



Past and Current European Monetary Union Crises: Lessons for the Envisaged West African Monetary Union

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ABSTRACT

The Economic Community of West African States (ECOWAS) is committed to forming a broader monetary union by 2020. The approach of forming the union is a replica of the European-type monetary union, which is predicated on the optimum currency area (OAC) theory. All the monetary unions that were created among European sovereign States within the last half of the eighteenth century, collapsed due to political and economic differences. Currently, the European monetary union (EMU) is unstable due to ongoing crises, which may not be a good signal for West African States, whose economies are persistently being hit by asymmetric shocks. This study therefore, analysed the economies of West African States within the context of the OAC theory, and further examined whether the past and current EMUs provide any lessons for ECOWAS. The analyses show that ECOWAS economies have not met the OAC theory, implying that the European-type monetary union crises might manifest in the ECOWAS region. To avert such crises in the envisaged West African monetary union, member countries must be compelled to satisfy the OAC criteria before ascending onto the union, and the governments of ECOWAS should lay more emphasizes on the political will and fiscal discipline of the respective member countries.

Keywords: European Monetary Unions, Optimum Currency Area, Economic Community of West African States

JEL Classifications: F15, F2, F33, F45

1. INTRODUCTION

Countries bonded by specific regional activities are seeking to improve international cooperation that will increase regional growth, by assessing the possibilities of establishing a common market and adopting a common stabilization policy. This requires the adoption of a fixed exchange rate system that will promote trade (Chintrakarn, 2008) and the introduction of a single currency that will ensure greater macroeconomic stability (Angelini and Lippi, 2007).

Technically, member countries will incur some relative costs in the process of adopting a single currency (forming a monetary union), since they must surrender their monetary autonomy to a common Central Bank, thereby, losing the ability to stabilize their economies when hit by shocks (Grabner, 2003; Glick, 2005). However, the gains of ascending onto a monetary union

are considerable: Elimination of trade barriers (Grettisson, 2010), reduce exchange rate risk (Bartram and Karolyi, 2006); lowers investment risk and enhances resource allocation (Bogdanova, 2009) price stability (Salvatore, 2004); price convergence (Fischer, 2009; Nicolas and Firzli, 2010) etc.

It is instructive to note that the cost of forming a monetary union will be greatly reduced if member countries respond similarly to the different macroeconomic shocks that hit their economies (Glick, 2005; Alturki, 2007; Kochanová, 2008). The optimum currency area (OCA) theory lays down requisite conditions that must be satisfied in order to reduce the sizes of the different shocks, hence making them similar: Mobility of physical and human resources across the entire region; increase level of trade among member countries; diversification of production; stable inflation and wages.

The creation of monetary unions among European sovereign states predates the last half of the eighteenth century and was highly motivated by trade in gold and silver (the mercantilist era). Due to political and economic differences, and specifically the aftermath of World War I, all the different unions collapsed within the first quarter of the nineteenth century.

The last quarter of the 19th century, witnessed the rebirth of the European monetary union (EMU) that followed the adoption of the euro as its common currency. The formation of the EMU was predicated on the requisite conditions of the OCA theory. However, the European financial and debt crises have raised serious concerns on the desirability of forming a monetary union by sub-regional blocs in Africa that are persistently being hit by asymmetric shocks.

Economic Community of West African States (ECOWAS) is committed to forming a monetary union by 2020, despite many failed attempts in the past. Even though the requisite conditions of the optimum currency theory among other strategies have been frequently discussed by ECOWAS governments and ratified in the various Treaties, member countries still remain vulnerable to asymmetric shocks. Tsangarides and Qureshi, (2008) and Karras (2006) observed that the shocks resonating across ECOWAS countries are uncorrelated implying that the adoption of a common stabilization policy will be costly for member countries.

The Euro crises may not be a good signal for West African States, whose economies are persistently being hit by asymmetric shocks. This therefore triggers the following key issues that this paper seeks to address. First, does ECOWAS satisfy the OCA theory? Second, do past and current European unions provide any lessons for ECOWAS?

The rest of the paper is structured as follows. Section 2 presents the OCA theory in perspective. Section 3 discusses the past and current monetary unions. Section 4 provides lessons of the EMUs to ECOWAS. The conclusion and recommendations are contained in section 5.

2. OCA THEORY IN PERSPECTIVE

The discourse on the costs and benefits of establishing a monetary union is rooted in the OCA (OCA) theory introduced in the early 1960s by Robert Mundel and further enriched by McKinnon (1963), Kenen (1969) and Ishiyama (1975). The theory proceeded from the debate on the importance of fixed versus flexible exchange rate regimes and was also motivated by the malfunctioning of the Bretton Woods System of fixed exchange rates. While Friedman (1953) emphasizes on the relative importance of the floating regime as a basic condition for free trade because it has the ability to ease the process of adjustment to external shocks, Krugman (1990) rather submits that the fixed exchange rate regime confers a degree of stability between the participants and the numéraire country (countries), as well as between the participants. Proponents of the OCA theory go beyond the two contending views, stating clearly the conditions that must be fulfilled by countries wishing to form a monetary union.

An important requisite entry condition for an OCA, according to Robert Mundell is that member countries should allow the “*free movement of factors of production*” (i.e. labour, wages, or capital) across the region. Mundell’s (1961) submission underscores the appropriateness of a common currency predicated on the symmetry of both supply and demand shocks in a regional bloc. Thus, mobility of factors of production balances the surpluses and deficits of member countries (Alturki, 2007) and automatically stabilizes asymmetric shocks (Kochanová, 2008). In 1973, Robert Mundell complemented his earlier proposition, acknowledging that candidate countries for a monetary union should also promote “*portfolio diversification*” for international risk sharing. The simple reasoning here is that countries are not hit by severe asymmetric shocks when they share portfolio diversification in capital markets (Ling, 2001) since financial capital moves much more easily than physical capital and labour (McKinnon, 2004; Broz, 2005).

Extending the OCA theory, McKinnon (1963) propounded that “*trade openness*” is a decisive criterion for a monetary union and not factor mobility as initially proposed by Mundell (1961). Robert McKinnon argued that economies are more likely to adopt a fixed exchange system, the moment they become more open to one another. An important criterion that adds credence to the OCA theory is a country’s “*diversification of production*” propounded by Kenen (1969). A more diversified economies, according to Kenen, are less prone to different types of shocks; provide more job opportunities and possess a high candidacy level for a monetary union. Consequently, diversification of production in a regional bloc can maintain the internal stability of prices; thus, omitting the need of the exchange rate as an adjustment mechanism. Kenen also underscores the need for a well coordinated fiscal and monetary policy in guaranteeing the success of monetary integration. Kalamadin (2014) supporting Kenen’s view submits that fiscal policy integration would allow countries of a monetary union to redistribute funds to a member country affected by an adverse country-specific disturbance thereby guaranteeing the stability of the monetary union. Ishiyama’s (1975) contribution to the OCA theory cited in Broz (2005) suggests that candidate countries of common currency should possess “*inflation and wage stability*” as this would signal similarities in economic structure and policies. These similarities foster a more balanced current account and trade among member countries, and therefore curbs the need for nominal exchange rate adjustment (Mougani, 2014).

