

## Optimum Currency Area Theory: Albanian Case

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### Abstract

This paper is focused in the literature of the optimum currency area (OCA) and in the Albanian case as an application of this theory in practice. According to the literature the OCA has passed through phases: the “*pioneering phase*” which settled down the OCA theory and its properties, the “*reconciliation phase*” when the properties are explained in more details, the “*reassessment phase*” that led to the “new OCA theory,” and the “*empirical phase*” during which the theory was subject to due empirical studies. After a brief view of the OCA properties, all these ones have been taken into the consideration in order to have a clear answer to the question whether or not Albania is ready for an early euroisation. Seen the general view of the economists, the currency union has the major part in its side.

**Keyword:** Optimum Currency Area, Economic and Monetary Integration, EMU and Albania

## Introduction

The optimum currency area theory, as all the theories related to the integration of all standards of different countries in a unique one, has been one of the most discussed theories that with the passing of the decades has passed through different phases. All these phases have been steps necessary to go through the perfect measure of the criteria needed for countries to be part of this “cooperation”. So, in the beginning of such an integration it is seen that just some ideas in for of criteria has been presented, but with the time, all these criteria have been analyzed one but one. Then the analyses have been deeper by analyzing the effects of these criteria to each other because it has been recognized that sometimes some of the criteria can be in confront with other criteria, so not just the theory but also the empirical studies have been with a great interest.

The structure of our paper is set in the following way; in the first section of our paper we have presented an historical view of the phases through time. In the second section we have analyzed the case of Albania, by constructing a model that contains the criteria we estimate whether Albania’s present economic situation fulfils the conditions to successfully join the currency area, that of Euro as a national currency.

## I – Literature of Optimum Currency Area Theory

The literature of the optimum currency area theory presents us a huge period in which this theory has been developed. This period begin from the early 1960s with the first phase, the “*pioneering phase*” which continued for approximately one decade. The second and third phase also, respectively the “*reconciliation phase*” and “*reassessment phase*”, had a lifetime about one decade. But the fourth phase, the “*empirical phase*”, called also the “new OCA theory” because of the innovations during this period, begins in the 1980s and is still continuing in the finding done in this field by empirical studies.

## The “pioneering Phase” - from the Early 1960s to the Early 1970s

The first of OCA theory is the “pioneering phase” from the early 1960s to the early 1970s. This was the first phase during which the OCA properties have been defined. These kind of definitions opened the well-known debate on the borders of a currency area by initiating the analysis of the benefits and costs from monetary integration. Briefly, the OCA properties include: the mobility of labour and other factors of production, price and wage flexibility, economic openness, and diversification in production and consumption, similarity in inflation rates, fiscal integration and political integration. The similarity of shock and correlation of incomes was added later.

There has also been a debate about the links between political, economic and monetary integration. The European process of integration has privileged economic integration. In Europe a ‘functional’ integration process first, must begin with the economic integration and then the economic integration will exert pressure towards monetary and political integration.

Even this phase defined a set of some necessary properties, all these properties still needed to be analysed in some detail even it is difficult to be measured. Also the pioneering phase as a whole lacked a unifying framework.

The amplitude of each property must be well defined. There are two main problems related to the property definition. The first problem, it is called the “problem of inconclusiveness”. This kind of ambiguity rises out from different directions that OCA properties can take. For example, if we take the case of a country that at the same time it is quite open in terms of reciprocal trade with a group of partner countries indicating the preferability of a fixed exchange rate regime and has a mobility of factors of production and labour with these trading partners suggesting instead that a flexible exchange rate arrangement.

The second problem, it is called the “problem of inconsistency”. The classic example is that of small economies, those are generally more open and prefer to adopt a fixed exchange rate, following the openness property but these kinds of economies are more likely to be less differentiated in production than larger ones. In this case they prefer the flexible exchange rates according to the diversification in production property.

