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Potential Instruments That the ECB Could Take in Order to Face the Euro Zone Crisis

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Keywords: *Euro zone crisis, monetary/fiscal policies, Open Market Operations (OMO), Interest rates and Fiscal Pact*

Abstract: *The Euro Zone crisis involves a wide range of situations in which economies, financial institutions and assets have lost a substantial portion of their value. The economic impact of the crisis has propelled economies to devise more aggressive strategies to face the crisis as discussed in the context of this review which adds to the body of knowledge available for economists to face future crises.*

Introduction

The Euro Zone crisis has had substantial strain on the economic and financial structures of the economies within the region which raises undue concern among economists. It was part and parcel of the global financial crisis that began in the year 2007 and gathered intensity in the periods beyond the year 2008. The spread of the crisis from one economy to the other was so powerful that it could overdo the efforts of central banks and financial regu-

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lators in the economy. Economists have pointed out the dynamic United States house prices, which were mainly driven by price expectations of investors. Anticipants of high capital gains attached to housing property led to a house prices bubble which later busted to cause major effects to the U.S economy, as well as other closely-related economies. The busting was in the form of lowering property prices, which in turn brought down investors' expectations of higher prices in the future. In this regard, they saw no possibility of honouring their mortgage loan commitments, which resulted in huge imbalances in the banking sector. The effects of the busting of the housing bubble in the U.S economy affected most sectors of the economy especially the investment and financial sectors with banks tailoring their mortgage terms and saleable financial assets to attract more borrowers and investors respectively. Economists in the United States' FED and Euro Zone's ECB, as well as economists in individual economies across the globe later pointed out to the undue urgency in coming up with different policies and instruments that would help them face the crisis. Such policies and instruments are emphasised in this review. It is in this respect that they came up with different monetary and fiscal instruments that would solve the economic problems faced by the economies within the Euro Zone and the overall global economy.

Goals and Thesis Statement

Economic growth and stability in the Euro Zone is a vital issue to the households, businesses, government, and trade partners within the region. These parties have participated in different ways in ensuring that the European Union emerges strong at the end of the financial crisis. The goal of this review is to evaluate the Euro Zone in the turmoil of the recent Euro Zone Crisis and its actions in facing it to ensure economic stability and protection from future crises. In order to achieve this goal, the review will also be aimed at evaluating the background of the Euro Zone Crisis and the performance of the economies in the region during and after the crisis. The Euro Zone has used different tools, including fiscal and monetary policies, fiscal economic stimulus, and economic structural reforms, in facing the crisis.

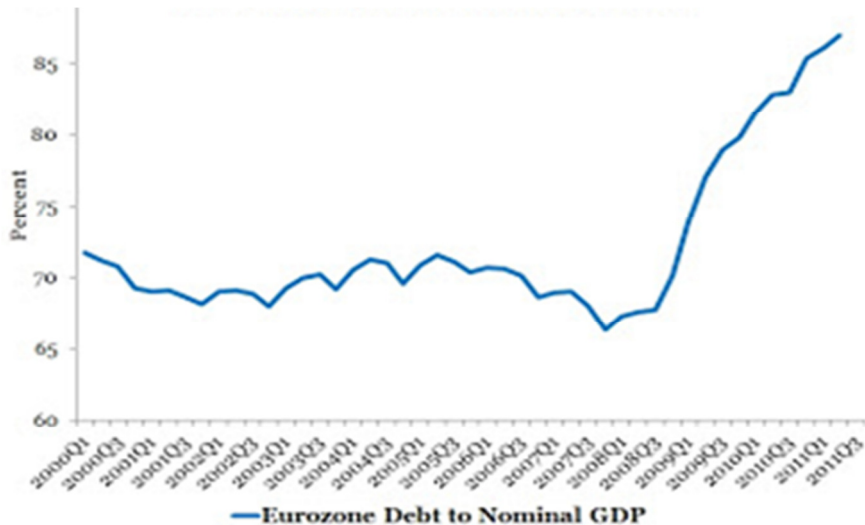
Background Information

The Euro Zone has been in the midst of one of the deepest recessions that the world economy has ever experienced recently, with major economies being greatly affected. The effect of the Euro Zone economic crisis has resulted in

