

SINGLE MONETARY POLICY AND ECONOMIC
IMBALANCES IN THE EUROZONE

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2013

Single Monetary Policy and Economic Imbalances in the
Eurozone

Tek Ortak Para Politikası ve Euro Bölgesi'ndeki İktisadi
Dengesizlikler

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Tezin Onaylandığı Tarih : **21.06.2013**

Toplam Sayfa Sayısı : **140**

Keywords :

Eurozone

Single Monetary Policy

Fiscal Federalism

Incompatible Trinity

Balassa – Samuelson Effect

Anahtar Kelimeler :

Euro Bölgesi

Tek Para Politikası

Mali Federalizm

Uyumsuz Üçleme

Balassa – Samuelson Etkisi

ABSTRACT

Also known as the “Eurozone”, “EMU” (European Economic and Monetary Union) is the largest single currency union in the world and it is about to expand even further, when the 10 (ten) new members of the EU will meet the convergence criteria. Thus; due to the recent debates and questionable structure of “EMU”, in order to be able to capture the actual rationale and the potential several benefits but various real economic imbalances of such a recently popular monetary union, it could be quite useful to analyze the distinctive characteristic macroeconomic performances with an extensive focus on the indicator of “price stability” on a basis of a dichotomy that suggests; a typical “Hard-Nosed” government: ”Germany” and a typical “Wet” government: ”Italy”. Lastly, by the addition of Denmark to this in-depth analysis; we might be able to see the completely different statuses of a non – EMU member country through this context. This paper presents evidence on the successful process of monetary stabilization of especially emerging countries – among “EMU” after the Maastricht Treaty. Nevertheless; except for that satisfactory monetary stabilization, the single interest determination or the so called “one – size – fits – all” monetary policy in the Euro Area composed of heterogeneous member states may create or increase existing current account imbalances by applying a single

interest rate to member states with different inflation, competitiveness and thus growth differentials – all of which are said to be given birth by the excessive implementation of the states’ only remaining policy tool of differentiated independent national fiscal policies. At this spot; this paper alongside with its extensive empirical components, illustrates the typically mandatory debt – led growth strategy of the Eurozone’s emerging markets via putting a great emphasis of the need for the continuity of fiscal federalism integrated with a bit of expanded levels of budget centralization rather than pure common EMU single fiscal policy despite the fact that the indulgent usage of fiscal authority has been recently resulting in substantial spillovers through the interest rate channel, among fiscal policies of member countries. To limit, especially, the emerging countries’ incentive to run expansionary fiscal policies, a set of rules like those embedded in the Stability and Growth Pact, should, of course be recalled ;however, in order for the minorities of the Euroland to catch up with the steady state level of the Eurozone figureheads, deficit spending growth strategy comes out to play a vital role whereby we can understand how running its own national fiscal policy is so significant for those developing countries – all of which may become more accurate by the successful evaluation of this paper’s appropriately designated empirical frameworks for the 2 (two) respective separate dualities; “Germany Vs. Ireland” and “EMU – 17 Vs. Non EMU –

10 plus Turkey”. Apart from the main orthodox perspective – “Maastricht Criteria”, the contrasting heterodox approaches of “OCA Theory” & “New OCA Theory”, the main theoretical guide of the Euro project called “Basic Macroeconomic Trilemma” (Incompatible Trinity), the distinctively observed “Balassa – Samuelson Effect” ;as well as the various roles of EU Institutions integrated with their monetary policy instruments, are clarified in detail regarding on the implementation of the EU’s “one-size-fits-all” monetary policy and financial mechanism, throughout this paperwork. Eventually; this extended research study over the economic imbalances among the Eurozone, ends up with a paradoxical conclusion that the actual factors lying behind such imbalances, are said to be political rather than pure economic, because even though the ECB has formal independence, the success or failure of its actions, are all parts of an interdependent system of policies in which elected governments have a role too ;as far as in the making of monetary policy, economists have technical expertise but politicians claim electoral legitimacy who are exactly obliged to balance non – economic pressures, both domestic and international, against concerns of central bankers with monetary constraint. Therefore, this paperwork emphasizes the absolute differences in both economic and political priorities for economic policymaking between the 2 (two) contradictory poles of the Eurozone – a fact which leads us into the clear asymmetries among EMU.

ÖZET

“Avrupa Birliđi Ekonomik ve Parasal Birliđi” ya da Euro Bölgesi, herkesin bildiđi üzere; řu an itibariyle, dünya üzerinde, tek ortak para birimine sahip en büyük parasal birlik olup; Maastricht Kriterleri’ni yerine getirecek 10 (on) yeni üye ülkenin bünyesine katılmasıyla birlikte toplam üye sayısının, yakın zamanda, Avrupa Birliđi’nin mevcut toplam üye sayısı olan 27 (yirmi yedi) olması öngörülmektedir. Avrupa Birliđi Ekonomik ve Parasal Birliđi’nin, günümüzdeki, son derece tartışmalı yapısına binaen; bu formasyonun arkasında yatan temel felsefenin, bu oluşumun teorik manadaki faydalarının ve de aynı zamanda da, reel anlamda meydana getirdiđi iktisadi dengesizliklerin, çok daha iyi anlaşılması, buna paralel olarak uzun bir süredir yaşanan ancak olumsuz etkisini son zamanlarda daha ciddi olarak hissettiren ve de Avrupa Merkez Bankası tarafından dikte ettirilen tek bir ortak para politikasının yol açtığı gözle görülür makroekonomik performans farklılıklarına bađlı olarak artan bir hızla seyreden, Euro Bölgesi üye ülkeleri temelindeki büyüme hızına ilişkin meydana gelen derin gösterge farklılıklarının ayrıntılı analizinin yanı sıra; bu kapsamlı çalışma, aynı zamanda, fiyat istikrarı özelinde; Avrupa Merkez Bankası’nın, nasıl Alman Merkez Bankası “Bundesbank” tarzında politikalar geliřtirdiđini ve de dođal olarak Almanya’nın diđer üye ülkeler

üzerinde ne derece yoğun şekilde bir faiz haddi dikte etme misyonunu üstlendiğini, karşılaştırmalı analiz metodunu kullanarak; son derece net bir şekilde gözler önüne sermektedir. Bütün bu öğretilere ek olarak; Avrupa Birliği Ekonomik ve Parasal Birliği'nin özellikle bugünkü konjonktüründe; Euro Bölgesi üye ülkelerinin kendi milli para politikalarından ve de dolayısıyla döviz kuru değiştirme mekanizmalarından vazgeçmiş olmaları üzerine; geriye kalan tek ulusal politika aracı olan kurala bağlı veya iradi maliye politikalarının, bu Avrupa Birliği ülkelerinin büyüme dinamikleri çerçevesinde, Euro Bölgesi'nin gelişmiş, başrol oynayan ülkelerinin çok daha önceden eriştiği kararlı hal büyüme seviyesini yakalama hususunda ne kadar olağanüstü bir ehemmiyet arz ettiğinin, altının defalarca çizildiği bu kapsamlı araştırmada, şahsım tarafından yapılan "Almanya Vs. İrlanda", "Euro – 17 Vs. Euro dışındaki 10 ülke ve Türkiye" başlıkları altında, detaylı "lineer regresyon" (doğrusal bağlanım) çalışmalarının, bizi ulaştırdığı çarpıcı sonuçlar da büyük bir titizlikle incelenmiş olup; detaylıca analiz edilmiştir. Tüm bunların haricinde; AB Ekonomik ve Parasal Birliği'ne üyelik kapsamında ortaya konmuş ortodoks perspektif olan "Maastricht Kriterleri", heterodoks perspektifler olan "Optimal Para Alanı Teorisi", "Yeni Optimal Para Alanı Teorisi", bunlara ek olarak da, Euro projesinin temel felsefesini inşa eden bazı önemli makroekonomik öğretilerin ("İktisat teorisinin kutsal üçlemi", "Balassa – Samuelson Etkisi", "Barro – Gordon

Büyüme Modeli” vs...) de bugün, Euro Bölgesi’nde yaşanan genel borç krizi ile birlikte deneyimlenen tüm politik ve iktisadi dengesizlikler üzerindeki tartışılmaz hatırı sayılır rolü de, bu teferruatlı çalışmanın bütününe ve ulaştığı birtakım önemli farklı neticelere ve gerçekliklere, kaynaklık etmekte; bir başka deyişle, başarıyla ışık tutmaktadır.

ACKNOWLEDGEMENTS

I would like to express the deepest appreciation to my dissertation supervisor; Associate Professor Dr. Durmuş Özdemir, for all of his invaluable guidance and support, as far as, he continually and convincingly conveyed a spirit of adventure in regard to this research and scholarship. Without his guidance and persistent help, this dissertation would not have been possible.

I extend my gratitude to my sincere academicians; Dr. Gündüz Fındıkçioğlu, Assistant Professor Dr. İnan Rüma and Professor Dr. Ahmet Tonak for having recruited me to this remarkable master's program and having provided me with any needed technical or administrative cooperation, at any time.

In addition, a faithful thank you to my other sincere academician; Associate Professor Bülent Bali, who has introduced me to the major of Economics through my freshman year at the college, and whose enthusiasm for the "Public Economics of EU" has had a true lasting impact on me.

Consequently, I am very grateful to my parents; Agop and Maria Anna Dülgar, for their extended support, continuous encouragement, great patience and unconstrained loves.

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LIST OF ABBREVIATIONS

AD	Aggregate Demand
AS	Aggregate Supply
BOP	Balance of Payments
CA	Court of Auditors
CJEU	Court of Justice of the European Union
CoR	Committee of the Regions
CPI	Consumer Price Index
EC	European Commission
ECB	European Central Bank
ECU	European Currency Basket
EFC	European Financial Commission
EFSF	European Financial Stability Fund
EIB	European Investment Bank
EMI	European Monetary Institute
EMS	European Monetary System
EMU	European Economic and Monetary Union
EP	European Parliament
ERM	Exchange Rate Mechanism
ERM II	New Exchange Rate Mechanism
ESA	European System of Accounts

ESC	Economic and Social Committee
ESCB	European System of Central Banks
ESM	European Stability Mechanism
EU	European Union
FECOM	European Monetary Cooperation Fund
GCF	Gross Capital Formation
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
HC	Human Capital
HICP	Harmonised Index of Consumer Prices
IS – LM	Investment Saving – Liquidity of Money
KA	Capital Account
NBER	National Bureau of Economic Research
NCBs	National Central Banks
NIPAs	National Infrastructure Planning Associations
OCA	Optimum Currency Area
OLS	Ordinary Least Squares
OMO	Open Market Operations
SGP	Stability and Growth Pact
TB	Trade Balance
TFEU	Treaty on the Functioning of the European Union
UNSNA	United Nations System of National Accounts
WTO	World Trade Organization

1. INTRODUCTION

The Euro Area had from the start some design failures well adverted by many economists much before the “European Monetary System” (EMS) and the “European Economic and Monetary Union” (EMU) were created. Large pieces of research did show that the Euro Area was not an “Optimum Currency Area” (OCA) and needed not only a single monetary policy but a single fiscal policy or a very large European budget or, in the last instance, a large European fund to soften structural imbalances or asymmetric shocks. One – size – fits – all monetary policy in a Euro Area composed of heterogeneous member states, can create or increase existing inflation and current account imbalances by applying a single interest rate to members with different inflation and competitiveness differentials.

The first years of the Euro Area were very positive and financial markets believed fully in the experiment, but, in the period 2002 – 2005, when the “European Central Bank” (ECB) had to drop its main refinancing interest rates to help Germany and Italy out of recession and France out of a slow growth, because medium term inflation expectations were low and the 3 (three) member states represent two thirds of the Euro Area GDP, the single interest rate became too low for the other catching up of the member states who grow faster and with higher rates of inflation (Dehesa, 2012).

Higher rates of inflation and the same nominal interest rate made these member states to have 0 (zero) or negative real interest rates producing a large credit and asset price boom, increasing excessively their negative fiscal positions and their net international position in public, private and banking debt. This situation became much worse when the imported financial crisis provoked in these highly indebted member states an asset and credit bust and a large deterioration of their banking assets. As a consequence, financial markets increased their spreads to these member states, rating agencies lowered their ratings and several of them had to be bailed out. Financial markets finally realised the existence of design failures in the Euro Area and the crisis management failures of “too little too late” and “behind the curve” (Dehesa, 2012).

The start of “Economic and Monetary Union” (EMU), as expected, has revealed differing growth and inflation patterns between the participating countries. Without monetary or exchange policy, adjustment to either excessive or depressed demand pressures through real exchange rate adjustment, needs to come through other macroeconomic channels. For instance; the Irish economy provides an interesting test case on how an economy in a growth transition can cope with excess demand pressures in the context of the “one – size – fits – all” monetary policy (MacCoille & McCoy, 2002). Economies, like Ireland, that experience strong output

growth would expect some real appreciation of the exchange rate. In a currency union, nominal appreciation cannot be relied upon so that real exchange rate appreciation comes about through higher wage growth and inflation than in competitor countries. Higher productivity in the traded sector of the economy is likely to push up prices in the non-traded sectors by allowing real wages to increase through the well – known Balassa – Samuelson “productivity hypothesis” (Obstfeld & Rogoff, 1996).

This paper tries to determine all of the factors lying behind the divergent growth patterns among the Euro Area figureheads and minorities ;as well as clarifying the role of the “Balassa – Samuelson Effect” in the transition economies like the Irish economy, in order to quantify its possible magnitude – illustrating all of these materials via making an extensive emphasis over the significance, or in other words, the vital status of the only nationally conducted macroeconomic policy instrument of fiscal policy within the boundaries of the Eurozone ;whereby the single interest determination continues to give birth to various pervasive consequences, especially, for the emerging markets or Euroland minorities. This comprehensive analysis of the above standpoints, would allow the focus to be placed on the necessary adjustment mechanisms that are required to ensure that; long-run competitiveness is not eroded as real incomes rise.

For instance; as a small open regional economy, Irish living standards are ultimately determined by its ability to be an effective export base for which; competitiveness as captured by the real exchange rate, is, crucial.

Thus; as we may easily guess, imbalances among EMU member states, keep being high and growing, given the increasing costs of their sovereign and private debt spreads. This is starting to create a feedback loop in which these peripheral member states try to convince the markets that they are doing the right things, that is, large fiscal consolidations and structural reforms. But, in the short term, they are lowering their growth rate or are worsening their recession, making it impossible to get out of the hole. In the meantime, after two years work to create a firewall, it is still not big enough to calm the markets and ;thus the Euro Area gets closer the precipice. Most of what is needed to get out of this situation, is, well known by the economic theory and policy but there seems to be no political will to deliver a rational exit to this increasingly dangerous situation. Only the ECB is capable of coming in as a “saver of first resort” or a “lender of last resort” to avoid the worst, but it may not be enough.

Nevertheless, the ECB can take some fiscal precautionary steps to avoid future asset bubbles and imbalances – such as expanding the proportion of the common EMU budget; in other words, enlarging the borders of the centralized budget of the Euro Area – but when doing this, the compulsive

phenomenon of the national independence of the fiscal policy
implementation should always be kept in mind prosperously (Dehesa,
2012).

2. THE THEORY AND HISTORY OF MONETARY UNIONS

When we are about to deal with the context of the European Union (EU) Economics ;as well as its implications – with reference to the so – called; “European Economic and Monetary Union” (EMU), we should initially mention, a little, about the history of monetary unions – the respective steps (attempts) that have ended up with the idea of “Eurozone”. Firstly; we should refer to the “Gold Era” (1870 – 1914) through where central banks fix the value of their currencies in terms of gold. This means that they set a price of gold in terms of domestic currency and then stand ready to buy or sell gold ;in order to maintain that price – a mechanism that is called “The Gold Standard” : The first special case of a system of adjustable fixed exchange rates. Therefore; when the world’s money was tied to gold, the world price level was determined by the world supply of gold ;relative to world real income. From the 19th Century until the 1st World War, the Gold Era was a successful economic contribution under liberal economic understanding ;but the Gold Standard is said to have failed to succeed through the period of “Chaos” (1914 – 1918) ;due to intensive governmental intervention – leading into the definite collapse of the Gold Era in 1933, in the aftermath of the “Great Depression” (1929) when UK withdrew from the

Gold Standard in 1931 and the US, in 1933 – which both have given birth to the emergence of the Pound Zone (£) in London (UK). After the US Dollar (\$) was allowed to float for a while, US Dollar (\$) lost some value (depreciated) and by 1934; 1 ounce of Gold was fixed to \$35. All of these proceedings have ended up with the establishment of the so – called; “Bretton Woods System” (1946 – 1971) through which US Dollar (\$) was the reserve currency instead of British Pound (£) – that is leading us to call it ;as the “Gold – Exchange Standard”. Analytically thinking; “Bretton Woods System” was said to be the 2nd version of an adjustable fixed exchange rate mechanism. However; when US ran excessive Balance of Payments Deficits in 1958, foreign central banks’ holdings of US Dollars (\$) increased relative to the Gold and doubts over the ability of the US to reduce its Dollar (\$) liabilities in Gold, increased proportionally – which was somehow, the beginning of the long breakdown of the Bretton Woods System. At this spot; “Dollar (\$) Glut” (surplus) was thought to be the main determinant – driving the excessive appreciation of US Dollar (\$) that was needed to be devalued but it was not possible, though ;due to the monetary status of US Dollar (\$) – as being the reserve currency of the world.

Afterwards; the respective devaluation attempts in the respective years of 1971 and 1973 (9% and 5% respectively), became inevitable that allowed national currencies to start to float freely against US Dollar (\$). After the

collapse of Bretton Woods System [a global monetary system – introduced after WW II ;through which US Dollar (\$) is fixed to Gold and all other national currencies are fixed to US Dollar (\$)], economic and political co – operation among the driving forces of the Continental Europe, accelerated significantly – very well illustrated by the establishment of the “European Monetary System” (EMS) in 1978 that prescribed 3 (three) respective elements of the “European Currency Basket” (ECU), monetary stabilization mechanism [or the so – called; “Exchange Rate Mechanism” : (ERM)] and the mechanism for financing monetary interventions – known as the “European Monetary Cooperation Fund” (FECOM). In this framework; “Treaty of Rome” (1957) that has established the European Economic Community and ;thus the very first monetary cooperation between its 6 (six) founding member states, “Hague Summit” (1969) that has given birth to the decision of making economic and monetary union (EMU) as an explicit goal of the previously introduced community and setting up a chairman of Luxembourg’s Prime Minister, Pierre Werner and ;therefore “Werner Report” (1970) through which reduction of the fluctuation margins between member states’ national currencies, integration of financial markets to create free movement of capital and irrevocable fixation of exchange rates between participating national currencies have been attained – all of those 3 (three) steps are said to have played a crucial role over the foundation of EMS.

