In that respect, credibility is also important because increased credibility and increasingly stable inflation expectations will reduce a major source of shocks to both interest rates and exchange rates. Thus, successful and credible flexible IT is likely to contribute to less volatility of interest rates and exchange rates. However, exchange rates are, by nature, volatile asset prices and are affected by a number of shocks beyond inflation expectations and interest-rate changes and/or a "fear of floating" (Calvo and Reinhart, 2002). Such shocks will continue to cause unavoidable exchange-rate volatility.

At that point, the central bank still has the foreign-exchange reserves to prevent large exchange-rate fluctuations and to achieve a goal as specified in equation (1). Hence, the exchange-rate management through foreign-exchange interventions is important under IT (Bofinger and Wollmershaeuser, 2001; Goldstein, 2002; Truman, 2003; De Mello *et al*. 2008). Though, the extent to which the central bank would be committed to prevent exchange-rate fluctuations would differ from case to case and remains an empirical question. In general, for a small, open economy, foreign-exchange interventions will reduce the harmful effect of large supply-side shocks coming from abroad (look at the empirical support in Petreski, 2009a and 2009b) and this will, in turn, improve the overall performance of the IT, because it will facilitate a more favourable positioning of the trade-off frontier. Some of the IT countries do use foreign-exchange interventions more or less fre-

quently in practice (Gersl and Holub, 2006). This group includes Australia, Chile, South Korea, Sweden (in 2001), Hungary, and Slovakia, to name just a few. Most recently, the Reserve Bank of New Zealand, a pioneer of IT, has been given a formal mandate to use direct foreign-exchange interventions as a monetary-policy instrument. There is thus not a general consensus on the "fall of foreign-exchange market intervention as a policy tool" (Schwartz, 2000).

The use of foreign-exchange interventions under IT faces several challenges, though. Among these, the most important is the lack of consensus on the effectiveness of such interventions (which is closely related to the effectiveness and completeness of exchange-rate pass-through). Most of the empirical analyses that were carried out during the 1980s did not support the quantitative importance of the interventions (Almekinders, 1995; Edison, 1993). On the other hand, there are some more recent econometric studies, which benefited from better data availability since the 1990s and the new methodologies applied, supporting the effectiveness of interventions (Disyatat and Galati, 2005; Dominguez and Frankel, 1993; Fatum and Hutchison, 2003; Kearns and Rigibon, 2005; Reitz, 2002). New studies focused also on the effect of intervention on the exchange-rate volatility (Egert and Komarek, 2005; Ito 2003). Moreover, some authors have argued that the effectiveness of the interventions may be greater in the emerging economies compared with the advanced countries, whose data have been typically used in the empirical analyses (Canales-Kriljenko, 2003). The evidence in this respect is still rather scarce, but there are papers that do indeed find some evidence on the effectiveness of interventions in emerging economies under specific conditions (e.g., Guimaraes and Karacadag, 2004). However, the link between this policy instrument and its effects is much less clear than for the interest rates, which makes its use as a systematic monetary-policy tool challenging.

In summary, while there are some prevalent arguments that, as an instrument, the exchange rate should not be explicitly stated in the loss function, theoretical arguments and evidence are still mixed as regards the effectiveness of the exchange-rate management under IT.

4. Empirical evidence: scope and critical analysis

Since its "invention" in the early 1990s until nowadays, IT has spurred a tremendous body of research, part of which evaluates the macroeconomic outcomes of this monetary regime. Some of this literature is primarily based on theoretical arguments, while empirics by and large give comparisons of macroeconomic behaviours pre- and post-IT introduction (see, for instance, Mishkin and Schmidt-Hebbel, 2002; Corbo *et al*. 2002; Neuman and von Hagen, 2002; see also Angeriz and Arestis, 2008, for a summary). In general, this part of the literature concludes that after IT was introduced, inflation and its volatility fell, but that these countries did not reach better performance than non-ITers with a similar starting point (mostly taken as an equal initial level of inflation). In other words, the environment of the 1990s was, in general terms, a stable economic environment, "a period friendly to price stability" (Neumann and von Hagen, 2002, p. 129). The results on output volatility remained mixed, thus not giving support for the claim that IT is a superior strategy.[6] In that regards, the FED and the ECB continue to show scepticism towards IT adoption (Gramlich, 2000; Duisenberg, 2003). IT proponents (Bernanke *et al*. 1999; Alesina *et al*. 2001) have argued in its favour, though without empirical support. This (descriptive) part of the literature is not subject to critical analysis in this thesis, since it does not establish or reveal causal relationships. There is a need for deeper quantitative analysis, which at present still appears scarce.

6) Coric (2009) considers the other side of the coin, i.e. tries to establish why output has been more stable in the late 1980s and 1990s (the so-called "Great Moderation"). He observes three strands of literature why this happened: good luck, good policy and good practice. The first two reasons are important at this place: "good luck" hypothesis relates the lower output volatility to the absence or relative mildness of shocks during this period, while "good policy" hypothesis to the economic (mainly monetary) policy pursued. The former establishes milder economic shocks, while the latter changes in monetary policy as the most likely reason for recent changes in the volatility pattern. However, neither consensus among authors on what kind of monetary policy changes happened exists, nor these changes are related to switches between different monetary regimes, and, in particular to IT. As a consequence, this viewpoint of the literature might not be helpful for our purposes, but directs on an important issue: the analysis should control for other factors other than monetary policy in order to reveal a clear picture if the switch to IT has an effect on the volatility pattern.

Notwithstanding this general impression, a major part of the studies with systematic quantitative assessment are based upon structural models of conditional volatilities, Friedman's (1964, 1993) model of conditional and unconditional volatility, unrestricted VAR models allowing for structural breaks and others. A minor, but growing part gives sensitivity analyses within dynamic stochastic general equilibrium (DSGE) models, which are a recent innovation (see Caputo *et al*. 2007 and de Mello and Moccero, 2007). However, the analysis of IT within DSGEs in advanced economies is only weak. This could be due to these economies already possessing strengthened monetary credibility and sufficiently developed financial markets and institutions, hence, making the analysis of monetary policy more general (in terms of transmission channels and their effectiveness), rather than specifically focused on IT effects, per se. See, for instance, Liu (2006) for New Zealand; Dib (2003) for Canada; Lim, *et al*. (2007) for Australia; Justiniano and Preston (2004) for Australia, New Zealand and Canada; DiCecio and Nelson (2007) for the UK; and the references therein. In addition to this, the analysis of regime switch has been almost absent. In the words of Nadal-de-Simone (2001), this is "an issue virtually ignored in the literature" (p.4). This could be due to the previously observed evidence that developed economies embarked on IT from an implicit nominal (inflation) target, hence making the switch smooth. Only the study of Curdia and Finocchiaro (2005), for Sweden, evaluates monetary regimes within DSGE, under the assumption of regime switch and, as such, is reviewed separately in section 5. Consequently, in this section we will present some empirical studies which evaluate IT performance - we will introduce the models used, but the critical evaluation is mainly focused on the assumptions and findings.

Nadal-de-Simone (2001) assesses output volatility before and during IT in two models. Friedman's (1964, 1993) "plucking model" assumes that output cannot exceed a ceiling level determined by the resources and the technology available to the economy, but it is occasionally plucked down by a recession. The model assumes asymmetry in the shocks hitting the trend or cyclical component of output. Clark's (1987) model is a restricted version of the former, assuming that there is no asymmetry in output behaviour at all. Both models are a type of time-varying-parameter model, which allows for the variance of the shock to the cyclical and trend component of output to depend on the state of the economy, and are used to estimate output-conditional variance for a sample of 12 countries. The study opts to utilize a regime switch between normal and recession time by modelling a Markov process, but does not resolve how output reacts to a change of the monetary regime, or explicitly consider the role of the exchange rate. A sample of six non-ITers and six ITers in the period 1976-2000 is used, in order to compare the former with the latter and the latter before and after IT was established; however, since the study is conducted in the period when EMEs started to establish IT, the sample is restricted to developed economies. As a digression, many studies base their assessment on a comparison with non-IT economies, either neighbouring or the most successful ones (Groeneveld *et al*. 1998; Almeida and Goodhart, 1998; Siklos, 1999; Rasche and Williams, 2005; Vega and Winkelried, 2005), but the concern that different economies are exposed to different (domestic or regional) shocks suggests that these should be treated with caution. In the context of our discussion in section 2, the study finds that although inflation volatility dwindled after the introduction of IT, it was not accompanied by a significant increase in conditional output volatility, with the single exception of Canada. The results suggest that by introducing IT, these countries succeeded in delivering a combination of both lower inflation volatility and lower, or similar, output volatility as in the past. However, it is also possible that there were fewer supply shocks in the late 1980s and 1990s, so that the general reduction in inflation has not been generally accompanied by an increase in output volatility.

Contrary to the studies based on DSGE models, which consider the volatility trade-off as a long-run issue, but similarly to the previous study, Arestis *et al*. (2002) use a model of stochastic, conditional, time-varying volatilities, with the expectation of extracting more information from the short-run dynamics. First, the study compares the economic performance of six IT economies in the 1980s and 1990s, focusing on inflation and output volatility following a supply shock. However, the switch from the previous regime to IT and IT itself, is not considered. The findings suggest that in the 1990s, after IT was established, there was marked lowered output volatility for an unchanged level of inflation volatility, with the exception of Australia and Finland. Again,

though, the sample is comprised of developed countries only, and hence the results are restrictive. Considering that the 1990s were relatively shock-free, the study, in a second stage, compares the ratio of output- to inflation volatility in the 1990s, between six ITers and six non-ITers, similarly to the study of Nadal-de-Simone (2001). It was found that if IT was not adopted, a worsening of this ratio is observed, which suggests that IT regime delivers successful smoothing of inflation and output volatility. This conclusion is attributed to the acquired monetary credibility, which is a characteristic of developed economies, and to the flexibility of the monetary regime, which implicitly refers to the direct accounting for the output stabilization and exchange-rate developments within the monetary-policy loss function.

The relatively shock-free period observed in the 1990s, raised as an issue in Ceccheti and Ehrman (2000), is further advanced in Lee (1999a). He observes three IT countries: New Zealand, Canada and the UK and analyses an unrestricted VAR system of inflation, output, long-term and short-term interest rates over the period 1975-1996. Although important, the exchange-rate is omitted from the analysis, hence neglecting the discretion that authorities (especially former exchange-rate targeters) gained with the introduction of IT. From today's viewpoint, the study is dated but it still encompasses some features in its quantitative approach not present elsewhere in the literature. First, the series are examined for containing structural breaks and, in almost all cases, particularly for the output series, a break is found to be associated with the switch to IT. Hence, in the simulation analysis, the period from 1975 until the introduction of IT is taken separately for each country and forecasts are generated. The objective of these is to provide a counterfactual for the situation without a regime switch in the economy. The comparison with the actual data reveals that, in general, inflation and output volatility under IT have been lower than compared to the simulated path (non-IT). However, Lee (1999a) argues that these findings, also present in other studies, might be deceptive, given the generally observed more stable economic environment in the time when IT was established. To check for this, in a second stage, he uses the common-trend-and-cycle approach for the three countries with three counterparts (their biggest trading non-IT partners: Australia, US and Germany). Under his framework, common stochastic trends are characterised by the existence of cointegrating vectors among the variables (long-run movements), and common cycles by serial correlation of common features among the residual stationary components of these variables (short-run movements). The possibility that the cointegration vector could be affected by a structural break (Nadal-De Simone, 1996) is captured by estimating Sup-F and Mean-F statistics (see further in Andrews, 1993). However, no such breaks were found to be associated with the introduction of IT. Modelled in such a way, the data reveal that the volatility of inflation and output did not decrease; instead, the series became slightly more volatile. These differences in the results could be ascribed to the process of synchronisation of economic activity rather than to the monetary regime itself; and hence, depict IT as instrument ineffective, i.e. a regime whose results could have been achieved without embarking on new regime. In general, albeit that the study is, from the econometric approach, alone in the literature, it makes a genuine approach towards assessing IT performance. Still, the regime switch is not explicitly modelled; also, the results are valid for the developed world only. The absence of the exchange rate from the analysis might appear as the main drawback of the study if a similar approach was applied to developing IT countries.

