Central America Central Bank: Proposal of Monetary Integration of Central America

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Abstract

World-wide economic integration is irreversible. In the last 30 years, many countries have integrated with the purpose of expanding their economies. Countries have found that they obtain more benefits than costs in the establishment of integrated markets which increases the economic and social well-being of its citizens. The expected benefits of economic integrations has influenced that economic integration such as CAFTA, NAFTA, MERCOSUR, the EEC have taken place. The Europeans already have created their own central bank, the Asian countries and those of South America are seeking in the future to establish their central bank. It seems that it is inevitable, that monetary integration, through the creation of a central bank, must come, because it makes sense to reunite homogenous countries and their financial and monetary forces in order to exert economic impulse and growth in their economies

This paper seeks to start the debate on the creation of the Central America Central Bank (CACB). This essay proposes for the establishment of a Central Bank in Central American (Guatemala, Belize, Honduras, El Salvador, Nicaragua, Costa Rica, and Panama), and support this idea by providing a history of economic, cultural, and demographic rationale, and financial conditions based on historical conditions. The author argues that this monetary integration will contribute to the economic and financial stability of the region, provoking in economic prosperity for the residents of these countries.

Introduction: *Forces of Integration*

Arguably no period of history has exemplified such a high level of economic integration between countries as the current period. This trend toward world integration is the result of nations desiring free trade, particularly within their neighboring region. Regional integration seems to mutually provide economic benefits to all countries involved in the agreement.

As the number of nations involved in an agreement grows, difficulties are often encountered in reconciling different worldviews and perspectives. In a short-range trade relationship, however, many of those problems are nonexistent. Generally, people from the same region will have similar cultures and ideologies regarding integration and fewer countries mean greater ease of solving the disagreements and difficulties that do occur. For this reason, regional integration is understandably the first level of international relations that nation's will seek to enter. It is the natural progression of international trade.[1]

Central America has for a long time wanted to integrate itself in a single country. Immediately after independence, in 1821, there were several statesmen such as Francisco Morazán that wanted to establish the United States of Central America, countries arranged as confederation in the style of the United States of America or the United States of Mexico.

Integration is a very interesting objective, because it proposes that when countries are united, the unit social, political, and economic that this generates it provides to his citizens in better standard of life. This was the vision of the European Community to create in 1992 the European Union, based on the Maastricht Agreement, and its consequent creation of the European Central bank. In March, 2002, euro became the official currency of 12 countries that include what is now called the European zone of euro.

Benefits and Costs of the CACB

The Central America Central Bank (CACB) would exist primarily as a unifying factor for the nations of Central America, including Honduras, Nicaragua, Costa Rica, Panama, Guatemala,

[1] Hill, Charles W.L. *International Business.* McGraw Hill/Irwin. New York, NY: 2007. (p. 292-293)

and El Salvador. While this is an admittedly general statement, this lies at the heart of the purpose of creating such an institution. For Central America to be able to actively participate in trade, fiscal regulation will be beneficial. A central bank will allow the nations to finance any trade activity made by the nations as region that an individual country would not be able to handle on its own.

The purpose of any central bank is to be "responsible for overseeing the monetary system for a nation (or group of nations)."[2] Depending on the type of central bank, many responsibilities fall to this institution. It works to stabilize currency, prevent unemployment, and generally regulate monetary policy. According to Investopedia, central banks "generally issue currency, function as the bank of the government, regulate the credit system, oversee commercial banks, manage exchange reserves and act as a lender of last resort."[3] A regional central bank, such as this proposed CACB, would not necessarily serve all of these functions. Having an international bank such as this does not mean that national central banks cease to exist. Therefore, depending on the version of banking chosen for the CACB, it would not have to automatically fulfill the role of overseer of commercial banks within the Central American countries or be the official bank of each government. Regardless of the differing options in banking style (detailed in the next section), the CACB will fill the role of uniting and backing the financial decisions of the nations of Central America.

Versions of the Central Bank

While the establishment of a central bank for Central America is important, there is not necessarily one way to go about it. Different versions of banking exist, each serving a somewhat different purpose. The two options that are probably most helpful to consider when looking launching a central bank in this region are either a last-resort bank, or a fully integrated banking system.

Last Resort Bank

A last resort bank will essentially play the role of a lender of last resort in the Central American region. The Oxford English Dictionary defines a lender of last resort as "a financial institution that will lend to a borrower who cannot obtain funds elsewhere; especially a central bank that will lend to other banks when they experience heavy withdrawals."[4] The national central banks of the participating countries maintain their current status and power within their own respective financial sectors. The CACB simply acts as a monetary regulator of these pre-existing central banks. In the event of turmoil or difficulty within the nation itself to the point which an eligible creditor was unable to receive a loan from its own central bank, the CACB would be a "local" international lender that would act as a sort of safety-net for the Central American nations.[5] Generally this role falls to the central bank of a country that extends loans to other banking institution, such as the Federal Reserve in the United States. In this case, this responsibility would extend one more level, allowing the central banks themselves to have an institution to turn to in times of financial difficulty.

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[2] "Central Bank." *Investopedia.* May 26, 2008. <http://www.investopedia.com/terms/c/centralbank.asp>.
[3] "Central Bank." *Investopedia.*
[4] "Lender of Last Resort." *Oxford English Dictionary.* Oxford University Press, 1989 ed. 1991. May 25, 2008. <http://dictionary.oed.com/cgi/entry/50131763/50131763se1?single=1&query_type=word&queryword=lender+of+last+resort&first=1&max_to_show=10&hilite=50131763se1>
[5] "Lender of Last Resort." *Oxford English Dictionary.*

The function of such an institution is two-fold. Partially, a last resort lender protects the money of those who have already deposited funds, so that they do no suffer from the financial crises of others. Secondly, it acts to prevent a run on the banks caused by general panic if liquid assets are not readily available in any quantity, such as that which helped to trigger the Great Depression of the 1930's.[6] The reason this is considered a last resort system is because banks are generally very hesitant to turn to a higher central bank for help, as seems to signify weakness in their own respective abilities to conduct business. At the same time, one of the potential problems that a last resort central bank can lead to is a heightened willingness of banks to take on more risky actions, as there is an illusion of fewer consequences from such risk.[7]

In order to establish the CACB as a last resort bank, one of the primary start-up concerns would be to obtain enough reserves in order to intervene when needed due to monetary contractions in the market. Monetary reserves are the amount of money held by a central bank, usually in the form of another currency, which can act as a safety in case the need arises to add to the existing money supply. One of ways to accomplish this asset attainment is through the issuance of bonds. Because this is an international central bank that is not acting in a region with a common currency, bond issuance has the potential to be a complicated affair. One solution would be to issue bonds in US dollars rather than in any of the national Central American currencies. Historically, the dollar has been a stronger and more stable currency. Additionally, because of Central America's involvement in CAFTA and remittances sent back from family members living in the United States, the dollar is a viable foreign option for issuing bonds in a single currency. One potential hesitation in using the US dollar has been the dollar's instability and inflation of late.