Then; via the help of the EMS, the ERM gave each currency the chance to fluctuate within a 2,25% fluctuation band against ECU – as each central exchange rate. In 1986; by the establishment of a single internal market – “Single European Act”, goods and services started to move freely ;as well as the objective of progressive realization of an Economic and Monetary Union (EMU) in the territories of the Continental Europe, was exactly confirmed (ratified). 3 (three) years later; this time in 1989, “Delors Report” – formulated by Jacques Delors (1925 -) ;former finance minister under French President Francois Mitterrand in the early 1980s, set up the foundations for the single currency; “Euro” (€) – via contributing to increased co – operation between central banks with relation to monetary policy, providing financial integration and co – ordination of budgetary policy, establishment of the “European System of Central Banks” (ESCB) – narrowing the margins of the fluctuation within ERM, and lastly; fixing of exchange rates between national currencies and their replacement by a single European Currency (€) – so that making the (sole) monetary authority (responsibility) to move to the hands of ESCB. We can infer from all of the above respective (chronological) processes that; the installation of the “European Economic and Monetary Union” (EMU) in 1994, was made available ;especially via the augmentations of “Delors Report” (1989), and afterwards, the “Maastricht Treaty” (1992). All of these steps have led into a

substantial increase in the volume of co – operation between European national central banks with reference to monetary policy; providing financial integration and co – ordination of budgetary policy. Based on the above facts; transition towards a monetary union in Europe, was seen as a gradual process, and ;thus entry into the union was made conditional on satisfying the so – called; “Convergence Criteria” – set by the Maastricht Treaty in February 7th, 1992 – considering the respective concerns of “price stability”, “exchange rate stability” and “budgetary discipline”. According to the convergence criteria of the Maastricht Treaty; a country could join EMU ;only if, its inflation rate (π) was not more than 1,5% higher than the average of the 3 lowest inflation rates among EU Member – States ;as well as, its long – term interest rate was not more than 2% higher than the average of the 3 lowest interest rates among EU Member – States. Moreover; it could enter such a monetary union ;only if, it has joined the ERM of EMS and has not experienced a devaluation during the last 2 years before entrance to the EMU. Lastly; its budget deficit should not have exceeded the 3% of its GDP and its government (public) debt should not have surpassed the 60% of its GDP – in order to become an EMU member. If we have to move on further; we shall refer to “Amsterdam European Council” which gave birth to the “Stability and Growth Pact” (1997) – designed to ensure budgetary discipline via constructing the “New

Exchange Rate Mechanism” (ERM II), to provide stability between the Euro Area and Non – Euro Area member states, and ;thus to overcome the adverse effects of the “Black Wednesday” (ERM Crisis; September 16th, 1992) – by allowing broader exchange rate zones for EU Countries; that were not yet members of EMU, against the Euro (€). When approaching to today’s overall setting; in June 1st, 1998, the “European Central Bank” (ECB) was created when the members of its executive board were appointed by the member states – replacing the “European Monetary Institute” (EMI). Then; in December 31st, 1998, conversion rates between the participating national currencies and the Euro, were irrevocably fixed – meaning that; the value of 1 Euro (€) was set equal to 1 ECU. Later on; in January 1st, 1999, the Euro (€) became the new currency for 11 member states, and a single (“one – size – fits – all”) monetary policy was introduced under the authority (responsibility) of the ECB. However; January 1st, 2002, was the actual official start date ;that Euro (€) notes and coins entered circulation among 12 Euro Area countries – by the addition of Greece into the 11 countries that have already satisfied the convergence criteria of the Maastricht Treaty. Today, the number of nations introducing the single common currency of EMU [;known as Euro (€)], has become, “17” ;by the year 2011 – which are respectively : Germany, France, Italy, Netherlands, Austria, Belgium, Luxembourg, Spain, Portugal, Ireland, Finland, Greece,

Cyprus, Malta, Slovakia, Slovenia and Estonia – with an exclusion of Denmark, Sweden and UK ;despite the fact that they had already satisfied the convergence criteria (De Grauwe, 2005).

Furthermore; we also have to refer to the brand new “Treaty of Lisbon” (13 December 2007) – initially known as the “Reform Treaty” – that was signed by the EU Member States and entered into force on 1 December 2009 – that amends the Maastricht Treaty and the Treaty of Rome (“Treaty on the Functioning of the European Union”; “TFEU” became the new name of the former treaty establishing the European Community). EU’s institutional mechanism under the Treaty of Lisbon, currently, includes a total number of 7 (seven) institutions which are respectively; “The European Parliament” (EP), “The European Council”, “The Council of the European Union”, “The European Commission” (EC), “The Court of Justice of the European Union” (CJEU), “The European Central Bank” (ECB) and “The Court of Auditors” (CA). Besides underlying institutions – already mentioned above; there are also some other advisory bodies which are also legal entities ;such as “The Economic and Social Committee” (ESC), “The Committee of the Regions” (CoR) and “The European Investment Bank” (EIB) etc... A differentiation should be made among institutions and bodies that; every EU institution is a EU body ;but not every EU body is said to be a EU institution (Georgieva, 2011).

Even Furthermore; EU institutions are established mainly under the EU primary legislation ;whereas the bodies – under the EU secondary legislation with the major aim to support activities in the field of implementing the Union’s policies. For instance; the EU monetary policy is conducted by a greater number of institutions and other Union structures than the ones responsible for the implementation of the economic and fiscal policy of the Union. Here; an active part is played not only by the EP, the Council and the EC – traditionally associated with this policy but also; by the ECB, ESCB, the Eurosystem and the “European Financial Commission” (EFC). Monetary policy is carried out mostly by the ECB through where other institutions rather play a supporting role ;nevertheless the authoritative intervention of especially others (apart from ECB) has increased dramatically after the World Financial and Economic Crisis ;as well as the Eurozone Breakdown within the 2nd half of the 1st decade of the 2nd millennium (Nechio, 2011).

3. FUNCTIONS OF THE 4 (FOUR) MAIN INSTITUTIONS IN THE FIELD OF MONETARY POLICY

To clarify the quite much interconnectedness and to catch the slight differences among the institutions – handling the process of single interest determination, we should firstly refer to the most influential institution regarding the conduct of monetary policy – that is the “European Central Bank” (ECB) – born out of the “Amsterdam Treaty” (1998) and located in Frankfurt, Germany and whose current president is “Mario Draghi” (former governor of Banca D’Italia and the successor of Jean Claude Trichet as ECB president). The ECB is the CB for Europe’s single currency, Euro (€) and its main task shall be to maintain the Euro’s purchasing power and ;thus price stability among the Euro Area which is composed of 17 EU Countries – having introduced the Euro since 1999. Before going further with the details of its mechanism; let us differentiate among the 3 (three) confused institutions at this spot : “The Eurosystem” is composed of the ECB and the national central banks of 17 Eurozone Member States. “The European System of Central Banks” (ESCB) is composed of the ECB and the national central banks of all 27 EU Member States (17 EMU + 10 Non – EMU). And lastly; the “ECB” is a composition of 17 NCBs of Eurozone member states and ;hence it is said to be the center of the Eurosystem and ESCB. The tasks of the ESCB and that of the Eurosystem, are laid down in the treaty

establishing the European Community (Treaty of Rome or “TFEU”) and the treaty refers to the ESCB rather than to the Eurosystem because of the principle that; eventually all EU Member States will adopt the Euro (€) through which the Eurosystem will carry out the majority of the tasks until all EU Member States will adopt the Euro (€). According to the “TFEU” (Article 105.2), the basic tasks of the “ECB”, are respectively; “the definition and implementation of monetary policy for the Euro Area”, “the conduct of foreign exchange operations”, “the holding and management of the official foreign reserves of the Euro Area Countries” and lastly; “the promotion of the smooth operation of payment systems”. In addition to these main tasks, there are also some other further tasks implemented by the ECB such as; “issuance of banknotes”, “collection and standardization of statistics”, “providing financial stability and supervision”, “attaining international and European cooperation” and lastly; “the international representation of the ESCB. In this sense; we should also add that NCBs of the 10 (ten) member states which do not participate in the Euro Area, are said to be the members of ESCB with a special status, through which there is no conduct of “one – size – fits – all” monetary policy (national domestic monetary policy, instead) and of course; there is said to be no participation in the decision – making process, for such countries. ECB offers advice primarily to the Council concerning various aspects of its activity in the

field of the Union's monetary policy, through which ECB is obliged to publish reports on the activity of the ESCB; at least once every quarter and to send the EP, the EU, the Council and the EC, an annual report on the activity of the ESCB and the monetary policy during the current and previous year; and lastly to monitor the "states with a derogation" [the 10 (ten) Non – EMU Countries which do not have to follow the monetary policy of the ECB but in terms of their position as "would – be" members of the EFC] (Baldwin & Wyplosz, 2012). Thus; we can infer from here that; ECB plays a vital role in the decisions that the Council takes about terminating (abolishing) the derogations of a member state and ;thus irrevocably fixing the exchange rate of their local currencies to the Euro (€).

And now; I would like to mention the design of the ECB, for a while. It is the "German Model" that has been prevailed for the construction logic of the ECB through which "price stability" (rather than the stabilization of business cycles and maintaining high employment) is considered as the primary objective of the ECB. Its political independence gives the availability for maintaining price stability via conducting one (1) single monetary policy that fits all 17 (seventeen) EMU Member States – showing its "political independence" from governments' ministries of finance and a minimum term of office for NCB governors of renewable 5 (five) years but a non – renewable term office of 8 (eight) years for members of the

Executive Board of the ECB ;as well as the condition of removal of the
either above from office ;only in the event of incapacity or serious
misconduct – all showing us the “personal independence” of the ECB.
“Financial and functional independences” are also said to be the other
aspects of the ECB ;as far as the Eurosystem is prohibited from granting
loans to community bodies or national public sector entities and of
proportionally; for the conduct of an efficient monetary policy, only and
only the ECB is authorized to decide autonomously how and when to use its
monetary authority. “Accountability” is again, another significant
counterpart of ECB Independence – illustrated by the fact that; ECB
produces an annual report on its activities and on the monetary policy of the
previous and the current year through which that annual report is addressed
to the EU parliament, the Council of the EU, the European Commission and
the European Council. Just at this spot; we have to underline the optimal
relation that; as accountability increases, the independence of the ECB is
said to be increasing proportionally (De Grauwe, 2005). So, we can infer
from all of the above facts that; the success of the German Model of central
banking is an intriguing phenomenon ;as far as it consists of the “Monetarist
counter – revolution” against “Keynesianism”, integrated with the well –
known satisfactory strategic position of Germany in the process towards the
EMU ;whereby ECB has actually been constructed even as more

accountable and independent than the so – called “Bundesbank” (national CB of Germany).

Secondly; we are ought to refer to the “Council of the EU” – located in Brussels, as another important EU Institution – handling with the monetary policy. For this; we should recall that; the ESCB is governed by the “Governing Council” (the highest decision – making body of the ECB) – consisting of 6 (six) members of the Executive Board and the governors of the NCBs of the 17 Euro Area Countries, the “Executive Board” – consisting of the president, the vice president and 4 (four) other members appointed by the European Council and lastly; the “General Council” (the transitional body) – consisting of the president of the ECB, the vice president of the ECB and the governors of the NCBs of all 27 EU Member States. In this framework; we have to state that; unlike the EP, the Council is deeply involved in implementing the monetary policy of the EU – setting the necessary measures with regard to the use of the Euro (€) as a single monetary unit. It takes the crucial decision on which EU Countries meet the requirements for adopting the Euro (€) (Baldwin & Wyplosz, 2012).

On the recommendation of the EC, the Council takes decisions to determine the common positions on this range of issues which are particular interest to the EMU. The Council is said to be the institution that makes the most important decisions concerning the EMU member states with

derogation and on the recommendation of the EC, the Council is ought to provide help of various types to a member state with derogation ;or even to irrevocably fix the exchange rate at which the Euro (€) replaces the national currency of the member state with derogation. Regarding the above information; the Council comes out to be the institution that has relationship (coordination) almost with all of the other EU Institutions and Bodies in the case of implementing the single monetary policy of the EU.

Moreover, the “European Parliament” (EP) – located in Strasbourg, France, indicates us that; the commitments of this institution are not as comprehensive as those of the ECB or the Council ;nevertheless along with the Council, it represents one of the main legislative EU Institutions after the “Treaty of Lisbon” entered into force. In terms of the Union’s monetary policy implementation, the EP has the right to amend (fix) certain articles of the ESCB and ECB or to advise the Council concerning the adoption of regulations – pointed out in TFEU in such a way that; EP’s power has been boosted via the Lisbon Treaty – making it equal to the Council on most types of EU legislation (Baldwin & Wyplosz, 2012).

Lastly; the “European Commission” (EC) is known as the executive branch of the EU – charged with enforcing the treaties and with driving forward European integration (Baldwin & Wyplosz, 2012).

The body, based in Brussels, has 3 (three) main roles ;such as to propose legislation to the Council and Parliament, to administer and implement EU policies and to provide surveillance (close observation) and enforcement of EU law in coordination with the EU court. As part of its 3rd role, it is said to be the “guardian of the treaties” – the body that is ultimately charged with ensuring that the treaties are implemented and enforced. The Commission also represents the EU at some international negotiations ;such as those relating to the “World Trade Organization” (WTO) trade talks; through which the Commission’s negotiating stances at such meetings are closely monitored by EU Members (Georgieva, 2011).

4. MONETARY POLICY INSTRUMENTS OF THE ECB

Now, let us recall that; the primary objective of the ECB's monetary policy, is to maintain price stability ;in other words, the ECB aims at inflation rates of below – but close to 2%. In order to achieve its primary objective, the Eurosystem uses a set of monetary policy instruments and procedures. This set forms the “operational framework” to implement the single monetary policy. At this spot; ECB is considered as the monopoly supplier of the monetary base which consists of the “currency (banknotes & coins) in circulation”, the “reserves held by counterparties with the Eurosystem” and “the recourse by Credit Institutions to the Eurosystem's deposit facility”. In addition; the Eurosystem's monetary policy instruments are respectively; the “open market operations”, “standing facilities” and “minimum reserve requirements for credit institutions” (De Grauwe, 2005).

To begin with; “Open Market Operations” (OMOs) are the most important instrument of the monetary policy of the ECB. Actually; open market operations imply buying and selling of securities with the aim of increasing or reducing money market liquidity through which “buying securities” has an expansionary monetary policy effect as money is injected into the system – a mechanism also called as “outright purchases” [“provision of liquidity” that lowers the interest rate] ;whereas “selling

securities” has a contractionary monetary policy effect as money is drained from the system – a mechanism also called as “outright sales” [“absorption of liquidity” that raises the interest rate] (Caves & Frankel & Jones, 2007). “Open Market Operations” (OMOs) serve to steer short – term interest rates and to manage the liquidity situation in the money market within a range of 1 (one) month to 6 (six) months of maturity.

Moreover; “Standing Facilities” aim to provide and absorb overnight liquidity through which the Eurosystem offers credit institutions 2 (two) standing facilities : “Marginal Lending Facility” in order to obtain overnight liquidity from the NCBs through where the interest rate is higher than the market interest rate and “Deposit Facility” in order to make overnight deposits with the NCBs through where the interest rate is lower than the market interest rate. (De Grauwe, 2005).

Furthermore; the ECB requires credit institutions established in the Euro Area to hold deposits on accounts with their NCB – which are called as “Minimum or Required Reserves”. By manipulating reserve requirements, the ECB can affect money market conditions. For instance; as the ECB raises reserve requirements, shortage of liquidity increases and money stock contracts. Nevertheless; the ECB does not use the “Minimum Reserve Requirements” as an instrument of monetary policy – rather it uses it as an instrument to smooth short – term interest rates – that is achieved by

computing the minimum reserve requirements as a monthly average of daily reserve ratios – a fact that increases the incentives to smooth the effects of temporary liquidity fluctuations – a mechanism which is coined (defined) as “Fine – tuning operations”. Eventually, the respective 5 (five) types of OMOs can be counted as; the “reserve transactions”, “outright transactions”, “debt certificates”, “FX swaps” (borrowing € and lending \$) and the collection of “fixed – term deposits”. Very consequently; the “transmission mechanism of monetary policy” is considered as the process through which monetary policy decisions affect the economy in general and the price level in particular – which is characterized by long, variable and uncertain time lags ;meaning that it is very difficult to predict the precise effect of the “one – size – fits – all” monetary policy (De Grauwe, 2005), (Caves & Frankel & Jones, 2007).

5. THE RATIONALE AND THE FUNDAMENTALS BEHIND THE OBJECTIVES OF THE EMU

Now; before moving into the detailed contextualization of the “European Economic and Monetary Union” (EMU), I would like to refer to the several remarkable regularities ;known as the “rationale” behind the objectives of this monetary union. These can be summarized by; “locking the exchange rates of member countries at irrevocably fixed rates”, “floating of the exchange rate (€:Euro) freely against other currencies (\$:US Dollar)”, “no domestic monetary sovereignty”, “a supranational monetary authority” and lastly “free capital mobility” (Artis & Nixon, 2001).

We already know that; in order to reflect these characteristics of EMU, EU member countries should all accomplish the convergence criteria of the Maastricht Treaty; consisting of principles related with “price stability”, “exchange-rate stability” and “budgetary discipline” – so that an EU member state may be able to join the Eurozone (McDonald & Dearden, 2005).