So, the general problem during this phase was the properties ranking according to their importance. Price and wage flexibility, and the mobility of factors of production including labour, had a prominent role in the debate. Financial market integration was deemed to be very relevant. However, at least until the mid-1980s for several European countries full capital mobility and convertibility was still the exception rather than the rule. Inflation differentials were still relatively small but not negligible until the oil shocks (at least compared with the differentials of the subsequent periods). Economic openness and the diversification in production and consumption tended to display their effects through product and labour markets. The political will to integrate was understood to be a crucial prerequisite to pursue integration in most of the other areas.

### **The “Reconciliation Phase:” - the 1970s**

The second phase of the integration in a single currency, called the “Reconciliation Phase”, was also called the second era of contribution because the debates regarding the importance of OCA properties and the benefits / costs received have been discussed and interpreted in more details. This reconciliation strengthened the interpretation of some properties and led to diverse new insights such as the role of similarity in shocks.

During this phase different OCA properties have been brought together. The similarity of shocks has gain the importance as the newest property in the range of OCA properties. Even this phase was known for its effort done in the way of measuring costs and benefits, the lack of empirical content was a great barrier.

The ranking of OCA properties also changed. “It was said that price and wage flexibility could be rank as the highest and can permit rapid responses to disturbances. Openness and similarity in shocks are also important. But it was also argued that if members of a currency area are financially integrated, a high similarity of shocks among them, although desirable, is no longer a strict prerequisite. This has relevant implications for the debate about the size of a currency area. The mobility of factors of production and labour is highly desirable but also entails some costs and cannot effectively cope with disturbances in the very short-term. Different authors have different ranking, if for some of them the similarity in price and wage inflation is ranked as the highest, for the others it is not.

### **The “Reassessment Phase:” - the 1980s and Early 1990s**

The reassessment became apparent with the reconsideration of the effective costs and benefits from monetary integration and with the debate on the size and timing of currency areas. The analytical framework during this phase was related not just with OCA but also with the EMU question. New views on the short-term Phillips Curve, the credibility issue and the importance of a nominal anchor, the internalisation of the benefits of low inflation, the effects of a single currency on labour markets, and the views on the low effectiveness of exchange rate changes were observe.

The reassessment phase based on the “old” optimum currency area theory, always drawing attention that this one had lots of missing points, underlined the fact that theory side and empirical side brought together a immense domain of new research.

Concluding this phase, we can say that the proceeding toward complete monetary integration in Europe for several EU members it was more beneficial. It was seen that there are fewer costs in terms of the loss of autonomy of domestic macroeconomic policies but more benefits, due to

credibility gains, for countries with a track record of higher and more variable inflation.

### **Empirical Studies of OCA - from the 1980s to today**

The last phase has used the works done during previous phases but the prosperous of this phase was the several studies due to the theoretical innovations. The advancements in econometric techniques and the renovated interest toward European economic and monetary integration were two other reasons which push forward the empirical studies. These empirical studies seek to assess why specific groups of countries may form an optimum currency area by analysing and comparing a variety of OCA properties and applying several econometric techniques.

After several empirical analysis, the researches of this field have concluded that the following properties are approved to be part of OCA theory. But they draw the attention that this range can change with the time passing.

- a. Price and wage flexibility
- b. Labour market integration
- c. Factor market integration
- d. Financial market integration
- f. The diversification in production and consumption
- g. Similarities of inflation rates
- h. Fiscal integration
- i. Political integration
- j. Similarity of shocks

## II - Albanian Case

### OCA criteria - A static analysis

In the following section, we tried to present the OCA theory in general, the steps of this theory during years and the strong and weak point of each phase. Based on OCA theory we intend to analyze all the properties one by one in order to find an answer to the question: Is Albania ready for an early euroisation?

These set of criteria is as follows:

#### Size and openness

Albania is a very small country, with a population of only 3.17 million people which is approximately only 0.9% of 314 million people that live in EU (2006). Its average share of GDP (at current prices and exchange rates) relative to EMU countries is only 0.05% for period 1997Q1-2005Q4. Thus, its size does not allow Albania to influence prices in the world market.