5. The study of Curdia and Finocchiaro (2005)

This is, to the best of our knowledge, the only study in the monetary-regimes literature that evaluates monetary regimes under the assumption of regime switch. It investigates the extent to which a fixed exchange rate, compared to IT, limits the central bank reactions to inflation and output fluctuations. It builds a DSGE model and solves it in a Bayesian framework. What is of most importance from a modelling viewpoint is that it explicitly models the switch from a target-zone exchange rate[7] to a flexible exchange rate under IT. In such a context, the analysis is conducted for Sweden and the performance of its economy under

7) Target-zone exchange rate is a type of fixed exchange rate, characteristic of the Exchange-rate mechanism (ERM, 1970-1992/3). Some argue that it provides more flexibility in exchange-rate management than a pure peg.

the alternative monetary regimes. For the period under fixed rates (1980-1992), the model incorporates an interest-rate rule, whereby the central bank reacts to exchange-rate deviations from a central parity, while for the period under IT (1993-2003), the monetary policy is described by a Taylor rule - the policy interest rate reacts to the current and past inflation and output, but not the exchange rate. The latter is justified by the arguments of Clarida *et al*. (2001) who argue that the exchange rate does not play a quantitatively relevant role in developed ITers; however, recent policy directions (e.g. in New Zealand) and research (Liederman *et al*. 2006) suggest the contrary. The results of the model suggest quite different behaviour of monetary policy: under a fixed exchange rate, the interest rate reacts to shocks originating from foreign interest rates and from expectations of exchange-rate realignment, while in the IT period, the monetary policy did have greater flexibility and reacted mainly to domestic shocks and barely to exchange-rate shocks. However, the latter conclusion could be assumed, because the policy-reaction function did not include exchange-rate behaviour, per se. Besides this, the study has significant drawbacks, mainly originating from the many simplifications used. For instance, the role of the exchange rate in the IT period is definitely neglected, not only in terms of the volatility of the exchange rate, but also in terms of its pass-through. Also, parameters are allowed to change only in the interest-rate function, which contrasts with the Lucas critique in terms of changing parameters, in general, when regime switches. No discussion is made that the 1990s were relatively shock-free, and how this might have affected the performance of the model. Ultimately, the study does not directly answer the stated objective; instead, it answers which shocks are well responded to under different monetary regimes, but still does not consider whether monetary policy was more optimal in combating macroeconomic volatility under the one regime as compared to the other.

6. Conclusion

The objective of this short essay on inflation targeting was to offer some new viewpoints on this monetary regime, hence contradicting a large part of the academic literature that favours IT. While there are some arguments that the exchange rate is important in the IT framework, the effect on output volatility is still partitioned. While some believe that with increased credibility, an IT central bank could achieve lower inflation-output trade-off curve, another believe that this is an illusion resulting from the relatively shock-free period.

Despite the fact that the work on IT in the last two decades has been immense in quality and quantity, still there is no quantitatively-credible study for the developing world, l*et al*one a study that appropriately measures the regime switch from one monetary strategy to another. The studies for emerging markets are primarily based on theoretical arguments (Mishkin, 2000a; 2003; 2005; Debelle, 2000), while the empirical studies add up to descriptive analysis of the macroeconomic performance since IT introduction, but do not model or reveal causal relationships. Moreover, the majority of developed countries that adopted official IT have been previously relying on an implicit nominal anchor, which is the closest strategy to IT, the only difference being that the target is not officially announced, which is not the case for the developing world. This could be a reason why the switch is not explicitly modelled. Hence, a logical doubt arises if the same conclusions are valid for developing countries, which have adopted IT at the beginning of 2000s, and if the regime switch matters for inflation and output. This is an issue for further research.

Acknowledgement

The author greatly acknowledges the valuable comments from Prof.'s Geoff Pugh and Jean Mangan from Staffordshire University.

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UDC 378.4:371.3(73)

HOW SERVICE LEARNING IS CONDUCTED IN A SCHOOL OF BUSINESS

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Abstract

The article describes the process of conducting service learning projects at The George Washington University on a graduate level. The main goal of the article is to explore service learning as a learning methodology and to stress some of the benefits and costs of this approach of teaching. Also this article presents some important lessons learned from conducting service learning at George Washington University and some figures about number of the projects done in past and type of the projects and clients. The emphasis is on projects conducted with private voluntary organizations in the DC area.

Key words: *Service learning, models of service learning, student projects, clients, benefits of service learning, lessons learned.*

Presented at the conference on Community Research and Learning
University of the District of Columbia, Washington, DC
April 19, 2008

Introduction

There are academic and professional discussions around the world that address the issue of the best teaching methods for higher education. Universities in different countries are applying diverse teaching methods depending on the country's history and culture and the previous or current economic and political situation. International academic collaboration and globalization of knowledge is a way of learning the most effective methods of teaching in higher education and then spreading those ideas through universities around the world.

A brief history of service learning shows that the roots of service learning can be found somewhere at the beginning of the nineteenth century. (Corporation for National and Community Service, 2009) But the essential features of contemporary service learning first appear in the 1993 National and Community Service Trust Act. That act characterizes service - learning as an educational experience

- in which students learn and develop through active participation in thoughtfully organized service experiences that meet actual community needs and that are coordinated in collaboration with school and community;
- that is integrated into the students' academic curriculum or provides structured time for students to think, talk or write about what they did and saw during the service activity;
- that provides students with opportunities to use newly acquired skills and knowledge in real-life situations in their own communities; and
- that enhances what is taught in school by extending students' learning beyond the classroom and into the community and helps to foster the development of a sense of caring for others. (Pritchard and Whitehead, 2004, pp. 2)

The Compact for Learning and Citizenship amplifies the definition of service-learning in the National and Community Service Trust Act by distinguishing it from community service. Taken together these two definitions identify four fundamentals of service- learning:

- Students provide service to meet authentic needs.
- Service links through deliberate planning to the subject matter students are studying and the skills and knowledge they are developing in school.
- Students reflect on the service they provide.
- Service - learning is coordinated in collaboration with the community.

An integrated definition of service learning can be extracted from the National Commission on Service Learning chaired by Senator John Glenn:

> "Service - learning is a teaching and learning approach that integrates community service with academic studies to enrich learning, teach civic responsibility and strengthen communities. It engages students in addressing real unmet needs or issues in a community and actively involves them in decision - making at all levels of the process." (Pritchard and Whitehead, 2004, p. 2-4)

According to the report on Service-Learning (2006, p. 4) prepared by The George Washington University Service-Learning Advisory Board, service-learning is defined as: "a philosophy and teaching methodology that integrates meaningful community service into course curricula to enhance academic rigor by helping students to achieve learning outcomes."

What was done over what period of time

The location of The George Washington University provides many opportunities for service-learning activities, because it is located in the nation's capital. The students from GW have easy access to both federal and global policy makers and institutions. Service- learning is widely practiced at GW. In the past few years, more than 30 faculty members in 17 departments have integrated service-learning into their course offerings. (Service-Learning Advisory Board, 2006, pp. 4-5)

The George Washington University has partners that support service learning efforts. The Office of Community Service (OCS) is the clearinghouse for service-learning activities at The George Washington University. OCS staff members work to support service-learning across all academic departments by

providing resources, support, and information to faculty, students, administrators and community partners. OCS has established more than 60 campus-community partnerships with local schools, agencies, and community organizations. Faculty engaged in service-learning may access the Office of Community Service as a resource for identifying a community partner for service-learning projects. (Service-Learning Advisory Board, 2006, pp. 8-9)

The assignment that was given to the students

Service-learning courses contain key elements that set them apart from traditional classes. The main differentiator of a service - learning course is that part of the course occurs outside of the classroom and in the community. However, service-learning courses possess a greater amount of complexity in terms of the number of stakeholders involved and the quality, resonance, and nature of knowledge transfer and competence building. Within a service learning course, a student's learning will go beyond the course subject matter to include capacity building, team work, leadership, communication and citizenship. (Faculty Service-Learning Toolkit, 2007)

While there are a number of models of service-learning, most service-learning experiences can be described in the following five categories:

1. **"Pure" Service-Learning** - These are courses that not only send students out into the community to serve but have, as their intellectual core, the idea of service to communities by students, volunteers, or engaged citizens. They are not typically lodged in any one discipline.
2. **Discipline-Based Service-Learning Courses** - In this model students are expected to have a presence in the community throughout the semester and reflect on their experiences on a regular basis throughout the semester using course content as a basis for their analysis and understanding.
3. **Problem-Based Service-Learning Courses** - According to this model, students or teams of students respond to the community much as "consultants" working for a "client." Students work with community members to understand a particular community problem or need. It is presumed that the students will have some knowledge they can draw upon to make some recommendations to the community or to develop a solution. Architecture students might design a park. Business students might develop a web site. Botanists might identify non-native plants and suggest eradication methods.
4. **Capstone Courses** - These courses are generally designed for majors and minors in a given discipline. As capstone courses they are offered exclusively to seniors or exceptional juniors. They ask students to draw upon the knowledge they have obtained throughout their course work and combine it with relevant service work in the community with the goal of exploring some new topic or to synthesize their understanding of the discipline. These courses offer an excellent way to help students transition between the world of theory and the world of practice while helping students make professional contacts and gather personal experience.
5. **Service Internships** - Like traditional internships, these experiences are more intense than typical service-learning experiences with students working as much as 10 to 20 hours a week in a community setting. As in traditional internships, students are generally charged with producing a body of work that is of value to the community or site. Unlike traditional internships, these internship programs have regular and on-going reflective opportunities that help involved students analyze their new experiences using discipline-based theories. These reflective opportunities can be done with small groups of peers, with one-on-one meetings with faculty advisors, or even electronically with a faculty member providing feedback. And unlike traditional internships these internships focus on reciprocity - the community and the student benefit equally from the experience.

6. **Undergraduate community-based action research** - This is a relatively new approach. Community-based action research is similar to an independent study option for the rare student who is highly experienced in community work. In this model students can work closely with faculty members and learn research methodology while continuing to serve as advocates for communities and the issues of importance to communities. The vast majority of service-learning courses fall into the first three categories - pure, discipline-based, and problem-based. All three have their strengths and weaknesses. (Eyler, Giles, Stenson, and Gray, 2001)

Students in the School of Business at GW are doing service-learning projects as the "laboratory" part of some courses. Students work in teams of three to five people and the goal of the project is to improve the functioning of some organization. The students use the knowledge and methods that they have acquired from the textbook and classes. Working with a client in an organization they work to improve some aspect of the organization. According to the classification above, the projects that are conducted in the Business School at GW are problem-based service-learning courses. On other campuses two difficulties have been found with problem-based service-learning courses.

- The limited exposure of the students to the actual working situation and conditions of the community minimizes the likelihood that the students' "solution" will address the full magnitude of the problem.