Well; although entering EMU has been made mandatory for any EU member state that has been becoming an EU member since January, 1, 2011 – I definitely prefer to diagnose the potential and real costs ;as well as the

benefits of joining EMU, from the perspectives of both the strongest major figures of EMU (with a detailed analysis of Germany : a traditional Hard-Nosed Gov't that values "F" over "U") and the other relatively minor figures of EMU (with a detailed analysis of Italy : a traditional Wet Gov't that values "U" over "F"). In other words; in this section of my extensive study, I will exactly demonstrate that the idea of EMU (Eurozone) is a truly "spectacular theoretization" ;but unfortunately, a "disaster", simultaneously – as reflected to today's real life among Europe. Therefore; I will somehow, will be able to state if joining EMU is a beneficial framework on aggregate (in total) – or not. While I will be handling this problematic, I will be referring to "Barro – Gordon Model" (a geometric interpretation), "Balassa Samuelson Effect", (Béla Balassa & Paul Samuelson), "OCA (Optimum Currency Area) Theory", "New OCA Theory" and "Basic Macroeconomic Trilemma" (Incompatible Trinity) – both developed by Mundell (1961 & 1968 ;respectively), besides my empirical data analysis – using a linear regression model. In order to find an appropriate proposal to the above concerned problematic, here are the most useful theoretical models – suggesting and explaining us various remarkable facts that all help us perceive the "EMU" formation and its role in the restructuring process of ;especially late – comer minor figures of the European Union on a basis of "price – stability" (monetary perspective) that stimulates the majority of real

economic indicators to change and transform both in the short – run and in the long – run.

5.1. THE BASIC MACROECONOMIC TRILEMMA : “INCOMPATIBLE TRINITY”

The most remarkable principle which lies at the heartland of EU Economics – that is also the primary source – fabricating (conceiving) the all of today’s chaotic circumstances of the Euro – Area, is basically, known as; the “Basic Macroeconomic Trilemma” – in other words; “The Incompatible Trinity” which was initially developed by Mundell in 1968. According to the article (Obstfeld, 2004) “Domestic Monetary Sovereignty”, “Capital Mobility” and “Exchange Rate Stability” are unavailable 3 (three) mechanisms, to be controlled at the same time – especially for an EMU country.

Meaning that; if we have to perceive this “Incompatible Trinity” framework more properly, we can recall the “IS – LM” model : Let’s consider an upward sloping LM (Liquidity of Money) curve, a downward sloping IS (Investment – Saving) curve and a horizontal BP (Balance of Payments) curve; showing perfect capital mobility. Here; an expansionary monetary policy would be indicated by the shift of LM curve to the right –

but after a while, the CB will be forced to give up monetary sovereignty in order to stay with fixed exchange rate ($i=i^*$); so that monetary policy is said to have no effect on Y^* (equilibrium aggregate level of output). On the other hand; under the floating exchange rate regime, LM curve shifts to the right that leads also IS curve to shift to the right – all IS/LM/BP curves intersecting now, at an equilibrium point on the eastern side of the initial one; meaning that expansionary monetary policy leads to an increase in Y^* (equilibrium aggregate level of output). Therefore; monetary independence and perfect capital mobility become possible for the EMU (European Monetary Union) System; since Euro (€) floats freely against all other national currencies in the world. However, this is not the case from the perspective of EMU Countries because of the disappearance of monetary policy tool; thus they have exchange rate fixity with full financial integration (De Grauwe, 2005).

Moreover; parallel to our claim, ERM (Exchange Rate Mechanism) Crisis of 1992/1993 illustrates the precision of the principle of “Impossible Trinity”, quite well. At this spot; the Netherlands has given up monetary sovereignty, Italy and UK have given up fixed exchange rate regime and Spain has given up open capital market system, respectively. Therefore, the ERM Crisis of 1992-1993 have played a major role on the EMU and ECB formation processes as monetary independence and perfect capital mobility

have become possible within EMU's single floating exchange rate system; as "Euro" (€) floats freely against other currencies. (Tsoukalis, 1997).

Furthermore; Kirsanova, Leith and Wren-Lewis (2009) provide support for the consensus assignment, where monetary policy controls demand and inflation and fiscal policy controls government debt. It is inferred that monetary policy dominates fiscal policy as a means of controlling inflation and there is no similar dominance appears to operate for fiscal policy and debt ;as monetary policy can both influence debt and stabilize inflation by exploiting the forward looking nature of consumption and pricing behavior. Similarly, Jacquet and Pisani-Ferry (2001) debate that thinking about co-ordination is a useful way of addressing the wider issue of governance of the EU and the Eurozone. It is apparent, according to their study that monetary tightening has not had the desired effect on the Euro exchange rate. Therefore, introduction of the Euro reinforces the need of economic policy co – ordination ;especially between "one – size – fits – all monetary" and "independent fiscal" policies, which is still lacking in the majority of the EMU member states (Tsoukalis, 1997), (McDonald & Dearden, 2005).

Lastly, a specific case is conducted by Hallerberg (2000) in order to figure out why and how the two EU countries (Italy & Belgium) with the worst deficit and debt problems in 1991 still managed to join the EMU. According to the article (Detragiache, Milesi – Ferretti and Daban, 2001);

centralization of their budget policies has played a great role for Italy and Belgium, in their eventual participation in Economic and Monetary Union.

Up until now; I have tried to summarize, more – or – less, the theoretical succession of EMU and it is now, the turn to refer to several dark sides of this Eurozone project – that are mostly apparent in practice (real life in EMU) ;in contrast to its abstractly (theoretically), almost perfect design.

5.2. THE BUNDESBANK DESIGN OF THE ECB : “WHY HAS THE GERMAN CENTRAL BANKING MODEL PREVAILED?”

First of all; the success of the German Model of central banking [a typical hard – nosed government style – putting priority on the problem of inflation (price – stability) rather than unemployment ;thus more frequently tight monetary policy implementations], seems to be an intriguing phenomenon – idea born out of the monetarist counter – revolution against Keynesianism towards EMU ;with specific references to (Taylor, 1998) and (Mojon, 2000). Therefore, we may be excellently informed about the so remarkable strategic position of Germany within the process towards EMU formation ;due to Bundesbank’s (German national central bank) quite high degree of independence and thus accountability ;as well as transparency –

also successfully emphasized by Froot and Rogoff (1991). Despite the fact that; this picture of Eurozone design rationale seems awesome, conducting a “one – size – fits – all” monetary policy (single interest rate determination) leads into various catastrophes (turmoils) among the real life in EMU – as clarified by Ardy, Begg, Hodson, Maher and Mayes (2006).

Furthermore; apart from those monetary concerns, there are also several significant structural deficiencies – referring to improper (inefficient) usage of independent national fiscal authority among the 17 EMU member economies because of the lack of budget centralization ;meaning that decentralized budget is preferred by EMU – via having an assumption that the majority of the demand shocks are permanent ;rather than temporary.

To begin with; the “Amsterdam European Council”(1997), gave birth to the adoption of “Stability and Growth Pact” – designed to ensure budgetary discipline and to correct situations of excessive public (fiscal) deficits, among the members of the Euro Area (Artis & Nixon, 2001). At this spot; we should recall the vital implications of the budgetary discipline principle of the so – called; “Maastricht Convergence Criteria”(1992) – which were respectively, a budget deficit that does not exceed 3% of the member economy’s GDP, and, a government debt that does not surpass 60% of its own GDP (McDonald & Dearden, 2005).

Nevertheless; Germany (as the high – income anchor economy of EMU), has become the first member – country to violate this Maastricht Treaty’s deficit restrictions for its own specific needs ;in order to be able to overcome its “economic malaise” (stagnation / recession) – it has experienced between 1998 – 2006 because of its inevitably high interest rates or the aggregate “interest – spillover” (Beetsma & Giuliadori, 2010).

Yes – as you can see; this was the relevant (appropriate) act, actually ;that Germany has undertaken – due to the condition through which the fiscal authority remains as the sole (only) alternative policy for the sake of economic stabilization – where all 17 national monetary authorities of the member – countries, have all been left to the control (responsibility) of the “European Central Bank” (ECB) – located in Frankfurt, Germany. As well as this Germany framework suggests; it is very rational (logical) to run budget deficits (via expansionary fiscal policy) at recession times, and, to run budget surpluses (via contractionary fiscal policy) at boom times – for the accomplishment of economic stabilization [achievement of internal balance; ($Y=Y^-$)]. However; Germany’s national preference on running outstandingly excessive budget (fiscal) deficits (via increasing $G\uparrow$) during the 1st half of the 1st decade of the 2nd millennium, surprisingly, cannot be observed within the territories of the minorities (low – income countries) of EMU ;such as Spain, Ireland, Belgium, Portugal, Greece etc... (Brancaccio,

2012). That's why; Von Hagen (2003) argues that this decentralized budget system would actually reduce the degrees of freedom (flexibility) of conducting independent national fiscal policy for all of those 17 EMU members ;since government budget deficits ($G - T$) can lead into sustainability problems ;or in other words, Ayuso – I Casals, Hernandez, Moulin and Turrini (2006), claim that; if the interest rate on government debt exceeds the growth rate of the economy – this condition is described as “Debt – Dynamic Problem” – just as experienced in 1980 – 1990s in Italy, Belgium and Netherlands. Based on this mechanism, Warin (2004) suggests that; if the nominal interest rate surpasses the nominal growth rate of the economy, it is necessary either that the primary budget ($g - t$) shows a sufficiently high surplus ($t > g$) or the money creation has to be sufficiently high to stabilize the Debt / GDP ratio. Otherwise, Debt / GDP ratio would increase without limit that would result in a truly sustainability breakdown ;as far as government budget deficit would then reach at a level that cannot be financed at all – neither by issuing debt nor by issuing high – powered money ;according to the interpretations of Bali (2007) and Wague (2012).

5.3. OPTIMUM CURRENCY AREA (OCA) THEORY, ITS IMPLICATIONS WITHIN THE EUROZONE AND THE COSTS OF A COMMON CURRENCY

After having covered the major advantages and disadvantages of being a component of European Economic and Monetary Union on the basis of the so – called “Maastricht Convergence Criteria” (“The Orthodox approach”), now – I would like to mention also the “Optimum Currency Area Theory” (Mundell, 1961) as the mainly known counterpart “Heterodox approach” – which can be defined as the geographical area for a single currency; fluctuating as unity against other currencies where exchange rate adjustments and sovereignty over monetary policy, are no more required due to the existence of OCA properties among the 17 concerned countries of the Euro Area (Socol, 2011).

Optimum Currency Area (OCA) is said to have been initially developed by Mundell and it then became the center of attention in 1990s via the establishment of the European Economic and Monetary Union (EMU). In this sense; first of all, Optimum Currency Area (OCA) can be defined as the geographical area for a single currency fluctuating as unity against other currencies where exchange rate adjustments and sovereignty over monetary policy is no more required due to the existence of OCA properties in the concerned countries that all are located in that specific geography (De

Grauwe, 2005). According to the fundamental discourse of the Optimum Currency Area (OCA) Theory; gains are said to increase and losses are said to decrease, as the degree of economic integration increases ;integrating this claim with the fact that economic stability loss occurs meaning that stabilizing output and employment becomes impossible via joining the “European Economic and Monetary Union” (EMU) because of giving up the ability to use national exchange rate adjustment mechanism and domestic monetary sovereignty. Therefore; through economic integration, this above loss is considered to show a dramatic decrease as the process of integration proceeds (Tsoukalis, 1997), (Socol, 2011).

As countries lose the power of exchange rate adjustments and the autonomy over their domestic monetary policy by entering a monetary union, the traditional OCA Theory suggests that countries should have trade integration, financial market integration, factor market integration, fiscal and political integration, price and wage flexibility and symmetric shocks ;meaning that similarity between supply and demand shocks ;as well as business cycles. Thus; the OCA approach leads to the conclusion that the exchange rate and monetary sovereignty – both can be given up as an adjustment instrument if shocks are said to be symmetric (Socol, 2011).

When we are about to move on with the costs of this concerned common currency of Euro which is managed by the “European Central Bank” (ECB),

we should then definitely mention the inverse (asymmetric) shifts in the demand for products of different countries. For instance; let us assume that for some reasons, consumers shift their preferences away from French made to German made products – a phenomenon described as “asymmetric shock”. Therefore, the increase in the demand for German made products would cut unemployment in Germany ;as far as the aggregate level of output (Y) would become much closer to the natural level of output (Y^*) that would make the German economy to boom further as to drive the overall price level (P) up to cause higher inflation (De Grauwe, 2005).

On the other hand; controversially, the decrease in the demand for French made products would create some additional unemployment in France ;as far as the aggregate level of output (Y) would start to be further exceeded by the natural level of output (Y^*) as the aggregate output would continue to decline in volumes that would definitely lead to deflationary pressures and thus much higher levels of unemployment. We can easily infer from here that; both countries would have adjustment problems due to joining the European Economic and Monetary Union (EMU). At this standpoint; there are said to be 2 (two) respective mechanisms that would bring back equilibrium in those above 2 (two) countries (De Grauwe, 2005).

The first adjustment mechanism is known to be the “wage flexibility”. In accordance with this; if wages in these 2 (two) countries are flexible, then,

lowering the French wages would lead to a positive shift in the French Aggregate Supply (AS) curve in return to the previous negative shift in the French Aggregate Demand (AD) curve as to bring French market equilibrium back to its original level via decreasing the price of French products ;so that French products, now, become more competitive ;since unemployed French workers would reduce wage claims. On the contrary, raising the German wages would lead to a negative shift in the German Aggregate Supply (AS) in return to the previous positive shift in the German Aggregate Demand (AD) curve as to bring German market equilibrium back to its initial level via increasing the price of German products ;so that German products, now, become less competitive ;as far as excess demand for labor would push up the wage rates in Germany – all as a result of the shift of the consumer preferences from the French products towards German products that has been given birth by the asymmetric shocks over these respective countries of France and Germany (De Grauwe, 2005)

Moreover, the second adjustment mechanism should be considered as the “mobility of labor”. In this framework, the French unemployed workers would be very eager to move to Germany where there is now excess demand for labor ;whereby this movement of labor eliminates the need to let wages decline in France and increase in Germany. Therefore, the French

unemployment problem disappears and the inflationary wage pressures in Germany vanish ;meaning that the adjustment problem – born out of entering the European Economic and Monetary Union (EMU), disappears through the implementation of both of the 2 (two) above mechanisms. We should definitely keep in mind that; other than these 2 (two) mechanisms, there are the classical methods of pegging exchange rates and the implementation of the correct domestic monetary policy ;saying that if this was not a system of a common monetary policy or single interest determination, France would have to pursue to devalue its former national currency of French Franc (devaluation of the French Franc) ;as well as expansionary monetary policy ;nevertheless, Germany would have to pursue to revalue its former national currency of German Mark (revaluation of the German Mark) ;as well as contractionary monetary policy (De Grauwe, 2005).

Furthermore, “Optimum Currency Area Theory” (Mundell, 1961) as the mainly known counterpart “Heterodox approach” – can be redefined as the geographical area for a single currency; fluctuating as unity against other currencies where exchange rate adjustments and sovereignty over monetary policy, are no more required due to the existence of OCA properties among the 17 (seventeen) concerned countries of the Euro Area (De Grauwe, 2005). Here, Fidrmuc (2004) states that; because of giving up the ability to

use exchange rate and monetary policy, economic stability loss occurs ;meaning that stabilizing output and unemployment become impossible via joining EMU ;however through economic integration, this loss shows a dramatic fall.

In addition; Buitter (2006) puts forward that; as countries lose the power of exchange rate adjustments and the autonomy over monetary policy by entering a monetary union, the traditional OCA Theory would exactly suggest that those countries should rather have “Trade, Financial Market, Factor Market, Fiscal and Political integration”, “Price and Wage flexibility” ;and lastly, “Symmetric shocks” – at this standpoint; instead of symmetry, the term divergence can also be used interchangeably (similarity of supply and demand shocks ;as well as homogeneity of business cycles).

On the other hand; the “Specialization Hypothesis” of Krugman (2006), denies the above fact by stating that; as the level of economic integration increases, the countries involved in a monetary union, become more specialized – so that they become more subjected to asymmetric shocks ;however, the OCA Theory is well advocated (appreciated) by the European Commission View (“One Market, One Money”) – regarding the potential benefits that these countries would most probably acquire while entering such a monetary union ;if and only if, they carry the characteristics that the OCA Theory favours (De Grauwe, 2005), (Kenen, 1969).

Consequently; as the contemporary readjustment of the OCA Theory – “New OCA Theory” (1990s’ Heterodox perspective), is based on the monetarist critique of the Phillips Curve (Turner and Seghezza, 1999) which asserts that in the long – run, monetary policies are already ineffective in controlling unemployment ;meaning that there is no trade – off among inflation and unemployment in the long – run ;but only in the short – run. The New OCA Theory is also based on the view that exchange rates do not actually correct external imbalances perfectly and instantly. Then; it also asserts that convergence of inflation rates, is not a prerequisite for the formation of a monetary union – as a high inflation country joining the union, would be about to receive a low inflation reputation without any cost for him ;according to Börzel and Risse (2004).

Eventually; the New OCA Theory has introduced us the endogeneity of OCA criteria – arguing that many of the prerequisites for joining a monetary union, the OCA properties (in terms of trade integration), are in fact, reinforced by the creation of a monetary union – confronted simultaneously by Cukierman and Lippi (1999); in the sense that trade integration should not be a that important (vital) concern for any country because it will be automatically (naturally) fulfilled (granted) as the candidate country joins EMU – almost the same discourse with the “Endogeneity Hypothesis” that

concludes that the benefits of becoming an EMU member, seems to be definitely greater than the probable costs of it (De Grauwe, 2005).

In conclusion; from all of the 3 (three) above distinctive respective perspectives of the “Maastricht Criteria”, “OCA Criteria” and “New OCA Theory”, only Maastricht Criteria should be considered as the prerequisite of becoming an EMU member. Other 2 (two) criteria of the heterodox approach which are not compulsory, are both standing for candidate countries whether to attend EMU or not from their own perspectives (De Grauwe, 2005).