Albania operates a considerably liberalized trade regime. It is WTO member since 2000. Most of the industrial products are already fully liberalized or with very low tariff (2%). Albania has signed a FTA with the other countries in the region (more specifically with Macedonia, Croatia, Bulgaria, Romania, Kosovo, Serbia and Montenegro, Moldova and Bosnia and Herzegovina). In the table 1 there is a general view of total trade as percentage of GDP for the Balkan Countries. If we refer to the rapport of trade with EU to total trade, the situation of Albania is ranged the first in the Balkan with 68.4 percentage for year 2005.

**Table 1: Trade as % of GDP for the Balkan Countries (2005)**

Countries	Total trade (as % of GDP)		Trade EU / total trade
	Goods	Services	

	Exports	Imports	Exports	Imports	
Albania	9.5	29.7	13.7	15.7	68.4
Bosnia&Herzegovina	28.0	81.2	13.7	15.7	56.5
Bulgaria	44.5	63.6	16.8	14.0	56.4
Croatia	24.0	49.6	26.6	9.0	64.3
Macedonia	32.4	51.8	8.6	9.1	52.0
Romania	29.4	39.2	5.0	5.7	68.2
Serbia	18.5	43.1	5.0	5.7	50.0

Source: INSTAT

Table 2 refers to the comparison between of Albania to the other countries of the region regarding trade and FDI indicators for year 2006. For the case of Albania, according to 2007 Annual Report of Bank of Albania and 2007 Balance of Payment Booklet, the year 2007 has show that Export/GDP has raised to 10.2%, Trade openness to 84% and FDI/GDP to 6%. Import coverage remains almost the same during both years.

**Table 2: Trade and FDI indicators during 2006 (in %)**

Country	Export/GDP	Import coverage	Trade openness	FDI/GDP
Albania	8.70	27.23	74.00	3.60
Bosnia and Herzegovina	29.38	45.34	95.96	3.70
Serbia	20.37	51.00	60.32	13.98
Macedonia	38.91	65.10	98.70	5.85
Bulgaria	48.00	68.35	118.21	16.40

Source: Bank of Albania

To measure the trade openness of Albania and the intensity of trade with EU countries we use two indicators:

- *The degree of openness*, measured as the share of total trade (exports + imports in both goods and services) to GDP at current prices.
- *The geographical concentration of trade*, measured as the share of trade with EU countries to total trade (for each exports and imports).



**Table 3: Albania's trade with EU-25**

Share/Year	2000	2001	2002	2003	2004	2005	2006	2007
Total trade / GDP	59.8	63.67	66.51	65.78	64.06	68.65	72.0	84.0
Exports with EU-25 / Total exports	92.5	91.5	92.1	93.3	90.7	89.0	88.6	83.1
Imports from EU-25 / Total imports	78.1	78.2	71.1	68.7	68.2	63.5	65.6	59.8

Source: INSTAT, ACIT

Albania has been benefiting from EU's autonomous trade preferences since 2000. These preferences imply that all Albanian industrial products and most Albanian agricultural and fishery products can access EU markets duty and quota free. The entry in force of the SAA will strengthen even more the trade relationship between Albania and EU since a FTA should be established between Albania and the EU in.

A high geographical concentration of a country's trade favours pegging the currency to its main trading partner. Albania's economy, among other countries in the region, is the most sensitive ones toward the euro exchange rate volatility, thus the one that will benefit more from removing the exchange rate uncertainty. Considering the future prospect of strengthening the trade integration with EU countries, with the time, the advantages of removing exchange rate uncertainty will become even more obvious.

### Symmetry of hits

According to Mundell's theory, countries which are exposed to symmetric hits or those possessing mechanisms for absorbing asymmetric hits could be optimal for adopting a common currency. The existence of asymmetric shocks is an obstacle on a country's way to forming a currency

area, because it compromises the exchange rate stability between two countries and lowers the utility of adopting a fixed exchange rate regime. We identify the shocks in the real sector and measure their magnitude for Albania as well as for some other countries in the region which have already joined the EU.

$$SDY_{ij} = \left| SD \ln \left( \frac{GDP_i^t}{GDP_i^{t-1}} \right) - SD \ln \left( \frac{GDP_j^t}{GDP_j^{t-1}} \right) \right|$$

where:  $i$  denotes the respective country,  $j$  denotes the EMU (12) and GDP is at constant prices (1995 as the base year). We use the data for the period Q1 1995- Q4 2005.

