Examining the Distribution of the Costs and Benefits of Official Dollarization: Lessons from Ecuador and El Salvador

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ABSTRACT

In 2000, the governments of Ecuador and El Salvador both made the decision to adopt the US dollar as their countries’ official currency, but they did so for quite different reasons. In Ecuador, dollarization was motivated by a desire to avoid hyperinflation and reintroduce macroeconomic stability in a rapidly deteriorating economy. In El Salvador, dollarization was promoted as a policy that would reignite stagnant economic growth by lowering interest rates and attracting increased foreign investment. To date, most examinations of the impact of dollarization have focused on macroeconomic indicators in order to explain the success or failure of dollarization. In this paper, I focus on the distribution of the costs and benefits associated with official dollarization. Analyzing the post-dollarization performance of the Ecuadorian and Salvadoran economies, I argue that the evidence suggests that the distribution of costs and benefits is not unconditional, but rather that it is contingent upon the level of inflation prior to dollarization.
In April 1991, hoping to put an end to a prolonged economic crisis that had caused Argentina’s GDP per capita to drop by 23% since 1980, the Argentine government unveiled a currency convertibility plan designed to induce macroeconomic stability by forcing the central bank to fully back the peso monetary base with reserves denominated in US dollars or other easily convertible currencies. The initial success\(^1\) of Argentina’s convertibility plan served as a catalyst for much discussion throughout the Americas – by policymakers and academics alike – of the relative merits of various monetary regimes, including the establishment of regional currency unions and the formal adoption of the US dollar. The subsequent establishment of currency boards in Estonia (1992), Lithuania (1994), Bulgaria (1997), and Bosnia and Herzegovina (1997), and the movement towards the creation of the Euro intensified interest in alternatives to monetary independence. In January 1999, Argentine president Carlos Menem recommended that his country adopt the US dollar as its official currency in order to enhance the credibility of its commitment to sound monetary policy. Both Menem’s announcement (even though it was never implemented) and the official dollarization\(^2\) of Montenegro (1999) helped create an environment in which “prominent economists [began] to argue that essentially all developing countries should also dollarize” (Berg and Borensztein 2000, 3).

By the end of the decade, Ecuador faced pervasive financial and productive crises similar to those that had led Argentina to institute its convertibility plan – GDP per capita had fallen by 7.7% in 1999, the domestic currency (the sucre) had lost 71.2% of its value in the first eleven months following the government’s decision to allow it to float, and the annual inflation rate had

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1. Writing in 1999, Altig and Humpage argued that, “by almost any measure, Argentina surely stands as one of the outstanding economic success stories of the past decade.” As evidence of this success, they note that Argentina’s annual inflation rate, which had peaked at 20,266% in March 1990, had fallen below 10% by 1995, and that, from 1992 through 1998, economic output per capita increased at an average annual rate of 4.6%.

2. Throughout the literature, the term “dollarization” is used whenever one country unilaterally adopts another country’s currency as its own. Therefore, Montenegro is said to have dollarized, even though the currency that it adopted was the German mark.
climbed to 52.2%. Such was the state of the Ecuadorian economy on January 9, 2000 when – just four days after Ecuador’s central bank had issued a statement in which it concluded that “dollarization and convertibility are not viable schemes at the current moment” (Hanke 2003, 135) – president Jamil Mahuad made the announcement that Ecuador would abandon the sucre and adopt the US dollar as the country’s sole legal tender in an effort to forestall hyperinflation and engineer greater economic stability. When official dollarization went into effect on March 13, 2000, Ecuador became the largest independent state to adopt a foreign money as its own.

Perhaps emboldened by Mahuad’s example, El Salvador’s president Francisco Flores announced his own dollarization plan on November 22, 2000. Addressing the Salvadoran public via a national television and radio broadcast that same day, Flores explained the policy as a move designed to bring the Salvadoran economy out of its slump – economic growth, which had been predictably strong during the first four years immediately following the end of the country’s decade-long civil war, had stagnated. The national legislature approved the “Monetary Integration Law” eight days later; when the measure went into effect on January 1, 2001, El Salvador joined Ecuador and Panama (dollarized since 1904) as the third country in Latin America to adopt the US dollar as its own.

Some analysts interpreted the decision taken by these two relatively small Latin American countries to abandon their domestic currencies in favor of the dollar as the first steps toward the eventual creation of a hemisphere-wide dollar zone. Indeed, writing prior to El Salvador’s dollarization, Bogetic (2000, 209) predicted that “the outcome of Ecuador’s dollarization and the

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3 Measured in constant 2000 US$, El Salvador’s GDP per capita increased by 19.7% during the first four post-war years (1992-1995). Over the course of the next four years (1996-1999), GDP per capita grew only 4.8%.