**Table 5.3.1. : REQUIREMENTS FOR JOINING EMU
(3 PERSPECTIVES)**

<p>1) <u>“The Maastricht Treaty” (1992)</u></p>	<ul style="list-style-type: none"> - “Price Stability” ($0\% < \pi < 2\%$) - “Exchange – rate Stability” (no devaluation in the last 2 years before joining EMU) - “Budgetary Discipline” (Budget Deficit / GDP $\leq 3\%$ & Government Debt / GDP $\leq 60\%$)
<p>2) <u>“The OCA Theory” (1961)</u></p>	<ul style="list-style-type: none"> - Economic and Trade Integration - Fiscal and Political Integration - Price and Wage Flexibility - Symmetric Shocks (Homogenous business cycles)
<p>3) <u>”The New OCA Theory” (1990s)</u></p>	<ul style="list-style-type: none"> - Monetary policy is ineffective in controlling unemployment in the long – run. (only short – run trade – off between U & π) - Exchange rate adjustments do not correct external (trade) imbalances. - Convergence of inflation rates is not a prerequisite for entering a monetary union (in this case; EMU) as inflation rates are ought to converge to the level of the low inflation countries via joining EMU. - All of the OCA properties are actually reinforced by the establishment of a monetary union (“The Endogeneity Hypothesis”).

De Grauwe, Paul “Economics of Monetary Union”, *Oxford University Press*, 6th Ed., (2005)

5.4. REAL LIFE IN EMU : “THE SIGNIFICANCE OF THE BALASSA – SAMUELSON EFFECT”

Theoretically, the main objective of the European Union (EU) countries or candidates, shall be the fulfillment of the “nominal convergence criteria” which is nothing but the “Maastricht Criteria” itself. Nevertheless; most of the time, “real convergence criteria” may be satisfied easier and it may come out to be more significant than the nominal convergence criteria ;as far as real convergence can be defined as the convergence of “productivity levels”, “real per capita income”, “structures of production and employment”, “quality of regulatory and supervisory institutions”. Moreover, the “sigma convergence” measures the dispersion of per capita income or productivity among different economies over time and it implies that wealth differences and asymmetries are diminishing among a group of economies over time (De Grauwe, 2005).

Furthermore, it is also very crucial to perceive the association between some real economic variables and interpret it correctly in order to be able to illustrate the obvious economic imbalances among the Eurozone, whereby a one – size – fits – all monetary policy is conducted. For instance; fast – growing countries are said to experience fast – growing imports. In order to allow exports to increase at the same rate to avoid facing Balance of

Payments (BOP) deficits, exports should be made more competitive by the real depreciation of the currency ;however if such countries – which are coined as emerging markets, are about to join a monetary union such as the European Economic and Monetary Union (EMU), the above adjustment of real depreciation (devaluation) of the national currency, would totally become problematic (Caves & Frankel & Jones, 2007). Just at this spot, one should exactly raise the mandatory question of “will these emerging markets or developing countries be constrained in their growth just because their exchange rate adjustment sovereignty is given up?”. The appropriate answer to this question should definitely be “no” because empirical data shows us that there also exists countries growing fast that experience real appreciation and not depreciation. And on the contrary; among the slow growers, there are countries that have experienced frequent depreciations of their national currency, most of the time. For instance; prior to join the EMU, UK’s average yearly real depreciation tended to be something around -0,5% and 0% despite the fact that it has always been a slow – growing country and, again, very surprisingly; Ireland’s average yearly real appreciation tended to be between 0% and 0,5% in spite of being a typical fast – growing country (De Grauwe, 2005). Hence, we can easily infer from the above fact that; there is a lack of relation between economic growth and real depreciation of

the national currency – all of which are successfully interpreted and analyzed by Paul Krugman (1989).

Lastly; when we look at inflation and unemployment in the major industrial countries between years of 1970 and 2003, firstly, we come across the period of supply shocks in 1979 – 1980 that all led into accelerated inflation rates that was then pursued by the process of disinflation and rising unemployment. In this case; some major industrialized European countries ;such as France, Germany and Italy experienced more difficulties in reducing their inflation rates – therefore, raising the natural rate of unemployment as the cost of reducing inflation levels, seemed to have been considerable and rational for these countries ;whereas the other world top industrial leaders ;like USA and UK, both have experienced less difficulties in reducing their “Phillips Curve slope” just because of having more flexible labor markets (De Grauwe, 2005), (Caves & Frankel & Jones, 2007).

Again, parallel to this perspective, some critics have considerable doubts that a single monetary policy can meet the requirements of the various member countries and as a result; it is asked whether; one size fits all (Weber and Beck, 2005). As a consequence of the Balassa – Samuelson Effect, price dispersion across the member countries; especially between Portugal, Spain, Greece, Ireland, Italy will be large and some more

developed countries ;such as Germany might be threatened by deflation when the ECB strictly sticks to its target (MacCoille & McCoy, 2002).

The importance of “Balassa – Samuelson Effect” is defined clearly, also by De Grauwe and Skudelny (2000) who explain inflation differentials by the existence of productivity differentials between the traded and non – traded goods sectors. This means that between the countries participating in EMU, there might still be subsisting inflation differentials.

It may be concluded that for lower – income countries in EMU ;such as Ireland, Spain, Greece, Portugal, etc..., Balassa – Samuelson Effect comes out to be much clearer because of the increased real appreciation of the currency depending on increased productivity growth and inflation rate. In other words; “Balassa – Samuelson Effect” (Béla Balassa & Paul Samuelson) suggests that real income differences across countries, are largely attributable to differences in productivities within the tradable sector (Caves & Frankel & Jones, 2007).

At this spot; for instance, according to the 1999 – 2003 statistics – illustrated by Micco, Stein and Ordonez (2003); average annual inflation rate of Germany is only 1,5% - whereas it is at least 4% in Ireland – that is a vital indicator of real appreciation of the Irish national currency ;as far as higher inflation level means higher overall domestic price level (P) – a fact

that lowers the rate of exchange as the overall ratio of (P^*/P) – which is equal to the cost of foreign currency in terms of domestic currency (E) declines totally through which the real appreciation of the national currency comes out to be clear and accurate – thus, all of from which we can infer that; Ireland is said to have a far greater Balassa – Samuelson Effect – comparing with Germany; as its productivity gains in the tradable sector are greater as a result of greater productivity growth and inflation rate – all of which are typical characteristics of not a high – income country (like Germany) ;but a low – income country (like Ireland) – a natural consequence that is encountered by Altissimo, Benigno and Palenzuela (2005). Hence; setting EMU – wide inflation equal to 2% and assuming that PPP holds for traded goods, the projected inflation varies around the EMU – average within a margin of some +/- 1 percentage points across the countries (Alberola and Tyrvainen, 1998).

Furthermore, as Svensson (2000) argues that the very first year of the Eurosystem has been a successful launch and there are various good reasons to be optimistic about the future of Eurosystem Monetary Policy – very smoothly confirmed by Çapanoğlu (2005) and Dedeoğlu (2003) ;as far as a rational role for monetary aggregates to contribute to conditional forecasts for the inflation – targeting central banks, is adapted. Therefore, Weber and Beck (2005) strongly recommend a buffer zone of at least 1% below which

the ECB should not try to push inflation in order to be able to restrict regional inflation dispersions.

5.5. THE BARRO – GORDON MODEL : “A GEOMETRIC INTERPRETATION WITH AN EMPIRICAL STUDY”

In accordance with the demonstration (illustration) of the various benefits (;in contrast to its numerous failures in reality) of joining (becoming a component of) the “European Economic and Monetary Union” (EMU) – especially; in terms of monetary stabilization, I have preferred correlational (statistical) analysis using secondary data as a quantitative strategy. I would like to inform you that I have collected all of my secondary quantitative data (annual inflation rates, annual money growth rates and annual unemployment rates) from the official websites of *www.worldbank.org*, *www.bundesbank.de*, *www.bancaditalia.it* and *www.nationalbanken.dk*.

Due to all of my findings and experiments using the “Barro – Gordon Model” (GER:Hard-Nosed Gov’t / ITA:Wet Gov’t) and a designated “Linear Regression Model” [$\Pi = \beta_0 + \beta_1(M) - \beta_2(Un) + \varepsilon$] ; it is inferred that monetary policy clearly dominates fiscal policy as a means of

controlling inflation and there's no similar dominance appears to operate for fiscal policy and debt ;as monetary policy can both influence debt and stabilize inflation simultaneously. If we directly go back to the geometric interpretation of "Barro – Gordon Model"; it is a relevant fact that Italian Lire would have to depreciate continuously and therefore, Italy should have achieved a lower eq. inflation rate according to the pre – EMU inequality of; " $\pi(\text{ITA}) > \pi(\text{GER})$ ". As Italy has fixed its exchange rate with German Mark; (as "PPP" holds) Italy has actually fixed its inflation at the German level. At the end of this mechanism; welfare of Italy has increased substantially with expanded potential gains via reaching the initial German inflation eq. Thus; joining a monetary union (EMU) with Germany brings various benefits for Italy as ECB acts like a "Hard-Nosed Gov't" ;as the "Bundesbank" does (De Grauwe, 2005).

In addition, there is a close association between economic growth and real appreciation of the currency – well interpreted by Paul Krugman in 1989. Again, referring to the problematic of joining EMU; we should interpret the inflation differentials due to the existing productivity differentials among EMU member states. For instance, annual " π "(Germany) have changed between 1% - 1.5% and annual " π "(Ireland) have stayed at around 4%, through years 1999-2003.

Based on; $P^*(\text{foreign price}) = P(\text{domestic price}) * E(\text{exchange rate})$ formula, “ Π ” is always greater in the lower – income country (Caves & Frankel & Jones, 2007).

However, the productivity growth is also greater for such countries (Ireland, Belgium, Spain, Portugal, Greece etc...) – stimulated by the real appreciation of the currency. (since “ $E = P^*/P$ ”; as “ P ” increases due to “ Π ” increase, “ E ” decreases) – all known as the “Balassa Samuelson Effect” which is definitely larger in such above minorities of EMU (De Grauwe, 2005), (Caves & Frankel & Jones, 2007).

It should be reconsidered that these price dispersions (or asymmetric shocks) across the member countries, (between the minorities and the strongest figureheads ;such as France and Germany) can easily be taken down to treshold levels (“ Π ”:0%-2%) via extensive trade integration among the Eurozone. (as suggested by “OCA Theory”)

Apart from the derived abstract theoretical models or methods – through making a detailed literature research and using textbooks relevant to my central issue; I have also confirmed (verified) the major real benefits for a late-comer Wet Government ;led by the attempts for joining within the Eurozone through referring to my secondary numerical data set – composed of relevant indicators, regarding on my central issue.

At this point, we can easily recognize that “ π ” (price stability) seems to have been the greatest macroeconomic problem for typical Western Governments (like Italy) that has led to serious unsustainable development and growth contingencies (Wague, 2012), (De Grauwe, 2005).

If we return to my own research study; I just have decided to analyze the macroeconomic performances of above selected countries (Germany, Italy, Denmark) in terms of annual inflation rates in service of ECB’s primary objective which is to “maintain the price stability within the Euro Area” ;as identified via Maastricht Treaty in Feb 7, 1992 as in the following: “A country can join EMU ;only and only if the inflation rate is not more than 1,5% higher than the average of the 3 lowest inflation rates among EU member states (Baldwin & Wyplosz, 2012).

At this spot; I have designed such a regression equation through which “annual inflation rate” (π) is the dependent variable and it is estimated (predicted) by 2 independent (explanatory) variables ;which are respectively, “annual money growth rate” (M) and “annual unemployment rate” (Un). In this framework, “ π ” is directly (positively) correlated with “M” – based on “Quantity Theory of Money” ;but it is inversely (negatively) correlated with “Un” – based on “Phillips Curve” (Blanchard, 2009), (Mankiw, 2007), (Mishkin, 2007).

Hence; this regression analysis helps us being able to observe the strongly existing linear association between “ π ” and (“M”/”Un”) – among the 3 (three) representative countries :

[GERMANY : a classically Hard – Nosed Gov’t that values the problem of inflation (price – stability) more ;comparing with unemployment & ITALY : a classically Wet Gov’t that values the problem of unemployment more ;comparing with inflation (price – stability) & DENMARK : a Non – EMU country that is only a member of EU] – in order to be able to analyze the probable advantages (advances) that would be observed through each of these representative economies of their category – especially after the establishment of the Maastricht Convergence Criteria (after 1990s). This is why, the significance of abolishing independent monetary authority among EMU-Member States can be recognized very successfully via the comparison of certain countries (GER/ITA/DEN) before 1990s and after 1990s.

Linear Regression Model :

$$\pi = \beta_0 + \beta_1(M) + \beta_2(Un) + \varepsilon$$

[sign expectations : $\beta_1 > 0$, $\beta_2 < 0$]

The respective E – Views results for the respective countries of Germany (Hard-Nosed Gov't), Italy (Wet Gov't) and Denmark (Non-EMU Gov't) are presented as in the following :

Table 5.5.1. : GERMANY (REGRESSION RESULTS)

Dependent Variable: INFLATION
 Method: Least Squares
 Date: 03/15/13 Time: 10:45
 Sample: 1971 2009
 Included observations: 39

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MONEY	0.319613	0.138090	2.314529	0.0265
UNEMP	-0.739915	0.172733	-4.283572	0.0001
C	6.617838	1.987352	3.329977	0.0020
R-squared	0.465990	Mean dependent var	2.720674	
Adjusted R-squared	0.436322	S.D. dependent var	2.020305	
S.E. of regression	1.516814	Akaike info criterion	3.744904	
Sum squared resid	82.82607	Schwarz criterion	3.872871	
Log likelihood	-70.02563	F-statistic	15.70721	
Durbin-Watson stat	0.914243	Prob(F-statistic)	0.000012	

Table 5.5.2. : GERMANY (CORRELATION MATRIX)

	INFLATION	MONEY	UNEMP
INFLATION	1.000000	0.440236	-0.621712
MONEY	0.440236	1.000000	-0.271750
UNEMP	-0.621712	-0.271750	1.000000

Table 5.5.3. : ITALY (REGRESSION RESULTS)

Dependent Variable: INFLATION
Method: Least Squares
Date: 03/15/13 Time: 11:00
Sample: 1971 2009
Included observations: 39

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MONEY	2.784586	0.322538	8.633364	0.0000
UNEMP	1.093193	0.355387	3.076064	0.0040
C	-25.56295	5.113750	-4.998865	0.0000
R-squared	0.674385	Mean dependent var	8.113633	
Adjusted R-squared	0.656296	S.D. dependent var	6.193321	
S.E. of regression	3.630915	Akaike info criterion	5.490650	
Sum squared resid	474.6077	Schwarz criterion	5.618616	
Log likelihood	-104.0677	F-statistic	37.28007	
Durbin-Watson stat	0.979122	Prob(F-statistic)	0.000000	

Table 5.5.4. : ITALY (CORRELATION MATRIX)

	INFLATION	MONEY	UNEMP
INFLATION	1.000000	0.767334	0.015087
MONEY	0.767334	1.000000	-0.339013
UNEMP	0.015087	-0.339013	1.000000

R – Bar Square : “0,65” (“goodness of fit” is much better comparing with Germany) as it easily exceeds “0,50”. In Italy case, calculated t-value for “M” : “8,63” which is a much higher value in contrast to that of Germany case; indicating that Money Growth Rate has an outstanding correlation with Inflation Rate – that also can be understood by 0,000 “P – value” . F – Statistics value is again very high (37,28) which is a successful outcome for my model. Another important difference between Germany and Italy is that

the sign of “Un” is (+) ;unlike the German case. This is because; Italy (Wet Gov’t - before EMU formation) was continuously increasing its money supply to cut unemployment in the SR ;however it led to the process of quite high π rates in the LR. All in all, by the abundance of national monetary policy, Italy benefited a lot from maintainance of price stability (~ 2,5% π). Lastly also in Italy case, there is a really high level of “multicollinearity” – even higher than Germany case ;as correlation values approach 1,00 much closer. The correlation between two explanatory variables (“M” and “Un”) is “-0.271750” in Germany case and “-0.339013” in Italy case. All in all, we can infer that the theoretical tool of Phillips Curve (inverse relation between “ π ” and “Un”) works better in Italy framework ;meaning that the primary reason of having high inflation rates is because of continuous expansion in the monetary base that helps keep unemployment rates at quite low levels. On the other hand; in Germany, there should have other reasons behind “ π rates” rather than high money growth rates.

Table 5.5.5. : DENMARK (REGRESSION RESULTS)

Dependent Variable: INFLATION
Method: Least Squares
Date: 03/15/13 Time: 11:15
Sample: 1971 2009
Included observations: 39

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MONEY	0.197630	0.074313	2.659423	0.0116
UNEMP	0.494761	0.293662	1.684799	0.1007
C	-0.153922	1.990016	-0.077347	0.9388
R-squared	0.271680	Mean dependent var		4.929910
Adjusted R-squared	0.231218	S.D. dependent var		3.723151
S.E. of regression	3.264467	Akaike info criterion		5.277874
Sum squared resid	383.6429	Schwarz criterion		5.405840
Log likelihood	-99.91853	F-statistic		6.714411
Durbin-Watson stat	0.670680	Prob(F-statistic)		0.003325

Table 5.5.6. : DENMARK (CORRELATION MATRIX)

	INFLATION	MONEY	UNEMP
INFLATION	1.000000	0.462875	0.358601
MONEY	0.462875	1.000000	0.277312
UNEMP	0.358601	0.277312	1.000000

Denmark (Non – EMU member) reveals absolutely distinctive outcomes; neither resembling Germany nor Italy. R – Bar Square : “0,23” is the lowest of all 3 with a huge differential. T – Statistics or F – Statistics are very low; values are very close to insignificant threshold and P-values are really high which are all unsatisfactory results for a relevant regression equation. The correlation between two explanatory variables (“M” and “Un”) is “+0.277312” ;meaning that the explanatory variables do not move in a divergent fashion so that π rates do not heavily depend on money growth

rate. All three (Π , M and Un) in a Non-EMU country like Denmark have been very stable and moderate. That's why, Denmark decided to stay out of the Eurozone ;in spite of having satisfied the convergence criteria.

