Thesis Prospectus

Proposed by: Walker Messer

Possible Title: Dollarization's Impact on International Trade

Research Question: Over the past century, many economies have chosen to replace their domestic currency with that of larger, more stable economies in hopes of creating economic stability and growth. Dollarization—so named for the U.S. dollar's common use as an anchor currency in the process—effectively ends hyperinflation and volatile monetary policy by deferring all monetary power to the anchor currency's financial institution. One possible externality of establishing a common currency is an increase in international trade and investment between the anchor and dollarized economy as well as with the rest of the world. This study will examine the motivations behind dollarization and the aspects of dollarization that make for successful growth in trade. I hope to definitively answer the question of whether or not dollarization has a role in increasing international trade and use these findings to make policy recommendations to potential "dollarizers" (e.g. Mexico, Peru, Guatemala, and African nations) and countries looking to "de-dollarize" (e.g. Ecuador). In making such recommendations, I seek to answer the following: *is dollarization still a successful tool in promoting sustained, bilateral and multilateral international trade?*

Motivation: To date, dollarization has typically taken place in countries in monetary crisis. High inflation or destructive monetary policy has led countries to adopt the US Dollar, the Euro, or other currencies in an effort to stabilize the economy or to take monetary policy out of the hands of inept financial institutions. Growth in international trade in these circumstances has been seen as an afterthought. This study is born out of the idea that dollarization and the creation of common currency should be more seriously considered as an effort to stimulate economic growth through international trade. Nations should consider the

prospects of dollarization in terms of increasing market integration and promoting international trade with not only the anchor currency market, but the world.

Background: Dollarization refers to the process by which a country introduces or replaces its national currency for that of another. This process often takes place when a potential dollarizing country is unable to control inflation or has an unreliable financial system. These countries may find that using a more stable, foreign currency can help restore confidence in their financial system and generate more opportunity for economic growth. Dollarization can be the result of a move toward creating a currency union, as is the case of the European Union, or can simply be used as a way to peg one currency to another.

Today, dollarization is common throughout the world. The U.S. dollar, the Euro, the New Zealand dollar, the Swiss franc, the Indian rupee, and the Australian dollar are all used as official currencies in other nations. The U.S. Dollar is mostly prominently seen in Latin America where countries such as Ecuador, El Salvador, Panama, and many Caribbean nations use the U.S. dollar as their official currency. The U.S. dollar is also used in parts of Africa and the Pacific Islands. The Euro is used throughout the European Union as well as in 15 small European nations. The other anchor currencies are mostly used by geographic neighbors.

The advantages of full dollarization include a more stable financial system created through reliance on the stability of U.S. monetary policy as well as increased integration with the U.S. and the international market. As a result, dollarization should increase capital inflows, lower the rate of inflation, lower interest rates, eliminate transaction costs, and increase foreign trade and economic growth. For these reasons dollarization has been viewed as an opportunity for countries struggling with their financial systems to stabilize and generate stability and economic growth.

The disadvantages of dollarization pertain to the inherent lack of control of monetary policy incurred by replacing a nation's national currency. Dollarized countries lose all control over monetary and interest rate policies, lose the option of lending from the central bank, lose flexibility in exchange-rate policy, and lose the benefits that come from seigniorage (a government's profit gained from the difference in the price of money production and the market value of that currency).

Different countries dollarize for different reasons. Two case examples are Ecuador and El Salvador. In 2000, Ecuador was in an economic depression. The Ecuadorian financial system could not control inflation and monetary policy was unpredictable. There was very little faith in the financial institutions of the country, so the government initiated dollarization. In El Salvador, on the other hand, the financial system was on par with much of the rest of the world. El Salvador decided to dollarize in order to further integrate itself with its largest trading partner (The United States) in order to increase bilateral trade and investment. This move lowered transaction costs and was seen as successful in promoting American investment in El Salvador.

Much research exists on the relationship between dollarization and international trade. Most economists hold that the integrative effect of dollarization and the lowering of transaction costs should encourage an increase in trade with the anchor nation. In the case of the U.S. Dollar, studies by Rose and Glick (2001), Lin and Ye (2010), and others show that dollarization can increase trade by anywhere between 100 and 300 percent. These studies all take into account the effects of the gravity model (a commonly used theory to predict bilateral trade flows based on the economic size and distance between trading partners), common language, and other basic factors well-studied in international trade literature.

The work of Michael Klein in *Dollarization and Trade* (2005) contrasts most literature on the topic by arguing that dollarization has a very small effect on growth in trade. Klein uses examples from Latin America to show that the effect of dollarization on trade with the U.S. is minimal.

Dollarization's role as an explanatory factor in international trade growth has been called into question by Prausello (2012). This implies the possibility of a third variable that accounts for the growth in trade of dollarized countries. This third variable could be the changes in the financial system and stability as outlined by Franco Prausello in *The Theory of Endogenous Optimum Currency Areas: A Critical Note* (2012). While this argument has gained recent support, most economists believe that dollarization can be seen as an explanatory variable in understanding trade flows. This study will hold to that claim.

Significance of Research: In 2000, Rose claimed that two countries which share a common currency trade with one another on average three times more than trade partners without a common currency. Today, the world economy has moved even more toward dollarization and common currency usage. Most significantly, the European Union now exists as a currency union with at least 13 additional currencies pegged to the Euro. Meanwhile, countries like Ecuador have dollarized and countries such as Argentina and Mexico have debated the use of the dollar.

The findings of this paper will hopefully contribute to the preexisting literature by updating and further defining the costs and benefits of dollarization in terms of international trade growth. There remain a handful of areas where further research is needed in this field. For one, recent research by Sousa alludes to a diminishing effect of dollarization on international trade. This is a significant claim that requires further inquiry as this hypothesis greatly undermines the significance of dollarization in terms of trade growth. Also, building

on the research of Dorn and Egger (2012), a look into the time it takes to notice significant trade growth from dollarization may prove a fruitful avenue of research. Whether this paper is able to propose new evidence for the relationship between trade and dollarization or confirms existing research, the findings should be of interest to policymakers in nations considering dollarization.

Methodology: Researchers have used cross-sectional, time series, and panel data to observe the effects of dollarization on international trade. Cross-sectional data is able to compare whether or not countries that are dollarized trade more or less with countries that are not dollarized. This approach is limited and does not answer the question that policymakers are asking: "should our economy dollarize?" Time series analysis takes data from before and after dollarization and from during and after "de-dollarization." In this way, time series analysis is much better equipped to analyze the costs and benefits of entry or exit into a common currency.

This study will combine the aforementioned approaches and use a panel data analysis. This should provide a much more conclusive observation of the effect of dollarization on international trade. This approach is also used by Rose and most others in the more recent work concerning the dollarization-trade relationship.

There are several databases that are available for this study. Firstly, the database compiled by Rose and Glick (2002) is available online. In their data, Glick and Rose list some 10,000 country pair observations of trade between 1948 and 2009. If needed, this database can be updated using the World Bank Development Index database. Like all studies in this topic, this research will utilize the gravity model of trade developed by Linnemmann to analyze the given dataset. This study will likely include all of the explanatory variables

associated with the Gravity Model and used in Glick and Rose's 2001 research, which includes the effect of variables such as geography, history, and culture on trade.

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