4 Technically, El Salvador’s Monetary Integration Law established a bimoney system, in which the colón is fixed to the US dollar at an exchange rate of 8.75:1. However, the distinction between dollarization and bimoney in the Salvadoran case is, for the time being, indeed a mere technicality, since all financial operations done through the banking sector are now denominated in dollars and the government has stopped printing the domestic currency. As a result, although the colón is still a legal currency, it now accounts for much less than 1% of circulating currency.
ongoing discussion on officially dollarizing Argentina will likely serve as landmarks, leading either to a further rise or a decline in the interest of other countries in the region.” Ironically, just as Ecuador and El Salvador dollarized their economies, the Argentine convertibility plan, whose early success had made dollarization look so appealing to many analysts and policymakers in the region, began to fall apart. When contagion effects of the East Asian and Russian financial crises led Brazil to devalue its currency in 1999, Argentina’s competitiveness suffered, its current account deficits worsened, and economic recession ensued (Bradbury and Vernengo 2008). Following three years of economic decline that saw GDP per capita fall by 11.2%, Argentina scrapped the convertibility plan in January 2002; within five months, the Argentine peso had lost 74% of its value versus the US dollar. Just as the early success of Argentina’s convertibility plan had provided a certain degree of legitimacy to the option of dollarization, its subsequent demise seems to have dampened enthusiasm for the measure amongst the hemisphere’s policymakers, as no other country has followed the path set forth by Ecuador and El Salvador.5

Nonetheless, academic debate about dollarization and other forms of monetary integration continues, perhaps in anticipation of the day that policymakers will forget about the economic and political chaos that accompanied the final days of Argentina’s convertibility plan and once again consider alternatives to maintaining a national currency and an independent monetary policy. To date, most academic debate surrounding official dollarization has focused on three questions: (1) what are the macroeconomic costs and benefits of dollarization, (2) what, if any, preconditions are there for successful and beneficial dollarization, and (3) when, in relation to other economic reforms, should dollarization be implemented. In this essay, I will address a

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5 Guatemala implemented legislation that allows financial transactions to be carried out in any currency, but the quetzal has not been supplanted by the dollar.
question has been conspicuously absent from most work on dollarization: how are the costs and benefits of dollarization distributed through society?

Following a brief review of debates focused on the aggregate costs and benefits of dollarization, and then a more focused review of those arguments and findings regarding the distributive consequences of dollarization that have emerged within these broader debates, I will examine the post-dollarization experiences in Ecuador and El Salvador in an attempt to assess the policy’s impact on income inequality and the incidence of poverty. In focusing on how the costs and benefits of dollarization are distributed, this essay aims to refine the calculus of the pros and cons of abandoning a nation’s domestic currency. Ultimately, I will argue that the preliminary evidence currently available suggests that the distribution of the costs and benefits of dollarization may be conditioned by initial macroeconomic conditions, particularly the pre-dollarization inflation rate.

The Costs and Benefits of Dollarization

Edwards and Magendzo (2006, 270) note that there is little agreement “on the effects of dollarization on real economic variables, such as growth, employment, and volatility.” Eichengreen (2001, 276) concurs, concluding his evaluation of the advantages and disadvantages of dollarization with the admission that we are as yet “unable to say with confidence whether dollarization is a good or bad idea.” A brief discussion of the arguments made for and against dollarization follows.

Writing in defense of Ecuador’s decision to dollarize, Hanke (2003, 135) cites a comment made by Karl Schiller, West Germany’s Finance Minister from 1966 to 1972: “stability might not be everything, but without stability, everything is nothing.” Indeed, macroeconomic stability
generally stands out at the top of most authors’ lists of the purported benefits of dollarization. The benefits of dollarization-induced macroeconomic stability can be summarized in the following manner: the elimination of exchange rate instability and the reduction of real inflation rates combine to produce reduced and stabilized domestic interest rates, which facilitate long-term economic planning and promote greater investment in productive activities, which in turn lead to greater economic productivity, lower unemployment rates, and faster growth. By reducing country risk premiums and by eliminating the transaction and information costs associated with exchanging currencies, dollarization also accelerates economic growth by allowing for easier access to international capital markets, lowering the costs of external lending and of servicing existing debt, and helping to stabilize capital flows into and out of the country. Stripping domestic authorities of the ability to create inflation may generate increased fiscal discipline – unable to raise funds by simply printing more money, the government must either increase its ability to collect tax revenues, decrease spending, or turn to lenders in order to remedy budget deficits. Similarly, by stripping the government of its ability to act as the lender of last resort, dollarization may encourage stabilizing reforms within the domestic banking sector.