- There is a danger in promoting the idea that students are "experts" and communities are "clients." This underscores the cynicism many communities feel toward universities as pejorative entities that promote an insular way of knowing and understanding the world. (Eyler, Giles, Stenson, and Gray, 2001)

These problems are minimized in the projects conducted by GW students, since they work closely within a client in the organization.

Before the students start to work on a project, they have specific guidelines and recommendations on how to do the project, provided by the professor. These guidelines help students do the project effectively. Students fill out a project proposal form giving:

1. Semester and year,
2. Course number and name,
3. Student names, email addresses and telephone numbers,
4. Client name and telephone number,
5. Address of corporation, organization or agency,
6. Project description. (Umpleby, 2000)

Students also have some basic instructions for working on the project effectively and achieving the project goals. The list of instructions is:

1. Make an activity schedule. Stick to it. You may want use project management software.
2. Do not try to do too much. Discuss the size of the task within the group and with the client.
3. Keep notes on what happened at each meeting. Using email can be helpful here.
4. Be conscious of the group process. Talk about conflicts, differences in perception, and how work can be shared fairly.
5. The project is a laboratory, so talk about how your experiences with the project illustrate concepts covered in the course, for example, forming, storming, norming, performing, adjourning.
6. Start using the various analytical methods immediately. They should help you to understand the client system, your group, and the relationships between the two.

7. Present results to both the client and the class. Obtain an evaluation from the client. Write a summary of your report in the form indicated. (Umpleby, 2009)

At the end of the semester, when students finish the project, they prepare a final report which is presented both to the client and in class in front of their classmates. Instructions on how to prepare the final report are listed below:

1. A title page listing the title of the project, the students involved, their telephone numbers, and email addresses, the course and the semester and year.
2. A one-page summary of the project. See the examples at www.gwu.edu/~rpsol/service-learning. In addition to repeating the information in 1, include rationale, goals, methods, and results.
3. A table of contents with page numbers in the report.
4. Project selection. Briefly review the alternatives considered and the reasons for selecting the project chosen. Describe the client and the initial description of the problem or task.
5. Achievements. Say simply but completely what you did. The page titled, "Phases of Consultation," can be used as a rough outline.
6. In the report try to use some of the methods in The Deming Management Method. For example, if appropriate, include an example of each of the following:
    1. A run chart
    2. A Pareto chart
    3. A flow diagram
    4. A cause and effect diagram

7. How was the key problem or issue defined by the client? Sometimes reframing the problem is helpful in moving toward improvement. Did you redefine the problem during your work? Were you able to reframe the issue in a way that seemed helpful to the client?

8. Group process. Describe how your group worked together. What roles did people assume? Did national or cultural background seem to influence the roles that people played in the group? What personality conflicts or communication difficulties emerged? Were the communication difficulties in part the result of cultural background? Explain. Was email helpful? (Umpleby, 2009)

These guidelines help students to develop an appropriate path for doing the projects and not to lose time developing their own way of accomplishing the project activities. Also, these guidelines provide equality among the students in that all students must follow the same guidelines in their project work.

Types of projects

This article presents data on recent projects that have been conducted in two graduate courses in the School of Business at GW. From 1992 to 2007 students worked on 70 projects for different clients (local and state government, nonprofit organizations, businesses, and universities). The projects can be classified in five main groups depending on the type of organization. The distribution of the projects in terms of numbers and percentages is listed in Table 1 and shown in Figure 1.

Table 1. Clients of student projects

Clients	Numbers	Percentage
Businesses	24	34.28%
Federal government agencies	4	5.72%
Local government agencies	6	8.57%
Universities	19	27.14%
Non – profit organizations	17	24.28%
Total	70	100%

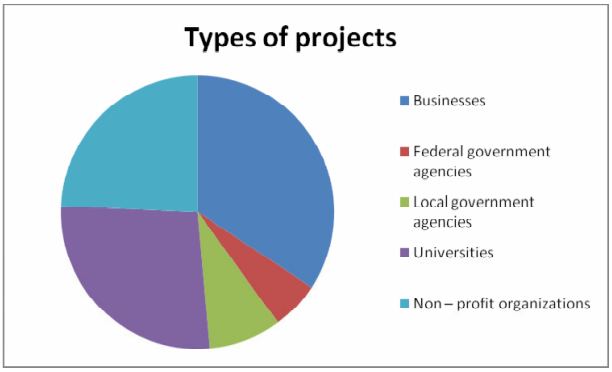

Figure 1.
Clients of student projects

Students used their skills and knowledge to do different kinds of tasks in their project activities. A short description of a few project tasks on which students worked shows a wide range of activities:

1. The students worked to increase the cultural awareness of current and future employees and volunteers at United Methodist Mission Church as well as to increase the usage of the current mission services by the constituent population.
2. GW students worked with Best Buddies International to help them find specific solutions to improving processes in the areas of marketing, strategic management, and human resources.
3. The students worked with the Saudi Arabian Cultural Mission (SACM) in Washington, DC, on website development.
4. A group of GW students worked with the U.S. Coast Guard to incorporate improvements into the new budget development process for the fiscal year 2008 budget cycle.
5. GW students worked with the City's Department of Consumer and Regulatory Affairs (DCRA). The DCRA needed recommendations for the proposed restructuring of the information systems department and suggestions for how the staff could keep their technical skills current.
6. The students worked with the U.S. Department of Treasury Financial Management Service to find the best governance model to assist with managing the web portal.
7. GW students worked to improve the circulation of a Spanish language magazine by identifying their readership and providing feedback on the current reception of the magazine in the Hispanic community.
8. The students worked with a group of American and European investors who were exploring the idea of opening a boutique hotel in the Croatian coastal city of Dubrovnik. The investors needed assistance in developing a business plan.

9. GW students worked with the GW International Services Office to create a mentor program for incoming, international students pursuing an undergraduate degree.
10. The students created a new brochure for Japanese children who would attend the Cherry Blossom Festival in the city.

Lessons learned

Implementing service-learning in higher education over a long period of time provides information and experience, which is helpful for improving the process of service-learning. A few important lessons have been learned.

1. Clients are best found by the students

Several benefits result when the client is found by the students. When projects are conducted by graduate students, usually they decide to work with an organization in which one or more students are working. This approach to choosing the client produces several important benefits:

- More trust between the students and the client
- Better collaboration
- More knowledge of the organization and the businesses, processes and problems within the organization
- Less difficulty defining and analyzing the problems and developing solutions
- The recommended improvements are more likely to be implemented, because essential support for implementation continues with the student employee.

2. The initiator of a project must be the client

It is very important that students be supported by the client in their work on the project. If the person in the client organization who approves the project delegates supervising the project to a subordinate, there are usually obstacles for effective project work. In such situations very often a lack of trust is produced between the two people in the client organization. Employees at the lower level may suspect that their boss wants to spy on their work. The obstacles that can be identified in this situation are:

- Lack of trust
- Poor collaboration
- Poor sharing of information
- Difficulties in defining and achieving the goals of the project

3. Clients can be overseas

New information technology has brought many advantages in making higher education activities more global. Using contemporary information and communication technology provides opportunities to collaborate on projects with clients abroad. Working on international projects with clients from other countries provides several important benefits for students:

- Develop cross-cultural communication skills
- Expand knowledge about other cultures

- Develop flexibility by adjusting to another culture's working habits
- Become familiar with the information technology that is necessary for work on international projects
- Learn how to manage international projects in the future.

The benefits of this assignment to students, clients, university and community

Conducting service-learning projects in higher education provides benefits for all parties in the process. Research conducted at Portland State University is a response to the need to measure the impact of service-learning on four constituencies: students, faculty, universities, and community organizations. They used four service-learning courses as a sample for their pilot study.

Researchers identified multiple variables, indicators and measures to examine the hypothesis that participation in service-learning would have a positive impact on all four constituencies. They employed three methods of data collection: in-person assessments, independent reflection measures, and reviews of existing documentation. Preliminary findings supported the legitimacy of the predicted impact on students, community organizations, and faculty. Service-learning affected students in their awareness and involvement in the community; personal development; academic achievement; and sensitivity to diversity. The impact on community organizations was evident in that they perceived an effect on their capacity to serve clients. They received economic and social benefits, and they were satisfied with student interactions. Finally, faculty members felt that community service experiences could be fertile ground for research and other scholarly work. (Driscoll, Holland, Gelmon, and Kerrigan, 1996, pp. 66-71)

Benefits for students

Service-learning strengthens students in many ways. Service-learning projects help students become better learners by enhancing their cognitive skills. Student reflection leads to deeper understanding and more genuine transfer of learning. Also they develop brainstorming and problem-solving skills as they work their way out of mistakes. Because service-learning is learning in context, students remember what they learned better and longer, growing educated in the true sense of the word. They are also more motivated to learn because they make many of the decisions about the service-learning projects.

Brain research says that this kind of in-context learning is deep and is long remembered. Students who do service-learning projects demonstrate the increased self-confidence and self-esteem that result from responsible, ethical, independent action. Doing legitimate service projects in the community helps students to feel useful. (Berman, 2006, p. xxvi)

The benefits for students from service-learning can be classified in 5 main groups:

1. Content Learning
- In - context learning
- Enhanced learning (in breadth and depth)
- More enduring learning
- Transfer of learning to new situations

2. Personal Development
- Perception of self as service giver
- Enhanced willingness to take risks
- Openness to new people and experiences

- Leadership, communication, and teamwork skills
- Exposure to and acceptance of different society groups
- Development of internal control
- More empathy - less judging

3. Cognitive skills

- Deepened understanding of concepts
- Enhanced transfer of learning
- Brainstorming
- Problem solving

4. Community connections

- Awareness of community problems
- Awareness of service organizations
- Enhanced civic responsibility

5. Life skills

- Knowing when to ask for help
- Knowing when to offer help
- Knowing how to find help
- Finishing a job that is started
- Following rules and directions
- Promoting personal safety
- Self-evaluation
- Deferring gratification
- Communicating clearly and precisely (Berman, 2006, p. xxviii)

Benefits for clients and the community

Conducting service-learning projects provides several important benefits for the clients and the broader community. Service-learning creates a partnership between the college and the surrounding community. By placing students into an environment outside of their own, the college is enhancing the individual and allowing him or her to participate in experiences that he or she would not have otherwise. Several benefits can be identified:

- Provides substantial human resources to meet educational, human, safety, and environmental needs of local communities.
- Allows the energy and enthusiasm of college students to contribute to meeting needs.
- Fosters an ethic of service and civic participation in students who will be tomorrow's volunteers and civic leaders.
- Creates potential for additional partnerships and collaboration with the campus.
- Fosters the development of relationships between organizations and faculty
- Provides additional human resources needed to achieve mission and goals
- Creates a larger pool of experienced volunteers from which to recruit future participants and leaders
- Allows organizations to play a role in educating and challenging student perceptions about current community issues
- Offers organizations the opportunity to identify and access University resources (Career and Community Learning Center, 2009; Ruiz, 2009)

Benefits of service-learning for faculty

Several important benefits can be identified for the university and the academic staff:

- Creates new avenues for scholarship and publication
- Enhances connections between research and teaching
- Provides networking opportunities for colleagues across disciplines
- Increases student recruitment and retention to departments due to increased enthusiasm and engagement with coursework
- Offers faculty the opportunity to be actively engaged and knowledgeable about community issues
- Fosters motivated teaching due to greater student interaction with subject matter
- Fosters the development of relationships between organizations and faculty (Career and Community Learning Center, 2009)

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UDC 336.77:303.62(496.5)
336.77:303.62(73)

FINANCIAL STATEMENT ANALYSIS IN ALBANIA - A SURVEY OF ITS APPLICABILITY AMONG DIFFERENT USERS' CLASS AND THE DIFFERENCES FROM THE DEVELOPED COUNTRIES.