Complete Monetary Integration

In a complete integration banking system, countries will give complete control to the CACB to control monetary policy, including reserves, inflation, and interest rates. This type of banking system is similar to that of Europe's Central Bank, the only major difference being that the CACB would not require a new standard currency like the euro. Regardless of retaining individual currencies, such a merger of monetary policy would cause Central America to integrate to a greater level than they have in recent history. The same entity would be responsible for controlling inflation, for holding all the foreign reserves for the region, and would be setting standardized interest rates for all nations involved.

Because Central America does not, at this time, have a common currency nor are they working toward attaining one, something else will have to be used as a monetary base for the CACB. In this case as well, the US dollar is probably the best choice as a more universal currency. Although it is not native to any of the countries in the region, using an outside currency is better than choosing one nation's currency over the others. This would give the appearance of an elevated status of one nation and would have various repercussions from its more extended use. Because the dollar is already the most commonly used denomination for storing financial reserves and has historically been a strong currency, this seems to be a good

[6] "Lender of Last Resort." *Investopedia*. May 25, 2008. <http://www.investopedia.com/terms/l/lenderoflastresort.asp>

[7] "Lender of Last Resort." *Investopedia.*

option.[8] The other legal tender in its class to consider is the euro. The euro is a strong and stable currency, and is the second most-used currency for foreign reserve purposes.[9] Additionally, the dollar has been losing its value due to inflation, while the euro has remained relatively stable.

Due to proximity and prevalency, the US dollar would be a much wiser choice to use in this region of the world. The United States is much closer, in several respects, than Europe. Obviously, it is geographically nearer to Central America, making its currency (which has also been in existence considerably longer than the euro) more familiar. Additionally, the US is also "closer" to Central America in terms of relationship. CAFTA is the region's primary trade relationship, and its most powerful member is the United States. Because of the regular trade that goes on between the United States and Central America, as well as their trade with each other, the dollar is a familiar currency. Its prevalence is not simply limited to the how often it appears as a result of trade, however. Each country in Central America has a representative population living within the United States. One reason for the migration of these individuals is the draw of the US's higher minimum wage (See the Minimum Wage comparison chart in Section II.) Some of money earned by these migrant workers is then sent back to family in their respective countries of origin, known as remittances. Because these contributions are expected forms of income, Panama, Honduras, Nicaragua, and El Salvador already provide their citizens with the option of having a bank account in US dollars. Only Guatemala requires that currency be converted its own denomination, quetzals, before it can be kept in the bank.[10] Since the dollar is already so established within the region, using it as a monetary base makes sense. This is not to say that the US dollar will replace the existing national currencies, but rather that it will be the tender in which the CACB will store its reserves. This also does not mean that the euro cannot be used in any capacity. The IMF has observes that monetary trends of late have seen an increased use of the euro as a store of monetary value.[11] The CACB could keep some of its foreign reserves stored in euros, even though the dollar would be its primary monetary base.

Another important aspect to consider for a fully integrated bank for the region is how trade deficits will be handled. In spite of the CACB's role as a lender of last resort, it will not be able to finance trade deficits incurred by any of its member countries. To do so, the bank would have to deplete most, if not all, of its resources in order to aid a single country. A precedent such as this would render it unable to support all six nations and unable to carry out its regular duties without the necessary resources.

Benefits of a Monetary Union

Having the Central America Central Bank in place would provide a number of advantages for its participating nations. Instead of operating as six individual central banks, the nations of El Salvador, Guatemala, Honduras, Nicaragua, Costa Rica, and Panama would be able to reap the benefits that the more streamlined CACB will offer. Many of these benefits are interrelated, and could not exist without one another. Without a central bank altogether, it would be much more difficult to facilitate any of them.

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[8] Asha Bangalore. "What Do We Know About Dollar Holdings in Official Foreign Exchange Reserves." *Daily Global Commentary*. April 27, 2008. May 27, 2008. <http://www.fxstreet.com/fundamental/analysis-reports/daily-global-commentary/2008-04-27.html>.

[9] "Currency Composition of Official Foreign Exchange Reserves." *International Monetary Fund.* March 31, 2008. May 27, 2008. <http://www.imf.org/external/np/sta/cofer/eng/index.htm>.

[10] "Money Transfers." *Wells Fargo.* April 13, 2008. May 27, 2008. <https://www.wellsfargo.com/help/intl_transfer/faqs#Q5>.

[11] "Currency Composition of Official Foreign Exchange Reserves." *International Monetary Fund.*

Trade

One important benefit of the CACB is in the area of trade. Trade will be positively affected by the establishment of a regional central bank. One way this happens is, again, in its role as the lender of last resort. Although it cannot finance trade deficits for an entire nation, as individual companies engage in foreign trade and foreign direct investment, they have the additional cushion to fall back on by borrowing from CACB in a crisis situation. Because of this, the company feels less pressure of the risk of trade, and is more willing to engage in international commerce. This in turn will help boost interregional trading, such as in CAFTA, as well as extra-regional international trade.

Trade will also be improved in efficiency. Having a central bank that regulates monetary policy, provides a common currency base, and is generally aware of all the investments and trade interactions that are occurring will serve to minimize complications that arise from miscommunications between nations.

Improved Information

Highly interrelated with the improvement in efficiency is improved information from country to country. Formerly national affairs such as interest rates and prices would be known and regulated by the CACB. Without a central bank privy to this information, countries are often unaware of the status of other nations within the region. Inflation rates, interest, and prices can vary widely from one country to another, even between neighboring nations. With such information controlled to some extent and continually monitored by the CACB, heightened awareness will help the region to grow and succeed. Simply being aware of available information can improve and benefit the region.[12]

Capital Availability

Another important benefit of the CACB is the greater availability of capital as a result. Capital is defined as "cash or goods used to generate income either by investing in a business of a different income property."[13] The CACB takes the pressure of holding large amounts of reserves off of the national central banks. They are then freer to hold liquid assets, making capital available to more companies. "Bank consolidation and growth in venture investment larger intermediaries and minimum transactions."[14] The simultaneous increase in venture investment, along with the integration of the functions of six different banks into one translates as larger minimum capital allowances. Governments, as well as businesses and entrepreneurs, are thus better able to invest in start-up costs and to work to bring in income. This is an asset to the development of both the nations individually, and the region as a whole. Central America is considered to be comprised of developing nations, so the availability of capital is important to the success of newer businesses and for the ability of each country to transition into developed nations.