The key criteria for an OCA advanced by Mundell (1961), McKinnon (1963) and Kenen (1969) are factor mobility, trade openness, product diversification and similarity of inflation rates and wage stability. However, Krugman (1993) and Mongelli’s (2002), Tavlas (1993), Tavlas (2009), Dellas and Tavlas (2009) submit that a successful monetary integration is incumbent on the “*political will and interregional compensation*” schemes of member countries.

2.1. Does ECOWAS Fit the Optimum Currency Theory?

2.1.1. ECOWAS and Mundell’s requirement

According to Mundell (1961), labour and capital should move freely across the region aiming for monetary union. In this regard,

the asymmetry of shocks of member countries in the region will reduce thereby, making it fit for an optimal currency area. Heckscher-Ohlin-Samuelson (HOS) model reveals that factor mobility equalizes wages and factor prices from areas with excess supply to areas with deficit supplies.

ECOWAS countries have witnessed a positive growth since 2000. Data from World Development Indicators (2014) indicate that the total average annual growth rate increased from 3.63% in 2009 to 5.47% in 2010, and also increased by 5.5% in 2012. However, the growth rates declined slightly to 4.34% in 2013. Liberia, Ghana, Burkina Faso, Nigeria, Sierra Leone and Niger recorded the highest average annual growth rates of 11.08%, 8.68%, 6.7%, 5.87% and 5.02% in 2009, 2010, 2011, 2012 and 2013 respectively, while Benin, Gambia, Senegal, Mali and Guinea Bissau have very low growth rates of 3.9%, 3.8%, 3.0%, and 2.95% respectively within the same given period. Cape Verde and Guinea Conakry recorded the least average annual growth rates over the years. Resource-rich countries like Nigeria and Ghana benefited from the revival in commodity demand. While there was increased production in Ghana with new mineral production in Sierra Leone, Niger, and Liberia, countries with low growth rates suffered economic decline (Atta-Mensah, 2013).

The entire region had a total real gross domestic product (GDP) of \$276.97 billion, with an annual average GDP per capita growth of 2.07%. Nigeria contributed more than half of the total GDP (\$181.3 billion) which guarantees its superiority and at the same time threatens the position and decisions of weaker economies like Guinea Conakry, Gambia, Liberia, Cape Verde, Sierra Leone and Togo with real GDPs of just \$0.74, \$0.84, \$1.29, \$1.37, \$2.5, and \$2.8 billion respectively.

These figures suggest that the spread in their real GDPs is wide, implying that the responses to economic shocks by ECOWAS economies are different.

Labour mobility in ECOWAS countries can be determined by the labour participation force in the different sectors in the various economies. UNCTADstat (2015) shows that the labour participation force in ECOWAS countries grew steadily at 103532.8, 106657.3, 109740.2, 112980.2, 116371.8, 119912.4 and 123598.6 (in thousands) in 2009, 2010, 2011, 2012, 2013, 2014 and 2015 respectively, while the number employed in the agricultural sector from 2009 to 2015 also grew from 48337, 49263, 50227, 51220, 52252, 53309 and 54398 respectively (in thousands). The figures indicate clearly that more than half of the total labour force is concentrated in the agricultural sector (i.e. the primary sector with highly unskilled labour). Since the theory emphasizes more on skilled labour; it therefore means that labour mobility across ECOWAS countries is restrained.

The flow of foreign directed investment (FDI) shows the extent to which capital can move freely between countries in a monetary zone and requires country-specific policy responses if the quantum of flow is small (Kalamadin, 2014). Based on this concept, the UNCTADstat (2015) recorded a very low rate of FDI mobility with ECOWAS countries. For instance, the total flow of FDI in and out of the ECOWAS region is low and declining over the years.

For instance, FDI as a percentage of GDP was approximately 3.38%, 2.5%, 1.96% and 1.71% in 2011, 2012, 2013 and 2014 respectively. The movement of FDI in and out of Liberia is high (44.37%) relative to other ECOWAS members followed by Sierra Leone, Niger, Guinea, Togo, Ghana and Gambia recode 12.47%, 12.19%, 9.02%, 8.36%, 7.89% and 6.25% respectively. However, Benin, Mali, Senegal, Guinea Bissau, Nigeria and Cote D'Ivoire have recorded appalling rates of 3.4%, 3.39%, 2.13%, 1.78%, 2013% and 1.37% respectively.

The low mobility of FDI can be attributed to the political tensions, insurgency crises, economic crises, climatic factors etc., prevailing in the ECOWAS region. More specifically, the production structure of all ECOWAS countries is similar and highly dominated by agriculture, which attracts very little foreign direct investment. This underscores the need for ECOWAS countries to diversify their economic activities in order to attract FDI and also set an institutional framework that will facilitate labour mobility.

2.1.2. ECOWAS and Mckinnon's requirement

An essential criterion for an OCA as viewed by McKinnon (1963) is the degree of openness of an economy. Openness enhances the economic welfare of trading partners by reducing the potential trade disruptions resulting from relative price fluctuations and disturbances in bi-lateral exchange rates (Chuku, 2012).

Conventionally, the openness index is a ratio of a country's total trade (the sum of export and imports) to the country's gross domestic product. The world development index (2015) shows that Liberia and Togo's economies are more open relative to other ECOWAS countries. Liberia's openness index on average approximated 166.17% between 2009 and 2014 while Togo's index grew steadily, reaching an average of 108.17% within the same given period. Ghana, Sierra Leone, Senegal, Niger and Benin are also open with approximated average indices of 82.67%, 70.33%, 69%, 64% and 63.33%, while the economies of Gambia, Burkina Faso, Mali, Nigeria and Cape Verde are not too open with indices of 57.17%, 56.33%, 52%, 44% and 43.17%. On an average, the degree of openness of the ECOWAS region has been wavering positively over time. For instance, the openness index increased from steadily from 71.23% in 2009 to 74.33% in 2010, to 79.2% in 2011 to 72.73% in 2012, to 71.33% in 2013 and to 67.13% in 2014.

Based on this criterion, countries with relatively high open indices can be considered as good candidates for a currency union, while those with low open indices need to be more competitive in terms of trade.