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Ingrid Shuli [9]

Abstract

This paper focuses in the use of the financial ratios by different groups of users. Using questionnaires and based on a comparative analysis among four different groups of users and similarities and differences between Albania and USA we find that the variability among the different groups is much higher than that across countries. We find similarities in the interests of the credit analysts and the Certified Public Accountants on one hand and financial consultants and financial directors/employees on the other, arguing that this could be explained by the proximity of their professional focus on the financial ratios. Nevertheless, the credit analysts, the CPAs and the financial employees demonstrate quite similar interests on the financial ratios, respectively on the capital structure, the liquidity and the profitability ratios, regardless of the country in which they work.

Key words: *financial ratio, financial statement analysis.*

JEL classification code: G20, G29

A draft version of this paper was presented in the International Conference, "Transition in East Europe" in Tetovo, Macedonia, December 2008. We thank you the participants of the conference for their comments and feedback.

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Introduction

Accounting and financial reporting has been one of the more rapidly evolving areas in the global and the Albanian economic environments after the 90's. On a global context the International Financial Standards and International Financial Reporting Standards - IAS/IFRS, represent a real revolution in accounting and finance. After having reached its aim to make the IAS/IFRS the only required financial reporting framework in many countries (almost 100 countries by end of 2008), the International Accounting Standard Board (IASB) has currently committed itself to work on a Convergence Project with the Financial Accounting Standards Board (FASB) in USA under a joint aspiration to ultimately unify the global accounting framework.

A lot of profound reformations with regard to the accounting field have also been undertaken in Albania. In 2004 the Parliament of Albania approved the new Law on Accounting and during years 2005/2006 the National Accounting Council of Albania published the National Accounting Standards (NAS) which were prepared in compliance with the IAS/IFRS. The small and medium enterprises in Albania are required to report their financial information in accordance with the NAS, whereas the big companies and the financial institutions are required to report under the full IAS/IFRS framework. The first financial statements prepared under the NAS framework were reported in 2009 for years 2008 and 2007.

Some of the benefits of implementing NAS that comply with the IAS/IFRS framework are: (1) enhanced public awareness on economic and financial development of listed companies; (2) facilitation of the capital movement and greater market efficiency; and (3) standardization in financial reporting and greater comparability across companies, countries and capital markets making it easier for the experts to effectively analyze the businesses and entities from different industries. The last issue represents a considerable concern for the financial analysts all over the world because of the difficulties often encountered during comparative studies. Many expect that the financial reporting standardization process will open the door to worldwide financial analysis practices.

Even though Albania has made huge steps toward convergence of its financial reporting framework with that of the European Union, we do not observe the same tendency with regard to the use of the financial information. It should be noted that by the time of this study (first half of 2009), the financial information analysis has a very limited usage in Albania. While there may be different explanations concerning this issue, we find that there has been no prior systematic study trying to uncover the underlying motives of this phenomenon in Albania. We try to address this void by focusing on the usage of financial information by four different groups in Albania and comparing the findings with results reported in similar studies done in developed countries. Namely, we narrow our study to focus on the credit analysts in banks, financial consultants, certified public accountants and financial directors/employees in enterprises as four primary groups of interest and we limit the financial analysis only in the financial ratios, to avoid the use of non-comparative information among these four groups.

We find that the group of credit analysts and the group of Certified Public Accountants in Albania have quite similar preferences regarding the use of the financial ratios, probably due to their focus on evaluation of financial soundness of both the published information and the enterprise activity. Another finding is that the group of financial consultants and financial directors/employees show similar interests in the financial ratios usage owing this to the fact that being held directly or indirectly responsible for the profitability of the enterprise they mainly focus on profitability ratios. Comparing the use of the financial ratios between two countries, Albania and USA, we find that the variability across countries is much lower than the variability across groups. Regardless of the country in which they work, the credit analysts, the CPAs and the financial employees demonstrate quite similar interest on the financial ratios, respectively on the capital structure, the liquidity and the profitability ratios.

The rest of the paper is organized as follows. In the first section we present a brief literature review of the financial analysis. In the second section we give an overview of the methodology and the data that are used in this study. In the third section a detailed analysis of the questionnaires is performed. In the fourth section we conclude.

1. A brief literature review.

Financial ratios' theory and use dates back since the end of the XIX century (Horrigan, 1968). Nevertheless these first studies were very limited in scope and were performed mainly inside a qualitative framework rather than a systematic and thorough quantitative analysis. The broad use of the financial ratios as we know it today was facilitated only in the 60s because of two important developments: (1) the electronic data processing techniques that began to be conceptualized exactly in this period and, (2) the creation of enormous financial information databases that centralized data across many companies, industries, countries, and periods.

Recently the financial ratios have been in the focus of many theoretical and empirical studies. Trying to streamline the many areas of financial ratios usage in literature Salmi and Martikainen (1994), distinguished the following main categories:

- The functional form of financial ratios.
- Distribution characteristics of financial ratios.
- Classification of financial ratios.
- Comparability of financial ratios among different industries.
- Use of financial ratios by different disciplines.
- Methodology of calculating average industry ratios.
- Financial ratios in bankruptcy prediction and credit default prediction.
- Predictive ability of financial ratios versus predictive ability of financial analysts.
- Estimating internal rate of return from the financial statements.

Within this framework of financial ratios research our paper tries to contribute in the comparative stream by evaluating the interest of several groups of professionals on specific financial ratios. Given the lack of such studies in Albania, the analysis that we present does not aim to be exhaustive but rather to open the doors of discussion and debate.

2. The methodology and data used in this study.

In this study we use questionnaires to assess the interest and the focus of four different groups of professional users of financial information. The questionnaire content was divided in two main sections. In the first section several questions were included to find out more about the professional background of the individual interviewed. Question such as age, education background, professional seniority and job turnover history were all part of the first section of the questionnaire. In the second section of the questionnaire ten different financial ratios were included demanding from the interviewed individuals to rank these ratios according to their perceived importance level.

The four groups of the study sample were delivered the same type of questionnaire to allow for a certain level of comparability of results among groups. As such a wide range of financial ratios, from liquidity variables to activity variables were included in the predefined list that was supplied to the interviewed individuals. Nonetheless, to allow for possible variations in the needs and practices of the different groups a last blank option was given to the participants in the survey so as they could mention one or more financial ratios that they did use but that were not included in the list. The interviewed individuals were asked to put a grade from "one" (minimum) to "ten" (maximum) to ten pre-specified financial ratios according to their 'perception' of ratio importance. They could put only one grade to one ratio and they could not use a certain grade more than once, i.e. if they graded a certain ratio with "eight" they could not grade "eight" any of the nine ratios remaining in the list. In case the interviewed professionals did not use the ratio, or simply did not know of it, they had the option to answer "I do not use it" or "I do not know it".

The methodology that we have used is simple descriptive statistics of the sample, using the average values for each group and presenting results in a ranking fashion. We have focused on a comparative analysis both among groups and between the results of the Albanian study and the results of a similar study made in USA in the beginning of 2000 (Gibson 2005).

The target group of the questionnaire consisted of professionals who use financial ratios in their everyday work. A three months period, June - August 2008, was allowed for the distribution and return of the questionnaires. The methods used to distribute and fill the questionnaire were via email, personal contact, regular mail and telephone interviewing.

The sample included in the study was divided in four groups as was better perceived given the job description of the interviewed individuals. These four groups are the credit analysts in banks, financial consultants, certified public accountants and financial directors/employees in enterprises. These individuals were asked to complete a questionnaire whose main purpose was to reveal their interests on specific financial ratios and to compare these interests among the different groups. In total there were 200 questionnaires delivered and they were divided in equal amounts (50 questionnaires), for each sample group.

There were 96 completed questionnaires that were returned and found to have been filled in a complete and consistent manner with no data or information missing. The other partly-completed questionnaires were not taken into consideration. 96 fully completed questionnaires represent a total average response rate of 45% for the whole sample in the study. The specific rate of response varies for each group in the sample, from a maximum level of 66% for the financial directors/employees group to a 50% level for the credit analysts and certified accountants, and down to a minimum level of 26% for the financial consultants group. The average rate of return for the completed questionnaires returned is considered satisfying and representative of the respective classes of professionals.

3. The analysis of the questionnaires.

After presenting the methodology and the data used in this study we will analyze in some details the results of the questionnaires first for each individual group included in the survey and next drawing some similarities and differences among them in a comparative analysis. Last we also compare the results of this study with the results of a similar study performed in USA in beginning of 2000s.

3.1 Results of the questionnaire with the credit analysts group.

The first studied group is the credit analysts working in banks. The logics behind involving the credit analysts in this study is that quite often they use financial data, mainly financial ratios, derived from the financial statements of the credit applicants, in order to take a sound credit decision. With regard to this group we distributed questionnaires not only in banks in the city of Tirana, but in *Durres, Fier and Vlora* as well, which are big cities with an extensive credit activity. In Table 1 we give the average point scoring of the ten pre-specified financial ratios as given by the credit analysts.

Table 1. Credit analysts' questionnaire results in Albania.

CREDIT ANALYSTS IN BANKS		
Financial Ratio:	**Average Point Scoring**	**Percentage of usage**
Financial Leverage (Liabilities / Assets)	7.9	100%
Return on Assets ROA	6.7	100%
Return on Equity ROE	6.3	100%
Net Profit Margin	5.0	67%
Cash Ratio (Cash Flow Operating / Liabilities)	4.8	88%
Operative Profit Margin	4.7	88%
Working Capital	4.6	100%
Current Ratio	4.0	88%
Quick Ratio	2.7	100%
Total Assets Turnover	1.0	33%

In the last column of table 1 a percentage of use is given which represents the usage rate of the specific ratio calculated as the ratio of the number of observations who put a grade to the specific ratio (e.g. did not answer neither "do not use it" nor "do not know it") to the total number of observations. We can observe that the financial leverage ratio and the return ratio, in its two most known forms, ROA and ROE are listed in the top three places in the table. The traditional liquidity ratios (current and quick ratio) are listed in the mid or the low part of the table raising serious doubts about their "long believed status" as the most preferred ratios by the credit analysts. We owe this odd result to the specifics of the financial reality of the Albanian entities that can sometimes provide cash from non-official and non-reportable sources.[10] This reality seems to have been already figured out by the credit analysts who rank the ratios that are affected by such "underground cash-transferring" practices as almost the least significant in taking a decision on credit-worthiness of applicants.

3.2 Results of the questionnaire with the financial consultants group.

The financial consultants represent the second interviewed group. The consulting services industry is basically very rich offering different consulting products that vary from financial analysis, cost analysis, fiscal consultation and human resources advisory, to systems analysis or product life cycle analysis. Under this ground we had an expectation that the individuals in this group would know and use more or less every single ratio included in the questionnaire. As a matter of fact this expectation was confirmed because the percentage of use was 100% for all the financial ratios (see last column on the right, table 2). Nevertheless we have to bear in mind that the financial consultants group was the group with the lowest response rate, only 26%. This means that out of 50 questionnaires delivered to financial consultants only 14 were returned fully completed. This may somewhat bias[11] the results commented below concerning financial consultants' interests in financial ratios.

10) That is financing the entity by the personal funds of the owner. This is especially true for the one-owner SME-s.

11) Given that we do not have any rough approximation of the number of financial consultants working in Albania, we can not estimate if this results are statistically representative of the population or not.

Table 2. Financial Consultants questionnaire results in Albania.