**Table 4: The magnitude of the real asymmetric shocks between some Balkan countries and EMU (12) (1995 – 2005)**

Country	$SDY_{ij}$
Bulgaria	0.4417
Romania	0.3326
Slovenia	0.0447
Albania:	
with year 1997	0.02628
without the year 1997	0.01173

*Source:* Respective Central Banks' official websites, ECB Data Ware House

As we can see, this indicator for Albania is well below those of other Balkan countries which have already joined the EU. This can be explained by the fact that Albania is the country that trades with EU more than any other country in the region. Greater the trade intensity, the more harmonized the business cycles between the economies in question. The indicator is even smaller if we exclude from the estimation the data of the year 1997 which, because of the economic and political turmoil of that year exposed Albania do asymmetric hits referring to EU. However, bearing in mind the problems

with the reliability of the data on the macroeconomic indicators in Albania, this result should be considered with due caution.

### **Labour mobility**

If real wages are rigid, the burden of asymmetric shocks falls on employment. In such a case, the adverse effect of asymmetric hits can be adjusted by high factor mobility, especially labor. Labor mobility in Albania is fairly high, due to a large portion of the population living and working in the EU countries. Since 1990, 500-600,000 Albanians have left the country and have emigrated to the developed countries, mainly to EU countries. This corresponds to more than 15% of the population as a whole, 26% of the population in the working age and 35% of the labor force. Countries to which Albanians emigrate most are mainly those geographically close to Albania, with certain economic, historical and cultural ties. Almost 80 % of Albanian emigrants are settled in Greece and Italy, working mainly in agriculture, construction, trade and housekeeping activities. The others have chosen Germany, England, France, Belgium and few have emigrated in USA and Canada. The majority of them are already legalized, which mean that they can easily go back and forth each time they need to do so. The emigration has helped to smooth the consequences of the transition and the related decline in real wages. It has also helped to moderate the pressure on the active population and thus reducing the number of unemployment. The economic impact of factor movement is large since remittances and income from seasonal labor abroad form a large and continuous share of the Albanian GDP (almost 15%) and they are almost twice the amount of exports.

### **Capital mobility and capital market integration**

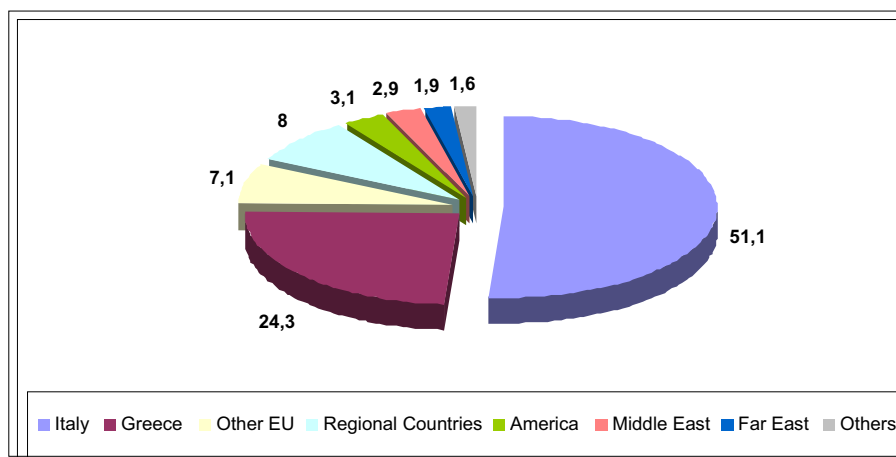
A key ingredient to absorb any asymmetric hits is the capital mobility, which implies international arbitrage across countries. Albania is regarded as a country with low barriers to foreign capital inflows and direct investments. The regime on capital movement is set out in July 2003, on the basis of the Law of Bank of Albania and of the 1993 Law on Foreign Investment.