2.1.3. ECOWAS and Kenen's requirement

Another prerequisite condition for an OCA is production diversification. Kenen (1969) argues that production diversification decreases the likelihood of asymmetry in shocks in a well-diversified economy. Therefore, countries with low levels of diversification should use their monetary policy to reduce shock, while highly diversified economies may find it valuable to form a monetary union.

ECOWAS countries are endowed with natural resources with agriculture being its mainstay. Their over reliance on agricultural

exports and low diversification of their products make them vulnerable to the external shocks.

UNCTADstat (2016) data show that trade concentration and diversification among ECOWAS countries are variegated. The trade concentration indices for ECOWAS countries averaged approximately 0.586, 0.596, 0.6213, 0.603, 0.602 and 0.556 in 2009, 2010, 2011, 2012, 2013 and 2014 respectively, while trade diversification indices on its part approximated 0.74, 0.739, 0.728, 0.713, 0.709 and 0.714 respectively on an average within the same period. Though, the level of production concentration is high, the ability to diversify the economy is also high. This implies ECOWAS countries stand to benefit from adopting a common currency.

Conclusively, not all ECOWAS countries absolutely satisfy hi's requirement. This implies that ECOWAS countries may not be considered as good candidates for a monetary union. However, the concentration of the labour force in the agricultural sector shows that the production structures of the member countries may be similar. According to (Kalamadin, 2014), similarities in production structure may suggest similarities in economic shocks and business cycles that necessitate a common policy reaction.

With respect to trade openness, only Liberia, Togo, Ghana, Sierra Leone, Senegal, Niger and Benin can be considered as good candidates for a single union because of their high trade indices. Kenen's criterion suggests that all the countries have a high probability to diversify their economies and can qualify for a monetary union membership. However, the monetary union time pendulum is swinging faster and member countries need to hasten up.

2.1.4. Inflation stability requirement of ECOWAS economies

Candidate countries of a common currency should possess "inflation and wage stability" as this would signal similarities in economic structure and policies (Ishiyama, 1975). Countries with different economic structures exhibit different patterns of inflation rates and therefore cannot pursue a common stabilization policy (Jonung and Sjöholm, 1999).

Table 1 shows the characteristics of domestic price (inflation) of ECOAWS economies. First, the descriptive statistics show that

all WAEMU countries have a stable annual average inflation rate of approximately 3.44% which is low and has single digit value. This confirms the fact countries in a monetary union will always maintain a low inflation rate, which is in conformity with the OCA theory. Secondly, WAMZ economies are experiencing high inflation rates with a double digit value. For instance, Sierra Leone records the highest inflation rate followed by Ghana, Guinea Bissau, Nigeria and Guinea with an annual average rate of approximately 34.36, 28.23, 27.16, 19.44 and 17.91 respectively. However, only two WAMZ countries: Cape Verde and Gambia have high single digit inflation rate of approximately 5.8 and 9.11 respectively. The mean values indicate that almost all WAMZ countries failed to attain the ECOWAS target of single digit inflation. The standard deviations for all WAMZ countries are high, indicating that the evolution of domestic prices in the ECOWAS region is not similar. Furthermore, the values of skewness and kurtosis neither have a value of 0 nor 3, for all the countries, meaning that the domestic prices of ECOWAS countries are not normal distributed.

2.1.5. Political/economic convergence of ECOWAS (Krugman/Mongelli)

It should be noted that, the OAC theory does really substantiate the relevance of the political feasibility of a monetary union, which is important in ensuring the success and stability of any union. For instance, political integration makes the competition for transfers more intense (Brou and Ruta 2007) and creates a positive effect on economic growth in a world of increasing economic market size with important trade restrictions (Alesina et al., 2000; 2005). According to Krugman and Obstfeld (2009), a monetary union requires as much political integration as they require economic integration. Brou and Ruta (2007) in their submission reveal that economic integration accompanied by political integration will increase innovation, growth and welfare of the entire region. Hence, countries with similar political and economic systems can form a monetary union more easily, compared to those with different economic and political systems (Kalamadin, 2014).

However, the success of political integration is incumbent on the prevailing political regime within a regional block. For instance, the submission of Cukierman et al., (1992) rooted in the literature of Bonomo and Terra (1999) on political cycles clearly states that

Table 1: Descriptive statistics of domestic price (PL) from 1975 to 2015

Country	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	Jarque Bera	Probability
Benin	4.3247	2.6010	38.5309	-4.8770	7.2066	3.1757	15.4138	291.6622	0.0000
Burkina	3.6898	2.3259	25.1779	-2.6818	5.4115	1.8921	8.0126	59.1691	0.0000
C. Verde	5.8836	4.4026	21.1200	-2.4775	5.9078	1.2363	4.0453	10.8097	0.0045
Cote	4.7081	3.2273	26.0816	-0.8059	5.0804	2.4744	10.1819	114.1036	0.0000
Gambia	9.1110	6.2056	56.5602	0.8450	9.8588	3.3230	16.1037	323.8129	0.0000
Ghana	28.2332	20.7731	122.8745	8.7268	25.7628	2.5717	9.5672	104.3746	0.0000
Guinea	17.9174	16.9014	64.7000	0.6738	14.2725	0.9585	4.2737	7.9460	0.0188
G. Bissau	27.1644	9.5482	112.8948	-3.5026	32.1389	0.9974	2.8942	5.9853	0.0502
Mali	4.0406	1.6720	23.1768	-9.1815	6.7603	0.7920	3.5208	4.1700	0.1243
Niger	3.1392	0.6935	36.0411	-7.7966	8.1941	2.1809	8.9677	81.9585	0.0000
Nigeria	19.4441	11.8975	72.8355	5.3822	17.7521	1.6702	4.5266	20.2327	0.0000
Senegal	3.8982	1.5608	32.2937	-4.1407	6.7542	2.4028	9.9945	108.0261	0.0000
Leon	34.3625	19.4226	178.7000	-3.2900	38.2548	1.9439	7.0099	46.7927	0.0000
Togo	4.5461	1.8621	39.1628	-3.5266	7.8144	2.7677	12.0356	168.4251	0.0000

Sources: Computation from World Bank Development indicators (2016)

totalitarian regimes are more prone to inflation than democratic regimes. Setser (2007) opines that democratic governments have a large incentive to stabilize exchange rate fluctuations and maintain a currency peg.

Economic and fiscal freedoms are important parameters to critically deal with during the formation of a monetary union. Thus, governments of economically free societies allow labor, capital and goods move freely, however, with a certain degree of liberty. Economic differences might be of greater concern for monetary integration than differences in political systems (Volz and Hamada, 2010), cited in (Kalamadin, 2014). On the other hand, fiscal freedom attracts investment and foreign capital. Countries that are hostile to foreign or domestic investors and creditors resulting from high tax rates and high levels of government spending make the environment less attractive for investment (McGee, 2007).