FINANCIAL CONSULTANTS		
Financial Ratio:	**Average Point Scoring**	**Percentage of usage**
Operative Profit Margin	9.7	100%
Net Profit Margin	8.3	100%
Current Ratio	7.7	100%
Return on Equity ROE	7.6	100%
Total Assets Turnover	6.3	100%
Financial Leverage (Liabilities / Assets)	6.0	100%
Return on Assets ROA	5.6	100%
Cash Ratio (Cash Flow Operating / Liabilities)	4.7	100%
Working Capital	4.0	100%
Quick Ratio	3.3	100%

The results in table 2 show that this group is especially interested in profit margins of the entity - they put the operative and net profit margin in the top two positions. Their average point scoring is also high in the level of "9.7" for the most important ratio, and this is the highest score of the most important ratio achieved among the four groups. This shows that the group of financial consultants has given compact answers and has had the highest level of perception convergence among all groups. It seems that out of the four interviewed groups they are the group that has the largest scale of agreement as to the importance of specific financial ratios. From table 2 we can also observe that financial consultants have a certain interest on the liquidity ratios (third position) and return ration (fourth position). On the other hand, the financial leverage ratios, which were highly important for the credit analysts group, come only sixth in consideration for the financial consultants group.

3.3 Results of the questionnaire with the Certified Public Accountants group.

The next target group was the Certified Public Accountants, CPAs. This group also seems to be interested in the financial analysis even though this is not their primary professional focus. Sometimes their clients demand from the CPAs to perform analysis of the financial statement they prepare thus acting as financial consultants. In table 3 we give the results for this third group. The first feature we may notice is that none of the financial ratios is used in the level of 100% by the CPAs. Actually the highest usage rate is only 80%, meaning that the specific ratio is used by only 80% of the sample of the CPAs interviewed. The least used ratio is the Cash Ratio, put in use by only 40% of the sample. There are even CPAs who answered they do not use even one single financial ratio.[12] Another observed feature in the CPAs' questionnaire was that the senior CPAs (professionally and in age as well) were the less financial ratios they used. Nevertheless this is not a statistically tested conclusion, but just a simple observation of the author. On the other hand the less senior CPAs were more likely to use the financial ratios in their everyday work. We argue that this observation may be linked with the fact that the financial ratios are a new reality in financial analysis discipline in Albania and thus are mostly embraced by the young professionals, in this case the recently licensed CPAs, or by the recently graduated individuals.

12) As a matter of fact it was only in one case that a CPA answered he did not use any of financial ratios provided to him in the list in the questionnaire, or any other, even though he certainly possessed proper knowledge about those ratios. Asked about the reason he answered that "this was because of the informality he could sense in the prepared and reported financial statements in Albania and because of the bias between these statements and the financial reality of the entity" (cited with the permission of the interviewed CPA). This statement gives us reason to imply that the low usage rate of financial ratios by the CPAs (in average the lowest among the four groups interviewed) is caused by their knowledge of the deep informality in the financial statements prepared by Albanian entities (author's opinion).

Table 3. Certified Public Accountants questionnaire results in Albania.

CERTIFIED PUBLIC ACCOUNTANTS, CPA		
Financial Ratio:	**Average Point Scoring**	**Percentage of usage**
Financial Leverage (Liabilities / Assets)	8.75	80%
Current Ratio	8.1	80%
Return on Assets ROA	8.0	60%
Return on Equity ROE	7.3	80%
Net Profit Margin	7.0	80%
Operative Profit Margin	6.7	60%
Total Assets Turnover	5.7	80%
Working Capital	3.7	60%
Quick Ratio	2.3	60%
Cash Ratio (Cash Flow Operating / Liabilities)	2.0	40%

Interpreting the results obtained from questionnaires with CPAs there are several points worth to comment. First the highest ranked ratio by CPAs is a capital structure one - the financial leverage ratio which is given an average point scoring of 8.75. The second is a liquidity ratio - the current ratio with an average point scoring of 8.1 and the third happens to be a return ratio - the ROA with an average result of 8.0 points. What we can observe from the first three places in CPAs' choice is a rich and diverse combination of ratios from the three most important groups of financial ratios - those of capital structure, liquidity and profitability. Further more, the interest of the CPAs on the ratios of financial leverage and current ratio (both of them ratios purely derived from the balance sheet) could be explained by their professional focus on the balance sheet construction.

3.4 Results of the questionnaire with the financial directors/employees group.

The last interviewed group we combined the financial directors of enterprises and the professionally independent financial employees (such as Approved Accountants - Albanian, *Kontabilistet e Miratuar, KM*). We also included in this group all those interviewed individuals who did not identify themselves within any of the first three groups. Questionnaires were delivered for financial employees in *Tirana, Durres, Vlora, Kruja* and *Fier*.

Table 4. The financial employees' questionnaire results in Albania.

FINANCIAL DIRECTORS/EMPLOYEES, KM AND OTHERS		
Financial Ratio:	**Average Point Scoring**	**Percentage of usage**
Net Profit Margin	8.5	100%
Return on Equity ROE	8.2	100%
Operative Profit Margin	7.6	100%
Cash Ratio (Cash Flow Operating / Liabilities)	6.4	100%
Total Assets Turnover	6.3	69%
Return on Assets ROA	6.1	100%
Current Ratio	5.4	81%
Financial Leverage (Liabilities / Assets)	5.0	81%
Quick Ratio	4.0	81%
Working Capital	3.6	81%

From the results in table 4 we notice that the usage rate of financial ratios by this last target group is not low. Except the "Total Assets Turnover" ratio with the lowest percentage of use (69%), the other ratios are used in more than 80% of cases (varying from 81% to 100%). In the first top three positions are listed the

profitability ratios - the two profit margins and the ROE ratio. We may explain the huge importance placed on the profitability ratios with the fact that these indicators represent a measure of the financial directors' own performance because they are established as targets they should achieve. This is why the majority of the professionals of this group always keep an eye in any (or sometimes the three) of these profitability ratios. We also notice in table 4 that the Cash Ratio is in the fourth position and it is the highest ranked ratio among all the liquidity ratios, (it has a distinctively higher score, 6.4 in average, than the other next liquidity ratio in the classification, the current ratio, 5.4 in average). This could be explained with the fact that the financial employees always want to have information about the sufficiency of cash reserves and this information is better captured by the cash ratio rather than by the traditional liquidity ratios.

3.5 Comparative results among the four groups.

In table 5 we present the comparative results of this study which focused in four groups of professionals in Albania. Only the five most important ratios of each group are included in the summarized table 5, regardless of the specific average point scoring of each ratio. We can observe that there are similarities in the preferences for financial ratios between the group of the credit analysts and the CPAs. The first five ratios for these two groups are almost the same, except with some differences in ranking. The only significant difference is the specific liquidity ratio preferred by each group - the credit analysts prefer the cash ratio but they nevertheless place it only in the fifth place. On the other hand the CPAs mostly prefer the current ratio and regard it as the second most important ratio in which they focus their analysis of an entity.

Table 5. Comparison of results for the five most used ratios among the four groups of professionals in the study in Albania.

The studied groups with professionals in Albania				
Ranking	**Credit analysts**	**Financial consultants**	**Certified Public Accountants - CPA**	**Financial directors/employees, etc.**
1	Financial Leverage	Operative Profit Margin	Financial Leverage	Net Profit Margin
2	Return on Assets ROA	Net Profit Margin	Current Ratio	Return on Equity ROE
3	Return on Equity ROE	Current Ratio	Return on Assets ROA	Operative Profit Margin
4	Net Profit Margin	Return on Equity ROE	Return on Equity ROE	Cash Ratio
5	Cash Ratio	Total Assets Turnover	Net Profit Margin	Total Assets Turnover

The same lines of similarities can be drawn between the groups of financial consultants and financial employees. They also prefer basically the same ratios but they rank them differently. There is also a different preference for the specific liquidity ratio. The financial consultants focus on the current ratio and place it the third in the overall ranking while the financial directors/employees and others prefer most the cash ratio and rank it as the fourth.

All the similarities between the groups can be best presented visually if we put closely the "related groups" making two pairs: credit analysts - certified public accountants pair on one hand and the financial consultants - financial directors pair on the other. Table 6 represents these arrangements. We have marked with an asterisk - * those financial ratios that are exactly the same between the compared groups and have the same ranking; with two asterisks - ** those financial ratios that are the same in the top five ratios but with differences in ranking between two groups; with three asterisks - *** those financial ratios that are different in two groups, even though they may be of the same financial ratio classification group e.g. liquidity ratios category or capital structure category.

Table 6. Links between preferences for financial ratios in the target professional groups in Albania.

The studied groups with professionals in Albania				
Ranking	**Credit analysts**	**Certified Public Accountants**	**Financial consultants**	**Financial directors/employees, etc.**
1	**Financial Leverage ***	**Financial Leverage ***	Operative Profit Margin **	Net Profit Margin **
2	Return on Assets ROA **	Current Ratio ***	Net Profit Margin **	Return on Equity ROE **
3	Return on Equity ROE **	Return on Assets ROA **	Current Ratio ***	Operative Profit Margin **
4	Net Profit Margin **	Return on Equity ROE **	Return on Equity ROE **	Cash Ratio ***
5	Cash Ratio ***	Net Profit Margin **	**Total Assets Turnover ***	**Total Assets Turnover ***

In table 6 there are also marked with bold letters those financial ratios which are exactly the same between groups; there is only one in each pair, the financial leverage ratio for the first pair (ranked first) and the total assets turnover ratio in the second pair (ranked last). Also the order of ratios in the first pair is basically the same (except the current ratio which is found in the second place of the CPAs group). There is not such a close similarity in ratios order in the second pair. The financial ratios seem to have a more disorganized distribution compared with the first pair.

Given the results of this comparison we may conclude that most closely related pair is that between the credit analysts and CPAs. Less related but comparable to a certain extent is the pair of financial consultants and financial employees. We could rationally expect such an association between the different groups to form these pairs. To elaborate on that: the credit analysts' preferences resemble those of the CPAs because these two groups of professionals observe the financial statements trying to determine their reliability and share their efforts almost equally among different aspects of entity performance. This fact is confirmed because of the presence of ratios from all the three categories, capital structure, profitability and liquidity, in the first five places of these groups' classification. On the other hand, the similarity of interests of the financial consultants and financial directors/employees groups is also expected. This last pair is more interested in assisting the company achieving its objectives or directly involved in achieving these objectives rather than taking time to evaluate its performance based in financial statements indicators solely. This is why the profitability ratios basically occupy the top five places in the classification.

3.6 Comparative results between Albania and USA.

A similar study has been made in the USA in the beginning of 2000 (Gibson, 2005). It was addressed to the same four different groups of users - credit analysts in the commercial banks, controllers, certified public accountants and the certified financial analysts that are analogous to the groups of study in Albania. Table 7 briefly presents these results.

Table 7. Results of the questionnaire with credit analysts in USA.

Commercial loans analysts		
Ratio	**Point scoring**	**Category**
Debt / Capital	8.71	Debt
Current Ratio	8.25	Liquidity
CFO / Current maturity of long-term debt	8.08	Debt
Fixed costs coverage	7.58	Debt
Net Profit margin after tax	7.56	Profitability
Times interest earned	7.50	Debt
Net Profit margin before tax	7.43	Profitability
Financial leverage	7.33	Debt
Days in inventory	7.25	Liquidity
Days in receivables	7.08	Liquidity

In table 8 the results of a similar study performed with the corporate controllers of selective industries in the *Fortune 500* are presented. These professionals were asked only to point which financial ratio(s) was(ere) part of corporate objectives.