Inasmuch as dollarization can be described as a particularly binding form of currency union, it is not surprising that much of the literature on dollarization is situated within broader debates regarding the formation of currency unions. As Nitsch (2004; 1) notes, “most of the previous work on currency union formation discusses the costs and benefits of adopting another currency and then aims to identify potential candidates (partner or anchor countries) for successful monetary integration.” In his seminal piece, Mundell (1961) found the primary benefit of a currency union to be the reduction in transaction costs for bilateral trade between countries that
use a common currency. Authors who have adopted Mundell’s theory of optimum currency areas (OCA) argue that a relatively high degree of trade integration, substantial business cycle covariance, and a reasonable level of relative price stability are all important preconditions for the creation of a currency union. Frankel and Rose (1998), however, turned the OCA logic on its head, arguing that currency agreements lead to increased bilateral trade and a higher correlation of output and price changes due to the decrease in exchange rate volatility. Their argument suggests that “the existence of a common currency itself strengthens the optimal currency area conditions by making the regions in a currency area more integrated over time” (Bogetic 2000, 204). In subsequent work, Rose (2000; also Rose and Engel 2002) employed a gravity model of trade to show that bilateral trade between countries that use the same currency is nearly three times as much as trade between countries who maintain sovereign currencies.

Pakko and Wall (2001, 44) challenge this claim, using a fixed effects model to show that “Rose’s remarkable finding ... is due to estimation bias arising from omitted or misspecified variables that are correlated with trade volume and with the likelihood that countries use a common currency.” Similarly, when controlling for endogeneity between membership in a currency union and membership in a trade agreement, Lopes and Tavares (2005) find that currency union membership alone has no effect on bilateral trade. Klein (2002, 17) also casts doubt on Rose’s claim, finding “very little evidence that dollarization promotes trade with the United States for non-industrial countries.”

The purported positive impact of monetary integration on bilateral trade is not the only one of the supposedly beneficial effects of dollarization that skeptics refute. For instance, the argument that dollarization will increase the amount of financial capital that is available for investment in productive activities, and in turn spur job creation, by eliminating the transaction
and information costs that are associated with exchanging currencies is called into question by studies that have found that these transaction costs are actually quite small (Ferreira Lopes 2006). The notion that dollarization will encourage greater fiscal discipline is seriously contradicted by the experience of Panama (dollarized since 1904), where budget deficits have been the norm and the IMF has effectively served as the country’s lender of last resort.

Moreover, dollarization skeptics also argue that the benefits that result from increased macroeconomic stability may not outweigh the specific costs that are associated with dollarization. Topping the list of the costs of dollarization is the government’s loss of seigniorage (the net revenues derived from the issuing of currency), which for the Ecuadorian case has been estimated at 2-3% of GDP (Bradbury and Vernengo 2008). Additional sunk costs associated with dollarization include the initial stock cost associated with retiring the domestic currency as well as the costs associated with the process of changing prices from one currency to another (including the costs of reprogramming computers, cash registers, vending machines, and ATMs as well as the advertising and educational costs associated with teaching the citizenry how to use the new currency).

Whereas proponents contend that the credible commitment to maintaining macroeconomic stability that dollarization signals will augment economic growth, skeptics argue that dollarized countries may be more vulnerable to external shocks, and in turn subject to greater economic volatility and decreased long-term economic growth, due to their loss of monetary independence. Unable to generate seigniorage revenues by printing currency as a response to any unforeseen emergency, dollarized countries disavow themselves of “a kind of insurance policy against risk” (Cohen 2000, 3). Moreover, dollarization may have an adverse impact on economic activity if

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6 Specifically, in the course of her examination of the impact that adopting the Euro might have on the Polish, Czech, and Hungarian economies, Ferreira Lopes cites estimates that the transaction costs associated with exchanging currencies amount to no more than 0.3% of GDP.
the citizenry interprets the decision to abandon its monetary policy controls as evidence of the government’s inability to manage the domestic economy. In the political realm, dollarization may foment popular resentment against what is perceived to be a loss of economic and political sovereignty and an affront to national pride, and it may also generate opposition if citizens interpret the policy as politically-motivated pork. Dollarization may also introduce additional political vulnerability by increasing the risk that the currency-issuing country could use economic sanctions to manipulate domestic political outcomes, as the United States did in 1988 when it prohibited all dollar transfers to Panama as part of its efforts to force Manuel Noriega out of office – a policy that created severe disruptions in the local financial system and contributed to a 17% decline in GDP (Cohen 2000; LeBaron and McCulloch 2000).