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[12] Wesley A Magat, W. Kip Viscusi. "Analysis of Economic Benefits of Improved Information." *Harvard University Press.* May 27, 2008. May 27, 2008. http://yosemite.epa.gov/ee/epa/eerm.nsf/73afaaf2e41797ac852563c300809a99/6d57e36555e968d78525644d0053be6f!OpenDocument.

[13] "Capital." *Investor Words.* 2008. May 27, 2008. <http://www.investorwords.com/694/capital.html>.

[14] "Capital Availability and Capital Market Imperfections." *MIT*. May 27, 2008. <http://ocw.mit.edu/NR/rdonlyres/A15E1F67-698B-468B-932A-F9CE754678D1/0/class9.pdf> (p. 6.)

Bank Portfolios

A bank's portfolio is composed of four main elements, held in differing amounts in order to meet the unique demands of individual banks. Every bank is required legally to have a certain amount reserves on hold, so these legal reserve holdings comprise the primary segment of the portfolio. After this level of holding has been reached, it is the bank's prerogative to determine how to divide up the rest of its funds. The second holding is known as the secondary reserve. In this section, the bank keeps available short-term assets in liquid form. The purpose of such holdings is for the bank to have on hand in an instance of an unforeseen need for cash. Usually, such instances are in the form of unanticipated loan requests or losses incurred. After accounting for these two portfolio segments, the bank is then able to meet the demands placed on the bank by creditors. The final section is optional, primarily because some banks do not have any resources left after meeting creditor's needs. If they do, the final section is available for investment in the market.[15]

Although these sections define the general outline of any bank's portfolio, each portfolio will obviously vary depending on the amount of assets held by a bank, and how much they choose to put into each part. Although studies differ in what they think are the primary factors that influence how a bank determines how to divide its funds, every decision ultimately depends on the legally required amount of money that must be kept in primary reserves. The introduction of the CACB would change this dynamic, drastically reducing the amount of money a national central bank would be required to hold in this section. With less of its funds going to that segment, the nation banks will have a greater opportunity to offer more their creditors and to invest in the market itself.

Consumer Prices

Another positive effect of the CACB, one that will affect individual citizens, is a decrease in prices that the consumer has to pay. Because companies are able to get the loans needed to initially finance their operations, they will be less frantic to immediately make back what they owe. More time can be spent building a consumer base and keeping prices from rising rapidly.

Consumer prices will also be kept lower because of the CACB will help to regulate interest rates and prices, thereby also affecting levels of inflation. If inflation is controlled, even to a small extent, this will serve to keep prices lower. Better information, and better trade relationships that are additional affects of a central bank, contribute to this as well. If companies are able to make money through trade and exporting, which is in turn facilitated by better information, prices for the average consumer (both in the home country and the country importing goods within the region) will ideally be lowered.

Effective Resources

The ability to invest in more effective resources is a result of the CACB that would affect Central America on both a private-sector and government level. As has already been established, a convergence of banking will lead to a higher minimum for loans to private individuals and companies. With the availability of those resources and the potential to go beyond national borders to a highly networked region, companies and people with have the ability and the means to make the wisest choices regarding resource selection. Of course, the ability to do so does not

[15] Donald D Hester, James L Pierce. "Bank Management and Portfolio Behavior." *Cowles Foundation Monograph.* Yale University. May 27, 2008. <http://www.econ.yale.edu/cowles/P/cm/m25.htm>.

guarantee that people *will* do so. However, having the means to invest in effective resources is important because of the potential for growth and international success that it offers.

On a government level, the national central bank (through which most governments operate) will have more resources freed up for investment, due to the changes in requirements for the bank's portfolio. The countries will not have to spend as mush money trying to accrue enough foreign reserves to meet their requirements. Because less money must be held in long-term reserves, the national bank can choose how to reallocate those resources, either helping to benefit creditors or to invest in something that will create more money for the bank.

Foreign Reserves

As has been alluded to, foreign reserves are a key aspect of the benefits of an international bank. Instead of six central banks spending resources in order to have enough foreign reserves, one central bank—the CACB—will take care of reserves. Reserves are accumulated through the government (through the central bank) using up some of its assets in order to continually keep a large amount of foreign reserves in store. Foreign reserves tend to be the power of a nation, indicating to other countries the ability of that nation to pay back loans, to control the exchange rate, and to prohibit volatility, and to generally demonstrate some level of power in world economics.[16]

The benefit of the CACB in this instance is that the six nations are able to retain that power within their region, and to have foreign reserves to a larger extent than any country could have had individually. At the same time, the responsibility of constantly keeping high enough levels of reserves on hand, and spending resources in order to have those reserves, no longer falls to the independent governments. The process is much more efficient, with one entity doing the work of gathering reserves, rather than six. Each nation is then able to use that time, energy, and resources for the betterment of their own nation and trade, as they see fit.

Obtaining Foreign Reserves

Because the six nations will no longer be responsible for independently acquiring the necessary levels of reserves, a beneficial system must be set in place so that each can contribute its share while still keeping the process efficient. Just because the countries are no longer individually responsible for their banking system, they play must all play some role in bringing in reserves. To require the same amount from every nation would be an unequal demand, as the Central American nation's represent a range of differing GDPs, debt levels, and trade. Instead, each nation would be required to contribute foreign reserves, in US dollars or in euros, that are equal to either a ratio between the nation's exports and its GDP, or imports and GDP. The choice between using exports or imports would be the sanction of the CACB to choose. Exports and GDP may be a simpler option simply because it is a representative number of cash coming into the country in the form of foreign currency. This, by appearances, seems to better facilitate such a contribution to the CACB. This method of obtaining a steady influx of foreign reserves would place the least amount of strain on any country and would keep the CACB capable of meeting its foreign reserve requirements, allowing Central America all the benefits of having a constant level of reserves.