shrinking of the real GDP with the output of each of the economic sectors remaining highly fragile and in a declining state. The European Central Bank (ECB) has not only intervened to stabilize, reform, and restore the economy, but has enacted policies that respond to the economic downturn. Major efforts have been aimed at stabilizing the banking and other financial sectors. The ECB launched the European Economic Recovery Plan (EERP) at the end of the year 2008 with the main objective of restoring confidence while boosting demand in the economy through a planned injection of more effective purchasing power into the markets coupled with strategic investments and attempts to stabilize business and labor markets. The complete fiscal stimulus used by the ECB in facing the Euro Zone crisis including automatic stabilizers used, compose a substantial amount of the EU's real GDP. The European Economic Recovery Plan (EERP), proposed by the European Union, was aimed at enhancing demand and spawn investor confidence through the provision of a coordinated fiscal stimulus. The stimulus was accompanied by a enhancement of more efficient structural reforms. Since the stimulus was aimed at promoting more innovation, employment, and low carbon economy, as well as ensuring that the European Union emerges stronger at the end of the crisis, it was spending a substantial portion of the GDP as stipulated in the Lisbon Strategy for economic growth and stability (European Council 2012, p. 7).

According to the ECB's analysis, unless economic policies face any new challenges, future GDP in the Euro Zone may decline to a long term lower trajectory, as a result of different factors. Such factors include protracted cases of unemployment that contribute to the overall loss of human power and skills. In addition, the level of infrastructure development may decrease and turn out to be obsolete owing to reduced investment in the economy (Bassanini, Reviglio 2011, pp. 31-75). In order to ensure that the recovery maintains the union's economic growth, the focus has increasingly swung from short-term demand to supply-side structural changes. Failure to shift such attention could cause the restructuring process to become impeded while creating distortions in the internal market as well. In addition, while once again necessary, the fiscal stimulus is provided at a cost. Currently, the public debt in the Euro region has been rising as depicted by Figure 1.

Figure 1. The Euro Zone government debt burden in years 2000-2011 (percentage of Euro debt to nominal GDP)



Source: Klein (2011).

Euro Zone's Stability and Growth Pact offers flexibility for fiscal stimulus packages during the crisis. However, consolidation is inevitable at a time when the recovery takes shape and the risk of economic relapse diminishes to a safe level. In order to stop the spread of the crisis, different monetary and fiscal instruments have been used which have had a great impact on the level of the economic recovery achieved by the Euro Zone. The use of interest rates and the money supply dynamics have been effective tools in this recovery (Hendry et al. 1991, pp. 8-25).

The Euro Zone Crisis

Increasing debt levels in major world economies including the U.S was a major cause of the Euro Zone crisis. Due to the busting of the housing bubble in the U.S and the fall in their banking systems, major economic impacts were made to the European economy. Concurrently, the sovereign debt crisis in the Euro Zone rose towards investors as a result of rising government debts in the global economy together with an influence of downgrading government debt in European economies (Rivera 2012, pp. 459-468). This had different impacts to the Euro Zone with the convergence of European economies increasing the spread of the effects since economic problems in

one economy affected all other economies within the Euro Zone creating a wave of economic crisis throughout the integrated economy system.

Rising household, business, and government debt levels were also major contributing factors to the Euro Zone crisis. The Maastricht Treaty of the Euro Zone implicates limits to deficit spending and debt intensity. However, some of the European economies carried out economic steps for their own interests rather than the interests of the entire zone which circumvented the treaty's role (Flood 1981, pp. 16-39). Such economies would mask their debt levels and deficit spending through such scrupulous methods as inconsistent accounting, which resulted in a wave of rising debt levels all over the zone. In addition, the rising debt levels within the Euro Zone were partly caused by big-size bailout packages offered to the banking sectors during the spreading global financial crisis earlier in 2007. This resulted in rising fiscal deficits in the European economies. Rising household debt levels also contributed to the rising national deficit spending. The rising debt levels in the overall European economy were thus major contributing factors to the Euro Zone Crisis (Rivera 2012, pp. 459-468).