According to this regime, there are no limitations on inward direct investments (except purchases of real estates by foreigners in Albania), there is no approval process and no sector is closed to foreign investment. Repatriation and initially invested foreign capital as well as the earnings face no obstacle in leaving the country. However, outflows of capital are still subject to restrictions. In order to be able to transfer capital abroad, physical and judicial persons as well as individuals, residents of Albania, need to receive the approval of licensed subjects (commercial banks). The ceiling on the amount that could be transferred abroad by a single individual is 28.000 US dollar (increased from 20.000 US dollar until 2002). The law regulated by the BoA doesn't allow residents to carry out direct investment abroad, investment in foreign securities, lending to non-residents, etc. However, it is believed that Albanian residents transfer capital out of the country through illegal channels. Thus, regarding the capital movement between in Albania, we can conclude that it is highly liberalized on the side of inflows and more liberalized than suggested by the law on the side of outflows.

An indicator of the capital mobility can be the capital account openness - measured as the ratio of the sum of the absolute value of inflows and outflows of capital (FDI and portfolio investments) to GDP. Despite facilities in the law, the capital inflows and outflows in Albania are relatively. FDI flow in Albania, as a share of GDP is relatively low, only 5%. Although Albania is well positioned to attract foreign direct investments, with its favorable geographical location, competitive salaries and natural resources, foreign investors fear to approach Albania. There are several reasons behind this, such as technological factors, which may result in differences in production, the presence of informal economy, unclear property rights, and low levels of credit. At the same time, an underdeveloped financial system offer few opportunities for portfolio investments in Albania, compare to more developed countries in EU. However, it is worthy to mention the undeniable fact that the data on the capital account, like the majority of statistics in Albania, are subject to some erroneous registrations, estimations and misspecifications. Based on these observations, we can conclude that incoming or outgoing capital in Albania might be higher than those reported.

Albania's capital market is highly integrated with that of the EU. EU countries have a dominant position in foreign direct investment in Albania. According to BOA, in 2006, 434 out of 526 direct investment enterprises, had participation of European Union capital, of which 269 Italian and 128 Greek. This constitutes 82.5% of total direct investments in Albania. The EU investments' presence in Albania is another factor of reducing the risk of asymmetric economic hits. Their sensitive presence in industrial sectors makes these firms to be affected by economic hits the same way their mother companies are in their countries of origin. Net effect of this factor is the increase of the symmetry of economic hits.

**Chart 1: FDI in Albania by origin country (2006)**



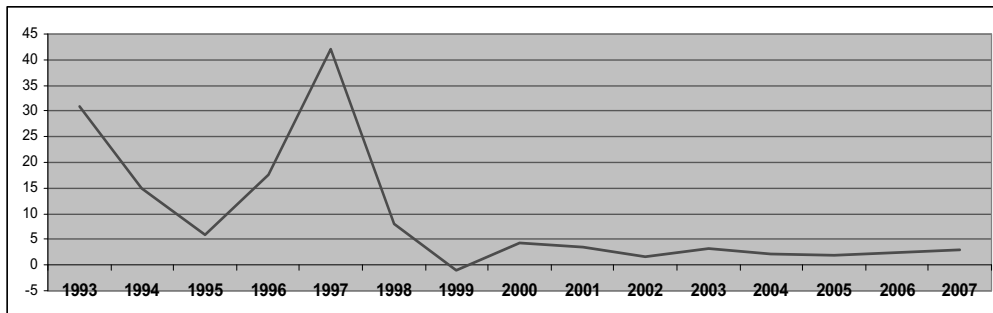
Source: Respective Central Banks' official websites, ECB Data Ware House

In the near future, we expect the capital account in Albania to be fully liberalized. This is a commitment to meet the requirements of WTO and EU. At the same time, the assignment of SAA has imposed on Albania certain conditions regarding the capital mobility between Albania and EU countries. The categories of capital movement, which to date are subjects to restrictions, will be fully liberalized in 5 years, as stated in SAA.

### Similarities of inflation rate

When inflation rates between countries are low and similar over time, terms of trade will also remain fairly stable. This will foster more equilibrated current account transactions and trade, reducing the need for nominal exchange rate adjustments.