According to my observations, the average inflation in Italy – before 1992 (the year of the Maastricht Treaty) was “12,5%” ;whereas it has been reduced to “2,99%” after 1992 until 2009 due to the successful adaptation in accordance with the convergence criteria of the Maastricht Treaty regarding on the price stability concerns. These differentials between periods before and after the establishment of the Maastricht convergence criteria are much lower in Hard-Nosed Governments (German inflation : 3,9% / 1,3%) and even in Non-EMU members (Danish inflation : 7,5% / 1,9%).

This significant gap occurs only in traditional wet governments because of unplanned (flexible) conduct of monetary policy with the unique goal of low unemployment ;so that there comes an obvious fact that high money growth rate has been the major determinant of high inflation rate for such countries. Statistically, average money growth rate have been made to drop from around 10% to approximately 5% for each of Germany, Italy and Denmark ;but the correlation coefficient between “M” and “ Π ” is still highest (“+0,76”) in Italy and in its derivatives among “EMU”. One more time, we can understand how forming a monetary union (EMU) has become

so vital and obligatory – born out of the exclusion of national independent monetary authority.

Table 5.5.7. : ILLUSTRATION OF THE DRAMATIC DECLINE IN THE RATES OF INFLATION (Π) – IN A TYPICAL WET GOVERNMENT : (ITALY)

	<u>AVG. (Π)</u>	<u>AVG. (M)</u>	<u>AVG. (Un)</u>
	<u>1971- 2009</u>		
GERMANY	2.721	7.241	8.395
ITALY	8.114	8.187	9.951
DENMARK	4.930	8.707	6.797
	<u>1971 – 1992</u>		
GERMANY	3.909	8.095	8.010
ITALY	12.503	9.243	10.324
DENMARK	7.500	11.387	7.814
	<u>1992 – 2009</u>		
GERMANY	1.335	6.244	8.844
ITALY	2.993	6.956	9.517
DENMARK	1.931	5.580	5.611

AVG. (Π) : Average Inflation Rate

AVG. (M) : Average Money Growth Rate in M2

AVG. (Un) : Average Unemployment Rate

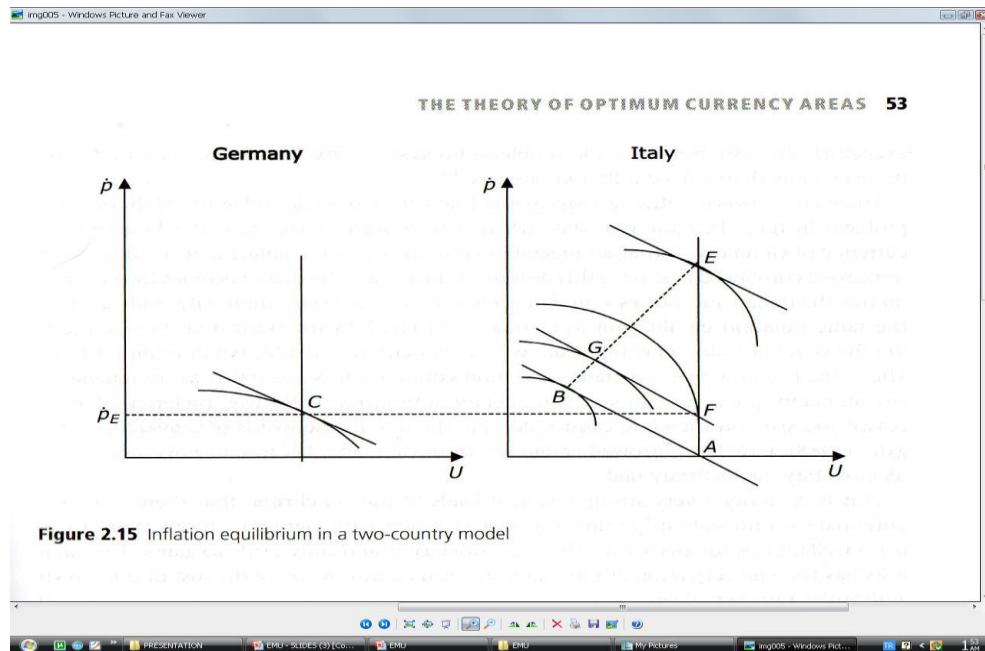


Fig. 5.5.1. : Inflation Equilibrium (2 – Country Model)

De Grauwe, Paul “Economics of Monetary Union”, *Oxford University Press*, 6th Ed., (2005)

Italy fixes its Inflation rate at the German Level. “Point F” is the new Italian Inflation eq. There is “large potential gain” for Italy by joining a monetary union with Germany. Thus; a Monetary Union (EMU) leads to gains ;as far as “ECB” is acting as a hard – nosed government ;just like the Bundesbank (De Grauwe, 2005).

6. EXPLAINING GROWTH DIFFERENTIALS WITH AN EMPIRICAL STUDY : “ASYMMETRIC EFFECTS OF THE SAME DETERMINANTS”

6.1. GERMANY (HIGH – INCOME COUNTRY) Vs. IRELAND (LOW – INCOME COUNTRY)

In this section; I really want to illustrate the dramatic growth differentials among the high – income EMU countries like Germany, France, Italy etc... and the low – income EMU countries like Ireland, Greece, Portugal etc... In this influential experiment; GDP per capita (current US\$) has been set as the dependent (estimated; determined; explained) variable. As we already know; GDP per capita is the Gross Domestic Product divided by midyear population ;whereby GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources and all annual data are in current U.S. Dollars (Blanchard, 2009). In order to estimate the change (derivation) between each of the 2 (two) consecutive GDP per capita terms, I have decided to use the respective annual changes of the respective appropriate explanatory variables of Gross Capital Fixed Formation (GCF), Inflation as

Consumer Price Index (INF), Budget Deficit as percentage of GDP (BUDGET), Government Debt as percentage of GDP (DEBT) and Human Capital as Secondary School Enrollment Rate (HC).

I would like to inform you that I have collected all of my secondary quantitative data (annual GDP per capita, annual inflation rates, annual gross capital formation rates, annual budget deficits, annual debts and annual secondary school enrollment rates) from the official websites of *www.worldbank.org*, *www.bundesbank.de* and *www.centralbank.ie*.

Before getting into the details of my quantitative analysis – showing asymmetries for both Germany (figurehead) and Ireland (minority) – regarding the probable association between real GDP growth and the respective determinants of gross capital formation, inflation, budget deficit, public debt and human capital, I would like to make a brief overview of both of Germany and Ireland.

To begin with, of the 27 (twenty seven) EU countries, Germany is by far the largest. With a population of more than 80 (eighty) million people, it exceeds by far the population in the next largest EU countries : France, Italy and the UK, all having a population of around 60 (sixty) million. Its GDP of 1846 billion ECUs exceeded France, the second country, by 60% (Somers, 1998).

Moreover, the western part of Germany is – after Luxembourg – also leading with respect to GDP per capita; and it had until recently the lowest inflation (Π) and unemployment (U) rates and its competitiveness and export performance were impressive. Its real GDP growth rate in the last decade was only moderate, but until recently, it was a very stable and balanced economy in terms of macroeconomic stability through which Germany is considered to have always been seeking for the accomplishment of both internal balance [aggregate level of output (Y) = natural level of output (Y^*)] and external balance [volume of exports (X) = volume of imports (M)] (Somers, 1998).

On the other hand, Ireland has managed to realize impressive growth rates in both the long and the short run. It succeeded in redressing a number of imbalances in the 1980s; especially high inflation rates and budget and current account deficits – twin deficits, so to say. It has been quite successful in attracting foreign investors, mainly multinationals, by offering favorable investment conditions. The relatively advanced foreign owned sector is not very well integrated with the more traditional indigenous sectors, however. The main problem remains job creation, which is necessary to accommodate the rapidly increasing workforce. Together with Spain, Ireland, currently, has the worst unemployment record in the EU (Somers, 1998), (Sinn & Reutter, 2001), (MacCoille & McCoy, 2002).

Table 1.5 Main economic indicators, 1995

	Germany	France	Italy	UK	Spain	Nether-lands	Belgium	Austria	Sweden	Denmark	Finland	Greece	Portugal	Ireland	Luxem- bourg
Population (millions)	81.6	58.1	57.3	58.5	39.2	15.4	10.2	8.0	8.9	5.2	5.1	10.5	9.8	3.6	0.4
Gross Domestic Product (GDP)															
current market prices (Mrd ECU) 1986	1174	831	842	438	303	206	178	175	132	97	87	80	47	13	
average real growth rate (% 1986-95)	2.6 ¹	2.2	2.1	2.3	2.9	2.5	2.2	2.5	1.2	1.7	1.4	1.5	3.1	4.8	3.5
GDP per head, PPS, EU=100%	109.3	105.7	104.7	98.5	75.2	103.5	103.5	112.6	97.3	114.1	92.3	64.3	69.7	90.0	165.2
Unemployment rate															
average 1986-95	5.8 ¹	10.4	10.0	9.3	20.0	7.0	8.6	3.6	4.8	7.5	9.8	7.5	5.8	15.3	2.1
Inflation (GDP deflator)															
average 1986-95	2.8 ¹	2.8	6.0	4.6	6.4	1.5	3.1	3.1	5.3	2.9	3.9	15.1	11.2	2.6	4.7
Gross Fixed capital formation															
average 1986-95	19.7 ¹	20.0	19.0	17.2	21.8	20.3	18.0	24.3	18.0	17.2	21.3	21.6	26.4	16.3	22.9
(% of GDP at market prices)															
Private consumption															
average 1986-95	61.5 ¹	60.2	61.7	63.4	62.8	59.8	62.8	55.7	52.7	53.0	54.8	73.0	64.4	58.7	60.7
(% of GDP at market prices)															
Nominal unit labour costs															
(relative to 19 industr. countries 102.3 ¹)	86.8	92.8	82.3	80.5	87.5	95.2	126.4	78.0	100.1	98.4	107.2	120.7	82.4	89.5	
(double export weights, 1990=100)															
Exports of goods and services															
(% of GDP at market prices)	23.0	23.5	27.6	28.0	23.7	52.5	74.2	37.6	40.8	33.7	37.6	16.5	29.5	76.3	91.4
Imports of goods and services															
(% of GDP at market prices)	22.0	21.1	23.4	29.0	23.6	46.7	68.5	38.6	34.5	29.6	30.0	26.9	37.7	61.9	81.4
Current balance															
(% of GDP at market prices)	-1.0	1.6	2.4	-2.3	4.8	5.0	-3.7	-2.0	2.0	0.4	3.4	-2.7	-0.4	6.6	17.5

¹ West Germany
Source: Statistical Annex of European Economy, June 1996

Fig. 6.1.1 : Main Economic Indicators (1995)

Somers, Frans "EU Economies : A Comparative Study", Longman, (1998)

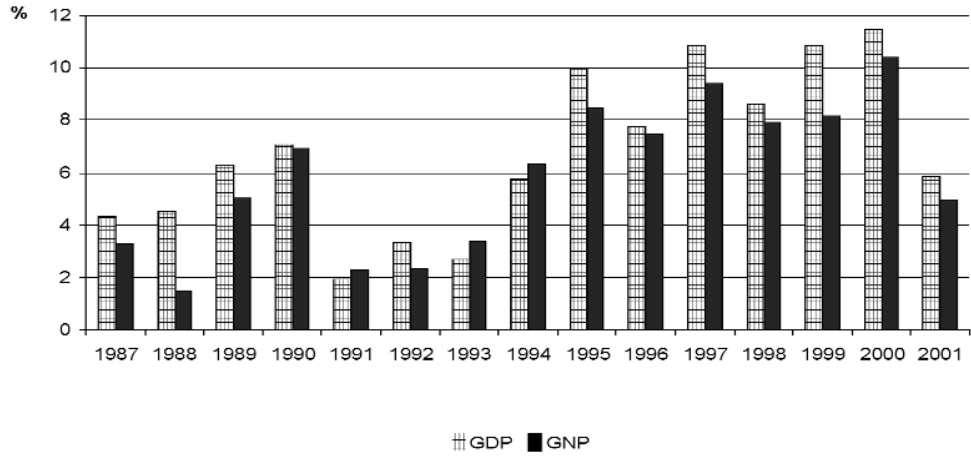


Fig. 6.1.2 : Real GDP and GNP Growth in Ireland (1987–2001)

MacCoille, Conall & McCoy, Daniel “Economic Adjustment Within EMU : Ireland’s Experience”, *The Economic and Social Review*, Vol. 33, No.2, (2002)

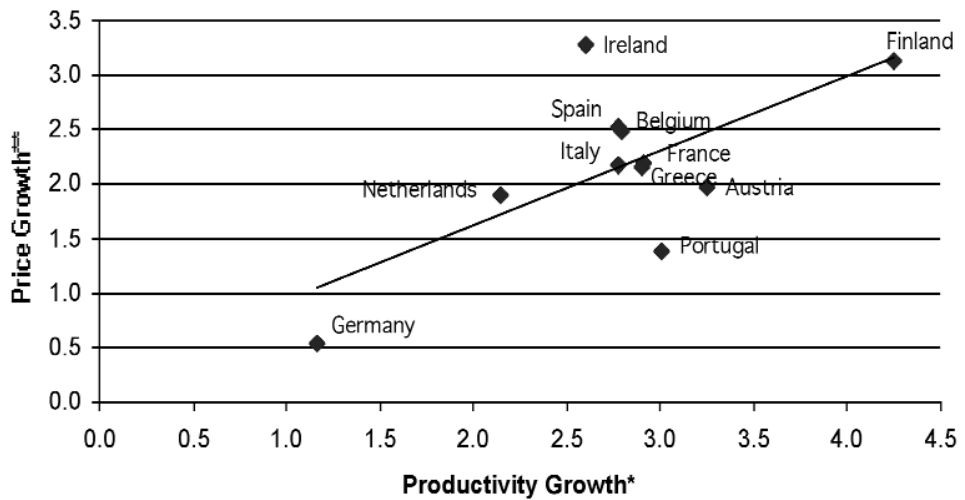


Fig. 6.1.3 : Difference in Productivity and Prices (1984-2000, EU-12)

MacCoille, Conall & McCoy, Daniel “Economic Adjustment Within EMU : Ireland’s Experience”, *The Economic and Social Review*, Vol. 33, No.2, (2002)

As we can easily observe from the respective above tables – consisting of the main macroeconomic indicators, we should thoroughly understand that Germany and Ireland are to be standing as the most appropriate examples of their kind or of their nature, so to say. Meaning that; while Germany is the Eurozone country that best represents price stability, marginal inflation and interest rates, moderate growth rates and acceptable rates of unemployment, Ireland – controversially, comes out to be the Eurozone country that best represents the conditions of high inflation, interest – rate spillover, high budget and current account deficits (continuous twin deficits).

The large growth rates either in GDP or GNP terms are by far the highest among the member states within the euro area. The growth in Irish output over the last few years has been reasonably well balanced between domestic and foreign demand factors. By 2000, the combination of loose monetary conditions and significant wage growth boosted by large cuts in personal taxation meant that domestic factors accounted for over 70 per cent of the record increase in output. Irish consumer price inflation remained surprisingly subdued during 1999, averaging 2.5 per cent on the EU Harmonised Index of Consumer Prices (HICP) measure, before pushing to the top of the euro-zone inflation league during 2000 (Nechio, 2011).

The inflation rate peaked at 6 % in October 2000. Although waning slightly in 2001, price pressures have been sustained with the HICP inflation rate moving above 5 % in 2002. Given the persistence of price pressures it is more likely domestic demand rather than temporary external factors that has driven the high HICP inflation rates observed that over the period 1999-2002 (MacCoille & McCoy, 2002).

The price trends as captured by the Irish Consumer Price Index (CPI) are probably an inappropriate indicator of domestic overheating pressures for a small, open economy like Ireland. The small scale of the economy can be judged by the fact that Irish output forms only about 1 per cent of the total euro area output. The extreme openness can be captured by the share of exports and imports in GDP, which was over 176 % in 2001 (Nechio, 2011). That's why, I thought that it would be excellent to pick up these countries in order to run efficient regressions – displaying appropriate results as a definite quantitative proof of the above known facts – in an experimental process through which I chose gross capital formation (GCF), inflation (INF), budget deficit (BUDGET), government debt (DEBT) and secondary school enrollment rate as human capital (HC) – all explanatory variables in terms of the change (Δ) in the respective annual data through years between 1998 and 2012 ;in order to be able to predict and estimate the apparent productivity growth differentials among the high – income countries like

Germany and low – income countries like Ireland among the entire Euro Area.