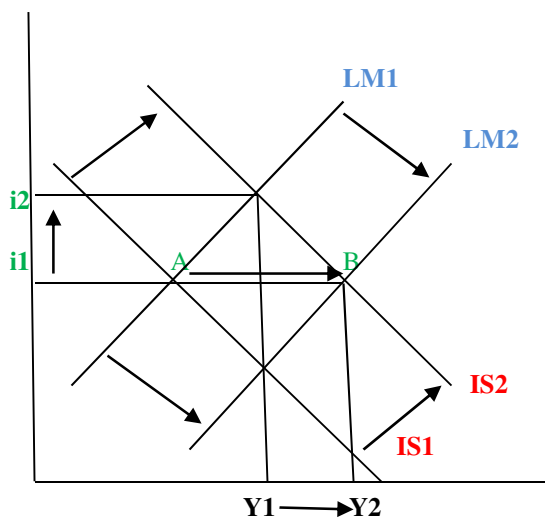
Regardless of the effect of the rising debt levels, the economic crisis may not be fully attributed to such debts. Economists propose that during the period of the financial crisis, the European debt levels were no worse; rather, they were better than those of other economies including the U.S and the U.K. In this respect, other factors also contributed to the financial crisis. The issues related to the structure of the Euro Zone may also have contributed to the crisis. The structural problem of the Euro Zone involves the creation of a monetary union through a common currency without a united fiscal policy (Rivera 2012, pp. 459-468). The fiscal policy in this case carries out major economic functions including taxation, treasury, and pension schemes. Though the European economies follow a comparable fiscal path, they do not have a unified treasury to carry out the enforcement of such fiscal guidelines (European Commission Directorate 2009, p. 34).

In the structure of the Euro Zone, some of the fiscal policies are left under the care of individual economies. Individual economies may implement monetary and fiscal policies that cater for their individual economies' welfare, rather than the welfare of the union. Additionally, the Euro Zone's structure may make it difficult to enable a quick response to urgent economic issues (Von Hagen, Eichengreen 1996, p. 134). In this regard, unanimous consent to decision making processes may prove unachievable which makes it difficult to prevent economic contingencies. Due to this structure, the banking sectors of the different economies in the union can carry out their operations without surveillance by the union. Such a structure leaves the economy at the risk of local mismanagement, which encourages recklessness

for short term benefits (Rivera 2012, pp. 459-468). This may have an effect on the long term welfare of the whole of the European Union.

In addition to these aspects, the Euro Zone crisis was preceded by a period of fast credit growth, high liquidity, lowering asset prices, low risk premiums, and real estate bubbles (Romer 2006, pp. 57-79). The IS-LM framework may be used to depict the influence of the actions by the government and the ECB to change the real GDP and economic growth through the adjustment of interest rates and thus access to money (Romer 2006, p. 19). This is depicted as shown in Figure 2 below. The IS curve represents the investment and savings made by the economy while LM curve depicts the liquidity preference and money supply relationship.

Figure 2. IS-LM Model – consequences of the use of monetary and fiscal policies to face the crisis



Source: Own work.

In this case, when the interest rates are raised from i_1 to i_2 as was the action by the ECB to face the Euro Zone crisis, the IS curve shifts to the right raising the equilibrium income from Y_1 to Y_2 which results in the expansion of the real GDP and thus more economic growth and stability especially when in the process of recovering from a financial crisis. As at this point, there occurs a rise in the real income earned by households which increases the investment, savings, and consumption in the goods market. This generally increases the income of a whole economy. Consequently, a rise in the

interest rates leads to an adjustment in the money market where increasing demand for money required for investment, saving, and consumption, increases the interest rates further, reducing the liquidity of money which leads to a shift in the LM curve from LM1 to LM2 as shown below. The point of equilibrium between the investment-savings combination and the liquidity-money supply combination shifts from point A to point B, generally increasing the real income within the economy and inducing equilibrium between interest rates and income with the economy achieving a point of equilibrium.

The exaggerated leverage positions increased financial institutions' vulnerability to the poor condition of the asset markets (Anderson 1998, pp. 27-34). The impact of the crisis resulted in different impacts to the different sectors of the Euro Zone economy that paved way for the ECB and economists to develop measures to face the crisis.