**Chart 2: Average annual inflation rate 1993 – 2007**

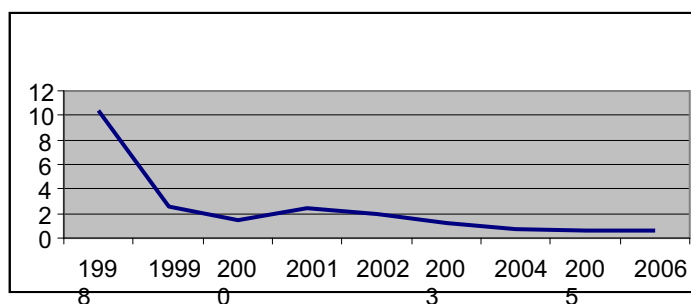


Source: Bank of Albania

In terms of price stability, Albania has shown impressive results. Inflation has been lower than the other transition economies and since 2001 Bank of Albania has been successful in maintaining it within its aim target of 2-4% as it is seen in chart 2.

After the crisis of 1997, inflation rate differentials between Albania and EU countries  $|\pi_{AL} - \pi_{EU}|$  have narrowed within slim margins as it is seen in chart 3.

**Chart 3: Albania – EU annual inflation rate 1998 – 2006**



Source: Central Bank of Albania, official websites

As an economy exposed to imports (almost 4 times higher than exports), Albania is inevitably impacted by imported inflation level, mainly from its biggest trading partners, Italy and Greece. Out of survey made by the Institute of Statistics in 2005, it resulted that about 46 % of the consumer basket goods are imported goods. Therefore, their price performance (combining their price in the national currency with the exchange rate) takes much importance in explaining the inflation rate in Albania and makes the inflation behavior in Albania much similar to that of the EU countries.

### **Price and wage flexibility**

Flexible prices and wages would be a good substitute for monetary policy since shocks could be absorbed by changes in wages and prices, which reduce the pressure for exchange rate adjustments. In case of Albania, prices are highly flexible. Despite prices of water, railway transport and electricity which are still affected by the government subsidies, all the other prices are fully liberalized. However, there have been mixed signals about the flexibility of wages. The speed of adjustment after major shocks in 1992-1997 could be interpreted as an evidence of flexibility in wage adjustments. Nevertheless, we notice a weak correlation between nominal wage levels and employment. The lack of data on this sector makes it difficult to reach to a definite conclusion and this issue needs deeper analysis.

### **Diversification in production and exports**

If we have a quick look on the origin of GDP in Albania, we notice a quiet well-diversified structure of production. We can observe the same structure of GDP share according to sectors for the instant years.

**Table 5: The origin in GDP in Albania (year 2005)**

Origin of GDP (% of total)	Year 2005
Agriculture	21.8
Industry	14.5
Construction	9.5
Services	45.2
Transport	9.0

Source: INSTAT

While production seems to be diversified, exports diversification remains lower. Albania's export structure is geared toward labour-intensive products. On a sector level, EU primarily imports manufactured products from Albania, which accounts for 88% of Albania's EU-orientated exports. Textiles and clothing, together with footwear and leather products play an important role in Albania's exports to EU, accounting for about 64% of its total trade. The EU main exports to Albania are machinery equipment and other manufactured products. However, we should note that the problem of diverse production and export in Albania is much less acute than the problem with the quality of the products. This difference in quality renders any comparison between Albania and EU countries inaccurate.

**Table 6: The Geography of Albania's' Trade Flow (2007)**

	Exports		
	Value	Share to total	Growth rate 2007/2006
	(Million USD)	(%)	(%)
<b>EU-27 (EU 25)</b>	894,8	83% (88%)	28%
Italy	733,4	68% (73%)	28%
Greece	88,7	8% (10%)	18%
Germany	26,3	2% (3%)	5%
Sweden	17,1	2% (1%)	154%



France	6,7	1% (1%)	22%
Bulgaria	7,6	1% (0%)	131%
Other EU countries	15	1% (1%)	52%
<b>Countries of the region</b>	107,8	10% (8%)	68.4%
Kosovo	51,5	5% (4%)	71%
Macedonia	25,3	2.5% (2%)	101%
Serbia and Montenegro	25,7	2.5% (1%)	138%
Bosnia and Herzegovina	4,2	0% (1%)	-2%
Croatia	1,1	0% (0%)	-55%
Moldova	0	0% (0%)	-