Table 8. Results of the questionnaire with corporate controllers in USA.

Corporate controllers		
Ratio	**Percentage**	**Category**
Earning per share	80.6	Profitability
Debt / Capital	68.8	Debt
Return on equity (after tax)	68.5	Profitability
Current Ratio	62.0	Likuiditeti
Net Profit margin (after tax)	60.9	Profitability
Dividends paid ratio	54.3	Other
Return on total capital invested (after tax)	53.3	Profitability
Net Profit margin before tax	52.2	Profitability
Days in receivables	47.3	Liquidity
Return on assets	47.3	Profitability

* Percentage of firms that showed the specific ratio was included in the corporate objective

The next studied group consisted of the certified public accountants, CPAs, whose results are presented in table 9.

Table 9. Results of the questionnaire with the CPA-s in USA.

Certified public accountants, CPA-s		
Ratio	**Point scoring**	**Category**
Current Ratio	7.10	Liquidity
Days in receivables	6.94	Liquidity
Return on equity (after tax)	6.79	Profitability
Debt / Capital	6.78	Debt
Quick ratio	6.77	Liquidity
Net Profit margin after tax	6.67	Profitability
Net Profit margin before tax	6.63	Profitability
Return on assets (after tax)	6.39	Profitability
Return on total capital invested (after tax)	6.30	Profitability
Days in inventory	6.09	Liquidity

The last studied group consisted of the certified financial analysts, CFAs. The results of their perception on ratio importance is given in table 10.

Table 10. Results of the questionnaire with the CFA-s in USA.

Certified Public Accountants, CPA-s		
Ratio	**Point scoring**	**Category**
Return on equity (after tax)	8.21	Profitability
Price/Earnings	7.65	Other
Earnings per share	7.58	Profitability
Net Profit margin (before tax)	7.52	Profitability
Return on equity (before tax)	7.41	Profitability
Net Profit margin (after tax)	7.32	Profitability
Fixed costs coverage	7.22	Debt
Quick ratio	7.10	Liquidity
Return on assets (after tax)	7.06	Profitability
Times interest earned	7.06	Borxhi

We have attempted to present some comparative results between the respective groups of financial ratios users in USA and Albania. Focusing on the five most important ratios we give the following results in table 11. The comparison is focused only on three groups that could be perceived as more connected. We are excluding the CFAs and the financial analysts form such a comparison because of the specifics of this proffesion in Albania, where the finacial analysts do not have to be certified to work as such.

Table 11. Comparative results of the questionnaire with the in USA and Albania for three groups.

Nr.	Credit analysts (AL)	Credit analysts (USA)	CPA (AL)	CPA (USA)	Financial employees (AL)	Controllers (USA)
1	Financial leverage	Debt / Equity	Financial leverage	Current ratio	Net profit margin	Earnings per share
2	Return on assets, ROA	Current ratio	Current ratio	Days in receivables	Return on Equity, ROE	Debt / Equity
3	Return on Equity, ROE	CFO / Current maturity of long-term debt	Return on assets, ROA	Return on Equity, ROE, after tax	Operativ profit margin	Return on Equity, ROE, after tax
4	Net profit margin	Fixed costs coverage	Return on Equity, ROE	Debt / Equity	Cash ratio	Current ratio
5	Cash ratio	Net profit margin after tax	Net profit margin	Quick ratio	Total assets turnover	Net profit margin after tax

From table 11 we may notice that the credit analysts both in Albania and USA regard the financial leverage ratio as the most important indicator to assess the financial soundness of an entity. We may also find similarities in their interest to use the liquidity and profitability ratios (namely the credit analysts in Albania use the cash ratio and the net profit margin whereas the credit analysts in USA use the CFO to current maturity of long-term debt and the net profit margin). The second across-country comparative group, the CPAs, appear to have three ratios in common: financial leverage, current ratio and the ROE. The other two ratios are different. The CPAs in USA prefer the quick ratio and the days in receivables while the CPAs in Albania prefer two profitability ratios, the net profit margin and the ROA, (we have to bear in mind that the days in receivables ratio was not included in the questionnaire in Albania). The last cross-country comparative group, the financial employees group, also demonstrates some similarities. They have two ratios in common, the

net profit margin and the ROE, even though positioned in different places. The other three ratios are not the same what could very well be explained by the lack of internal consistency in the Albanian group where this group did not include just controllers - chief accountants, but other financial employees as well. In general we may conclude that there are not major differences between the use of financial ratios between the two comparing countries, Albania and USA. The variability of the across-countries results is lower than the variability of the across groups results.

4. Main findings and conclusions.

This paper focused in the study of financial ratios use by different categories of professionals. While being a much extended field of research in other countries, in Albania we notice a lack of studies with regard of the financial ratios use and the variability of practices and interest of different users. Therefore, one of the objectives of this paper was to open the way for future studies in this discipline.

We studied the differences and similarities in the usage of financial ratios by different classes of professionals in Albania. The sample of the survey was divided into four different users groups - the credit analysts, financial consultants, Certified Public Accountants and financial directors/employees. The data was gathered through a questionnaire with closed questions (questions with defined answers). Out of 200 questionnaires distributed 96 fully completed and usable observations were collected. The total average response rate of the questionnaire was 45%. The descriptive statistics were used to process the data. The results were presented separately for each studied group and also a comparative analysis was performed to discover possible similarities in preferences among groups and between Albania and USA.

We find that the group of credit analysts and the group of Certified Public Accountants in Albania have quite similar preferences regarding the use of the financial ratios. Both these groups top rank the same financial ratio - the leverage ratio - and, with some minor exceptions, they put the same ratios in the top five classifications. This strong resemblance could be explained with the similar point of view that these two classes of professionals adopt toward the financial statements: determining the reliability of the information presented in the face of the published statements. Therefore they both focus on the three main categories of financial ratios - capital structure, profitability and liquidity - having similar ratios in the first five positions of the ranking. By evaluating a company under several different yardsticks they try to complete the picture of an enterprise analysis and to assess the reliability of its financial information as well as the financial and economic soundness of its decisions.

Another finding is that the group of financial consultants and financial directors/employees showed similar interests in the financial ratios usage. These two groups put the same financial ratios in their first five places of classification even though their distribution is obviously different for each of the groups. One could also observe that the financial ratios occupying the first five positions are mainly profitability indicators. Trying to explain the underlying reasons for such an observed similarity we can mention at least one point: the two groups - financial consultants and financial directors - are directly or indirectly involved in achieving the main objective of an enterprise, the profit maximization. Hence, the profitability ratios are so important to them, even more than the capital structure or the liquidity ratios.

To summarize the above findings we can argue that the preferences of different users for financial ratios are different and are mainly determined by their professional objectives. Hence, as the working interests vary considerably among different classes of professionals we can not expect uniform use and interest on financial ratios for all users groups. To the extent that the professional objectives are similar between two or more users groups, to that extent we may expect their focus on the financial ratios to be similar. That is why we notice similarities between the credit analysts group and the CPAs group on one side and between the financial consultants and financial directors on the other.

Comparing the use of the financial ratios between two countries Albania and USA, we find that the variability across countries is much lower than the variability across groups. Regardless of the country in which they work, the credit analysts, the CPAs and the financial employees demonstrate quite similar interest on the financial ratios. More specifically: (1) the credit analysts focus mainly on the capital structure of an enterprise trying to understand if further loans could be extended to this specific enterprise; (2) the CPAs focus on liquidity and profitability because they aim to attest the quality of the financial information of an enterprise and quite often the accounting cosmetics yields the first effects upon the liquidity and profitability indicators; and (3) the financial employees focus mainly on the profitability ratios because their performance is quite often evaluated using one form of the profitability indicators. We did not compare the group of financial consultants and analysts because of feature differences: the Certified Financial Analysts in the USA represent a standardized class of certified professionals, whereas the financial analysts and consultants in Albania represent a highly heterogenic class with different backgrounds and different professional scope.

Based solely upon simple descriptive statistics and a modest database we suggest as further extension of this study: (i) the use of more comprehensive statistical tools to assess the significance of the variance of preferences among different classes; (ii) a more complete database with more observations; and, (iii) a study of the over time differences of users' preferences before and after the implementation of the NAS/IAS/IFRS in Albania.

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UDC 330.59:303.62-057.75(497.7)
330.59:303.62-057.87(497.7)

ANALYSIS OF THE STATUS AND STRUCTURE OF THE CONSUMPTION OF STUDENTS AND PENSIONERS IN MACEDONIA

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Abstract

The study covers a sensitive topic concerning the living standard and quality of life of two social groups - pensioners and students, presented through the structure of consumption and impact on it (particularly the impact of price change). It consists of four sections: introduction, sections for pensioners, sections for students and sections where the main findings are presented. Pensioners and students have a central place in this paper, therefore the analysis should determine: the structure of pensioners/students included in the analysis; the social status of the pensioners/students; the structure of the pensioners'/students' consumption and the reflection of the price change on the pensioners'/students' consumption. This study is meant to present the basis and impetus for further researches of the status, and the consumption of these social groups, as well as research of the factors that have direct impact on the consumption and on the quality of life of pensioners and students. This study reveals the most sensitive points (social status, structure of consumption, conditions etc.) concerning these social groups, and should be an alert for the creators of the economic and social policies in the country.

Key words: *pensioners, students, structure of consumption, social status of the pensioners/students, impact of the change in prices.*

Introduction

The paper emphasizes the conclusions and the main outcomes from the study of the status and structure of the consumption of students and pensioners in Macedonia. It covers a sensitive topic concerning the living standard and quality of life of these two social groups, presented through the structure of consumption and impact on it (particularly the impact of price change).

Macedonian pension and disability insurance is an important segment of the social policy of the country. The development of pension and disability insurance depends on the overall economic, social and

demographic movements in society that directly or indirectly affect the pension system of each country. Pensioners have a central place in this paper, therefore the analysis should determine - structure of pensioners included in the analysis; social status of the pensioners; structure of the pensioner's consumption and; reflection of the price change on the pensioner's consumption.

Education in each country is basis for prosperity, which is to develop capacity for development, improvement and understanding of all young people. With education all young people should receive equal opportunity for scientific work, which is available for everyone. Hence the second part of the research focuses on the analysis which includes: students involved in the analysis; social status of the students; structure of student's consumption and; reflection of the price change on the student's consumption.

This study is meant to present the basis and impetus for further researches on consumption of these social groups, which is like a mirror of their standard, as well as research of the factors that have direct impact on the consumption and on the quality of life of pensioners and students; this study reveals the most sensitive points (structure of consumption, conditions etc.) concerning this social groups, and should be an alert for the creators of the economic and social policies in the country.[13]

Methodology

The basis for this study are the data collected through two questionnaires - questionnaire for students and questionnaire for pensioners, designed in order to determine the general situation of these two social groups and the structure of their consumption (quality of life).[14] The study consists of four sections: introduction, a section for pensioners, a section for students and a section where the main findings are presented. The introduction section presents a general picture of the size, gender and age structure of the Macedonian population, and the structure of households' consumption, in order to understand better the situation of two social groups: pensioners and students, which are subject to analysis in our study. The pensioners section begins with the institutional setup of the pension system, the number and structure of insured and beneficiaries of retirement, the financial sustainability of pensioners and at the end the research results (survey) are presented. The students section begins with presenting the number and structure of students and afterwards the results of the survey are presented. The last part presents the main findings of the research about the status and structure of the consumption of students and pensioners in Macedonia (divided in two separate parts: one for the pensioners and one for the students).