Economic Consequences of the Crisis

The Euro Zone crisis has had a great impact on the EU's real economy which further resulted in adverse effects on asset valuations and access for credit. The potential output of the EU economies in terms of the GDP has also been affected as depicted in the Figure 3. The level of economic output in relation to full utilization of factors of production has had major implications on the long term economic growth outlook and thus the economic situation in the European economies (Flood 1981, pp. 19-41). It is due to these effects that the zone should come up with more efficient economic instruments to face the crisis.

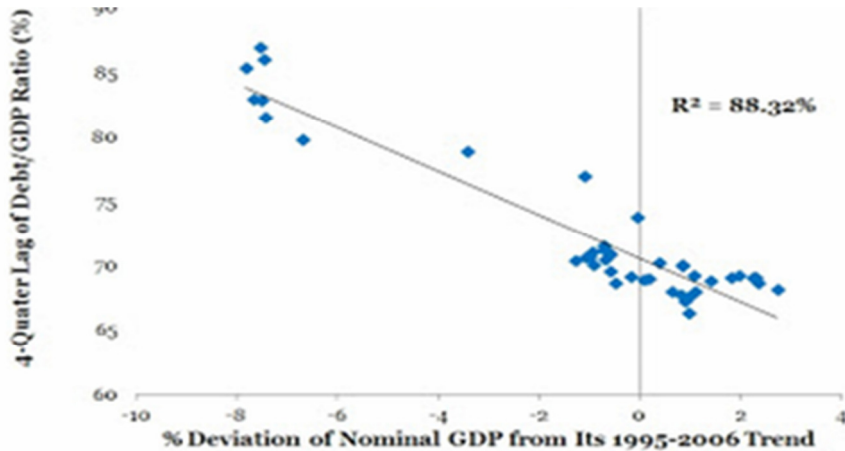
The effects on the economic activity and growth were transmitted through various channels, including the financial systems where in the process of deleveraging, banking institutions reduced exposure to developing markets, while subsequently repatriating capital and restricting credit lines. This restrained funding to households and investors.

In addition, wealth and confidence were implicated with high-end effects on demand. Prinz and Beck (2012) hold that the stiffening lending standards, coupled with the dropping asset prices, led to the plummeting of consumer wealth and thus residential investment. This had an overall effect on the economic activity in the EU.

Due to the reducing business investment and consumer durables demand which are dependent on credit, world trade plunged. According to Lane (2012), most of the activities in the EU that are related to international trade are usually trade intensive and deal with capital goods, as well as consumer durables. The restrictions on access to finance due to the financial crisis and

the prevalence of international supply chains resulted in huge impact on the economic activity of the EU.

Figure 3. Nominal income gap and the European debt burden (% deviation against % GDP ratio)



Source: Klein (2011).

Credit losses by financial markets had a great impact on the real economy, creating an under-pricing effect on credit risks and defaults and increased excessive risk taking (Lazar 2009, pp. 525-530). The credit losses by banking institutions were considered as a major reason for the difficulties experienced by the banking system during the rise of the crisis. As mentioned earlier, the households and businesses defaulted hugely on loans and equity resulting to credit losses, which resulted in lower bank equity levels and rising leverage levels. In regard to this effect, risk-averse investors supply funds to such institutions based on the leverage position. Depletion of bank equity resulted in adverse shift of bank funding supply curve which in turn requires such banks to be charged a risk premium on deposits and inter-bank loans (Maddison 2007, pp. 2-17).

The effects sound more aligned to the operation of financial markets. During the time of the economic crisis, the prices of accessing new bank capital in the financial markets increased, with the investors gaining higher knowledge levels on the rising risks of their investments in capital assets. They, in turn, made demands for compensation related to the risk of equity losses due to the probability of loan defaults. Such aspects contributed to the rise in banks' funding costs, which are then shifted to the investors through

increased loan interest rates. Due to the rising risk aversion by savers, the effects of falling interest rates on safe assets, such as government bonds, are noticed in the economy. The overall impact of the credit losses during the financial and economic crisis is depletion of bank equity that in turn results in adverse impacts on the supply of credit and thus the real economy.