### **A sound banking and financial system and financial integration**

A stable and developed banking and financial system is a precondition for euroisation, as lender of last resort functions of the central bank disappear along with the domestic currency. Financial system in Albania is small and dominated by the banking sector, which represents 90% of formal financial system assets. Albania has completed the process of privatization of the banking system with the privatization of the largest bank in the country, the Savings Bank, by the Raiffeisen Bank of Austria, in 2004. The banking sector in Albania is comprised of 17 banks - 2 Albanian and 15 foreign owned/joint ventures. The major part of the foreign-owned banks several of the 17 banks are branches of large European banks, which shows a high degree of banking sector integration between Albania and EU. The largest bank in Albania, the Raiffeisen Bank, accounts for about 54% of deposits and 70% of government debt held by the banking system.

**Table 7: Indicators of banking sector in Albania (2004-2006)**

Indicators	2004	2005	2006	2007
Total number of banks	16	17	17	17
Number of foreign banks	14	15	15	15
Non-performing loans (% total loans)	4.7	3.5	2.8	3.4
Liquid assets to total assets	73.5	69.4	-	49.8
Credit to economy (% GDP)	8.4	10.8	21.2	29.9
Private credit (% total domestic credit)	69.4	68.8	66.5	64.2

Source: Bank of Albania, Annual Supervising Report 2007

However, despite the above mentioned significant progress, the Albanian banking system remains relatively underdeveloped with respect to the EU standards. A good indicator of the financial development can be the credit to the private sector as a share of GDP or of total domestic credit. Although, the credit to the private sector makes up the largest share of total domestic credit in Albania, it remains still low with respect to GDP.

While the Albanian banking sector has demonstrated relatively good performance in recent years, other financial system sectors remain less developed. The small size of non-bank financial institutions is a consequence of the lack of understanding of financial products and services by potential users, and the still rudimentary level of basic financial infrastructure. As for the capital markets and the use of different financial instruments, though existing, they are still shallow and far from the standard of their counterparts in the EU countries. The government separated the Tirana Stock Exchange from the Bank of Albania, effectively creating an independent stock market in the country; however trading is limited to treasury bonds and privatization vouchers. A complete assessment of the soundness of the banking and financial system in Albania deserves a deeper analysis, which is beyond the scope of this paper. However, we can conclude that there exists the necessity

to further strengthen the financial sector before a possible unilateral adoption of the Euro.

### III - Conclusion

This paper has provided an overview of all the development process of the OCA theory, which last 40 years. Although some of the properties still face problems regarding inconclusiveness or inconsistency, almost all the OCA properties have proved to be remarkably strong. After a lot of studies done in this field, we can conclude that there isn't a single OCA-test with a clear cutting score. The successful experiences of EU show that the association to a currency union is now deemed to generate fewer costs in terms of the loss of autonomy of domestic macroeconomic policies.

Summing up, this preliminary analysis indicates that Albania satisfies the main criteria of OCA at a satisfactory level. It is a small and relatively open economy, with a high trade concentration and high level of financial integration with EU. Albania doesn't seem to be very exposed to asymmetric hits with EU countries, compare to other countries in the region. We expect any possible asymmetric shock in the economy to be absorbed by flexible prices and labor mobility, which can be considered as relatively high, due to the great number of emigrants that live and work legally in the EU countries. However, there exist doubtful evidences on the export diversification and wage flexibility. Albania's inflation rate has shown low levels since the crisis of 1997-1998, showing a similarity with that of the EU countries at satisfactory levels. The banking and financial system development in Albania, although under-developed compare to that of EU, is growing significantly due to an increased competition and financial deepening, setting the stage for a credit boom in the future. Thus, from the traditional OCA point of view doesn't seem that the adoption of Euro could pose excessive risk of destabilizing either side to the point of offsetting the benefits of an early euroisation.

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