[16] "Foreign Exchange Reserves." *Wikipedia.* May 26, 2008. May 27, 2008. <http://en.wikipedia.org/wiki/Foreign_exchange_reserves>

External Debt

External debt is the portion of the total debt of a nation that is owed to lenders outside of the country. This can include foreign companies, other nations, or organizations such as the international monetary fund. Developing countries tend to accrue a larger amount of external debt, percentage-wise, than developed nations. This is mostly because they do not have the same amount of internal resources available, and often require substantial amounts of money to aid with national crises associated with development. Central America is not exception, and all six countries have external debt of some sort.

Under the CACB, nations will still have the independent ability to manage their own debt, thereby retaining much of their autonomy. They are capable of attempting to pay back those debts to the best of their ability, without being pulled down by other countries in the region that might not be as successful. Independence in this area affords this. However, the CACB will still monitor the debt levels, as the basic monetary overseer for the region. This allows information and communication to be more open, and for assistance to become available in the case of a struggling country. The CACB cannot take over management of debt issues, nor can it begin to make payments for a country, but by monitoring the trends and debt levels, it can attempt to head off problems that will further increase debt troubles before they happen.

National Banks

One of the greatest features of the CACB is the fact that it does not replace local central banks. Each nation is able to keep its own national bank to run its affairs. Although Central American nations share much in common and have historically strived to be one single nation, they remain individual countries who are part of a free trade association. When involved in such a preliminary level of regional integration, most of the autonomy of involved countries is preserved.[17] Therefore, in such a situation, reducing banking within the region to one single central bank, with one currency and complete control over all levels of monetary policy, is not an appropriate choice.

With the CACB, national banks would still operate as the government bank, through which the national government would be free to handle without interference from the region. The national central banks would also retain responsibility for being liquidity issuers. That is, they are in charge of distributing actual legal tenders in their home countries. Because there is no central currency, the CACB will not have responsibility for holding large sums of money in local denominations. The central banks also maintain their freedom to conduct their own research and economic studies, without being limited to or subject to the approval of the CACB. Finally, they are still responsible for extending credit as they see fit. Determining credit scores, loan approvals, and giving credit are left to the discrimination of each nation. Although the CACB will monitor and be aware of the transactions taking place, it does not set the parameters for how each country handles its own credit.

Development

An advantage of having a regional central bank, such as the CACB, is the appearance of unity that it lends to the region. Because the primary banking system is combined, other potential traders will be forced to begin considering Central America as one unit. Although the

[17] Michael Holden. "Stages of Economic Integration: From Autarky to Economic Union." *Depository Services Program.* 13 February 2003. 20 May 2008. >http://dsp-psd.pwgsc.gc.ca/Collection-R/LoPBdP/inbrief/prb0249-e.htm>.

nations want to retain their autonomy to some extent, they have expressed interest in eventually wanting to develop into a common market.[18]

At this point, the region realistically has a long way to go before it can become an established common market. Having a centralized bank is a good first step. Because some of the nations are weaker and others stronger independently, being viewed as a region lends an element of strength that they could not have as individual countries. This will aid in Central America's trade relationships, as well as in its development as a region. What is, in the beginning, a nominal and appearance-based unity held together by a central bank, could eventually become a much more integrated institution if its members so choose.[19] It is important to remember, however, that this would only happen if Central America decided that this is what it wants. If they choose not to integrate, and to remain only as a free trade area, having a regional central bank will not be detrimental.

Costs of a Monetary Union

As the last section has demonstrated, the Central America Central Bank would afford many opportunities and provide many benefits for its Central American member nations. Unfortunately, no decision or institution is without some costs. Most of the costs related to creating a regional bank involve the difficulties that come with any form of merger. The crucial step in the process is analyzing both the benefits and the costs and determining whether the former outweighs the latter enough to be worth the decision to establish such a bank.

Monetary Autonomy

One of the primary and most visible costs of having a regional central bank will be the loss of compete monetary autonomy that each country holds by only having an internalized banking structure. This is a problem that has been encountered by the countries of the European Monetary Union (EMU). Although the euro, and the subsequently more powerful European Central Bank (ECB), means that Central America will not feel the effects of the loss to the same extent as nations in Europe. The principle, however, remains the same. "One of the main drawbacks [of a regional central bank] is the loss of the monetary policy at the national level as a potential tool to expand or contract the aggregate demand."[20] Aggregate demand is the total amount of spending by everyone within an economy, including the government, businesses and corporations, and individuals.[21] When the nation is in complete control of its own policy, it is sometimes able to use that change the level of spending as needed. Once an entire region is involved however, some of that control is forfeited.

In particular, this loss of monetary autonomy will not affect all nations equally. A greater difference in economy between one nation and the rest of the region will put a strain on that nation. This is due to the potential for asymmetric shocks, which seems to increase the negative

[18] "Federal Republic of Central America." *Wikipedia.* April 10, 2008. May 25, 2008. <http://en.wikipedia.org/wiki/United_Provinces_of_Central_America>.
[19] Michael Holden. "Stages of Economic Integration: From Autarky to Economic Union." *Depository Services Program.* 13 February 2003. 20 May 2008. >http://dsp-psd.pwgsc.gc.ca/Collection-R/LoPBdP/inbrief/prb0249-e.htm>.
[20] Adolfo Fernandez and Blanca Sanchez-Robles. "An Attempt to Modelize the ECB's Monetary Policy." *University of Cantabria.* Spain. January 2003. May 28, 2008. <http://www.ecomod.net/conferences/ecomod2004/ecomod2004_papers/37.pdf>. (p 2).
[21] "Aggregate Demand." *Encarta World English Dictionary.* 2007. May 28, 2008. <http://encarta.msn.com/dictionary_561546182/aggregate_demand.html>.

effects of monetary convalescence for the country with the greatest difference.[22] An asymmetric shock, which is analyzed in detail in a later section, is chiefly an unexpected occurrence within a region that affects one nation more than the others. Because a nation in this situation may not have the autonomy to personally implement change to counteract such a shock, the economy may suffer as a result. For some nations, especially in more developed areas, it can be detrimental. This is one of the primary reasons that Great Britain abstained from converting to the euro and the European Central Bank. Because its own currency was stable and it is successful in its domestic monetary control, joining the central bank would probably have not been beneficial.[23] Loss of monetary policy is not always a negative situation, particularly for developing countries. Because it is sometimes difficult for national central banks to maintain their policies under conditions of growth, outside control can be helpful.

