# THE ANALYSIS OF PUBLIC DEBT IN EU COUNTRIES

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**Keywords:** public debt, European Union, economy, integration.

**Abstract:** The public debt is comprised of all the sums borrowed by the central public authorities, regional authorities and other public entities from persons or companies, from the internal market or from abroad having a certain reimbursement date. Between member states of the EURO zone there are still important structural differences. The contributions of each sector of the economy, agriculture, industry and services, to the GDP vary widely from a country to another. The demographical differences, linked with the degree of labor involvement, cultural differences and behavior are also widely different. Thus there will be great discrepancies between the public debt of each member state, and this paper will try to present the causes and analysis the entire process from a holistic way.

The process of current EU extension is in a fact a sign that marks the fact that the historical divisions that have separated the European continent or the last half century are no longer.

The EU is not just an economic union, but in fact it represents a clear identity, defined by competitiveness at global scale and common democratic values. The enlargement of the EU will largely contribute to shaping and expressing the European values and identity and will impose EU as one of the most important international actors. Romania, as an actor in the enlargement process is currently developing at the same pace as the integration is accepted and understood in all aspects and domains, thus redefining it's identity in correlation with the new European identity.

For the last four decades, the European unifications have set the pace for a common economic destiny. Still, in the light of the last few years, we have reached a turning point in the history of the EU when inside the members states has arose a much smaller circle of countries sharing more common characteristics (especially economical ones). Between member states of the EURO zone there are still important structural differences. The contributions of each sector of the economy, agriculture, industry and services, to the GDP vary widely from a country to another. The demographical differences, linked with the degree of labor involvement, cultural differences and behavior are also widely different.

Introducing the European common currency, EURO makes even more sensitive the heterogeneity of the fiscal and social environment between the member states. In the report with the USA, Japan or the United Kingdom, the euro zone is characterized by a high level of direct taxation. As well as the weight of these global taxes, their spread among different social and fiscal domains, determining influences on the behavior of employees and investors.

The nominal convergence criteria have been appointed at their time is being in fact condition to the accession of the countries to the Monetary Union. Of the five criteria, three of them are mainly nominal – establishing the exchange currency criteria, the inflation criteria and long term interest rate criteria., whilst the other two, regard the public finances in member states – a public deficit criteria, a lower deficit the 3% of the

GDP and the public debt criteria, a public debt that must not exceed 60% of the GDP, have as a primary motivation the idea of avoiding a costly national finance that might have pushed the Central European Bank to transform in the new currency part of the public debt. The public debt is comprised of all the sums borrowed by the central public authorities, regional authorities and other public entities from persons or companies, from the internal market or from abroad having a certain reimbursement date.

The public internal debt is represented by loans to whom subscribe creditors from the own market. The external public debt consists in loans contracted by the state from banks with the headquarters in other countries and regional and international financial-banking institutions to the governments of those states and also on the international capital market, in this case the foreign currency securities being placed at stock exchanges with the headquarters in other countries.

In order to be able to make international comparisons, it is necessary to express the public debt of the countries comprised in the analysis, into a currency of wide international circulation. The state general consolidated budget, implemented according to the financial-fiscal legislation, reflects the complexity of the connections in the process of formation and distribution of the financial resources assigned for the coverage of the social needs. Taking into account the outrunning of the increase rate of the public incomes by the increase rate of the social needs, it is considered an efficient necessity of the use of the public money; permanent identification of new resources, which to be efficiently and promptly assigned to the continuously increasing social needs. The need for public, internal and/or external credits is a true fact encountered in many countries; the obligation of the political leadership at state central level is to use these loans especially to increase the productive capital, from its profit reimbursing both loan installments and the afferent interests. The state loans are made based on internal and/or international convention agreements, voluntarily, of reimbursability and with a counter-performance, so that such legal report, as political-strategic resolution deed, to be used only after using all other instruments. The option for an internal or external public loan is also a political decision deed, which influences the external payment balance, including the internal and/or external public debt.

While the external credit evidences the static level, at a certain time of a debt undertaken by the indicated debtor, the external debt underlines the level and structure of all the loans of a country within the dynamics (cumulatively), including the afferent input and output flows. Also, with the indicator "external debt service" mentions are formulated with regard to the installments to be reimbursed at different terms, including the payment of the afferent debts. The cooperation between the National Bank of Romania and the Ministry of Public Finances has to be baneful, in order to eliminate any pecuniary and/or country reputation penalties.