Linear Regression Model :

$$\Delta\text{GDP} = \beta_0 + \beta_1(\Delta\text{GCF}) + \beta_2(\Delta\text{INF}) + \beta_3(\Delta\text{BUDGET}) + \beta_4(\Delta\text{DEBT}) + \beta_5(\Delta\text{HC}) + \varepsilon$$

[sign expectations : $\beta_1 > 0$, $\beta_2 > 0$, $\beta_3 < 0$, $\beta_4 < 0$, $\beta_5 > 0$]

The respective E – Views results for the respective countries of Germany (High – income country) and Ireland (Low – income country) are presented as in the following:

Table 6.1.1. : GERMANY (REGRESSION RESULTS)

Dependent Variable: D(GDP)
 Method: Least Squares
 Date: 04/22/13 Time: 23:25
 Sample(adjusted): 1999 2012
 Included observations: 14 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GCF)	1145.521	270.0484	4.241908	0.0022
D(INF)	743.8306	518.6927	1.434049	0.1854
D(BUDGET)	-436.0262	317.9740	-1.371264	0.2035
D(DEBT)	-127.1015	53.59546	-2.371497	0.0684
D(HC)	588.5486	510.5135	1.152856	0.4082
C	2006.373	394.9331	5.080285	0.0007
R-squared	0.868341	Mean dependent var		1959.000
Adjusted R-squared	0.809826	S.D. dependent var		2886.842
S.E. of regression	1258.921	Akaike info criterion		17.38635
Sum squared resid	14263934	Schwarz criterion		17.61458
Log likelihood	-116.7045	F-statistic		14.83962
Durbin-Watson stat	2.421698	Prob(F-statistic)		0.000535

Table 6.1.2. : GERMANY (CORRELATION MATRIX)

	GDP	GCF	INF	BUDGET	DEBT	HC
GDP	1.000.000	0.298256	0.325698	-0.208825	0.713324	0.640332
GCF	0.298256	1.000.000	0.362810	0.547276	-0.145675	-0.327895
INF	0.325698	0.362810	1.000.000	0.255682	-0.175732	0.337857
BUDGET	-0.208825	0.547276	0.255682	1.000.000	-0.571749	-0.451867
DEBT	0.713324	-0.145675	-0.175732	-0.571749	1.000.000	0.547627
HC	0.640332	-0.327895	0.337857	-0.451867	0.547627	1.000.000

Table 6.1.3. : IRELAND (REGRESSION RESULTS)

Dependent Variable: D(GDP)

Method: Least Squares

Date: 04/23/13 Time: 00:23

Sample(adjusted): 1999 2012

Included observations: 14 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GCF)	2237.821	492.6381	4.542525	0.0019
D(INF)	400.1008	363.0849	1.101949	0.3025
D(BUDGET)	432.5330	327.1726	1.322033	0.2227
D(DEBT)	505.1796	222.4008	2.271483	0.0528
D(HC)	643.9127	100.6877	6.395147	0.0072
C	4191.066	1278.931	3.277007	0.0112
R-squared	0.873719	Mean dependent var	1214.214	
Adjusted R-squared	0.803562	S.D. dependent var	5244.687	
S.E. of regression	5446.113	Akaike info criterion	19.23783	
Sum squared resid	78756075	Schwarz criterion	19.51171	
Log likelihood	-128.6648	F-statistic	12.45388	
Durbin-Watson stat	2.442356	Prob(F-statistic)	0.000794	

Table 6.1.4. : IRELAND (CORRELATION MATRIX)

	GDP	GCF	INF	BUDGET	DEBT	HC
GDP	1.000.000	-0.037914	-0.181064	-0.309999	0.004782	0.757501
GCF	-0.037914	1.000.000	0.445969	0.935495	-0.922304	-0.570677
INF	-0.181064	0.445969	1.000.000	0.464397	-0.599711	-0.284012
BUDGET	-0.309999	0.935495	0.464397	1.000.000	-0.884621	-0.734763
DEBT	0.004782	-0.922304	-0.599711	-0.884621	1.000.000	0.416865
HC	0.757501	-0.570677	-0.284012	-0.734763	0.416865	1.000.000

Regarding the above respective regression analysis – using the most common technique of OLS (Ordinary Least Squares), we are ought to say that; both of the regression runs related to Germany and Ireland, are pretty well estimated linear regression equations as they both explain the variation of the dependent variable (Δ GDP per capita) in the designated sample, very accurately – a fact that can successfully be derived from the E – Views results I have acquired. In accordance with this; R – bar square (the adjusted R square that measures the percentage of the variation of the dependent variable around the arithmetic mean of this dependent variable – that is explained by the regression equation; adjusted for degrees of freedom) is around 80% for both Germany and Ireland cases. Similarly; if we also look at the respective true t – statistic values for each of the above coefficients (β s) of explanatory variables, we definitely come up with such significant values that all of the true t – statistic values exceed are different from zero.

Besides that; F – statistic (which is different than the t – statistic that is the significance test of the individual regression slope coefficients; is the single hypothesis about a group of coefficients) that is known as for taking values between 0 (zero) and positive (+) infinity, has been estimated around “15” for the German case and “13” for the Irish case which are considered to be successful estimations – integrated with satisfactory pretty low probability values converging to almost “0” (zero), proportionally.

Moreover; if we come to the issue of the satisfaction of the expected signs of the respective regression slope coefficients of the respective explanatory variables; there is said to be no surprise in the German case ;as far as there has been made precise that; Gross Fixed Capital Formation (GCF) and inflation in terms of Consumer Price Index (INF) alongside with human capital in terms of secondary school enrollment rate (HC) – annual changes (Δ s) in all of these explanatory variables are positively correlated with the annual changes (Δ) in the predicted variable of GDP per capita ;whereas annual changes (Δ) in the budget deficit (BUDGET) and in the government debt (DEBT) are said to be negatively correlated with the annual changes (Δ) in the determined variable of GDP per capita ;meaning that at times of increasing budget deficit and public debt, GDP per capita decreases or it increases in a diminishing manner.

On the other hand; 2 (two) of the expected signs of the coefficients of our model have not come out to be as we expected, in the Irish framework through which annual changes (Δ) in the budget deficit (BUDGET) and in the government debt (DEBT) are said to be, actually, positively correlated with the annual changes (Δ) in the explained variable of GDP per capita ;meaning that at times of increasing budget deficit and public debt, GDP per capita increases or increases in an accelerating manner. This result actually should not make us astonished due to the already known characteristic of the emerging markets like Ireland, Portugal, Greece etc... whereby the growth patterns of such countries are positively influenced by the increased amounts of budget deficits (twin deficits as integrated with current account deficits) ;as well as increased government (public) debts – all of which are items that consist of high interest spillover. Meaning that; if there is such accumulated burden of persistent imbalances (poor macroeconomic performance : $DEBT/GDP \uparrow \rightarrow$ Current Account Deficit $\uparrow \rightarrow$ Inflation $\uparrow \rightarrow$ Real appreciation of TL – very large “Balassa – Samuelson Effect”), these phenomena may come out to be advantageous, indeed, for those emerging markets ;like Ireland within the acceleration of their growth rates; so that these minorities of the Eurozone, can grow faster comparing to the figureheads of the Euro Area ;like Germany who have already caught up with the steady state level of capital (output).

Hence, we may easily state that; the emerging markets who are members of the EMU – have been taken their national monetary authority and exchange rate adjustment mechanisms out of their hands and have been left out with the sole national independent authority of fiscal policy, would always prefer to implement expansionary fiscal policies ;meaning that they would always be eager to increase government expenditures ($G\uparrow$) or cut lump sum taxes ($T\downarrow$) in order to be able to overcome the inadequate spending and inadequate demand problems – through which all of these government expenditure and tax multiplier effects would lead into dramatic increases in the annual growth rates – measured best by the increase in the GDP per capita in current monetary terms. Nevertheless; in the system of one – size – fits – all monetary policy that is conducted by the ECB located in Frankfurt, Germany, there is said to be a single interest rate determination – that is set at very marginal rates, most of the time via various monetary policy instruments and that is suitable in accordance with Germany’s tastes and not appropriate with the rapid growth objectives of Ireland. Because, let us recall that; Ireland and other Euro Area minorities like Ireland, were exactly using the huge interest differential between domestic interest rates and world equilibrium interest rates ($i - i^*$) very successfully, prior to their membership to the EMU – therefore, debt – led growth was a very useful growth strategy attracting expanding amounts of short – term capital (hot

money) flights through which such a mechanism ;whereby the increase in the capital account (KA) component of the Balance of Payments (BOP) further exceeds the increase in the trade balance (TB) – all leading into an overall appreciation in the Balance of Payments (BOP) of the Euro Area emerging markets – a fact that gives birth to rapid growth rates for such countries (Caves & Frankel & Jones, 2007), (De Grauwe, 2005).

To sum up; regarding our linear regression analyses, it is very clear now, to arrive at differentiated consequences for Germany and Ireland in terms of the asymmetric influences of expansionary fiscal policies – conducted separately and individually over the rates of their growth within a 15 (fifteen) year of time interval. All in all; we, now better perceive the close association between the single monetary policy and the fundamentals of the economic imbalances among the Eurozone, as fiscal policy remains to be the sole national authority and, so vital indeed, for especially minorities (Ireland), in order for their attempts to catch up with the major role players (Germany) – thanks to the Bundesbank central banking operation mechanism of the European Central Bank (ECB), of course.

Now; I would like to continue with the analysis of another similar dual empirical experiment that I have conducted in order to figure out the differentiated directions of the impacts of changes in the similar explanatory variables over the change in the GDP growth rate; this time for the group

“EMU – 17” as a whole and for the group of “NON EMU – 11” with an addition of Turkey as another whole.

6.2. EMU – 17 (17 EMU member states) Vs. NON EMU – 11 (11 Non EMU member states) + TURKEY

In this another consecutive compact empirical study through which I have tried to compare and contrast the “EMU – 17” (17 EMU member states) – as 1 (one) group and “NON EMU – 11” (11 Non EMU member states) with an addition of Turkey – as the other group, within a framework of similar experimental process, like I have already conducted among the German – Irish duality to figure out the controversial consequences, again, in terms of the expected differentials in the effects of the respective explanatory variables of the inflation, gross fixed capital formation and human capital over growth rates. Meaning that; I just looked at how the annual changes in the respective explanatory variables influence the changes in the patterns of GDP growth of both of the 2 (two) groups of EMU – 17 (17 EMU member states) and NON EMU – 11 (11 Non EMU member states) with an addition of Turkey. Let us recall that; in this comparative study, our first group whose regression results will nearly be illustrated, is, called as “EMU – 17” (17 EMU member states) that is consisting of the respective countries of Germany, France, Italy, Netherlands, Austria,

Belgium, Luxembourg, Spain, Portugal, Ireland, Finland, Greece, Cyprus, Malta, Slovakia, Slovenia and Estonia. And our second group called “NON EMU – 11” (11 Non EMU member states) with an addition of Turkey (recently; the most rapidly growing country that stays outside of the European Union) is said to be consisting of Denmark, UK, Sweden, Latvia, Lithuania, Hungary, Poland, Czech Republic, Bulgaria, Romania, Croatia and Turkey. In addition; I would like to inform you that I have collected all of my secondary quantitative data [annual % change in GDP growth (Δ GDP), annual % change in inflation rates (Δ INF), annual % change in gross fixed capital formation (Δ GCF), annual % in secondary school enrollment rates (Δ HC)] for a time period through 2003 – 2012, all from the official website of “*epp.eurostat.ec.europa.eu*”.

At this spot; we are obliged to also recall that; human capital is again reflected by the secondary school enrollment rates. Differently from my initial experiment, here, I used directly annual changes in real GDP growth rates rather than changes in the GDP per capita rates with current U.S. Dollars; and as measurement of inflation, I intended to use HICP (Harmonized Index of Consumer Prices) instead of the U.S. CPI (United States Consumer Price Index) which is the overestimated form of inflation – known as the Laspeyres Index (Mankiw, 2007).

The Harmonized Index of Consumer Prices (HICP) is an indicator of inflation and price stability for the European Central Bank (ECB). It is a consumer price index which is compiled according to a methodology that has been harmonized across EU countries. The Euro Area HICP is a weighted average of price indices of member states who have adopted the euro. The primary goal of the ECB is to maintain price stability, defined as keeping the year on year increase HICP below but close to 2% for the medium term. In order to do that; the ECB can control the short – term interest rate through “EOINA” (Everything Old Is New Again) and the European overnight index average, which exactly affects market expectations. The HICP is also used to assess the convergence criteria on inflation which countries must fulfill in order to adopt the Euro. In the United Kingdom, the term HICP is coined as the CPI and is used to set the inflation target of the Bank of England (Artis & Nixon, 2001).

The HICP differs from the U.S. CPI in 2 (two) primary aspects. First, the HICP attempts to incorporate rural consumers into the sample, while the U.S. maintains a survey strictly based on the urban population. In actuality, the HICP does not fully incorporate rural consumers, since it only uses rural samples for creating weights ;thus prices are often only collected in urban areas (McDonald & Dearden, 2005). The HICP also differs from the U.S. CPI by excluding owner – occupied housing from its scope.

The U.S. CPI calculates “rental – equivalent” costs for owner-occupied housing while the HICP considers such expenditure as investment and excludes it (McDonald & Dearden, 2005).

The “Bureau of Labor Statistics” (BLS), the producer of the U.S. CPI, calculated an experimental index designed for direct comparison with the HICP. In addition, the Division of International Labor Comparisons at the Bureau of Labor Statistics, compiles international comparisons of the HICP for different countries. Meaning that; The HICPs are economic indicators constructed to measure the changes over time in the prices of consumer goods and services acquired by households. The HICPs give comparable measures of inflation in the Eurozone, the EU, the European Economic Area and for other countries including accession and candidate countries. They are calculated according to a harmonized approach and a single set of definitions. They provide the official measure of consumer price inflation in the Eurozone for the purposes of monetary policy in the Euro Area and assessing inflation convergence – as required under the Maastricht criteria (Baldwin & Wyplosz, 2012), (Tsoukalis, 1997).

HICP data, including back data, is revisable under the terms set in Commission Regulation (EC) No. 1921 / 2001. When updated, the database overwrites existing data with the revised data and those changes will only be flagged for a short period, generally until the next update (Tsoukalis, 1997).

Moreover; if we may also clarify the content of the term of the Gross Fixed Capital Formation, we may state that; “Gross Fixed Capital Formation” (GFCF) is a macroeconomic concept used in official national accounts such as the “UNSNA”, “NIPAs” and the “European System of Accounts” (ESA). The concept dates back to the “NBER” studies of Simon Kuznets of capital formation in the 1930s, and standard measures for it, were adopted in the 1950s. Statistically it measures the value of acquisitions of new or existing fixed assets by the business sector, governments and pure households (excluding their unincorporated enterprises) less disposals of fixed assets. GFCF is a component of the expenditure on GDP, and thus shows something about how much of the new value added in the economy is invested rather than consumed, which should say a lot about growth fashions of the Euro components (Baldwin & Wyplosz, 2012).

GFCF is called “gross” because the measure does not make any adjustments to deduct the consumption of fixed capital (depreciation of fixed assets) from the investment figures. For the analysis of the development of the productive capital stock, it is important to measure the value of the acquisitions less disposals of fixed assets beyond replacement for obsolescence of existing assets due to normal wear and tear. “Net fixed investment” includes the depreciation of existing assets from the figures for new fixed investment, and is called net fixed capital formation.

GFCF is not a measure of total investment, because only the value of net additions to fixed assets is measured, and all kinds of financial assets are excluded, as well as stocks of inventories and other operating costs (the latter included in intermediate consumption). If, for example, one examines a company balance sheet, it is easy to see that fixed assets are only one component of the total annual capital outlay.

The most important exclusion from GFCF is land sales and purchases. The original reason, leaving aside complex valuation problems involved in estimating the value of land in a standard way, was that if a piece of land is sold, the total amount of land already in existence, is not regarded as being increased thereby; all that happens is that the ownership of the same land changes. Therefore, only the value of land improvement is included in the GFCF measure as a net addition to wealth. In special cases, such as land reclamation from the sea, a river or a lake (e.g. a polder), new land can indeed be created and sold where it did not exist before, adding to fixed assets. The GFCF measure always applies to the resident enterprises of a national territory, and thus if e.g. oil exploration occurs in the open seas, the associated new fixed investment is allocated to the national territory in which the relevant enterprises are resident (Baldwin & Wyplosz, 2012).

Data is usually provided by statistical agencies annually and quarterly, but only within a certain time-lag. Fluctuations in this indicator are often considered to show something about future business activity, business confidence and the pattern of economic growth. In times of economic uncertainty or recession, typically business investment in fixed assets will be reduced, since it ties up additional capital for a longer interval of time, with a risk that it will not pay itself off (and fixed assets may therefore also be scrapped faster). Conversely, in times of robust economic growth, fixed investment will increase across the board, because the observed market expansion makes it likely that such investment will be profitable in the future (Eurostat; <http://epp.eurostat.ec.europa.eu>).

Now; let us go back to the representation of our second linear regression model and display the respective E – Views results in order to make the mandatory comparative analysis in between 2 (two) of the above cases that I have already mentioned.

Linear Regression Model :

$$\Delta\text{GDP} = \beta_0 + \beta_1(\Delta\text{INF}) + \beta_2(\Delta\text{GCF}) + \beta_3(\Delta\text{HC}) + \varepsilon$$

[sign expectations : $\beta_1 > 0$, $\beta_2 > 0$, $\beta_3 > 0$]

The respective E – Views results for the respective groups of “EMU – 17” (17 EMU member states) and “NON EMU – 11 + TURKEY” (11 Non EMU member states plus Turkey) are presented as in the following:

Table 6.2.1. : EMU – 17 (REGRESSION RESULTS)

Dependent Variable: Δ GDP
 Method: Least Squares
 Date: 04/22/13 Time: 22:28
 Sample: 2003 2012
 Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Δ INF	0.047576	0.080546	0.590664	0.5763
Δ GCF	0.857623	0.056474	15.18628	0.0000
Δ HC	0.185512	0.070931	2.615376	0.0398
C	-0.470882	0.232335	-2.026737	0.0891
R-squared	0.997181	Mean dependent var		0.870000
Adjusted R-squared	0.995772	S.D. dependent var		2.183295
S.E. of regression	0.141964	Akaike info criterion		-0.777318
Sum squared resid	0.120922	Schwarz criterion		-0.656284
Log likelihood	7.886592	F-statistic		707.5653
Durbin-Watson stat	2.401583	Prob(F-statistic)		0.000000

Table 6.2.2. : EMU – 17 (CORRELATION MATRIX)

	Δ GDP	Δ INF	Δ GCF	Δ HC
Δ GDP	1.000.000	0.552348	0.996913	0.905354
Δ INF	0.552348	1.000.000	0.563581	0.336529
Δ GCF	0.996913	0.563581	1.000.000	0.881435
Δ HC	0.905354	0.336529	0.881435	1.000.000

Table 6.2.3. : NON EMU – 11 + TURKEY (REGRESSION RESULTS)

Dependent Variable: Δ GDP
Method: Least Squares
Date: 04/22/13 Time: 23:41
Sample: 2003 2012
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Δ INF	-0.161645	0.043610	-3.706596	0.0100
Δ GCF	1.072702	0.018711	57.32997	0.0000
Δ HC	0.130231	0.032260	4.036894	0.0068
C	0.291391	0.198093	1.470980	0.1917
R-squared	0.998890	Mean dependent var	2.690000	
Adjusted R-squared	0.998335	S.D. dependent var	3.721245	
S.E. of regression	0.151827	Akaike info criterion	-0.642981	
Sum squared resid	0.138308	Schwarz criterion	-0.521947	
Log likelihood	7.214906	F-statistic	1800.197	
Durbin-Watson stat	2.711328	Prob(F-statistic)	0.000000	

Table 6.2.4. : NON EMU – 11 + TURKEY (CORRELATION MATRIX)

	Δ GDP	Δ INF	Δ GCF	Δ HC
Δ GDP	1.000.000	0.263493	0.995448	0.539871
Δ INF	0.263493	1.000.000	0.331439	-0.09369
Δ GCF	0.995448	0.331439	1.000.000	0.477279
Δ HC	0.539871	-0.09369	0.477279	1.000.000

Regarding the above illustrated results; we can easily say that our designated linear regression model should be considered as a really significant and meaningful one ;as far as the adjusted R squares (coefficients

of determinations) for both of the above frameworks, are said to be almost “100%” that is very outstanding in terms of the operation of the model.