The impact of the economic and financial crisis on a potential growth of the economy is important since it closely correlated with the advancement of the households' long term standards of living. Such an impact also acts as a gauge to the economic slack which, in turn, directs the room for instant economic policy stimulus (Romer 2006, pp. 103-119). The European potential economic growth lowered during the crisis. The financial crisis weakened investment opportunities due to the resultant high cost of credit especially in the short run (Lane 2012, pp. 49-68). This weakened opportunities for viable investments, which resulted in slow growth of young businesses and consequent downsizing of already established businesses, resulting in increase in the rates of unemployment (Dye 1992, pp. 44-58). Generally, expectations by households to get employed and expectations by the economic industry to employ new employees have reduced since the onset of the economic and financial crisis in the Euro Zone at the end of the year 2007.

Main Instruments in Facing the Crisis

Aware of the great financial and economic risk that both governments and central banks were exposed to, the Euro Zone embarked on a highly aggressive policy action to mitigate the Euro Zone crisis. Most of the financial rescue policies were focussed on attaining more stable liquidity level and capital investment in banks and other financial institutions. This was, in turn, aimed at guaranteeing the European economies that the financial system will be functioning again (Ross 2000, pp. 117-119). In this regard, deposit guarantees in banking institutions were raised with central banks cutting policy interest rates to lower levels while, in turn, giving banking institutions way in services where such central banks were the lenders of the last resort. In addition, governments provided liquidity facilities to banking institutions that were undergoing financial shortcomings, as well as state guarantees on the debts. Such actions were followed by impaired asset relief and capital injections (Maddison 2007, pp. 17-25). Based on the European Economy Recovery Plan (EERP), an open fiscal stimulus was offered which compiled of a whole 2% of the zone's GDP. All these measures by the governments and central banks respected most of the agreed principles between the mem-

bers, including being both focused and timely in terms of implementing economic policies. Additionally, the Stability and Growth Pact of the Euro Zone was implemented in a supportive and flexible framework in order for automatic fiscal indicators to be functional in all the member states.

Dispersion of the financial stimulus across the Euro Zone has been substantial with each of the economies distributing the stimulus according to their different needs (Flood 1981, pp. 16-40). In an attempt to avoid misappropriations in human capital, economies should have provided viable industries in their economies with temporary-based employment while subsequently aiming at developing guidelines to govern the operations of the labour market (Ahrend et al. 2008, pp. 564-597). These actions were taken by the concerned governments and economic authorities. In this regard, the ECB and the Fed, which compose high-end economic decision makers in the global economy, applied the use of different tools in dealing with the crisis.

Roles of the Fed and ECB in Facing The Euro Zone Crisis and Instruments Used

The two economic bodies have attempted to apply different monetary and fiscal policies and other instruments in facing the crisis. In the adoption of any monetary policy, the Fed and the ECB use the same range of tools (Romer 2006, pp. 16-56). These monetary policy tools are used in different combinations, considering the effect that the monetary authorities need in the economy. Such tools include the open market operations (OMO) through which the Fed buys and sells securities belonging to the government in the US financial markets. OMO involves the action of governments and central banks to buy and sell bonds in the market. OMO acts as a primary means of applying a monetary policy while controlling the short term supply of money and interest rates (Lane 2012, pp. 49-68). It is through such actions that the central bank controls the total money supply in the economy. It involves meeting the demand of money at the targeted interest rate

The ECB, on the other hand, can use the OMO to buy and sell Europe's securities. Such a strategy affects the volume and price levels of securities traded at the financial markets. In addition, it largely affects the interest rates in the market (Schwartz 2007, pp. 157-163). For example, in the event of massive government sale of securities at a lower price as compared to the market may result in increased demand for the securities and high interest rates for access to credit (Lane 2012, pp. 49-68). OMO monetary strategy is the most widely used monetary tool by both ECB and the Fed since the central banks in both economies do not independently dictate the market dealers' composition in the financial markets at the time of the OMO implemen-

tation (Romer 2006, pp. 116-156). The Fed's objective of using the OMO strategy is to enhance the rate at which federal banks lend and borrow reserves among themselves.