Loss of Seigniorage

Seigniorage is the term used to refer to the value of issuing currency, or the net revenue brought in after cost of production and issuance is accounted for. As the value of money appreciates or depreciates in the amount of time it is in circulation, the central bank often reaps the benefits of that change in value. It is sometimes also referred to as the "inflation tax."[24] A example from the United States of how seigniorage works is the series of quarters that the country introduced beginning in 1999. These 25-cent coins were released in stages, with the anticipation that many people would collect at least one new quarter as each type was produced. This produced a profit for the American government, because it only cost 10 cents to produce a 25 cent coin, many of which were retired from circulation in personal collections. Every time an individual made the decision to keep the coin rather than to spend it, the government made a profit.[25]

Some countries particularly depend on seigniorage as a staple source of revenue. They are able to acquire real resources simply by changing the monetary base through the central bank.[26] Taking the control over issuing currency away from a nation's government means that it will have to find alternative means to replace the revenue creation that its central bank brought in through this method. Central America will retain its own forms of currency, but some control over how much or how little they are allowed to issue will be a part of regional policy. This cost can be perceived as especially difficult initially, before increased trade benefits are recognizable, because seigniorage is seen as an "easy" way to generate revenue.

Because dollarization without a complete monetary union is a hot topic in Central America, the idea of losing seigniorage is often up for discussion. El Salvador has already implemented using the dollar in its own central banking system, causing the following question to be asked. Would it, or would it not, actually be a heavy loss for Central American nations to lose seigniorage? Franziska Schobert, in her study of seigniorage and its implications for national currency, implies that it may not play as important of a role in developing nations. Her

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[22] Adolfo Fernandez and Blanca Sanchez-Robles. "An Attempt to Modelize the ECB's Monetary Policy."
[23] Steven M Suranovic. "Monetary Autonomy and Exchange Rate Systems." *International Finance Theory and Policy*. December 2, 2005. May 28, 2008. <http://internationalecon.com/Finance/Fch110/F110-3.php>.
[24] "Seigniorage." *Wikipedia.* May 20, 2008. May 28, 2008. <http://en.wikipedia.org/wiki/Seigniorage>.
[25] "Halfway Point of State Quarters Program." *Yenra.* December 8, 2003. May 28, 2008. <http://www.yenra.com/state-quarters/>.
[26] Willem H. Buiter. "Seigniorage." *Economics Discussion Papers.* March 1, 2007. May 28, 2008. <http://www.economics-ejournal.org/economics/discussionpapers/2007-8>.

study deals primarily with European countries, but extends the implication to include Central America. She finds that for nations that are not extremely advanced, "seigniorage has only been fiscally significant in high inflationary economies and even then the success in exploiting seigniorage has been limited."[27] Despite the conclusions drawn from this analysis, loss of seigniorage remains one of the strongest deterrents of governments for advocating a regional central bank like the CACB.

Exchange Rate Parity

The exchange rate parity is sometimes referred to as the interest rate parity because it serves to define the relationship between exchange rates and interest rate. For the most part, exchange rate parity is a theoretical idea based in economic models, of which four main theories are considered today. These are Purchasing Power Parity (PPP), the International Fischer Relation, Foreign Exchange Expectations Relation, and Interest Rate Parity Relation.[28] PPP is the predominant and original theory, stating in essence that every product, even if it is available in multiple countries, should be the exact same price. This implies a precise relationship between inflation and exchange rates between two countries.[29] Such a theory is rather idealistic, and real world exceptions readily crop up. Because PPP is not a flawless theory, these other models are often used as well. PPP explains the basic theoretical idea that there *is* a relationship between interest rate and exchange rate, and the others help to more precisely define the ways in which they are related to one another.

Although in the long run PPP tends to hold true, evidence for it is mixed. Andrea Pay, in her analysis of these parity theories, offers the following reasons for PPP's mixed empirical evidence. The first reason is that supply and demand determines exchange rates, and that supply and demand is based on the movement of international trade and capital. Additionally, when inflation is measured, the index used only includes the prices of final goods (such as the CPI), which does not include trade goods or asset prices. Another problem is that some transaction between nations that help to form the price index are not actually a part of trade, nor do they relate to capital or trade. Because of such discrepancies, the PPP theory will not be precisely accurate in real life. We do not have an all inclusive price index off of which to perfectly determine exchange and interest rates between nations.[30]

How then, is this concept a cost of having an international central bank in Central America? Pan Yotopoulos, of Stanford University, on his book, *Exchange Rate Parity for Trade and Development,* explains modern parity theories and draw real-world conclusions from their study. He particularly focused on the trade relationship between developing and developed countries (such as that of CAFTA) and how those affect the market. The conclusion that he draws is that "in an ideal world, government intervention in foreign exchange and trade is

[27] Franziska Schobert. "Seigniorage: An Argument for National Currency?" *Centre for European Political Studies.* October 2001. May 28, 2008. <http://aei.pitt.edu/1832/01/WD174.PDF>. (p 2).
[28] "Interest Rate Parity." *Wikipedia.* April 6, 2008. May 29, 2008. <http://en.wikipedia.org/wiki/Interest_rate_parity>.
[29] Andrea Pay. "Foreign Exchange Parity Theories." *Rustic Girls.* 2008. May 29, 2008. <http://www.rusticgirls.com/business/foreign-exchange-parity-theories.html>.
[30] Andrea Pay. "Foreign Exchange Parity Theories." *Rustic Girls.* 2008. May 29, 2008. <http://www.rusticgirls.com/business/foreign-exchange-parity-theories.html>.

necessary for developing countries in the early stages and inevitably decreases as development occurs."[31]

The CACB will detract from the ability for the national government to intervene in the exchange rate, foreign exchange and trade relations, simply because monetary policy itself is no longer entirely in their hands. It will not completely take away this ability, and as the nations become more developed, it will not even be a necessity. Even though all of Central America is currently considered *developing*, nations are carrying out that development at different rates. So while one nation may find that it does not need its government to be able to exercise control over foreign exchange, another may find that while the region as a whole is profiting, its personal development is lagging.

Parity, or equality of exchange rates, will also be affected by the CACB because of the new influence that the dollar will have in the region. On one hand, with more transactions occurring regionally in dollars, less currency exchange will be occurring, and would actually seem to aid in the equalizing trade and PPP. On the other, however, nations gain exchange rate power through the strength of their own currency. The dollarization of the region will deemphasize the already less prominent currencies of Central America. The nations already have to make difficult choices regarding their own currencies, such as their choice of exchange rate regime (i.e. pegging their currency to the dollar or free floating against it), and whether to have an appreciated or depreciated currency. These key aspects of currency policy are under the control of the government. This second part is done by affecting the exchange rate over long periods of time.[32] The establishment of the CACB will take some the ability to control that factor away from the individual governments.