When we come to the significance of the respective true t – statistic values for each of the above coefficients (β s) of explanatory variables, we may exemplify that; all of them seem quite significant except for the inflation (ΔINF) for the EMU – 17 group as it is not exactly different from zero and it is exceeded by “1” (one). This means changes in the annual rates of inflation does not have a considerable effect on the changes in the annual rates of real GDP growth. Whereas changes in the annual rates of inflation (ΔINF) – measured by the HICP (Harmonized Index of Consumer Prices) do mean a lot for the other group of “Non EMU – 11 plus Turkey” within their growth patterns. Similarly; the magnitudes of the effects of the other respective explanatory variables of gross fixed capital formation (ΔGCF) and human capital in terms of secondary school enrollment rates (ΔHC) over their growth rates, are also said to be far higher comparing to those of the “EMU – 17” group – all are easily observed by the above true t – statistic values of the slope coefficients of those respective explanatory variables. F – statistic values are really very high and probability values for f – statistic are pure “0” (zero) – showing the accuracy of both of the regression runs within this comparative analysis.

Moreover; if we come to the issue of the satisfaction of the expected signs of the respective regression slope coefficients of the respective explanatory variables; there is said to be no surprise in the EMU – 17 case ;as far as there has been made accurate that changes in the annual rates of inflation (ΔINF), gross fixed capital formation (ΔGCF) and human capital as a proxy of secondary school enrollment rates (ΔHC), are all said to be positively correlated with the changes in the annual rates of real GDP growth. Nevertheless; changes in the annual rates of inflation (ΔINF) among our designated second group of “Non EMU – 11 plus Turkey”, are said to be negatively correlated with the changes in the annual rates of real GDP growth ;meaning that when changes in inflation increase, the change in the GDP growth shows a dramatic decrease – that is nothing but the pervasive effect of inflation over growth for the majority of the countries standing outside the Eurozone and are not subject to the single exogenous monetary policy. Meaning that; these countries are considered to fail in growing fast or they are said to try to catch up very slowly when they experience inflationary pressures via conducting their own national independent expansionary monetary policies.

Hence; we should infer from both this experiment (EMU – 17 Vs. Non EMU – 11 + Turkey) and the previous experiment (Germany Vs. Ireland) that; for all of the members of the European Economic and Monetary Union

(EMU), increasing changes in inflation lead into increasing changes in real GDP growth or economic growth, so to say. Nevertheless; for the non – members, increasing changes in inflation lead into decreasing changes in their growth patterns. This major differential is very clear, though, due to the obvious difference in the rationale lying behind that inflation dynamic.

We are obliged to keep in mind that; the reason for the Euro Area countries to have increasing inflation trends, is nothing but their increased or frequent use of national expansionary fiscal policy – giving birth to deficit – financed government spending ;as well as interest spillover. On the other hand; the rest of the countries who are outside of the Eurozone that we are dealing with, should be considered to have faced accelerating inflation rates when they run independent national expansionary monetary policies; expanding the monetary base via injecting money into the system. Thus; we can easily confirm our empirical findings such that; the factors of the inflationary pressures in a country matters a lot in terms of its various impacts over growth patterns of that country. Meaning that; if the conduct of the only existing national policy tool of fiscal policy for the Eurozone countries, comes out to be the reason of the triggered inflationary pressures, actually, this mechanism does have a positive connotation in terms of the increasing tendency of economic growth ;whereby these countries are left out with the sole policy mechanism of fiscal policy through which they have

already become subject to the single interest determination (Caves & Frankel & Jones, 2007).

In addition, that expansionary fiscal policy – as far as leading into the increasing budget deficit and debt to GDP ratios, deficit – financed government expenditure appears to be the only source of real GDP growth ;for especially the minorities or the emerging markets – so to say, of the Eurozone ;such as Ireland – as far as we have just come across, in our empirical example. Thus; this kind of, in a way, obligatory conduct of the excessive expansionary fiscal policy, comes out to be advantageous for such members of the Euro Area – as it helps a lot with their catching up.

Nevertheless; the second stage of our above set of empirical study, has clearly demonstrated that; for the non EMU members, creating inflationary pressures via excessive usage of expansionary monetary policies, does influence their growth fashions really very negatively – a fact that confirms the logic of the primary objective of the ECB that shall be to maintain price stability ;so that all of the wet governments who have tended to put priority on the unemployment concerns rather than price stability concerns, now, find themselves obliged to cut down their inflation rates at the expense of creating more unemployment, when they are about to join the European Economic and Monetary Union (EMU) – therefore, it is never allowed, in a sense, to grow fast via conducting expansionary monetary policy or

decreasing the interest rates – as far as the ECB acts like the traditional Bundesbank and, thus, this does never satisfy Euro Area member countries like Ireland with the determination of negligibly marginal rates of interest, most of the time, through where countries like Ireland, Spain, Greece, Portugal etc... will always remain obliged to run the so – called “deficit – financed government spending” strategy for their essential rapid growth.

Now; after all of those empirical frameworks through which I have based my argument upon, I think, it is time to discuss the technical mechanism and detailed process of the conduct of fiscal policy among the Euroland ;in order to be able to better understand the probable pervasive effects (other than leading into rapid growth – discovered via our experimental study) of the implementation of excessive expansionary fiscal policie that give birth to substantial economic imbalances among the Eurozone – all of which has been made to be based on the “one – size – fits – all” monetary policy.

7. FISCAL POLICIES IN THE EUROLAND

7.1. CENTRALIZED BUDGET Vs. FISCAL FEDERALISM

In this section; I would really like to elucidate and make perfectly clear that; there is an absolute fiscal federalism or a process of the implementation of the independent national fiscal policies – different from the process of the exogenously determined autonomous single monetary policy among the Eurozone. In order to be able to better perceive the rationale lying behind this kind of fiscal federalism; let us recall the “asymmetric demand shock” framework within the Euro Area.

For instance; suppose that European consumers shift their demand in favor of German products at the expense of French products. In addition, suppose also that; being members of the same monetary union (EMU) – France and Germany have centralized a substantial part of their national budgets to the central European authority – a mechanism through which the centralized budget works as a shock absorber. As a result of the asymmetric demand shock among these 2 (two) EMU countries, the decrease in the aggregate demand and aggregate level of income (or output) and thus the increase in the level of unemployment in the lands of France, is said to have a double effect on the European budget ;whereby all the income taxes and

social security contributions collected by the European government in France, show a dramatic decline ;whereas the unemployment benefit payments made by the European authorities, increase substantially. Nevertheless; the opposite scenario occurs in Germany ;hence the centralized European budget automatically redistributes the accumulated European income from Germany to France as to soften the sudden demand shift for France. Now, let us consider France and Germany forming a monetary union without centralizing their government budgets at all. In that case, the negative demand shock in France would cause the French government budget deficit to expand further $[(G - T)\uparrow]$ as taxes (government income) would decrease ;while the unemployment benefit payments would be increased by the French government in order to be able to finance the expanded public deficit and thus French government would remain obliged to increase its borrowing. In contrast to France, we would have the reverse conditions – that is, mainly, the condition of budget surplus $[(T - G)\uparrow]$. Hence; the need for the French government borrowing could easily be accommodated by the increasing supply of savings coming from Germany (De Grauwe, 2005). In the case of decentralized budgets, France increases its external debt to be paid back the Germans later ;meaning that this system contrasts with the centralized budget system – as far as in such a system, France would not have to face such external debt problems because

German residents – in that case, would automatically transfer income to France. Therefore, we can clearly predict that the existence of the decentralized system will actually reduce the degrees of freedom of future French fiscal policies. So, we can easily end up with a paradoxical consequence that; budget centralization comes out to be mandatory for EMU countries, in times of temporary shocks through which countries can run budget deficits via implementing their own independent national fiscal policies ;nevertheless, decentralized budget system and thus fiscal federalism should be the preferred mechanism when it is obvious that the asymmetric demand shock – experienced among the Euro Area countries, is permanent – as to let negative shock experiencing members of the Eurozone to enjoy the automatic budgetary transfers at the spot of the shock (De Grauwe, 2005).

All in all; apart from our above scenario assumptions and related frameworks of discussion, we know that; the decentralized budget system – based on fiscal federalism rationale, has already been preferred by the European Economic and Monetary Union (EMU) whereby only the 1,1% of the total EMU GDP has been centralized (De Grauwe, 2005).

However, there are some problems with both of the alternatives. To begin with; in the centralization case, the automatic budgetary transfers within nations, become permanent and this reduces the need to adjust.

In other words, centralization of the budget ;as well as the social security system, would all lead to quasi – permanent transfers from a group (high – income ones) of countries to other (low – income ones) . Therefore, the degree of centralization should be restricted and should be less than the level achieved within a country; otherwise political problems would arise – just as we have been observing for a decade or more, among the entire Euro Area ;even if the amount of this concerned budget centralization has been set to 1,1% of the total EMU GDP (De Grauwe, 2005).

On the other hand; the greatest problematic with the decentralized budget – based on the principle of fiscal federalism, comes out to be the sustainability problem – born out of the excessive government budget deficits, as a result of the over implementation of the independent national fiscal policies – just as experienced very severely in 1980s – 1990s in Italy, Belgium and the Netherlands. The sustainability problem arises when budget deficit $[(G-T)↑]$ reaches outstanding levels (almost 10% of the national GDP) and government debt begins not to be able to financed anymore – a condition ;through which the interest rate on government debt always surpasses the growth rate of the economy – that is exactly coined as “debt – dynamic problem” (De Grauwe, 2005).

Furthermore, whether centralized or decentralized budget; the insurance system should only be used to deal with temporary shocks or even if the

shock is permanent, it should only be applied in a temporary way. If the shocks are permanent, it is important that there should be a sufficient degree of wage or price flexibility and labor mobility. Otherwise – in the absence of those requirements, the insurance system may become unsustainable ;as far as this condition implies permanent transfers from one country to the other within the centralized system and exploding government debt levels within the decentralized system (De Grauwe, 2005).

To sum up; we could establish a reasoning with the OCA Theory and the fiscal policy of the Euroland ;such that the OCA Theory leads us to the following implications for the fiscal policy in the Eurozone – telling us that; it is, actually, desirable to centralize a significant proportion of the national budgets to the European level ;so that a centralized budget allows countries – hit by negative shocks (like in our previous France example), to enjoy automatic transfers, reducing the social costs of the monetary union. Nevertheless; as we all know very accurately, such a genuine, substantial centralization seems not possible within the EMU and therefore, independent national fiscal policies should be allowed to be implemented in a flexible way ;meaning that, countries – hit by negative shocks, should be given the opportunity to let their budget deficit increase further ;since as countries – joining the EMU, lose their national monetary authorities so that the policy tool of fiscal policy remains as the sole macroeconomic

instrument in order to be able to absorb the pervasive effects of certain negative demand shocks, with a Keynesian approach, in my opinion.

7.2. HOW ABOUT COMMON EUROZONE BOND?

As the recent crisis in financial markets has deepened, spreads between the government bonds of different countries in the European Monetary Union (EMU) have widened dramatically. With the start of EMU, long-term interest rates in participating countries had more or less converged to the lowest level before the introduction of the Euro, in countries like France, Germany or the Netherlands. Italy and Greece, meanwhile, had enjoyed a decline in the cost of servicing their public debt in comparison to pre – EMU days which showed that they were drawing enormous benefit from their participation in the European Monetary Union. It was the judgement of market participants that the introduction of the Euro as a common currency meant that; not only the currency risk had disappeared i.e. the risk of devaluation; all Eurozone members were seen as belonging to a zone of stability that clearly spanned not only monetary stability, but also through observance of the disciplines of the Stability and Growth Pact and, fiscal stability too (Issing, 2009).

However; with the advent of the present crisis, all this changed rapidly. Countries with dramatically rising budget deficits like Ireland, along with high levels of public debt, like Greece and Italy, now have to pay substantially higher interest rates on government bonds. Investors who are becoming much more risk averse in these times of crisis, demanded higher credit risk premium for buying bonds from those countries that were seen as weak debtors. By contrast, long – term interest rates in those countries that were seen as in a better fiscal position; like France, Germany or Finland, enjoyed very low rates as a consequence of investors’ “flight to quality”.

The increase in the long – term interest rates hit those countries hardest that had already experienced a strong deterioration in their current or expected fiscal position. But it therefore, came as no surprise that the idea of a common European Bond should be proposed as a means of mitigating the impact of the crisis and of countering the problem of rising interest rate spreads in Eurozone countries that are the most vulnerable to these developments. In fact; the notion of a common bond, had been put forward some years before, although at that time the main argument was that a common bond would result in higher liquidity than that created by the issuing of different national bonds (Issing, 2009).

A common bond, by virtue of its construction, would delete the interest rate spread between bonds issued by different Eurozone countries, so the

question that has to be addressed, is, what effect, the common issuance, would have on the level of the interest rate, and more importantly, on future fiscal policy and the Euro itself (Issing, 2009).

A common Eurozone bond would certainly imply that countries like France and Germany would have to pay higher interest rates, and that would in the end, mean higher tax burdens for their citizens. Hence; issuing a common bond would be a first step on the slippery road to “bail – outs”, and thus the end of the Euro Area as a zone of stability. In other words; a common bond is no cure for a lack of fiscal discipline; on the contrary, it would tend to encourage countries to continue on their wrong fiscal course, I think, again – remaining loyal to the needed miracles of Keynesianism.

Therefore; a common bond would be no more than a “placebo” for a “weak” country, but it would also be harmful because it would foster the illusion that it is possible for a country to get out of the difficulty without having undertaken fundamental reforms. And in fact, the opposite holds true; times of crises, give governments the best argument to take tough measures needed to get the country back on a sustainable path.

Consequently; a common bond would be very costly for the more solid countries, but most dangerously of all, it would undermine the credibility of the Eurozone as an area of stability and fiscal soundness. The major success achieved at the start of monetary union, when long – term interest rates in

all countries converged to the level of the most stable members, would be spoiled. And the sanctions of negative financial markets reactions would mean that a high price had to be paid by all of the Eurozone's countries (Issing, 2009).

In short, the “medicine” of a common Eurozone Bond, would not cure the problems of its weakest members, but would instead prolong their reliance on budget deficits while encouraging them to hope for the de facto “bail – out” that is waiting just around the corner.

8. EUROPE'S SINGLE MONETARY POLICY UNDER GLOBAL FINANCIAL AND ECONOMIC TURMOIL

In accordance with everything we have covered, it seems very obvious that; the exclusive rights and authorities of each of the institutions involved in implementing the EU monetary policy, are strictly regulated under the primary legislation of the European Union. The core question is whether things are the same when it comes to putting all of them into practice under such currently ongoing world financial and economic disorder – giving birth to the need for taking anti – crisis measures, not only national anti – crisis packages ;but also some other joint decisions and actions on the part of the Union, are really needed. Currently; each of the institutions aims to function in complete symphony (homogeneity) with new circumstances.

For instance; at the beginning of October, 2010, the EP, the Council and the EC took a decision to create 4 (four) brand new bodies – aiming to monitor the financial institutions within the European Union. Thus; at the beginning of 2011; the “European Systemic Risk Council”, the “European Banking Authority”, the “European Insurance and Occupational Pension Authority” and the “European Securities and Markets Authority” – all started to operate under regulations – as supervisory authorities whose aim is to warn against risks – mainly of crises (Georgieva, 2011).

Moreover; when Greece and Ireland had asked for a “bail – out” from the Eurozone and the EU by Spring 2011, the Stability & Growth Pact (led by the Amsterdam European Council in 1997, in order to correct situations of excessive government budget deficits) could not attain any of the set goals with respect to the principles of the budgetary discipline ;so that it was replaced by the so – called “Euro Plus Pact” (23 participants except for UK, Czech Republic, Hungary and Sweden) in order to be able to strengthen the coordination between the economies of the countries which decided to join to improve competitiveness, to raise employment, to achieve public finances sustainability (Budget Deficit \leq 3% of GDP, Public Debt \leq 60% of GDP) and financial stability. Therefore; we should refer to the introduction to the “European Stability Mechanism” (ESM) – very recently established by the turn to 2013, to replace the “European Financial Stability Fund” (EFSF).

Furthermore; when we are concerned with the derivation of some methodology recommendations in order to improve the operation of “one – size – fits – all” monetary policy, firstly; in the Euro Area, potential automatic stabilizers must exist. One could be the “price effect”, that is, competitiveness. The other could be the “income effect”, that is, absorption.

Persistent high inflation causes national price level to diverge from the average and its result is, a loss of competitiveness. As this would reduce domestic demand and output, it is expected to put downward pressure on

domestic inflation thereby acting to offset the higher inflation and correct part of the loss of competitiveness. A Euro Area member state with strong domestic activity, caused by low real interest rates, which generate high inflation, may be expected to import from other member states with weaker economic activity because they have high real interest rates. This effect would raise economic activity and inflationary pressures in the exporting members acting, as another corrective effect. If these corrective actions do not take place, then, the sustainability of the Euro needs a radical change.