Discounting rates strategy depicts the interest rate levels that financial institutions pay to the central bank usually on short term loans. In the US, such loans are made from any Federal Reserve Bank whereas in Europe they are accessible only from the ECB. It is an important tool since it acts as a sign of a change in Fed and ECB's monetary policy and gives information for monetary changes to be made later (Ross 2000, pp. 117-119).

ECB and Fed can also set reserve requirements for banks and other depository institutions requiring them to hold specific limits of physical funds in their accounts. Such reserve requirements determine the returns made by banks from loans and investments and subsequently the interest rates and the money supply in the economy (Tom 2002, pp. 455-462).

The reaction to the period of 2007-2012 global financial crisis by the ECB and the Fed draws some similarities and differences in their monetary policies. Price stability in the economy is a major priority for both policies. In addition, inflation targets set by the two are similar since the global economy has been under rising inflation levels for the last decade. However, few monetary policies are aimed at curbing the global inflation for example by raising the interest rates at which short-term loans are offered by financial organizations (Lazar 2009, pp. 525-530).

Nonetheless, a major difference is realized in the mode of reducing inflation adopted by the two monetary policies. For example, ECB raises the interest rates in order to reduce the chances of households and businesses to access loans thus reducing money supply in the economy (Kapsis 2010, pp. 256-274). FED on the other hand withdraws its interest-cuts on loans. This reflects their difference in perception of liquidity. FED seems to bear more in terms of growth outlook and is more optimistic on lower inflation rates to be achieved in the future (Romer 2006, pp. 89-107). In some instances during the financial crisis, FED also injected more liquidity into the economy and reduced the interest rates which results in monetary expansion. The way in which they deal with inflation is divergent. Emphasis is put by both FED and ECB on signalling to the economy the monetary policies and future plans to change interest rates in the economy. Differences in different aspects of the FED and the ECB can be explained in terms of a table 1.

Table 1. Differences between the ECB and the Fed monetary policy

ECB	Fed
Their monetary policy is usually determined by the ECB's governing council.	The Federal Open Market Committee determines the monetary policy used.
Price stability is the main goal of the ECB.	The Fed is given a dual mandate in the US economy of adjusting the monetary policies to ensure better price stability and ensure full or near-full employment.
In the event of the occurrence of the recent global financial crisis, ECB raised the interest rates so as to reduce money supply and hence inflation.	In relation to the global financial crisis, the Fed withdrew earlier interest cuts. In events of raising interest rates to curb inflation, the Fed still made injections into the liquidity of the economy.

Source: Own description based on proposals by Mayer (1982).

EU Coordination

The EU coordination can act as an excellent tool for facing the Euro Zone crisis. The creation of the EU resulted in an integrated economic management system, where all the member states have retained definitive responsibility towards the welfare of their economic welfare, has greatly determined a more economic stability for the Euro Zone's future (Tom 2002, pp. 455-462). However, the member economies are required to act in a manner that respects the tenets of an open market economy in which competition is vital, while subsequently regarding their local economic policies as an aspect of a common concern, conducting such policies with the main objective of contributing towards the welfare of the union (Lazar 2009, pp. 525-530). It is through such a convergence that governments have been restricted on the nature of monetary and fiscal decisions they make, with any decision made being held under surveillance by other economies within the unions (Senn 1999, pp. 338-354). In this regard, individual governments cannot make decisions that only cater for their own welfare, but they should cater for the whole union's welfare (Ross 2000, pp. 117-119). In this respect, the converged economic policy acts as a complementary to the development of a common monetary policy.

In the Euro Zone, the ECB has defined arrangements to enhance coordination of the common economic policy system, both between the member economies that are using the Euro and between the economies involved and the ones yet to participate (Lane 2012, pp. 49-68). The ECB has been a major decision making body in such management with the committee discussing issues related to sharing specific responsibilities in maintaining the stability of the single currency. This function of the common economic policy

in the EU has been widely adapted in the process of recovery from the global financial crisis (Mayer 1982, pp. 1528-1539).