Balance of Payments

One of the costs associated with instituting the CACB is in the movements within the balance of payments (BOP). The balance of payments is "the method countries use to monitor all international monetary transactions at a specific period of time."[33] Composed of the current account, capital account, and financial account, it is designed to include all financial flows both into and out of a country or region.

Although the countries will still be able to keep track of their own financial transactions in a national balance of payments, the financial account in particular will be changed because of the CACB. The financial account includes foreign reserves and gold. Foreign reserves are one of the primary changes that in the monetary system with a central regional bank. Because less foreign reserves are going to be recorded in the financial sector, the sum of the entire balance will be different.

The difference between the balance of payments of a nation and the balance of payments of a region is in what transactions are recorded. While a nation's BOP ideally includes all the transactions between itself and any outside nation or company. A regional BOP, however, only records transactions between the region as a whole and any entity outside of that region. All of the data recorded by the nations are collected, the interregional trade transactions are removed,

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[31] Pan A Yotopoulos. "Book Summary." *Exchange Rate Parity for Trade and Development—Theory, Tests, and Case Studies.* October 1995. May 29, 2008. <http://www.cambridge.org/us/catalogue/catalogue.asp?isbn=052148216X>.

[32] Jeff Frieden. "The Economy in Latin America—Dollarization and other Dilemmas." *Harvard Review of Latin America.* Fall 1999. May 29, 2008. <http://www.drclas.harvard.edu/revista/articles/view/471>.

[33] Reem Heakal. "What is the Balance of Payments." *Investopedia.* 2008. May 29, 2008. <http://www.investopedia.com/articles/03/060403.asp>.

and the rest is left on the regional balance of payments. Although this simplifies the system, and even can improve the overall economic status of Central America, it does not reflect much of what actually occurs in international relations. As a part of CAFTA, a lot of trade that goes on in Central America is among the Central American nations, as opposed to outside nations. Not being able to pinpoint all the internal trade through CACB's balance of payments will not be a good representation of how much economic activity is actually *occurring*. The nations are still able to keep track of their own internal balance of payments. The problems is, as the region starts to be viewed as a single entity, less focus will be placed on the individual national activity, as is the case of the European nations that participate in the European Monetary Union.[34] This is one of the costs that will have to be taken into consideration regarding a central bank.

Inflation and Interest Rate

Also of concern to Central Americans are the related concepts of inflation transmission and interest rate. Inflation transmission is the phenomenon that occurs within a region when one nation experiences high levels of inflation, and other countries follow suit, their currency also inflating. This can happen regardless of whether or not nations share the same currency or have their own. However, it is of particular concern for those with a joint central bank because of the high level of influence the countries exert on one another under such conditions. When one experiences inflation in a close trade relationship, the others are likely to follow suit. When they are all sharing the same or similar monetary policies, these chances are even higher. This has been a particular concern for members of the European Union, especially those who are member nations in the European Central Bank.[35] Because this has been an issue, one of the main concerns of the ECB is to maintain price stability and low inflation rates to the best of their ability. This however, proves difficult with a powerful currency adopted by many countries. In order to guard against inflation levels, Central America would also have to adopt policies to set limits on the inflation of its currency under a regional central bank.[36]

Another main concern regarding inflation is the widespread use of the US dollar in the region. When currencies are essentially tied to the dollar, the value of the currency moves in direct correspondence to it. The US is the main producer of inflationary trends within its sphere of influence (excluding Europe).[37] As such, it is expected that Central America will feel the effects of changes in the value of the dollar compared to other major currency. With the dollar's current trend of rising inflation, Central America will probably experience transmission of that inflation within their currencies and price levels.

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[34] Jean Marc Israel. "Toward Harmonised Balance of Payments and International Investment Position Statistics—the Experience of the European Compilers."*Department of Economics, University of Connecticut.* May 24, 2008. May 29, 2008. <http://ideas.repec.org/p/ecb/ecbops/20070067.html>.

[35] W. F. Duisenberg. "The ECB's Monetary Policy Strategy and the Quantitative Definition of Price Stability." *European Central Bank.* December 13, 2001. May 29, 2008. <http://www.ecb.eu/press/key/date/2001/html/sp011217.en.html>.

[36] Joseph Lazzaro. "ECB Maintains Hawkish Stance on Inflation, Interest Rates." *Blogging Stocks.* March 26, 2008. May 29, 2008. <http://www.bloggingstocks.com/2008/03/26/ecb-maintains-hawkish-stance-on-inflation-interest-rates/>.

[37] Jin-Gil Jeong and Youngho Lee. "International transmission of inflation under alternative exchange rate regimes Empirical evidence and its implications." *School of Business, Howard University*. August 30, 1999. May 29, 2008. < http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6W4F-438BV6N-7&_user=5456721&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000063638&_version=1&_urlVersion=0&_userid=5456721&md5=68f221988eaf75d32bc8906b6fc23e2f>.

Related to inflation is the subject of interest rates. The two are normally inversely related. Once inflation is high, interest rates fall, as commercial banks compete for people to take out loans at the best rates. Once loans are made, money supply is then increased to meet the current demand. This is good for consumers who are trying to get a loan at a "reasonable" rate. [38] However, because inflation is the cause of the decline in loan interest rates, it is still a part of the cost. One concern is that because the inflation itself is occurring primarily in the United States, banks in Central America may not make the adjustments in interest rates to account for inflation. In this case, the nations of Central America would be negatively affects by both rising inflation and stagnant of rising rates of interest.

These are the primary costs associated with establishing the Central America Central Bank that can be recognized in foresight. Every decision made comes with some positive and negative results. If the benefits can be capitalized on, and the Central American nations can learn from the methods of other regions (such as the EU) to minimize the costs as best they can, the CACB will be a good, real-world investment for the region.