The economic structure of ECOWAS members is either a free market economy or a centrally planned command economy that assembles three asymmetric political regimes: Flawed democracy, hybrid regime and an authoritarian regime.

The freedom ratings of ECOWAS countries based on Freedom House Assessment (2015) show that the people of Benin, Cape Verde, Ghana and Senegal live in free societies which guarantee their civil liberty and political rights while Gambia and Guinea Bissau restrain the political rights and civil liberty of their citizens. The remaining ECOWAS members operate in-partly free societies with minimum levels of civil liberty and political rights. The freedom ratings exactly mirror the political regimes operating in the different West African countries.

Though the disparity in the freedom ratings is not wide, the prevailing asymmetric political regimes may pose serious threats to the intended currency union thereby undermining its long-run stability. For instance the recent political crises in countries like Mali, Cote D'Ivoire and recently Burkina Faso have soared their economic activities viz-a-viz other countries and have also thwarted the plans of the monetary union thereby validating the assumptions of political cycles.

Again, most ECOWAS countries don't possess fiscal freedom. This suggests that their fiscal policies have been restrained by some external influence. The external influence coupled with the future loss of monetary sovereignty may restrain their control over domestic activities. Information from Heritage Foundation (2014) shows that Cape Verde, Cote D'Ivoire, The Gambia and Niger are mostly free societies; Benin, Guinea, Mali, Senegal and Sierra Leone are moderately free while Nigeria, Guinea Bisau, Burkina Faso, Liberia and Togo are only free to control their fiscal stance. Though most countries have performed well on an average (moderately free), they still require extra effort to narrow the margin and guarantee the stability of the intended monetary union.

Furthermore, the democratic environment in ECOWAS is asymmetric. Freedom House (2014) rating shows that Togo, Nigeria, Guinea, Guinea Bissau, Gambia and Cote D'Ivoire practice authoritarian regime, while Sierra Leone, Niger, Liberian

and Burkina Faso practice a hybrid regime. Ghana, Benin, Mali and Senegal have succeeded in establishing a flawed democracy. Inferring from Freedom House (2014) statistics, a negative correlation exists between non-democratic (an authoritarian regime) with frequent political cycles and global competitiveness. For instance the authoritarian regime in Mali, Cote D'Ivoire and Burkina Faso has scored a low global competitive index of 3.32, 3.49 and 3.2 respectively relative to the level of the regime in place. This implies that, non-democratic regimes tend to discourage economically free societies.

The economic environment of ECOWAS countries is tensed based on statistics from Heritage Foundation (2014). Almost all, the West African countries scored between 50% and 59.9%, implying that the economic environment is tensed, while Ghana has a mild economic environment with a score of 64.2%. This has reduced the rate of competitiveness and trade freedom among ECOWAS countries. Conclusively, the above ratings reveal that the political and democratic environment of ECOWAS countries are highly asymmetric and calls for great concern, especially on the stability of the intended union as well as the cost of establishing the union. Literature clearly affirms that members of the European Union had established good democratic societies and free market economies before venturing into a monetary Union though economic factors now threaten its stability.

As earlier discussed, Krugman (1993) and Mongelli (2002) contributions to the TOCA theory shows that a successful monetary integration is incumbent on the "*political will and interregional compensation*" schemes of member countries. Thus, political systems matter for monetary integration even though, economic differences attract greater concern.

3. PAST AND CURRENT EMUs

The different monetary unions that existed: Latin Monetary Union (LMU), Scandinavian Monetary Union (SMU) and German Monetary Union (GMU) had their national currencies, created in the late eighteenth century were closely tied by the fixed exchange rate of the classical gold standard¹. Later, the Belgian-Luxembourg monetary union emerged during the first quarter of the nineteenth century and was the most successful monetary union ever recorded in the history of Europe because it overcame almost all their political, economic and social differences. The different monetary unions are briefly summarized below with particular attention to the European Maastricht-type monetary union created in the late nineteenth century.

3.1. LMU

The LMU was created in 1867 by Belgium, Italy, Switzerland and France with the intention of standardizing the existing gold and silver coinages of all four countries. Greece and Spain joined the union 2 years later and adhered to all the terms of the union.

¹ The gold standard is based on the followings:

- i. Free export and import of gold
- ii. Right to redeem notes for a fixed amount of gold
- iii. Fix relationship between the size of the gold reserve and the amount of circulating notes.

Although, the LMU did not share any legal tender, their national currencies were pegged at a fixed rate with each other. Romania, Bulgaria, Venezuela, Serbia and San Marino later joined the union to form a wider monetary union in 1908 which collapsed in 1914 with a total dis-functioning of the entire system in 1927. The collapse of the union was due to the depreciation of the silver, resulting from a global glut in silver production. Interestingly, Greece was expelled from the union in 1908 and later readmitted in 1917 for introducing the Gresham's Law-type problem (a monetary principle stating that "bad money drives out good"). Greece conspicuously diluted the gold content in its coins, thereby flouting the standards of LMU. Cannadine (2012) in his analysis reveals that Greece has been plagued by recurrent budget crises, ever since it gained its hard-fought independence from the Ottoman Empire in 1832.

3.2. SMU

A similar arrangement that emerged in northern Europe in 1873 formed by Sweden and Denmark and joined by Norway in 1875 gave birth to the SMU. Unlike the LMU, SMU was designed to standardize the existing gold coinage. Although, SMU adopted the krona as a uniform unit of account and provided fixed exchange rates in monetary terms, member countries continued to issue their own separate legal tenders which circulated freely in all the three countries. An agreement by SMU countries to further facilitate the free inter-circulation of all paper currency leading to the total disappearance of exchange-rate quotations among the three moneys was reached in 1885. The economic relationship among the countries remained viable until the outbreak of World War I (WWI). The economic and financial crises as a result of the WW1 led to suspension of convertibility and export prohibitions among SMU; made the terms of trade unbalanced and with a high increase in Sweden's trade surplus over its neighbours, creating a divergence of the exchange rate; and promoted the smuggling of token coins within the union. Conducting different trade policies of the three countries during the war made the currency area face an asymmetric external shock that finally collapsed the monetary union in 1923 (see, Talia, 1999 for an exposition).