Secondly, a radical change in the Euro Area only means something normal and common in most monetary unions with a single monetary policy. All those other countries in the world, as large as the Euro Area, which have become a federation of states, regions or provinces and which have a single monetary policy which needs to be applied to quite different states, regions or provinces, which may suffer from the same problems as the Euro Area, are all said to have, also, a single common fiscal policy, which tries to compensate for the problems produced by a single monetary policy, applied to heterogeneous member states. Nevertheless; in the Euro Area that decision would require an increase in the political control by the centre and hence a loss of national political sovereignty or, what is the same, of fiscal independence. Thus; this is the most appropriate way to avoid political pressures to monetize debt and to avoid government defaults on

Euro – denominated debt which would raise risk premium in most Euro Area member states because the present European budget is too small. One easy solution to this problem could be to transfer all seigniorage receipts from issuing Euro – denominated bills to a special central fund or budget, which would be applied to make transfers among member states when needed. To achieve, as soon as possible, a redefined more advanced – level of common Euro Area fiscal policy becomes crucial, because it can help cushioning the diverging effects of a single monetary policy applied to different member states, as it has already happened in the period 2002 – 2005 and is happening again, now after the recent big shock derived from the global financial crisis or the so – called Great Recession of 2008 – 2009 ;nevertheless, we should always keep in mind that the level of common fiscal policy or the content of these common fiscal precautionary steps restricting the free movement space of Euro Area (in terms of the conduct of the independent national fiscal policy), is ought to be well balanced with the accomplishment of the national fiscal authorities – meaning that; the connotation of this common EMU fiscal policy should definitely be differentiated from the common EMU or the so – called “one – size – fits – all” monetary policy. For instance; as I have already mentioned above; the idea of a 100 % pure common Eurozone Bond is not such a good idea, at all – therefore; the only thing that might help the minor EMU components with

the financing of their excessive and continuous budget deficits and accelerating volumes of government debts, is said to be the expansion of the amount of centralized EMU budget in order to let those emerging markets of the Eurozone to enjoy further, faster and more extended automatic budgetary transfers to finance their public deficits. Because, we all have to recall and never forget the significant role of the increasing budget deficits as well as the rising public debts over the process of deficit – financed government spending that exactly implies the phenomenon of real economic growth for those rapidly growing emerging markets of the Euro Area.

In overall; the major problem of the Euro Area, now (and hopefully not in the future) is that; it does not have the 2 (two) basic instruments for achieving a proper “macroeconomic policy” as they do have the rest of the large unions of federations in the world. Experience and empirical evidence show that; macroeconomic policy is essential to soften cycles and to avoid deep recessions and big booms, and macro policy is composed of fiscal and monetary policies. But, unfortunately, the Euro Area has been designed only with one leg; “monetary policy”. If there is no change soon, the Euro Area will suffer from even more severe problems in the future, if the Euro finally survives in its present form (Issing, 2009).

And very lastly; the monetary policy of the ECB has been designed only to be based and conducted on a single target: inflation, unlike other

countries like the UK, the US or Canada, which have also targets for growth, unemployment or domestic demand. This is a second design failure that needs to be taken into account. As this double target seems also as large a challenge as that of achieving common fiscal policy, it would make sense, in the meantime, to take back “money growth” to the front line as a target in order to intervene when these 2 (two) measures start to grow faster than normal in order to avoid again provoking credit and asset booms and busts. This is very feasible, even more now, that inflation targeting is losing support due to its problems dealing with asset bubbles (Franz & Michaela, 2004), (Gali & Perotti, 2003), (Gerald & Bergin & Cullen & McCoy, 2004).

9. CONCLUDING REMARKS

As a result; we shall end up with the significantly mandatory phenomenon of economic policy co – ordination for the sake of Eurozone survival. Nevertheless; despite the fact that some progress has been made, current procedures do not provide a satisfactory response to this need – a fact that implies that the current economic recovery threatens to weaken the perceived case for co – ordination and to delay the implementation of a coherent overall economic policy for the Euro Area, whereby Europe’s future overall economic growth is accordingly at risk.

In service for getting rid of all of those economic imbalances or in order to diminish the deteriorated context of the Eurozone, there is actually said to be 2 (two) main alternative proposals which are known as, either “total economic integration” (full integration) through which the absolutely perfect unification of monetary, fiscal and social policies becomes necessary, or “limited fixes” such as extended budget centralization, higher inflation targeting for the entire Eurozone or ECB acting always as a lender of last resort. At this spot; relying on our entire study and the very obvious structural distinctiveness between the periphery and the core, we should definitely admit that; such total economic integration through where there also exists governmental unification – implying the concept of common

fiscal policy, does never seem to be probable. However, some other limited fixes or restricted proposals, might be undertaken. In this sense; an expanded proportion of centralized Euro Budget that further exceeds the current percentage of only 1,1%, comes out to be quite crucial. Meaning that; the currently valid mechanism of independently implemented national fiscal policies should continue to operate, but with a further raised level of centralized Euro Budget in order to be able to smoothen the prevalent impacts of the distinctively conducted fiscal authorities by the EMU member states. Other than the increased proportion of the centralized Euro Budget, a probable accomplishment of higher inflation targeting for the overall Euro Area, would definitely be another helpful and beneficial limited fix; especially for the emerging market economies of the Eurozone who all had used to experience continuously high Balassa – Samuelson Effects as a result of their rapid productivity growth characteristics, prior to their EMU membership – a fact that always forces those member states to generate some inflation to intentionally raise the domestic overall price level in order to allow them to escape from the unsatisfactory condition of the initially declined labor costs, joint with the repercussion effect of the real appreciation of their national currency (the so – called; Balassa – Samuelson Effect) – hence the deliberately raised level of inflation would help those peripheral countries with devaluing their national currency in order to be

able to gain their typically high competitive levels back, to always let their exports surpass their imports; so that they could grow fast in order to attain their unique goal of catching up with the core countries of the Eurozone. Nevertheless; as we know already, there is a supranational one – size – fits – all monetary policy conducted by the ECB for all EMU members so that; this mechanism is totally hazardous, especially, for the periphery, as it does not allow them to raise their inflation levels wilfully; hence the single interest determination is said to prevent the periphery from catching up with the core, so to say. This is why; if this single common monetary policy might be conducted on a basis of higher inflation targeting and expectations for the consolidated Euro Area, at least, those peripheral components with a tendency of high Balassa – Samuelson Effects, would start to manage to grow faster again, just as they were doing so, before they entered the Eurozone. And as the third limited fix, I may rather recommend the inevitable and obligatory mission of the ECB as being the lender of last resort, meaning that; the ECB should always keep in mind that it is the major institution willing to extend credits when no one else will, intended to avoid bankruptcies of any of the NCBs of the 17 EMU member states. Thus; we definitely infer from here that; the ECB should be considered as the lender of last resort, in any condition ;but not the NCBs – which comes out to be a really vital identification for the sake of Euro’s fiscal future.

Given its successful convergence and arrival at a point of inflexion in terms of its economic growth, Ireland is said to be in a unique position to reflect on the nature and suitability of the current economic governance within the EU, especially, for economies in transition. Economies in transition, can expect to have real exchange rate appreciation (De Bruoeck & Torsten, 2001), significantly coming through productivity – led wage growth and consumer price inflation. This so – called, Balassa – Samuelson Effect can be quite significant but should not lead to complacency in ignoring the role of domestic policy responses (Gerald, 2004).

Designing appropriate adjustment mechanisms to deal with sharp currency fluctuations, is important for economies like Ireland to ensure that wage growth does not overshoot competitive levels. Wage contracts that include flexibility mechanisms, are another important element (Gerald, 2004).

Ireland's social partnership model may offer the opportunity to provide the necessary flexibility if elements of deferred compensation mechanisms are included (McHale, 2001). It is clear from the high output growth in Ireland in the first 3 (three) years of EMU, that; stabilising a small open economy within a currency union, is quite a difficult task.

The constraints imposed by the Stability and Growth Pact do not sufficiently cater for economies like Ireland. The emphasis on the deficit rather than the

debt in the SGP fails to account for the long – term sustainability issue by focusing on short term constraints. This ignores the important issues for any country’s public finances such as the age demographics and the economy’s stage of development. The requirement that economies attempt to keep close to balance or in surplus, may require that infeasibly large safety margins are required for economies that can expect high output volatility (Socol, 2011).

As a small, open regional economy, the safety margin in the Irish case allows for little room in order to run prudent government deficits to facilitate public capital investment given the relatively low debt ratio. While the conditions of the SGP have not been a binding constraint in the first years of EMU for Ireland, this is unlikely to be the case in the upcoming years. The time to revisit the conditions of the SGP has come, particularly in the case of economies in transition, as Ireland continues to be, and the imminent enlargement of the EU will bring forth many more (MacCoille & McCoy, 2002).

Thus; just as we have already proven the necessity and significance of the independent national – level public finance policies, via running our designated time – series linear regression models; debt – led growth dynamics should appear to be considered as the sole vital growth strategy for these developing transition economies or the so – called emerging markets among the Eurozone ;such as Ireland.

Throughout the entire paper, we have mainly tried very hard in order to be able to examine the huge differentials of the contribution of Balassa – Samuelson (B – S) type effects to the concerned inflationary pressures within the Euroland minorities ;such as Ireland, relative to the ones within the figureheads of the Euro Area ;such as Germany.

And as a result of our remarkable set of several diagnoses, we have found out that; Irish productivity measures are exaggerated by foreign multinationals, engaged in high value – added activities. These measures suggest that high productivity in the traded sectors, explain most of the inflation differential. Using adjusted measures to account for the multinational effect, shorter – term demand side factors become more significant in explaining the inflation differential. Therefore, one should definitely infer that; domestic fiscal and income policies are still ought to be considered to be the most important source of adjustment for the Irish economy within the European Economic and Monetary Union (EMU).

In conclusion; Clausen and Hayo (2002), mainly, discuss the asymmetric monetary policy effects in EMU – explaining the adverse effects of the so – called “one – size – fits – all” monetary policy via referring back to asymmetric Balassa – Samuelson Effects – observed in 2 (two) controversial countries; Germany and Ireland. In this framework; it is said that fast – growing countries (like Ireland), experience fast – growing

imports and ;in order to allow exports to increase at the same rate (not for facing Balance of Payments deficits), competitiveness should be increased via real depreciation of the currency ;however in such a monetary union, this adjustment becomes problematic (doubtful). Nevertheless; in the very end of my detailed set of analyses, I am, now, asking the following core question : “These countries (almost all EMU members except for Germany) will be constrained in their growth just because their exchange rate adjustment sovereignty is given up?”. Thus; at least – with reference to the recently ongoing chaos over the Euro Area, the ECB (European Central Bank) should definitely not act like Bundesbank (according to the needs of the anchor country of EMU, so to say) ;despite the fact that “[I]” (price stability) seems to have been amongst the greatest macroeconomic problems for typical Wet Governments (Ireland, Italy, Belgium, Spain, Portugal, Greece etc...) (Young & Semmler, 2011).

Actually; joining such a monetary union (EMU) with Germany, brings various theoretic benefits for Italy and its derivatives – as “ECB” acts like a “Hard-Nosed Gov’t” ; just as the “Bundesbank” does ;through which the relations between the EU Institutions – involved in implementing its monetary policy, are entirely based on the underlying principles formulated by the “European Court of Justice”, and applicable to all of its institutions – which are strictly arranged in the Union’s primary legislation and moreover,

we can easily infer from the article of Georgieva (2011) that; the Council should discuss the issue of creating the EMU, the EP should exercise parliamentary control over the activity of the EC in order to safeguard the democratic legitimacy of the EU, whereby the EC should administer the framing and implementing the Union's monetary policy ;and lastly, the ESCB / ECB should run the monetary union and of course implement the so – called “one – size – fits – all” monetary policy. Even furthermore; it is similarly ought to be figured out that; as Brancaccio (2012) also end up with a concluding fact that; as far as the acceleration of economic globalization continues, there will definitely be a rapid increase in the need for adequate measures to resist against crises ;as well as the significance and obligation of introducing brand new financial institutions of the Union will, therefore, increase, for sure.

With a clear reference – back to the “Incompatible Trinity” (Mundell, 1968), we should end up with another miscellaneous conclusion; that any 2 (two) of those 3 (three) policy objectives (“domestic monetary sovereignty”, “control over perfect capital mobility” and “exchange rate stability”), should be pursued to be accomplished; at the expense of the 3rd (third) one ;in accordance with the accuracy of the “Basic Macroeconomic Trilemma” – with a huge attention, regarding on the fact that; those 2 (two) alternatives out of the 3 (three), may always differ ;due to the obligations (needs) of that

certain economy. Because; if those 2 (two) policy goals are always the same – trying to be attained at the expense of the same 3rd (third) all the time, then; the principle of “Incompatible Trinity”, may collapse ;as far as we are all able to monitor the (actually not) surprisingly deteriorated prestige of the EMU System (or ESCB; European System of Central Banks) – that has been formulated (conceived) on a basis of “one – size – fits – all” monetary policy.

To sum up; I would like to reconsider that; leaving Euro Area countries without the eligibility of domestic national monetary authority, has been leading into numerous macroeconomic downturns for almost every EMU member except for France and Germany, for a reasonable period of time – thus; the core thing, is, to manage to use the 2 (two) policy tools interchangeably at the expense of the 3rd (third) – in order not to abuse (misappropriate) the unique and indispensable rationale of “Basic Macroeconomic Trilemma” (Incompatible Trinity), while shaping such a theoretically outstanding, glorious monetary union.

In the end; I would, again, very like to arrive at another paradoxical cessation that acquires intensity (significance) ;especially, regarding on Ireland and Spain – both having well accommodated themselves to the rules and regularities of the “Stability and Growth Pact” (1997), and ;therefore, they both have remained fiscally careless by not having considered the

absolutely complex macroeconomics of the Eurozone – unlike Germany (the major figurehead of EMU) that has already broken the deficit limits. Thus; at this spot, I would like to give a hand to “Germany” (the anchor economy of the Eurozone) that has reminded us what good economic governance would prescribe which has been an exact lack in Spain and Ireland – by proving once more, that the “Stability and Growth Pact” (1997) was a “catastrophe” for the spirit of such a monetary union, for sure ;that most probably yielded the recently ongoing “Euro Area Turmoil” – very accurately apparent today, even both in Spain and Ireland – just as analyzed in detail, by Marsh (2009).

Lastly; since all of the empirical pieces of our study ;as well as the valid macroeconomic theoretical reasoning alongside with the conventional wisdom regarding the Europe’s single monetary policy; it has become extremely accurate that; when members of a monetary union are experiencing different macroeconomic conditions, a single policy rate is unlikely to fit circumstances in all countries – as observed thoroughly within the EMU framework. Currently, the ECB’s target rate seems to be in line with the Bundesbank’s Taylor Rule recommendation for the Euro Area as a whole ;whereby the Taylor Rule is a policy guideline that generates recommendations for a monetary authority’s interest rate response to the paths of inflation and economic activity (Taylor, 1993).

However, economic differences between peripheral and core Euro Area countries, are, sharp. The core countries are recovering, while the peripheral countries still have large unemployment gaps. Thus, the ECB target rate is not in line with the Bundesbank's Taylor rule recommendations for the peripheral countries ;through which this Taylor Rule can be viewed as a "rule of thumb" that has matched ECB policy well over some periods. But the wide gaps in the Taylor rule's current recommendations for the Euro Area's core and periphery, show that; "one size cannot fit all", when economic conditions in 2 (two) regions of a monetary union, are so markedly different (Nechio, 2011).

Very consequently, we may also recall that; the Euro Area's problem of a "one – size – fits – all" monetary policy, is not unique. In the United States, economic conditions have frequently differed dramatically across regions. The Federal Reserve does not set different monetary policies for different parts of the country. Nevertheless, the tensions over monetary policy in a union of many separate countries, are likely to be greater than tensions in a single country. Hence; the United States can rely on its relatively high labor mobility and on fiscal policy to counter economic weakness; which are the options that may not be fully available to the Euro Area's heavily indebted peripheral countries or emerging markets, so to say – illustrating all of us, the inevitability of the truly independently and

distinctively implemented flexible national fiscal policies – granted by all of the national treasuries of the EMU member states, integrated with some negligible amounts of common fiscal restrictions for the sake of the catching up of the minor economies of the Eurozone – based on intentionally increasing government expenditures within a union ;whereby all of them have already been made to give up both of their exchange rate adjustment mechanisms and national monetary authorities.

Regarding on all of the above material; I feel extremely very responsible one more last time, now, to express my individual advocacy for the necessarily recognized Keynesian dynamics of the Eurozone project, against the counter – argument of the extremely harsh Monetarist approach of the major driving force of the Euro Area, which is surely known as Germany. Because, the “Monetarist” school of thought has never had considered economic recessions or stagnations; as important as the economic indicator of inflation ;unlike the “Keynesian” school of thought that has directly arisen from the deteriorated economic conditions of UK’s inevitable unemployment problem and mainly the U.S. Great Depression of the late 1920s. Hence; being born out of the problem itself, “fiscal policy” and “Keynesianism” seem the best possible alternative policy tool and the most

suitable way of understanding ahead of overcoming any recent and various potential global economic crises such as the ongoing Eurozone turmoil.

I exactly believe that; “Keynesianism” should never be considered as a protectionist or an interventionist school of economic thought; it is rather a spectacular mechanism that allows the free market structure to run efficiently and smoothly by preventing “asymmetric demand shocks”, even in cases this free market structure faces various economic crises; just like in this Euro framework ;through which the national implementation of fiscal policies, symbolizes the eagerness of the EMU member states to overcome their deteriorated status within their obvious circumstances where single monetary policy does not satisfy the majority, to a great extent.

Eventually, I want to end my analysis by referring to one of the unforgettable sayings of the greatest advocate of free market economy with a set of precautions considering the “short – run” specified conditions; John Maynard Keynes : “The difficulty is not placed in trying to understand the newer ideas” (“Keynesianism” or the “expansionary fiscal policy”, in our case) ;”however it is settled down in the ability to escape from the older ideas” (“Monetarism” or the “one – size – fits – all monetary policy”, in our case). In other words I am trying to explain that; even the Eurozone debt crisis, can, or, actually, has to be fixed via, again, the conduct of national

fiscal authorities ;since it is the only way in this regard; where the monetarist system of single interest determination aims only to absorb (devour) the minorities of the Euroland, or, we can even express this phenomenon; as the “continuous development of the underdevelopment” of the peripheral minor countries via their aggressive monetary exploitation by the Eurozone’s core figureheads.

All in all; we – one more time, are able to become witnesses of the fact that; although the “European Economic and Monetary Union” (EMU) or the so – called Eurozone, is an entire success narrative or a completely flourishing blueprint; it is, miserably, a clear cataclysm with some of its design failures, simultaneously, in terms of the recent, political – based asymmetrically experienced processes and proceedings among the real world of Europe.

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