The crisis of external debts registered in many countries of the world, especially in the average and developing countries, proves the necessity of major restructuration of the international relations (not only the financial relations). This aspect is also conjugated with other crisis, which take place in the global economy – row material crisis, oil crisis, ecological crisis, food crisis, damaging the general climate of the relations between the states having different powers and technologically, military, financially and demographically unequal.

As long as the share of the external debt in the total of the public debt is great, the economic and financial dependency degree of the respective countries towards foreign countries is increased. The expenses regarding the reimbursement of the due

loans and the payment of the interests and afferent commissions are a burden for various countries which are in the process of development.

Another element based on which value judgments are made with regard to the structure of the public debt is its degree of chargeability. The short term chargeable amounts form the floating debt, and the average and long term chargeable amounts form the consolidated debt. It is obvious that for a country is more important the financial effort which has to be made in order to reimburse the due debt and to pay the afferent interests within the following months, than the effort which is outlined in 5-10 years. Therefore, the greater the share of the floating debt in the total of the public debt, the more urging the need of financial resources and the more difficult their acquirement. The structure of the public debt varies from one country to another and even from one period to another, depending on the financial-monetary conditions. The countries which are familiar with great and long term inflationist process are obligated to contract short and possible average term loans. This takes place because, in case of chronic inflation, the placements in public effects for long time periods are subjected to a systematic erosion, are no longer attractive for the loan monetary capital holders, even if they produce an annual average income greater than the short term loans.

**Consolidated public debt of the European Union Member States within 1995-2006**

The public deficit and debt constitute two convergence criteria of the Economic and Monetary Union, being registered in the Treaty of the European Union (the Treaty Maastricht din 1992). Even after the introduction of Euro in 1999, they still remain the important indicators of economic analysis.

**The public debt** represents the nominal value of all gross engagements in the process of development at the end of the year, consolidate within the public sectors.

**Distribution per sub-sectors**

According to S.E.C. 95[i], the public administration sector is subdivided as follows:

- public administration;
- federal state administrations;
- social security administrations.

At global level, the central administration is responsible for at least 80% of the debt of the public administrations. This does not happen in **Germany (60%)** and in **Estonia (55%)**, where the share of the central administration is lower and the share of the federal state and local administrations is increased. In most of the countries, the social security administrations contribute with only a minimum share to the public debt.

**Distribution per types of financial instruments**

In the analysis, various taxes have been invited to provide a grouping per type of financial instruments for each sub-sector. The debt contains the following instruments:

A. - cash (circulation currency);

- transferable deposits;

- other deposits (treasury, postal services in certain member states);

B. - other titles than the stocks;

C. - credits.

**A. Public debt in absolute size, expressed in billions of Euro**

**Table 1**

**Public debt in absolute size expressed in billions of Euro**

| **Indicator** | | | | | | |
|---|---|---|---|---|---|---|
| **Euro area** | 3882.1 | 4130.1 | 4199.1 | 4329.9 | 4438.5 | 4492.3 |
| **EU (15 countries)** | 4667.9 | 5032.4 | 5181.6 | 5262.5 | 5461.1 | 5492.1 |
| **Belgium** | 282.3 | 271 | 268.1 | 269.3 | 270.7 | 270.4 |
| **Denmark** | 1013 | 993 | 97.5 | 95 | 93.6 | 89.6 |
| **Germany** | 1065 | 1101.4 | 1129.8 | 1175 | 12103 | 1221.8 |
| **Holland** | 413 | 45 | 44.2 | 41.7 | 43.5 | 39.5 |
| **Greece** | 95 | 107.7 | 114.9 | 115.7 | 1223 | 138.8 |
| **Spain** | 291.6 | 320.4 | 327.1 | 341 | 357 | 373 |
| **France** | 6573 | 691.5 | 735.7 | 7773 | 792.1 | 806.7 |
| **Italy** | 1066.4 | 1224 | 1233.4 | 1252.4 | 1279.5 | 1297.1 |
| **Luxembourg** | 0.9 | 1 | 1.1 | 1 | 1.1 | 1.2 |
| **Ireland** | 243.9 | 239.1 | 230.8 | 236.5 | 236 | 224.7 |
| **Austria** | 13.7 | 123.6 | 116.9 | 123.6 | 133 | 138.4 |
| **Portugal** | 53 | 55.5 | 54.5 | 56.6 | 58.7 | 61.6 |
| **Finland** | 56.5 | 57.6 | 57.5 | 56.6 | 56.4 | 58 |
| **Sweden** | 150 | 154.7 | 152.6 | 141.5 | 152.2 | 1313 |
| **Great Britain** | 439.6 | 540.6 | 617.5 | 580.5 | 654.5 | 640 |