3.3. GMU

The GMU, created in 1834 technically started with the political unification of German states that subsequently led to the establishment of the German customs union (Zollverein) in 1818. Specifically, the aim of the union was to abolish all internal tariffs as provided in the Treaty of Rome in 1957; facilitate trade, and increase political unity among its members. The union was divided into two distinct currency alliances: One that embodied the Northern states, with the Thaler as its basic monetary unit; and the other one encompassing southern states, using the florin as its monetary unit. Just like the LMU and SMU, the GMU standardized the gold coinage, allowed free circulation of coins and maintained fixed a exchange rate parity between the two monetary regions. In 1871, a wide and more stable monetary union that merged all the currencies of the German states was formed giving rise to the Reichsmark. The success of the Germany monetary union was predicated on a strong political unification that epitomized the creation of the German Reich (Tache, 2013). Bordo and Jonung (2013) submitted that in the past, political unifications preceded

monetary unifications. The German currency was strong enough to survive two world wars, despite the devastating hyper-inflation in 1923 and the monetary meltdown after World War II. Financial stability prevailed in Germany for many years until the outbreak of World War I, when the structure of the Zollverein which was a highly efficient fiscal tool became increasingly less suitable for developing a trade policy commensurate with the growing industrialization in Germany thereby collapsing the GMU (Tache, 2013).

3.4. Belgium-Luxembourg Economic Union (BLEU)

Although Belgium was part of the LMU before its collapse, it had created a customs union with Luxembourg in 1992 known as the BLEU. The two countries formalized a monetary union in 1935 that functioned for more than seven decades until it became absorbed in the EMU in 1999. They introduced a single currency with one monetary policy, but operating as separate political entities with separate fiscal policies. The dominating size of Belgium imposed the Belgian francs as a legal tender in both countries. Despite the existence of formal joint decision-making bodies, Luxembourg in effect existed largely as an appendage of the Belgian monetary system until both nations joined their EU partners in creating the euro (Cohen, 2008). The BLEU was the most sustainable and successful monetary union in the history of Europe, despite the dominance of Belgium over Luxembourg in terms of population, structures and economic activities.

3.5. EMU

Undoubtedly, the EMU is the most prominent example of a currency union just like the CFA zone that has spanned so many decades in Africa. The integration process of the European Union (EU) that began in 1952 was founded by France, Germany, Italy, Belgium, the Netherlands and Luxembourg. This gradually led to the creation of a customs union and the European Coal and Steel Community common market following the Treaty of Rome in 1959. The roadmap towards the successful creation of the EMU had four phases, ranging from the Werner's Report, to the European Monetary System (EMS), to the Delor's Report and to the three stages to EMU.

The first phase was initiated between 1960 and 1959, following the currency instability in Europe that forced the revaluation of the Deutschmark and devaluation of the French franc. This endangered the common price system of the common agricultural policy that was the main achievement of the European Community at that time (European Commission, 2000). Against this backdrop, the European Commission set out a framework for greater co-ordination of economic policies and monetary cooperation following the decision of Heads of State in a summit in the Hague 1969 (Barre's Report, 1996). In 1970 a Werner group submitted a final report setting out a three-stage process to achieving the EMU (Verdun, 2000).

The second phase was initiated between 1970 and 1979, specifically because the Werner's Report (1970) undermined the fixed exchange rates against the dollar amidst the prevailing market instability which eventually squashed the Deutschmark when the dollar was floated. The aftermath of the currency crisis led to the

creation of the EMS in 1979. The EMS was aimed at maintaining fixed but adjustable exchange rates, as well as efforts towards capital liberalisation, political restructuring, integration of policy making and market integration (Verdun, 2010).

The third phase between 1979 and 1991 is contained in the Delors Report (1989) supporting the creation of the EMS aimed at controlling and reducing inflation. The main goal of the EMS was to reduce exchange rate fluctuations that hindered trade, investment and economic growth.

The last phase between 1991 and 2002 provided a framework for more jobs and growth and to avoid disruption. It clearly defined a roadmap towards achieving the EMU as contained in the three-stage process and ratified in the Maastricht Treaty of July 1992. In this wise, member States were to achieve a high degree of convergence before introducing the single currency.

The first stage between 1990 and 1994 was characterized by the complete removal of all internal barriers to the free movement of goods, services, persons as well as capital within EU member states. The second stage between 1994 and 1999 was set to establish a European Monetary Institute (EMI), which laid a foundation for the European Central Bank (ECB). The ECB was mandated to enforce fiscal discipline among European members and achieve economic and monetary policy convergence and technically plan the introduction of the common currency (euro). The third stage from 1999 onwards involved the fixing of exchange rates of the currencies of the initial 11 member states (Belgium, Germany, Ireland, Spain, France, Italy, Luxembourg, Netherlands, Austria, Portugal and Finland). Greece later joined the EU on 1 January 2001 and on 1 January 2002 the euro was finally introduced (European Central Bank, 2011). National currencies circulated alongside the euro and completely phased out after 6 months, making the euro the sole legal tender in the participating countries (Kondonassis and Malliaris, 1994; Alberola et al., 2003; Salvatore, 2004; Mongelli, 2008).

3.6. EMU and the Twin Crises

Since the inception of the euro, the stability of the EMU has been seriously threatened by two major crises: The European financial crisis and the European debt crisis. Prior to the twin crises specifically between the period 2002 and 2008, many countries had benefited from lower interest and inflation rates instituted by the European Central Bank (ECB) Mongelli and Wyplosz (2008). Although, the single monetary policy was contractionary for countries like Germany, France and Italy, making their economies less competitive, the policy on the other hand, was expansionary for catching-up economies like Ireland, Greece and Spain where companies and households had a strong incentive to borrow and invest, which boosted their domestic GDP growth (Sterdyniak, 2010).

Generally the outlook for the EMU was positive prior to the crises. Mongelli and Wyplosz (2008) established that the value of imports and exports of goods within the euro area increased to 33% of GDP in 2007 as against 26% of GDP in 1998, while intra-euro area services trade also moved from 5% to 7% of GDP within

the same period. The volume of trade between EMU and non-EMU countries increased significantly by 27% since the creation of EMU (Baldwin and Gros, 2015). The substantial increase in cross-border financial integration across the euro area stimulated financial development through the lowering of transaction costs and the expansion in the volumes of financial assets (Lane, 2008). Transaction costs in equity and corporate bond markets had fallen drastically, whereas the spreads in government-bond markets narrowed and tended to move together. Though, retail banking activities remained fragmented, interbank markets witnessed a considerable level of integration (Kalemli-Ozcan et al., 2008).

The ECB's commitment to maintain low interest rates led to large intra-euro zone capital flows, primarily in the form of bank loans that fostered real convergence among core euro zone nations like Germany, France and the Netherlands and periphery nations like Ireland, Portugal, Spain and Greece with a general increase in government spending in these periphery countries.