Economic and Monetary Benchmarks and Asymmetric Shocks

The European Monetary Union is the best model of a working union for setting realistic monetary benchmarks for the nation with a regional central bank, such as the CACB. A benchmark is "something that serves as a standard by which others may be measured or judged."[39] These are key figures within the monetary system that help the regional government determine what they consider to be a "good" number for a particular economic indicator. In some cases, nations are not allowed to even join the union until they meet certain benchmark criteria. For others, it is simply a measure of determining how well countries are doing in meeting the standards set by the monetary union. This is useful for several reasons. As has already been discussed, some of the costs of agreeing to an economic union include a loss of autonomy, high potential for suffering from unequal asymmetric shocks (the affects of which are discussed in detail in the next section), and the difficulties that arise from joining together nations that have different GDPs, standards of living and income per capita. Because of these factors, monitoring the nations' monetary actions and positions by comparing them to the desired standards allows a monetary union like the EMU to predict potential problems before they can occur. This allows for a greater chance to head them off, or help to solve them before negative effects come are felt by the other countries involved. Some examples of items that often serve as benchmarks by which the central bank can attempt to analyze an economy include the maximum interest rate, external debt as a percentage of gross domestic product, the inflation rate, and reserves as a percent of GDP. Not all of these factors are necessarily analyzed by every government or union, and some choose to set benchmarks in other economic indicators. Whatever statistic is chosen, the purpose remains to determine meaningful information about national economies.

The most prevalent factors that the European Central Bank and the EMU seek to analyze and control are related items—the interest rate and the inflation rate. One of the primary concerns before the European Union became a reality was the effect that such a joining of nations might have on the inflation rate. Indeed, since its creation, it has been the number one

[38] "Price Inflation and Interest." *Get Objects*. 2004. May 29, 2008. <http://www.getobjects.com/Components/Finance/TVM/inflation.html>.
[39] "Benchmark." *Merriam-Webster Online Dictionary.* 2008. June 7, 2007. <http://www.merriam-webster.com/dictionary/benchmark>.

battle cited as a problem arising from the existence of the union. One of the reasons for this, though it may appear obvious, is the interconnectedness of the European states. If inflation becomes rampant in an important or influential country in Europe, that will have an effect on all others that use the euro or are part of a trade alliance. Germany is currently considered to the largest powerhouse within the EMU, and its inflation increased by 5.2% in April 2008, causing inflation in all of its union to rise, and pushing the euro even higher.[40]

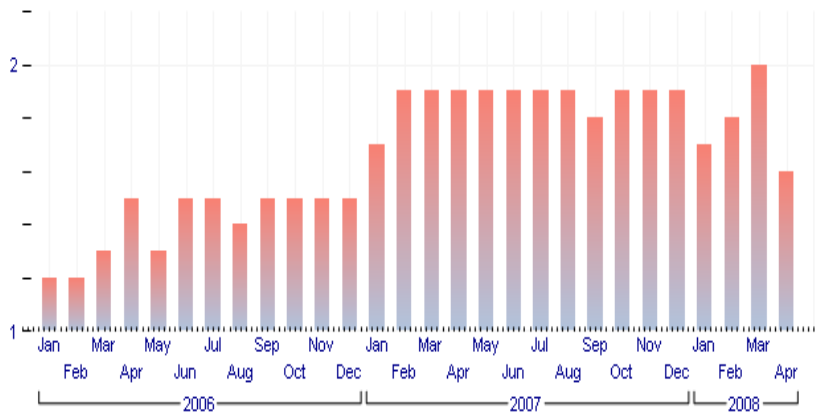
The only reason that this 5.2% increase in inflation is meaningful figure as a large increase for an EMU nation is because of the benchmark set in place by the European Central Bank. The ECB has set a standard to attempt to keep inflation below, but very close to 2%. This goal is useful, and shows how an influential nation such as Germany, with inflation more than doubling that amount, can steer of the course of the entire union off of its desired track if nothing is done. The position of the entire euro zone, partially as a response to this, was at 3.6% inflation.

Interest rates are often an important tool, both for combating inflation and for helping to gauge it. For this reason, this is also an important and often changing benchmark in Europe; one that falls under much scrutiny and about which a wide variety of people seem to hold varying opinions. The current benchmark rests at a 4% interest rate. This has been a consistent interest rate for several months, but "ECB President Jean-Claude Trichet admitted a future rise was "possible" and conceded that some members of its Governing Council favoured a hike."[41]

[40] Mark Whistler. "German PPI Rises, US Inflations Rises, EU May Start Axing subsidies." *Trading Markets.* <http://www.tradingmarkets.com/.site/forex/commentary/MarkWhistler/-76936.cfm>.
[41] "Trichet Hints at Future Rate Hike." *BBC News.* June 5, 2008. June 7, 2008. <http://news.bbc.co.uk/2/hi/business/7437849.stm>.

The following graph details the inflation levels of the euro zone over the past couple of years:

Figure 1: Euro Area Inflation[42]



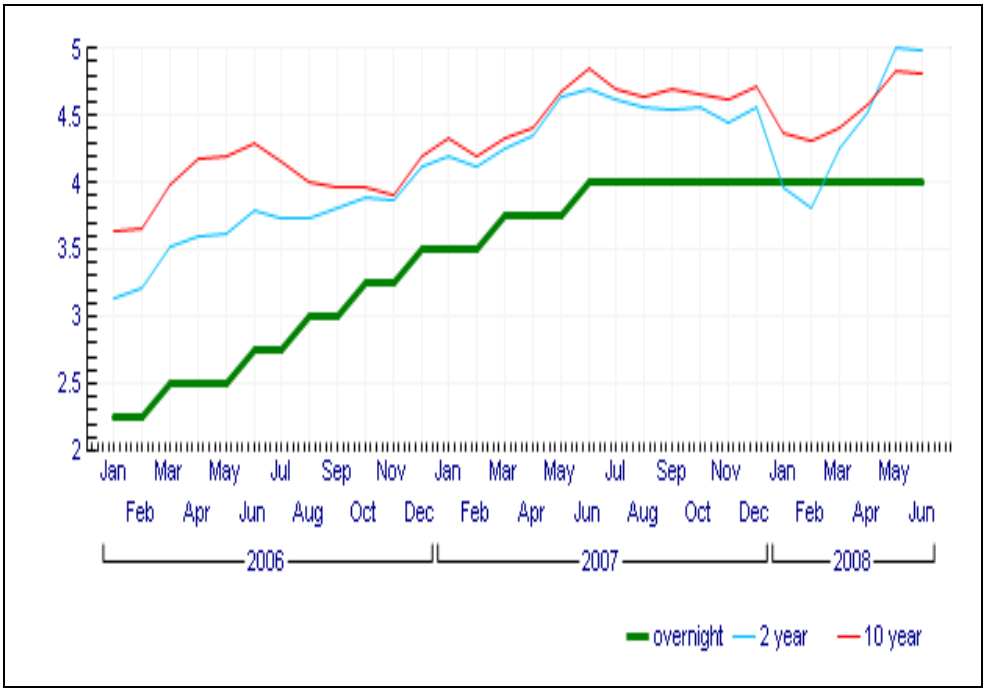
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008	1.70	1.80	2.00	1.60	0	0	0	0	0	0	0	0
2007	1.70	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.80	1.90	1.90	1.90
2006	1.20	1.20	1.30	1.50	1.30	1.50	1.50	1.40	1.50	1.50	1.50	1.50

As Figure 1 illustrates, Europe has experienced a spike in inflation that is bringing it near to its 2% benchmark level. Increasing monthly by 3-5% is causing the numbers to increase at one of the fastest rates in recent history. Although thus far they have managed to stay within the EBC's expressed goal, the union is worried about the effects of issues out of their control, such as heightened gas prices, that are keeping inflation higher than predicted.[43]

Figure 2 is a timeline of interest rates in the eurozone during the same period as the previously graphed inflation rates.