The pensioners' survey covers four cities different in size, in order to obtain results that will show the opinion of pensioners in small, medium and in the large cities - Berovo, Kocani, Bitola and Skopje. Using the method of cluster sample, 135 pensioners were interviewed, which represents 0.05% of the total number of pensioners in May 2009.

Considering the fact that most of the faculties and students in Macedonia are in Skopje (until 2008/2009), the students' survey was conducted only in the area of the capital - Skopje. 200 students from different universities were interviewed, who represent 0.3113% of the total number of students in Macedonia in 2008, or 0.5836% of the students who live in Skopje. The survey was conducted in the period from late March to late May 2009.

The questionnaire for pensioners and students is consisted of:

8 questions for pensioners, 13 questions for students - which present the general picture of: >structure of pensioners/students involved in the analysis; > social status of the pensioners/students > structure of the pensioners'/students' consumption > reflection of the price change on the pensioners'/students' consumption.

13) The full version of the study "Analysis of the status and structure of the consumption of students and pensioners in Macedonia" is available at: www.cea.org.mk

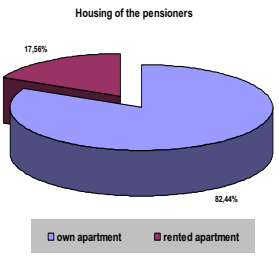
14) Because of the complexity of this research problem, certain areas are not taken into account: housing, financial sustainability, transport, impact of price change, selected products/services from the international classification COICOP etc.

Table - consists of 9 groups of products according to the international classification COICOP, which are used to determine:[15] > which products and services pensioners/students use: very often, often, rarely, very rarely, do not use at all and which they stopped using because their prices have changed; > a portfolio of the most frequently used products and services by the pensioners/students; > a portfolio of products/services that pensioners/students stopped using because their prices have changed; > a portfolio of products/services that most of the pensioners/students do not use; > a comparison of the above portfolios with the changes in prices, in order to determine their relationships in the period when the analysis was conducted.

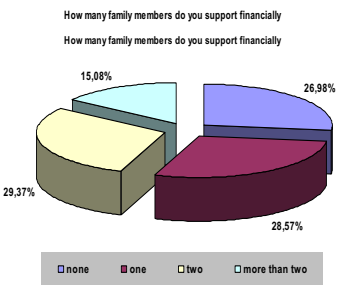
Main findings

Pensioners

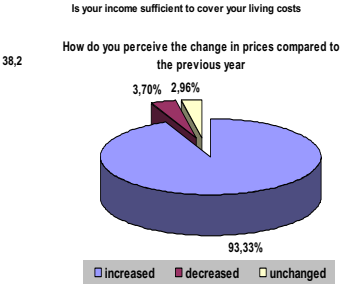
- The proportion of average pensions in the overall average salary for December 2008 was about 55%, compared to 1992 when this proportion was 77%;
- 17.5% of pensioners do not live in their own apartment - the costs of housing, water, electricity, gas and other fuels for May 2009, compared with the average of 2008 increased by 4.7%, while the cost of rent for the same period increased by 4.6%;



- 45.2% of pensioners support financially two or more family members, of which 15.1% of pensioners support at least two family members;

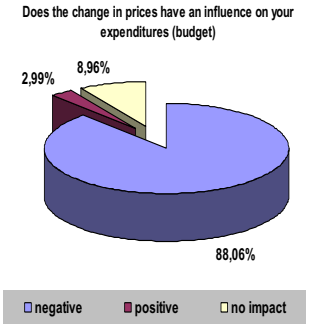


- 67.7% of the surveyed pensioners reported that their income is not sufficient or is only partially sufficient to cover living costs;

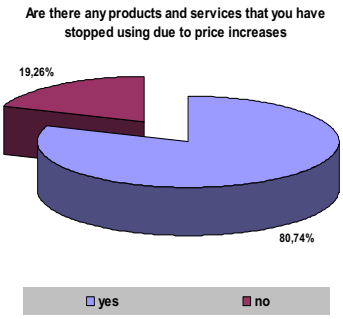


- The increase of prices perceived by pensioners differs from the official report published by the Statistical Office. 93.3% of pensioners reported that prices have increased while the report presented by the Bureau shows that the prices for August 2009 compared to the average of 2008 are reduced by 1.6%;

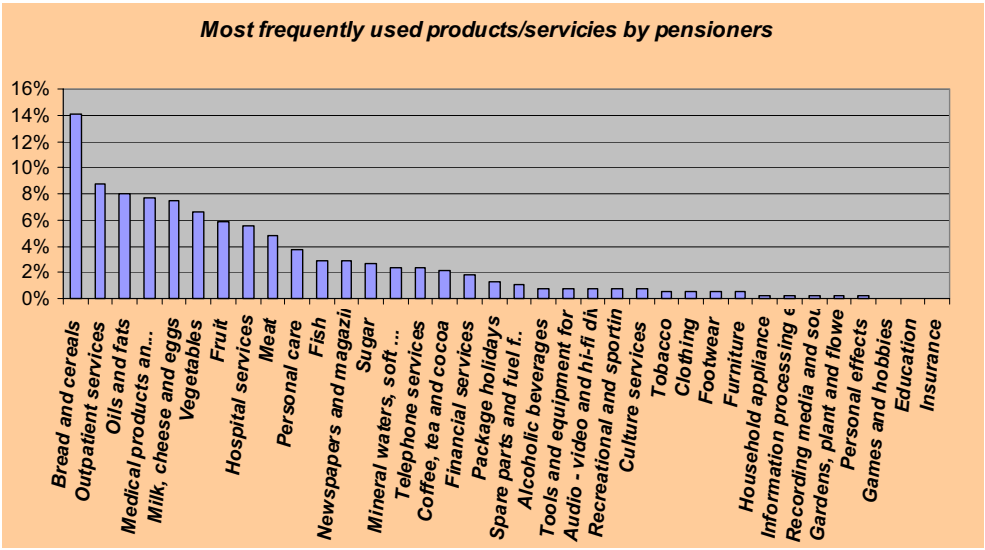
- 88.06% of the pensioners reported that the change in prices negatively affects their personal spending and budgets, in contrast, according to the publications by the State Statistical Office, most of the households (52%) in 2008 reported that their financial situation is the same, while 28% reported that their situation is slightly worse;



- 80.74% of the pensioners reported that they have cancelled the consumption of particular products as a result of increased prices (or other factors);

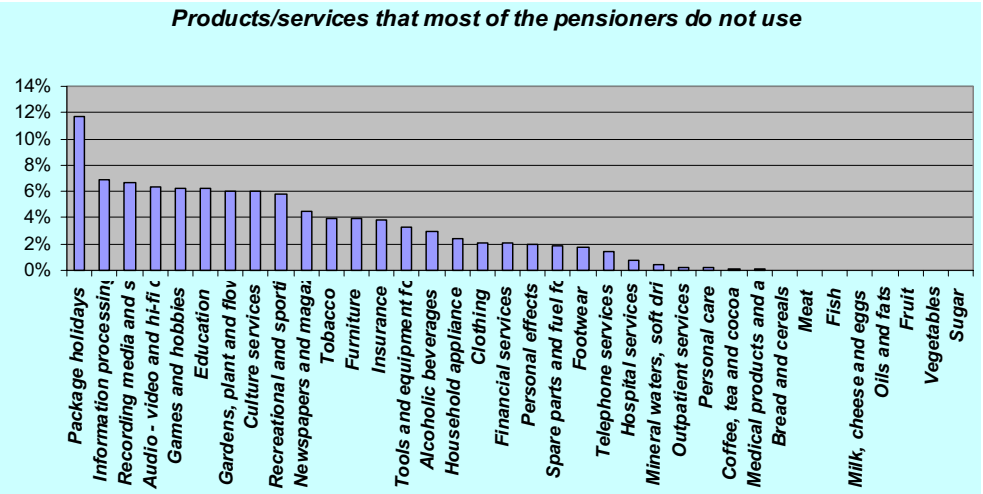


- The ten most frequently used products/services by pensioners are: bread and cereals (14.13%), health services (8.80%), vegetable fats and oils (8%), medicines (7.73%), milk, other dairy products and eggs (7.47%), vegetables (6.67%), fruits (5.87%), hospital services (5.60%), meat products (4.80%), and products for personal hygiene (3.73%);



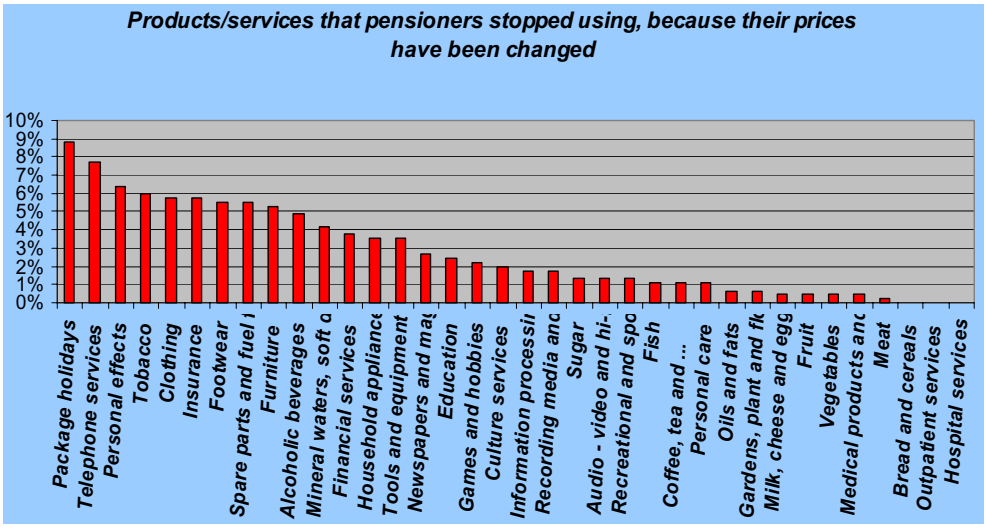
- All products/services from the health group (health services, hospital services, medical products /devices) are among the ten most frequently used products and services by the pensioners;

- With the exception of fruits, vegetable fats and dairy products, other products that have had significant price increases and are used often by pensioners are: vegetables (14.80%), health services (9.50%) and meat products (6.50 %);



- Ten products or services that most of the pensioners are not using include: travel arrangements (11.67%), IT equipment (6.90%), discs, CD's, cassettes (6.63%), music and video systems (6.37%), games, hobbies (6.23%), education (6.23%), gardening, flowers (5.97%), cultural services (5.97%), recreational and sports activities (5.84%), newspapers and books (4.51);

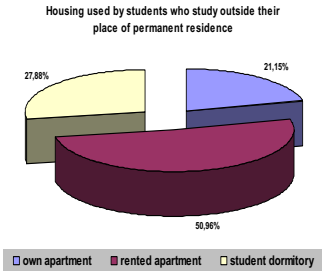
- Most of the pensioners have stopped the consumption of the following ten products and services due to price increases: travel arrangements (8.83%), telephone services (7.73%), personal items (6.40%), tobacco (5.96%), clothing (5.74%), insurance (5.74%), footwear (5.52%), parts and fuel for vehicles (5.52%), furniture (5.30%) and alcoholic beverages (4.86%);



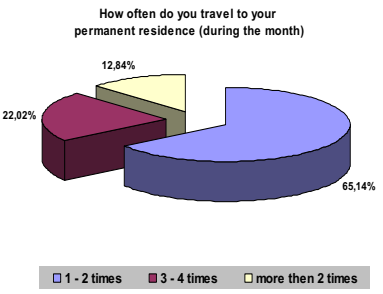
- Out of the products that pensioners do not use any more, insurance services (-14.6%) and telephone services (-1.30%) are the only ones that have had a slight decrease in price compared to the 2008 average, other products and services have had a slight or significant price increase with exception of tobacco products (prices remained unchanged).