Periphery nations borrowed excessively, procured government bonds of other countries at cheaper rates, but spent the borrowed monies prodigally. The cause of the crisis is almost similar to periphery countries. For instance, Greece (loans totalling €240bn) – high public sector debt, generous public sector benefits, chronic tax evasion and weak competitiveness; Ireland (loans totalling €85 billion, including €17.5 billion from Irish Treasury and National Pension Reserve Fund) – declining competitiveness and property bubble funded by banks which burst and were taken over and underwritten by the state, causing government debt crisis; Portugal (loans totalling €78bn) – moderately high private and public sector debt, weak competitiveness, and anaemic growth; Spain (loans totalling €41bn) – an ailing banking sector had lent heavily to construction sector before the housing bubble burst; Cyprus (loans totalling €10bn) – collapse of the banking sector (massive relative to size of economy), partly due to links to Greece (Harari, 2014). Wijffelaars and Loman (2015) note that cheap (foreign) credit was often not used for productive investment, but rather to finance consumption, an oversupply of housing.

Many European banks had overstretched loans and mortgages to households (asset bubbles) which subsequently constrained bank's liquidity due to the inability of governments and private organizations to repay and service their debts. Consequently, this created investors' panic and a sudden-stop of intra-euro zone capital flow that created large current account deficits, with a rapid increase in the public debt ratio for periphery countries (Baldwin and Gross, 2015).

Summarily, housing bubbles which eventually burst and fiscal profligacy were the major precursors of the banking crisis that seriously constrained EMU banks' liquidity. This precipitated a sequence of bailouts that exacerbated the already existing deficits that were large due to decreased tax revenues, leading to a rapid increase in public debts of periphery countries. To salvage the situation, EU governments and IMF granted emergency loans to Greece in May 2010 and February 2012, Ireland in November 2010, Portugal in May 2011, Spain in July 2012 and Cyprus in May 2013. These countries were compelled to implement economic

reforms and austerity measures that would reduce their budget deficits and make their economies more competitive.

4. LESSONS OF EMUs TO ECOWAS

Many lessons can be derived from the nineteenth and twentieth centuries' monetary unions, both at the level of their creation and from the different crises that ensued after their creation.

First, the framework of the EMU preceded distinctive stages that sought to analyze its feasibility and functionality. During these stages, lucid reports such as the Wener and Delor's reports provided reasons for the creation of the EMU. Many empirical studies analyzed the intricacies as well as the cost/benefit implications of merging countries with different differentials under one common Central Bank. Therefore, such reports as well as a common methodology predicated on a lucid framework for macroeconomic estimations are imperative for the monetary integration process in West Africa. To this end, all member nations should comply with the laid down policy framework and work towards a common financial and economic policy.

Secondly, the creation of the EMU was predicated on the Maastricht-type convergence criteria which are similar to the ECOWAS convergence criteria. For ECOWAS countries to avoid eventual crises, member countries should strive to meet all the convergence criteria without manipulating the macroeconomic indices like in the case of some periphery countries prior to the creation of the EMU. This implies that the structures of WAMI should be reinforced to analyse claims on the status of macroeconomic variables for the various countries. WAMI should be able to form subcommittees that can provide substantial submissions similar to the Wener and Delor's reports.

Thirdly, although ECOWAS countries are unevenly distributed in terms of human and physical resources, the BLEU and EMU experiences have shown that both larger and smaller economies can operate under a common monetary framework. Therefore, the fear of the dominance of larger economies over weaker ones should not deter the process and structures already put in place. This implies that ECOWAS countries can foster real convergence by operating a common monetary policy if they are really committed.

Fourthly, the ECOWAS Central Bank will likely commit itself to maintaining low interest rates just as the ECB prior to the EMU banking crisis. This certainly will encourage smaller nations to easily access funds that will increase their level of competitiveness and also give larger economies a leverage to boost their economic prowess. However, the process should be void of excessive borrowing and financial irresponsibility, since this will reduce the risk of increasing member countries' budget deficits thereby curtailing any eventual debt crisis. This is critical for ECOWAS, if finally the common Central Bank is borne.

According to Agyapong (2014), the West African monetary zone will also have to learn from the issue of investor panic which tends to worsen currency crisis. Therefore, frequent information dissemination by WAMI about the state of the region would help

in this direction to address the issue of investor panic. This will require that ECOWAS countries work towards a high level of market efficiency across the entire region.

Unlike the EMU, the sustainability of the GMU was premised on a strong political unification. According to Mokoena (2012), the absence of a political union and budgetary integration constituted important flaws in the integration design of the EMU. De Grauwe (2006) cited in Mokoena (2012) emphasizes that the lack of political union over burdened the ECB with macroeconomic management, which was not, and is possibly still not, ready or willing to carry such burden. Thus, to guarantee the sustainability of the intended monetary union, ECOWAS countries should be more politically and fiscally united in order to facilitate the macroeconomic management of the entire region.

5. CONCLUSION AND RECOMMENDATIONS

The formation of the EMU was predicated on the OCA theory. The occurrences of crises in the Euro zone are indicative of the fact that the requisite conditions of the OCA criteria were not satisfied by all the member countries. ECOWAS Heads of States were greatly inspired by the benefits of a monetary union and are committed to forming a monetary by 2020, even though the macroeconomic indicators in entire region show that their economies are persistently being hit by asymmetric shocks. This also indicates that the requisite conditions of the OCA criteria have not been met by member countries. This implies that the envisaged West African Monetary Union may experience the Euro zone-type crises, hence compromising the stability of the monetary union.

In order to avert an unstable monetary union, ECOWAS governments can decide to shift the targeted date for the monetary union beyond 2020, since this will give ample time for member countries to work fervently towards fulfilling the requisite conditions of the OCA theory. In other words, any member country that does meet the requirements should not be admitted into the union. This recommendation is crucial and serves as a signal to ECOWAS based on the fact that the stability of the Euro zone was compromised from the very onset due to the admittance of most European countries that failed to meet the OCA criteria.

It is certain that a group of countries in a monetary union will still face crises, whether they meet the OCA criteria or not, simply because shocks are unexpected and undefined. This means that fiscal discipline and political will of West African, States should precede should the OCA criteria.

REFERENCES

- Agyapong, D. (2014), The eurozone currency crisis: A lesson for the West Africa monetary zone. *Asian Journal of Business and Management Sciences*, 1(11), 11-25.
- Alberola, E., Buisán, A., De Lis, F. (2003), The quest for nominal and real convergence through integration in Europe and Latin America. In: Van der Haegen, P., Viñals, J., editor. *Regional Integration in Europe and Latin America: Monetary and Financial Aspects*. England: Ashgate Publishing Limited.