*Source: European Union Official Statistics Site epp.eurostat.eu*

The aforementioned data express in billions of Euro (nominal value at the end of the year) the public consolidated gross debt at national level. The data are processed by the European account systems. According to Eurostat, EU statistics office, last year, only Baltic countries and Luxemburg had levels of the public debt lower than Romania. In EU, the average of the public debt is of 60% - 62%. In order to adopt Euro, Romania (the same as the other states candidate to the Euro area) should have a public debt lower than 60% of the gross internal product, this criterion being accomplished without problems. Eurostat, the institute for the statistics within the European Union, have announced that the total budgetary deficit of the 13 states which use Euro currency has decreased up to 1.6% of the Gross Internal Product (GIP), from 2.5% in 2005.

The budgetary deficit and the public debt from zero area have decreased last year due to the strong improvements of the finances of Germany, Greece, Ireland, Portugal and Spain, based on an economic recovery. On the other hand, the budget excess of Ireland has increased up to almost 3% from 1%. Greece has reduced to half the budgetary deficit to 2.6% of the Gross Internal Product, from a result of 5.5% in 2005. Greece is currently subjected to the disciplinary procedures imposed by EU, in order to practice some excessive budgetary deficits over the maximum of 3% of the Gross Internal Product, established by the Block. The state would have been fined, in case it would not have succeeded in bringing the deficit below the imposed limit.

Portugal has also reduced the deficit to 3.9% from 6% in 2005, and France has registered a level of 2.5% of the Gross Internal Product, decreasing from 3% in 2005. Italy, the third greatest economy within the Euro area, has registered an increase of up to 4.4% last year, from 4.2% in 2005. Roma must bring the deficit below 3% this year or it shall confront with disciplinary measures from EU. According to Eurostat, the public debt from Euro area has decreased to 69% of the Gross Internal Product in 2006, from

70.5% of the Gross Internal Product in 2005. According to the European regulations, the debts should be below 60%.