Students

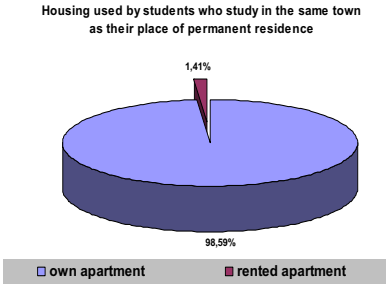
- 50.96% of students who study outside their place of permanent residence rent apartments, while 27.88% of the students live in student dormitories;The costs for housing, water, electricity, gas and other fuels increased by 4.7% in May 2009 compared with the 2008 average, while the cost for rent increased by 4.6%;



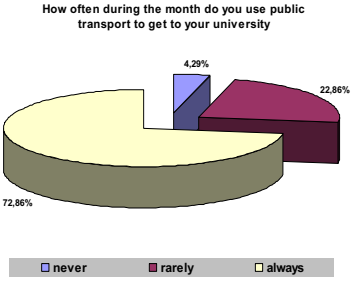
- 65.14% of students who study outside their place of permanent residence reported that they travel only 1 to 2 times a month to their place of permanent residence;



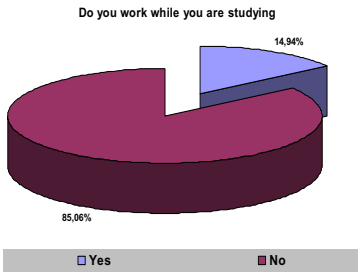
- Only 1.41% of students who live in the place of studying, rent apartment;



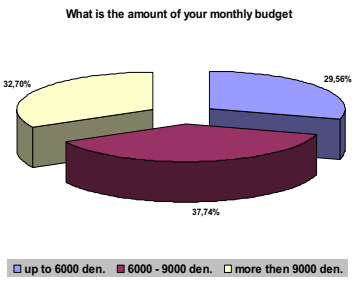
- 72.86% of students use some sort of public transport to get to their university, thus transport expenditures take a significant portion of the student's budget;



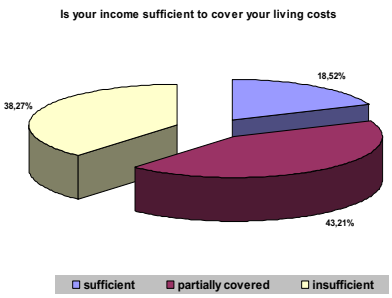
- Only 14.94% of the interviewed students work, while the rest 85.06% of the students do not work while studying;



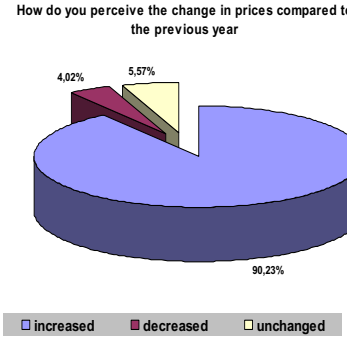
- 37.74% of students have a monthly budget that ranges from 6000 up to 9000 denars, which represent 29.89% to 44.84% of an average net salary paid in June 2009, while 32.70% of students have a monthly budget higher than 9000 denars;



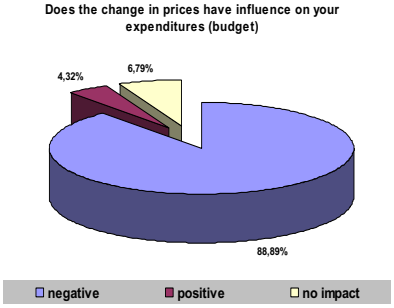
- 81.48% of the interviewed students state that their income is not sufficient or is only partially sufficient to cover living costs;



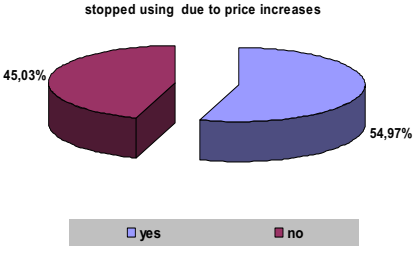
- The price increases perceived by the students differs from the official report published by the State Statistical Office. 90.23% of students reported that the prices have increased, while the report presented by the SSO shows that the prices for August 2009 compared to the average of 2008 are reduced by 1.6%;



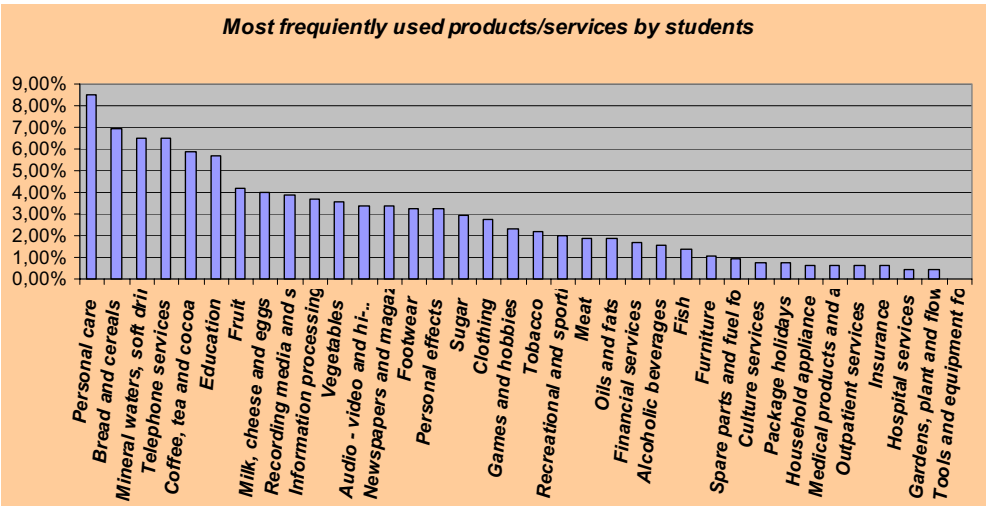
- 88.89% of students reported that the change in prices has a negative affect on their personal spending and budgets;



- 54.97% of students have reported that they have cancelled the consumption of particular products as a result of price changes (or other factors);

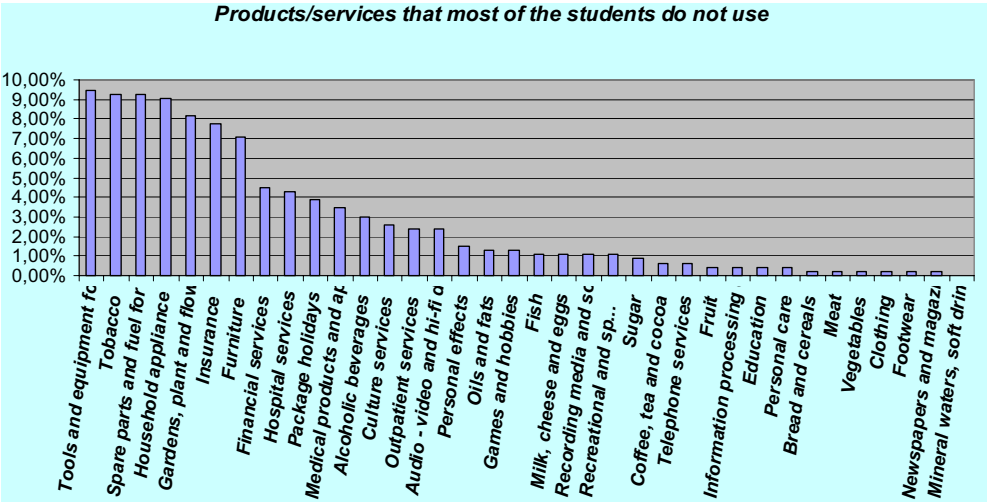


- The ten most frequently used products and services by students are the following: personal hygiene products (8.49%), bread and cereals (6.94%), mineral water, soft drinks and fruit juices (6.48%),



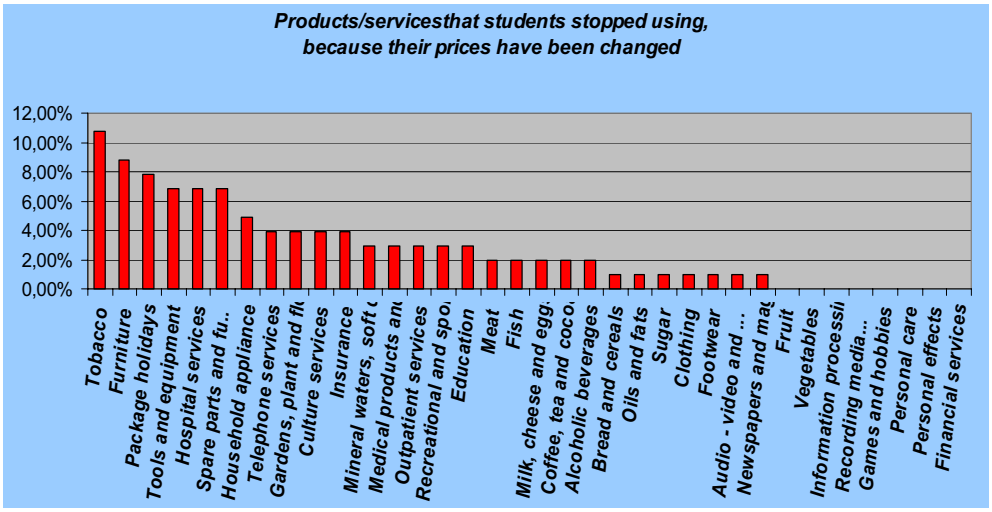
telephone services (6.48%), coffee, tea, cocoa (5.86%), education (5.71%), fruits (4.17%), milk, dairy products and eggs (4.01%), discs, CD , tapes (3.86%), information equipment (3.70%);

- With the exception of fruits, telephone services, IT equipment and dairy products, other products which students use very often, have had price increases - the biggest price increases are: mineral water, soft drinks and fruit juices (3.30%) coffee, tea and cocoa (4.60%) and personal hygiene (3.50%);
- Ten products/services that most of the students do not use: tools for house and garden (9.46%), tobacco (9.25%), parts and fuel for vehicles (9.25%), household appliances (9.03%), gardening, flowers (8.17%), Insurance (7.74%), Furniture (7.10%) Financial Services (4.52%), hospital services (4 , 30%), Travel arrangements (3.87);



- Most of the students have cancelled the consumption of the following ten products /services as a result of price changes (or other factors): tobacco (10.78), furniture (8.82%), travel arrangements (7.84%), tools for house and garden (6.86%), hospital services (6.86%), parts and fuel for vehicles (6.86%),

household appliances and repairs (5.74%), telephone services (3.92%), gardening, flowers (3.92%) and cultural services (3.92%);



- 54% of students did not use tobacco products, 14% of them reported that they stopped smoking.
- Out of the products and services that students do not use there has been a significant price increase (compared to the 2008 average) in the following categories: culture (4.40%) and furniture (3.00%) while other prices have had a slight increase with the exception of tobacco products and hospital services, where prices remain unchanged and/or slightly reduced for telephone and fax services (1.30%), gardening and flowers (1.00%).

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Cover & pre-press GLOBAL Communications, Skopje

Skopje, December 2009

Major Sponsors:

**This publication is supported by the Open Society Institute
Think Tank Fund Budapest**