- Alesina, A., Spolaore, E., Wacziarg, R. (2000), Economic integration and political disintegration. *American Economic Review*, 90(5), 1276-1296.
- Alesina, A., Spolaore, E., Wacziarg, R. (2005), Trade, growth and the size of countries. In: Aghion, P., Durlauf, S., editors. *Handbook of Economic Growth*. Part 2. Vol. 1. Ch. 23. Amsterdam, North Holland: Elsevier. p1499-1542.
- Alturki, F. (2007), *Essays on Optimum Currency Areas*. Unpublished PhD Thesis Macroeconomics, University of Oregon, United States, Oregon.
- Angelini, P., Lippi, F. (2007), Did prices really soar after Euro cash changeover? Evidence from ATM withdrawals. *International Journal of Central Banking*, 3(4), 1-22.
- Atta-Mensah, J. (2013), Africa's Quest for Deeper Integration. Available from: <https://www.africaupclose.wilsoncenter.org/africas-quest-for-deeper-integration>.
- Baldwin, R., Gros, D. (2015), What caused the Eurozone Crisis? CEPS Commentary. Available from: <https://www.ceps.eu/system/files/What%20caused%20the%20EZ%20Crisis%20RB%20DG%20CEPS%20Commentary.pdf>.
- Barre's Report. (1996), Commission Memorandum to the Council on the Co-ordination of Economic Policies and Monetary Co-operation within the Community. Available from: http://www.ec.europa.eu/archives/emu_history/documentation/chapter2/19690212en015coordineconpoli.pdf.
- Bartram, M., Karolyi, K. (2006), The impact of the introduction of the Euro on foreign exchange rate risk exposures. *Journal of Empirical Finance*, 13, 519-549.
- Bogdanova, O. (2009), The economic pros and cons for Latvia joining the European monetary union. *Ekonomikair Vadyba: Aktualijos ir Perspektyvos*, 1(14), 35-43.
- Bonomo, M., Terra, C. (1999), The Political Economy of Exchange Rate Policy in Brazil: 1964-1997. Research Network Working Paper R-367. Washington, DC, United States: Inter-American Development Bank, Research Department.
- Bordo, M., Jonung, L. (2013), The Future of EMU: What Does the History of Monetary Unions Tell Us? NBER Working Paper 7365.
- Brou, D., Ruta, M. (2007), Economic Integration, Political Integration or Both? 3rd Annual Conference of the Euro-Latin Study Network on Integration and Trade (ELSNIT) in Kiel. Available from: https://www.wto.org/ENGLISH/res_e/reser_e/gtdw_e/wkshop08_e/ruta_e.pdf.
- Broz, T. (2005), The theory of optimum currency areas: A literature review. *Privredna Kretanja i Ekonomska Politika*, 104, 53.
- Cannadine, P. (2012), A Point of View: Making Friends the Shared Currency. *BBC News Magazine*. Available from: <https://www.bbc.com/news/magazine-17140379y>.
- Chintrakarn, P. (2008), Estimating the Euro effects on trade with propensity score matching. *Review of International Economics*, 16(1), 186-198.
- Chuku, A. (2012), The Proposed Eco: Should West Africa Proceed with a Common Currency? Centre for the Study of African Economies (CSAE); Conference on Economic Development in Africa. Oxford: Oxford University.
- Cohen, B. (2008), Monetary unions. In: Whaples, R., editor. *EH.Net Encyclopedia*. Available from: <http://www.eh.net/encyclopedia/monetary-unions>.
- Cukierman, A., Edwards, S., Tabellini, G. (1992), Seigniorage and political instability. *American Economic Review*, 82(3), 537-555.
- De Grauwe, P. (2006), What have we learnt about monetary integration since the Maastricht treaty? *Journal of Common Market Studies*, 44(4), 711-730.
- Dellas, H., Tavlas, G. (2009), An Optimum-Currency-Area Odyssey. Bank of Greece, Working Paper No. 102.
- Delors Report. (1989), Report on Economic and Monetary Union in the European Community, Committee for the Study of Economic and Monetary Union, Luxembourg: Office for Official Publications of the European Communities. Available from: <http://www.ec.europa.eu/economy-finance/publications/publication6161-en.pdf>.
- European Central Bank. (2011), Progress of European Integration. European Central Bank Ecosystem. Available from: <http://www.ecb.int/ecb/educational/facts/euint/html/ei001.en.htm>.
- European Commission. (2000), Report from the Commission Convergence. Available from: http://www.ec.europa.eu/economy_finance/publications/european_economy/2000/index_en.htm.
- Fischer, C. (2009), Price Convergence in the EMU? Evidence from Micro Data. Discussion Paper Series 1: Economic Studies, 2009, 06, Deutsche Bundesbank.
- Freedom House Assessment. (2015), Available from: <https://www.freedomhouse.org/report/freedom-world-2014>.
- Friedman, M. (1953), The case for flexible exchange rates. In: Friedman, M., editor. *Essays in Positive Economics*. Chicago: University of Chicago Press. p157-203.
- Glick, R. (2005), Does Europe's path to monetary union provide lessons for East Asia? *Economic Research Federal Reserve Bank of San Francisco Economic Letter*, 3, 2005-2019.
- Grabner, M. (2003), The Costs and Benefits of Monetary Union. Available from: http://www.econ.ucdavis.edu/graduate/mgrabner/research/monetary_union.pdf.
- Grettisson, H. (2010), Is Iceland an Optimum Currency Area? Empirical Estimation of the Effect of EMU on Trade. Unpublished Master's Thesis Submitted for the Degree of Master of Science in International Economic Consulting, Aarhus School of Business, Aarhus University.
- Harari, D. (2014), Causes of the Euro-zone Crisis: A Summary. Greek: House of Common Library.
- Heritage Foundation. (2014), Indices of Economic Freedom. Available from: https://www.en.wikipedia.org/wiki/Indices_of_economic_freedom.
- Ishiyama, Y. (1975), The theory of optimum currency areas: A survey (La theorie des zones monetaires optimales: Etude) (La teoria de las zonas monetarias optimas: Un examen). *Staff Papers International Monetary Fund*, 22(2), 344-383.
- Jonung, L., Sjöholm, F. (1999), Should Finland and Sweden form a monetary union? *The World Economy*, 22(5), 683-707.
- Kalamadin, S. (2014), Feasibility of a Monetary Union in East African Community. Unpublished Thesis Submitted to the Faculty of Economics and Administration University of Malaya Kuala Lumpur.
- Kalemli-Ozca, S., Manganelli, S., Papaioannou, E., Peydró, J. (2008), In: Maćkowiak, B., Mongelli, F., Noblet, G., Smets, F., editors. *Financial Integration, Macroeconomic Volatility and Risk Sharing the Role of the Monetary Union*. Fifth ECB Central Banking Conference 13-14 November 2008. Available from: <http://www.ecb.europa.eu>.
- Kenen, P. (1969), The Optimum Currency Area: An Eclectic View, Mundell, Robert/Swoboda. *Monetary Problems of the International Economy*. Chicago: University of Chicago Press. p41-60.
- Kochanová, M. (2008), Theoretical foundations of a monetary union and their application to the Slovak economy. *National Bank of Slovakia*, 16(2), 1-6.
- Kondonassis, J., Malliaris, G. (1994), Toward monetary union of the European community: History and experiences of the European monetary system. *American Journal of Economics and Sociology*, 53(3), 291-301.
- Krugman, P. (1990), *Geography and Trade*. Cambridge, Massachusetts: The MIT Press.
- Krugman, P. (1993), The hub effect: Or, threeness in interregional trade. In: Ethier, W.J., Helpman, E., Neary, J.P., editors. *Theory, Policy and Dynamics in International Trade*. Cambridge: Cambridge University Press.