Convergence of economic and monetary policies in the EU has resulted to closer relationship between the economies of the member states adopting the Euro. The economies share a common monetary policy and currency exchange rate. Stable economic and monetary policies and wage determination remain matters of national responsibility. Since individual economic advancements have an overall impact on inflation levels in the entire Euro Zone, they have an impact on the monetary conditions in other economies within the zone. It is due to this reason that the inclusion of a common currency should be pegged on closer surveillance and coordination among all the members of the Euro Zone (Mayer 1982, pp. 1528-1539). In this regard, money supply within the Euro Zone has been the sole responsibility of the ECB and the European Commission. This has reduced the influence of the government towards monetary policies regarding money supply as recommended by the Australian thought. In addition, close coordination should contribute to the attainment of the union objectives as proposed in the EU treaty, economies' operations affect other's welfare and integrations would allow easy transit to economic recovery (Tom 2002, pp. 455-462). In order to induce further convergence and efficiency of the single market, member economies that do not participate should be included in the undergoing coordination of economic policies. This should be particularly enforced to member economies who participate in the EU's Exchange Rate Mechanism (ERM). The convergence and subsequent coordination of different economies in terms of economic policies and trends has enabled economies to adequately respond to the current global financial and economic crisis. Economies carry out a wide range of economic activities with other countries, and the effect of an economic crisis in one economy may affect all other economies (Mayer 1982, pp. 1528-1539). The Euro Zone crisis mainly originated from rising sovereign debts and money supply that created major distortions in investment and price stability.

Role of the Recent Fiscal Stability Pact

The Economic and Monetary Union (EMU) signed a pact on 1st January 2013 to strengthen the stability, coordination, and governance of the European Union coordination. All states within the union with ratification certificates are eligible entry into the pact. All the ratifying states are required to have implemented laws that require their national budgets to be in surplus or balanced. In this regard, the pact defines a balanced budget as one where there is a general deficit of less than 3% of the national GDP. The pact also

requires members to break their debt levels by giving the speed in which states with debt levels higher than 60% should cut them to lower limits. All the pact's provisions will be based on the existing system within the EU, created for the coordination, governance, and convergence within the EMU (European Council, 2012, p. 8). All ratifying states will be required to enforce the laws through the European Court of Justice, which has not been involved in any other European treaties. This prevents breach of obligation by the members with fines attached to reach including fines of a given portion of the state's GDP. The pact will be a great tool towards strengthening of coordination rules and the subsequent procedure of imposing penalties on states that breach any rules concerning debts or budget deficits. This will create a fiscal union with enforceable monetary and fiscal rules and thus a combined strategy to face future crises within the Euro Zone.

Though the pact is aimed at strengthening the stability of the Euro Zone, it has been criticised as being inadequately flexible with critics proposing that it should be applied over an economic cycle rather than in an economic year. Such critics express fears that growth may be hampered if government's spending is limited during slumps. It may be greatly difficult to enforce the pact in big economies including Germany and France (European Council 2012, p. 5). Such economies have run high levels of deficits that are defined by the pact in its definition of a balanced budget. The fact that the large economies are not implicated by the new pact due to their influence and power may discourage smaller economies, which may be easily implicated using sanctions. Such aspects may reduce commitment to the welfare of the pact which may reduce the ability of the member states to face future economic crises. However, successful implementation of the pact will significantly reduce debt levels while preventing budget deficits which results in more stable.

Conclusions

The current global economic crisis has raised demands for economic integration in order to ensure an integrated control of economic stability and growth of the global economy more so in the Euro Zone that has been greatly affected by the recent Euro Zone crisis. In this respect, some of the European economies integrated to form the Euro Zone characterised by a common monetary body, the ECB, and common monetary policies. The integration has also enabled the member economies to apply common economic instruments to face the crisis. The European policy mix is aimed at attaining price stability and economic growth in the member states. Even with the common monetary policy being aimed at attaining price stability, attainment of opti-

mal employment levels, and wage rates is also a key factor. With the welfare of the economy in terms of price stability and employment being emphasised on, the economic authorities within the Euro Zone are able to apply basic tools including interest rates and Open Market Operations to face any arising financial crisis.

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