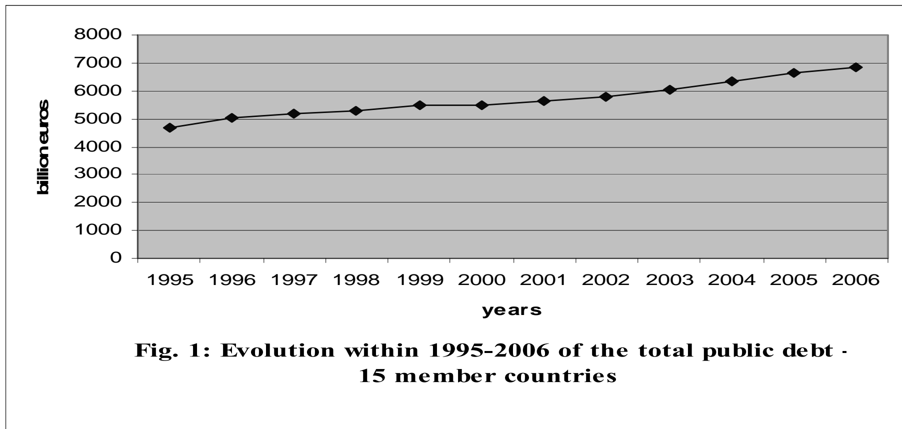


**Fig. 1: Evolution within 1995-2006 of the total public debt - 15 member countries**

*Source: European Union Official Statistics Site epp.eurostat.eu*

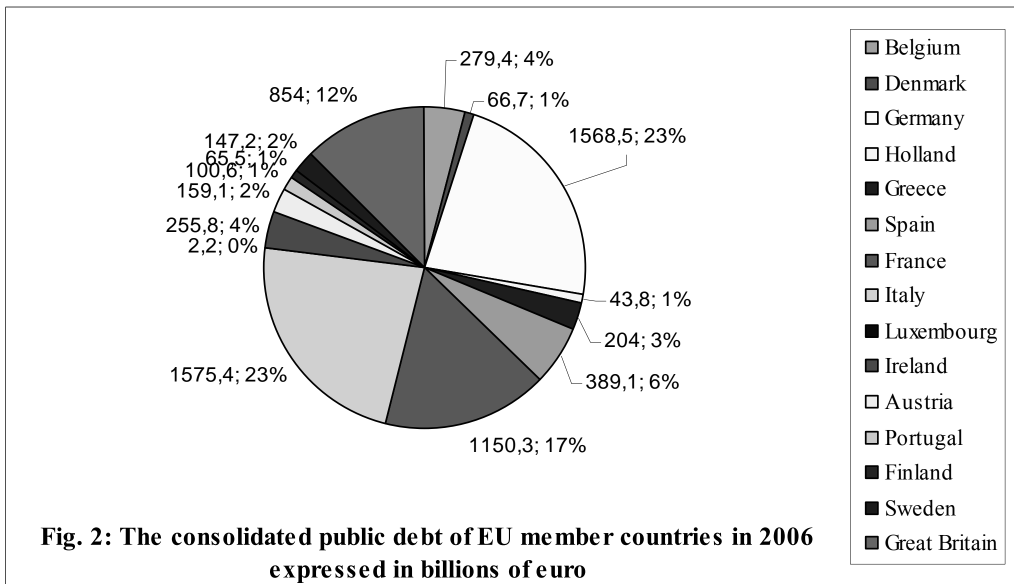


**Fig. 2: The consolidated public debt of EU member countries in 2006 expressed in billions of euro**

*Source: European Union Official Statistics Site epp.eurostat.eu*

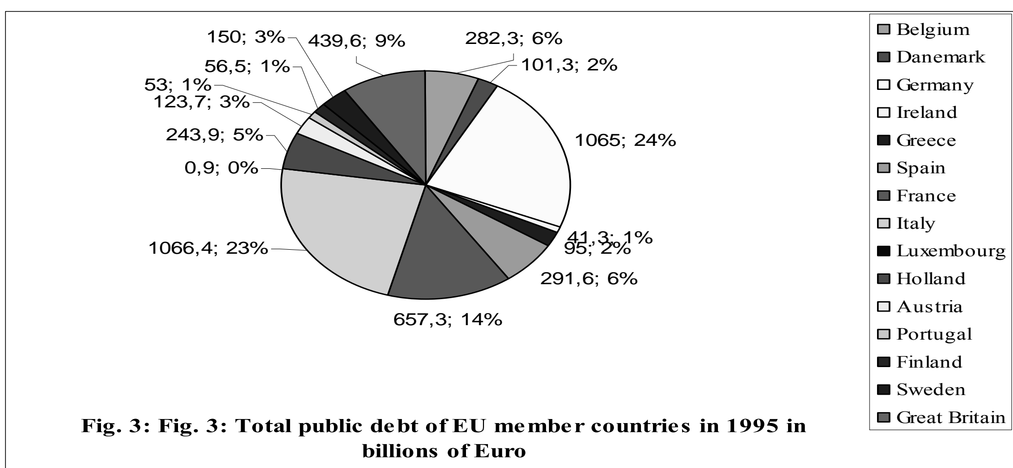


**Fig. 3: Fig. 3: Total public debt of EU member countries in 1995 in billions of Euro**

*Source: European Union Official Statistics Site epp.eurostat.*

**B. Public debt of EU member countries, expressed as percentage of the gross internal product**

**The degree of indebting** of a country at a certain time is determined by comparing the balance of the public debt with the gross internal product. The established indicator shows if the value added in one year is exonerated by the public debt; in other words, if the public debt of the country should be integrally reimbursed within the reference year, what share of the gross internal product should be used? There are cases in which not even the entire gross internal product accomplished in one year would not be sufficient in order to reimburse the public debt. This indicator has a pure theoretical value, because no country could assign the entire gross internal product for the amortization of the public debt, but only the share left after performing the prevailing absolutely indispensable for the consumption fund and gross implementation of capital.