- Krugman, P., Obstfeld, M. (2009), *International Economics: Policy and Theory*. Canada: Pearson, Addison-Wesley.
- Lane, P. (2008), In: Maćkowiak, B., Mongelli, F., Noblet, G., Smets, F., editors. *EMU and Financial Integration. Financial integration, Macroeconomic Volatility and Risk Sharing the Role of the Monetary Union*. Fifth ECB Central Banking Conference 13-14 November 2008. Available from: <http://www.ecb.europa.eu>.
- Ling, H. (2001), Optimum currency areas in East Asia: A structural VAR approach. *ASEAN Economic Bulletin*, 18(20), 206-217.
- McGee, W. (2007), *Fiscal Freedom in Transition Economies and the OECD: A Comparative Study*. Andreas School of Business Working Paper Series, Barry University, Miami Shores, FL 33161 USA.
- McKinnon, R. (1963), Theory of optimum currency area. *American Economic Review*, 53(4), 717-725.
- McKinnon, R. (2004), Optimum currency areas and key currencies: Mundell I versus mundell II. *Journal of Common Market Studies*, 42(4), 689-715.
- Mokoena, T. (2012), *The Feasibility of forming a Monetary Union in SADC: Meeting Convergence and Optimum Currency Area Criteria and Evaluating Fiscal Sustainability*. Unpublished M.sc Thesis. Department of Economics and Economic History Rhodes University, Grahamstown.
- Mongelli, P. (2002), *New Views on the Optimum Currency Area Theory: What is EMU Telling us?* European Central Bank, Working Paper No. 138.
- Mongelli, P. (2008), *European Economic and Monetary Integration and the Optimum Currency Area Theory*. Research Paper. Belgium, European Commission. Available from: <http://www.ec.europa.eu/economy-finance/publications/publication12081-en.pdf>.
- Mongelli, P., Wyplosz, C. (2008), *The Euro at Ten: Lessons and Challenges*. ECB Central Bank Conference 13-14 November 2008. Available from: <http://www.ecb.europa.eu>.
- Mougani, G. (2014), *Analysis of Impact of Financial Integration on Economic Activity, Trade Openness and Macroeconomic Volatility: The Case of African Pre-emerging and Low Income Countries*. Vol. 2. Abstract of Economic, Finance and Management Outlook, Conscientia Beam. p1-14.
- Mundell, R. (1961), A theory of optimum currency areas. *The American Economic Review*, 51(4), 657-665.
- Nicolas, M., Firzli, J. (2010), *Greece and the Roots the EU Debt Crisis*. The Vienna Review Newspaper.
- Salvatore, D. (2004), *Introduction to International Trade*. New York: John Wiley and Sons Inc.
- Setser, B. (2007), *The Case for Exchange Rate Flexibility in Oil-Exporting Economies*. Peterson Institute for International Economics Policy Brief 07-8. Washington, DC: Peterson Institute for International Economics.
- Sterdyniak, H. (2010), *The Causes of European Debt Crisis. Overcoming the Debt Crisis and Securing Growth, Irreconcilable Challenges for the Eurozone?* Centre de Reserache Économie de Science PO. Franco-German Conference, 3 May 2010.
- Tache, I. (2013), Historical record of monetary unions: Lessons for the European economic and monetary union. *Bulletin of the Transilvania University of Braşov*, 6(2), 161-117.
- Talia, K. (1999), *The Decline and Fall of the Scandinavian Currency Union 1914-1924. Events in the Aftermath of World War I*. Available from: <http://www.citeseerx.ist.psu.edu/viewdoc/download?>.
- Tavlas, G. (1993), The new theory of optimum currency areas. *World Economy*, 16(6), 663-685.
- Tavlas, G. (2009), Optimum currency area paradoxes. *Review of International Economics*, 17(3), 536-551.
- Tsangarides, C., Qureshi, M. (2008), *Monetary union membership in West Africa: A cluster analysis*. *World Development*, 36(7), 1261-1279.
- UNCTADstat. (2015), Available from: <https://www.unctadstat.unctad.org/CountryProfile/en-GB/index.html>.
- UNCTADstat (2016), Available from: <https://www.unctadstat.unctad.org/CountryProfile/en-GB/index.html>.
- Verdun, A. (2000), *European Responses to Globalisation and and Financial Market Integration, Perceptions of EMU in Britain, France and Germany*. Basingstoke, Macmillan/New York: St. Martin's Press.
- Verdun, A. (2010), Ten years EMU: Assessment of 10 critical claims. *International Journal of Business Research*, 2(1/2), 144-163.
- Volz, U., Hamada, K. (2010), *A Review of Prospects for Monetary Cooperation and Integration in East Asia*. Cambridge, MA: The MIT Press.
- Werner, P. (1970), *Report to the Council and the Commission on the Realization by Stages of Economic and Monetary Union in the Community*. Available from: http://www.ec.europa.eu/archives/emu_history/documentation/chapter5/19701008en72realisationby stage.pdf.
- Wijffelaars, M., Loman, H. (2015), *The Euro Zone (debt) Crisis. Causes and Crisis Response*. Rabo Bank Economic Report. Available from: <https://www.economics.rabobank.com/publications/2015/december/the-eurozone-debt-crisis--causes-and-crisis-response>.
- World Development Indicators. (2014), *World Development Indicators*. Washington, DC: World Bank Group. Available from: <http://www.documents.worldbank.org>.
- World Development Indicators. (2015), *World Development Indicators*. Washington, DC: World Bank Group. Available from: <http://www.documents.worldbank.org>.