[42] "Eurozone Inflation Rebounds to Record Levels." *Financial Times*. May 28, 2008. June 7, 2008. <http://www.tradingeconomics.com/Economics/Inflation-CPI.aspx?symbol=EUR>.
[43] "Eurozone Inflation Rebounds to Record Levels." *Financial Times*.

Figure 2: Euro Area Interest Rates[44]



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008	4.00	4.00	4.00	4.00	4.00	4.00						
2007	3.50	3.50	3.75	3.75	3.75	4.00	4.00	4.00	4.00	4.00	4.00	4.00
2006	2.25	2.25	2.50	2.50	2.50	2.75	2.75	3.00	3.00	3.25	3.25	3.50

As promised by the EBC, the overnight rate has been artificially kept at a 4% interest rate, without allowing it to go any higher, as its policy has continued to promise. Trends show a steady increase until reaching that level, however, and potential change may be made to that particular benchmark.[45]

In order for the CACB to be a properly functioning bank, it must also be able to set monetary benchmarks, as limits in order for each country to become part of the regional union. The figures do not have to be the same for each nation, as long as the percentage and/ or ratio as compared to GDP is the same for each. This makes the limit more equitable and accounts for the differences between the national (and formerly entirely autonomous) economies.

Using the European Monetary Union as a model, that CACB will also use the inflation rate and interest rate as its key initial benchmark tools. Because the Central American nations are still developing countries, inflation and interest rates are likely to remain slightly higher for

[44] "ECB Leaves Rate Unchanged at 4%." *Financial Times.* June 5, 2008. June 7, 2008. < http://www.tradingeconomics.com/Economics/Interest-Rate.aspx?Symbol=EUR>.
[45] "ECB Leaves Rate Unchanged at 4%." *Financial Times.*

these nations than they will for the more developed countries in Europe (particularly western Europe). For this reason, the rates will be kept slightly higher. All nations must have an inflation rate that is controlled to a level of less than 5%. Until a country is able to meet this criterion, it will not be eligible to join the CABC. The interest rate that will be initially put in effect by the CACB will be a ceiling of 7%. The interest rate needs to have some more flexibility than the allowed inflation rate, but the region does not want to set a precedent of starting with high levels of potential interest as well. By doing this, the CACB will be working off of an existing and functioning model, tailoring to suit its own needs.

Asymmetric Shocks

Asymmetric shocks are a prominent issue in any sort of economic union, but particularly for one that involves a central bank that controls most of the monetary policy for the area. These shocks are any sort of unexpected occurrence (usually with negative connotation) that has a greater affect in one part of the region, and little to no affect in other parts. This happens especially if the area is made up of nations that have achieved different levels of economic status, because they will be able to "bounce back" or adjust to such stimuli to different extents. This is tricky when regional policy-making is involved. Setting or enforcing policies and decision for an area of mixed response conditions. Any procedure will almost certainly not be to the liking of at least one country in the region.[46]

The sources of these shocks do not have to be local to the region. They can be global affairs, such as the price of oil per barrel, and its effect on oil and gas companies, nations, and consumers worldwide. Nations that have to import all or nearly all of their oil and gas will feel the effects of the price spike. In countries where oil is a primary natural resource, such as Venezuela, remain unaffected by the "crisis." Although this illustration pertains mostly to the consumption of a product, asymmetric shocks can also affect production. For example, if a huge decrease in the demand for bananas (and therefore, the production of bananas) occurs, a country that mainly produces and exports bananas as a staple of its trade will be affects. A neighboring country, part of the same trade region, primarily exports coffee and is not directly affected by the banana shortage.

Although an asymmetric shock can occur anywhere, the reason it is more prevalent in a monetary trade union is twofold. First, having a multi-national region increases the likelihood of experiencing drastically different economic reactions to world events. Although such shocks can occur within parts of a single country, the different styles of government and economies of countries that are considered to be part of a greater cohesive group make them more likely to occur in this sort of environment. Secondly, belonging to a monetary union can stifle a nation's ability to react to a shock. Because a country cannot independently determine its own exchange rate or interest rate, but must do so as part of the union, it cannot make the corrections needed to adjust to the shock.[47] Doing so would require a change in policy for the entire region. If the rest of the nations are not experiencing the same difficulties, they will not likely be willing to alter policies that are in favor of their own current status. As such, it is left to deal with the shock using either price stability (which the nation also has less control over due to being in a monetary

[46] "Asymmetric Shocks." *Economist.com*. May 23, 2008. May 29, 2008. <http://www.economist.com/research/Economics/alphabetic.cfm?letter=A>.

[47] Mihai Copaciu. "Asymmetric Shocks Across European Monetary Union: Can Labor Mobility Act as an Adjustment Mechanism?" *Central European University*. May 30, 2008. <http://www.cenpo.ro/files/04%20Migration.pdf>.

union), labor mobility, and the deficit. All of these tools are capable of helping assuage the effects of the shock, but to differing degrees depending on the specific source.[48]

Conclusion

In conclusion, the establishment of the Central America Central Bank will provide monetary stability to the countries, provoking economic prosperity for the residents of these countries. The benefits such as increasing trade, improved information, capital availability, improved bank portfolios, stable consumer prices, strong foreign reserves, stable interest rates, and low levels of debt will surpass the costs for the monetary union. The proposition that these countries united in their monetary system may generate better standards of life for their citizens. If 12 European countries, with different languages, cultures, GDPs, were able to create their own monetary union, Central America countries with homogenous cultures, languages and similar GDP can establish their own monetary union. At the end, it would require visionaries' leaders in the region to be able to put together this monetary union, those who can understand that integration is part of the globalized economies and that the countries united will be able to compete in the world market.

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