**Table 2**

**Public debt of EU member countries expressed as percentage of internal gross product**

| | 2006 | 2005 | 2004 |
|---|---|---|---|
| **Belgium** | 88.1922 | 92.1538 | 94.2478 |
| **Denmark** | 30.2823 | 36.2765 | 43.9702 |
| **Germany** | 67.5432 | 67.7847 | 65.6254 |
| **Ireland** | 25.0542 | 27.3867 | 29.5275 |
| **Greece** | 95.3422 | 98.014 | 98.6379 |
| **Spain** | 39.6679 | 43.0322 | 46.1775 |
| **France** | 64.1946 | 66.6627 | 64.868 |
| **Italy** | 106.781 | 106.194 | 103.801 |
| **Luxembourg** | 6.62309 | 6.20874 | 6.44946 |
| **Holland** | 47.8794 | 52.3065 | 52.4455 |
| **Austria** | 61.6729 | 63.3944 | 63.7727 |
| **Portugal** | 64.8242 | 63.6954 | 58.2946 |
| **Sweden** | 47.005 | 52.1553 | 52.4207 |
| **Great Britain** | 43.218 | 42.0978 | 40.4185 |

*Source: European Central Bank Statistics Yearbook*

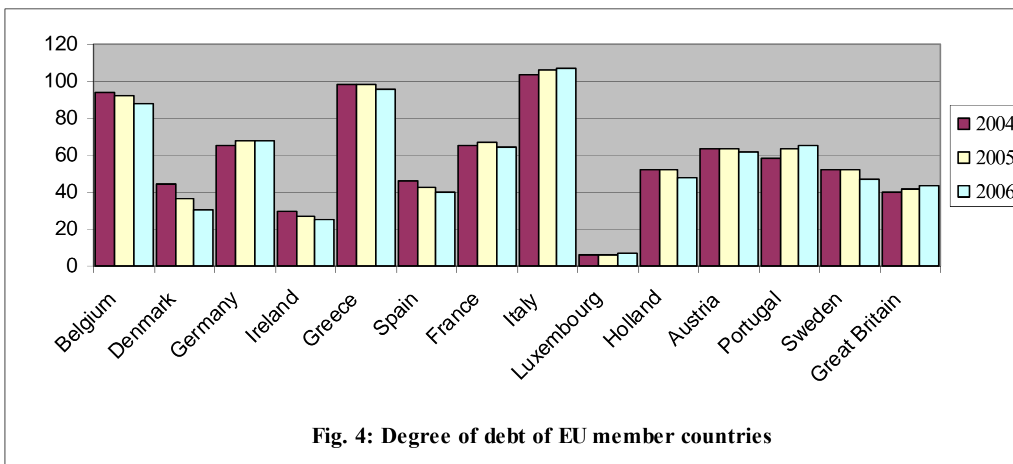


**Fig. 4: Degree of debt of EU member countries**

*Source: European Central Bank Statistics Yearbook*

In this chart we can observe that Italy is the country with the most increased degree of debt within 2004-2006, namely 106.781% in 2006, closely followed by Greece with 95.34 % and Belgium 88.192%. The country with the lowest level of debt is Luxemburg, this being constant during the entire analyzed period 1995-2006.

Expressed in percentage of the Gross Internal Product, in 2002 the debt of EU 15 public administrations was below the figure from 1998 of almost 6.5 percentage points, this way being close to the reference value of 60% of the Gross Internal Product. In Ireland, for example, the debt of the public administrations decreased from 53.7 % of the Gross Internal Product in 1998 to 32.4 % in 2002, meaning a decrease of 21.3 percentage points, due to the debt stability and rapid increase of the Irish economy. In comparison with 1998, the debt of EU 15 public administrations have decreased with almost 9.4% in 2002. In all the countries, except Austria and Portugal, which have registered an increase of 5.3% and 5.6%, respectively, the debt level has decreased from 39.7 % in Ireland to 0.2% in Germany.

The evolution is not the same, if we take into consideration the nominal value. In the nominal value, the debt of the public administration has not considerably varied between 1998 and 2002. A nominal increase of the Gross Internal Product explains in various cases the decrease of the debt in percentage of the Gross Internal Product.

The status of the *adhering countries* was a little different from the one of EU member states, due to the fact that the global debt level was inferior in general and with an increase trend observed in 1998 and 2002. In Romania it has increased to 26.1% (4.7 percentage points of the Gross Internal Product).

While the debt drafted in the foreign watchword is important (the same as in case of Romania), the modifications can be partly explained by the variations of the exchange rate. Between 1998 and 2002 the Romanian Leu has lost more than 66% of its value, which draw an increase of the external debt. Cyprus, Estonia and Hungary were the only countries which reduced their public debt, 5.0%, 3.3% and 9%, respectively. The other adhering countries have registered an increase of almost 2.3% in Malta and 97.8% (13.4 percentage points of the Gross Internal Product) in the Czech Republic.

**C. Expenses with the interests to the public debt of 13 EU member states, expressed in Euro, in percentage of the gross internal product**

Together with the indicators regarding the degree of indebting of a country, the indicators have a special interest, these characterizing the annual financial effort, which is claimed by the public debt. This effort is materialized in the service of the public debts, which contains the expenses for the reimbursement of the actual debt and the payment of the interest and of the other afferent expenses.

Besides these indicators, the annual quantum of the debts, the report between the interests and gross internal product, the share of the interests in the total of the public expenses are also calculated. The indicators regarding the expenses for the interests and commissions afferent to the public debts express the size of the counter-performance, which the state owes to the creditors during the year.

**Table 3**

**Annual quantum of the debts cumulated at EU level**

| Year | % of GIP | euro-prices |
|---|---|---|
| **1995** | 5.665988 | 309997.35 |
| **1996** | 5.611602 | 317705.32 |
| **1997** | 4.991402 | 293997.1 |
| **1998** | 4.621052 | 284242.55 |
| **1999** | 4.054894 | 259339.44 |
| **2000** | 3.909164 | 263150.48 |
| **2001** | 3.814326 | 268019.6 |
| **2002** | 3.513247 | 255450.81 |
| **2003** | 3.312474 | 248466.52 |
| **2004** | 3.117576 | 243312.47 |
| **2005** | 2.991507 | 241571.81 |
| **2006** | 2.991507 | 246028.45 |

*Source: European Central Bank Statistics Yearbook*

**Fig. 5: Evolution of the expenses on debts as percentage of GIP**

*Source: Government Finance Statistics Yearbook 2007*

**D. Distribution per types of financial instruments**

Most of EU member states use especially the titles in order to finance their debt. In 2002 the value of the titles was in EU 15.80% of the total debt. The greatest percentage was registered in **Denmark** (almost 100 %), the lowest in Luxemburg (approximately 42 %). Due to the fact that the debt of Luxemburg is less important, it is necessary to be financed from the credits. In these cases, this solution is less overwhelming and easier than security issuance. In all the countries, the cash and deposit debts are not significant.

**Table 4**

**Distribution per types of financial instruments**

| Year | Cash and deposits | Stocks and other assets | Credits |
|---|---|---|---|
| **1995** | 0.16791 | -0.086222 | 17.49821 |
| **1996** | -0.049761 | -0.05141 | 17.03404 |
| **1997** | 0.137221 | -0.442714 | 16.1508 |
| **1998** | 0.156644 | -0.401258 | 15.16286 |
| **1999** | 0.453774 | -0.532953 | 14.35384 |
| **2000** | 0.688883 | -0.000611 | 13.1812 |
| **2001** | -0.64899 | -0.095511 | 12.42509 |
| **2002** | 0.050638 | -0.009613 | 11.78883 |
| **2003** | 0.047218 | 0.082048 | 12.34562 |
| **2004** | 0.15638 | 0.009798 | 11.93968 |
| **2005** | 0.366053 | 0.113272 | 11.78908 |
| **2006** | 0.394445 | -0.140427 | 11.38652 |

*Source: Government Finance Statistics Yearbook 2007*

*The aforementioned data are expressed as percentage of the internal gross product*

From the above-indicated table it can be distinguished the preference for credits as loan source, having the greatest share of the gross internal product, in comparison with the other alternative financial instruments.

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