In the final analysis, the calculus used to determine whether dollarization is a good or bad idea (from a strictly macroeconomic perspective) would weigh the benefits that result from the elimination of currency risk, the reduction of transaction costs, and the introduction of stable and low levels of inflation against the loss of seigniorage revenues, the one-time costs associated with implementing dollarization, and the costs associated with increased vulnerability to external shocks and possibly economic sanctions. Yet, even when the debate over the costs and benefits of dollarization is limited to this small list of factors, no definitive conclusion emerges. Citing work by Wise and Roett (2000) and by Frieden and Stein (2001), Jameson (2004, 5) highlights

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7. Though it is beyond the scope of this essay to discuss the extent to which dollarization does impede upon national sovereignty, it is worth noting that both Ecuador and El Salvador became particularly compliant to US demands after adopting the dollar. Whereas Ecuador allowed the US to build a military base on the Ecuadorian coast at Manta and use that base as part of its Plan Colombia, El Salvador maintained troops in Iraq long after other coalition members gave into popular pressures to bring their boys back home. Although it may be difficult to draw any causal link between dollarization and these policy decisions, one can easily imagine how these developments might be interpreted domestically as evidence that dollarization entails a loss of sovereignty well beyond the loss of monetary policy independence.

8. Referring to Ecuador, Jameson (2003, 655-656) argues that “dollarization may have only exacerbated political tensions ... [because] the ongoing bank bailout has been widely perceived as protecting the interests of certain powerful political and banking interests at the cost of the common depositor.”
the uncertainty regarding whether states should be advised to forfeit their monetary policy independence, noting that “there was no significant correlation between the exchange regime and the economic performance of Latin American countries during the 1990s.”

At this point, it appears that the most accurate conclusion may be Eichengreen’s unappealing admission that we simply do not know how much of an impact dollarization, in and of itself, can be expected to have on economic production, although we do have reason to suspect that the benefits of dollarization will tend to be greatest in countries with high export-to-GDP ratios and/or those (such as Ecuador) where an elevated degree of monetary instability existed prior to, and is brought under control by, dollarization. Yet, even if we cannot predict whether the aggregate benefits of dollarization will outweigh the aggregate costs, we may be able to predict who it is that will reap the benefits and who it is that will be forced to bear the brunt of the costs, the task to which I now turn.

### Examining the Distributive Impact of Dollarization

In their examination of the impact that high inflation rates and abrupt changes in the level of inflation had on poverty and income inequality in Israel from 1979 to 1984, Achdut and Bigman (1991, 231) provide a very useful discussion of the measurement of “the level of overall poverty and the changes thereof.” According to their framework, when we examine poverty and inequality we are typically concerned with three factors: (1) the “width” of poverty, defined as the percentage of the total population defined as poor, (2) the “depth” of poverty, which measures how far the income of the poor falls below the poverty line, and (3) the “relative deviation” component of poverty, which measures “the distribution of poverty gaps among the poor.” Noting that different measures of income inequality reflect “different sensitivities to
income changes at different ranges of the income distribution,” Achdut and Bigman implicitly argue that examinations of trends in poverty and in income inequality necessarily benefit from the incorporation of a broad range of measures, as opposed to the reliance on any single measure such as the percentage of people whose incomes fall below the poverty level or the Gini coefficient. The analysis of the distribution of the costs and benefits of dollarization contained in this paper will follow this approach.

With few exceptions (most notably, Hira and Dean 2004), there has been little systematic consideration of the distribution of the costs and benefits of dollarization. This lacuna may best be explained by the fact that much of the debate over dollarization has been nested within broader debates over monetary policy that engage exchange-rate economists who “pay too much attention to the choice between pegging and floating and between retaining the national currency vs. adopting that of someone else ... [when] it is not the color of the currency in one’s wallet but the level of living standards and the rate of economic growth that we should care about” (Eichengreen 2001, 274). While Hira and Dean contend that dollarization “can potentially damage marginalized groups within developing societies” (462), that it “could actually exacerbate or at least highlight existing structural disparities” (464), and that its “benefits are not perceived to reach the poorest groups in society” (476), the bulk of their analysis focuses not on questions of poverty and/or income inequality, but rather on the analysis of how dollarization might impact distinct sectors of the economy. Although their prediction that the domestic sectors that are most likely to benefit from dollarization include mining exporters, new service industries such as financial and information technology services, and large industries that produce for the domestic market certainly carries with it implications regarding the distribution
of incomes, Hira and Dean do not make any clear predictions regarding dollarization’s expected impact on “the level of overall poverty and the changes thereof.”

In the absence of any sustained debate centered on this topic, arguments and findings regarding the distribution of the costs and benefits of dollarization have generally been tacked onto broader pro- and anti-dollarization arguments, often within case-specific analyses and often in a somewhat haphazard manner. The relatively few arguments that have been made suggesting that dollarization will have a positive impact by lowering poverty levels and/or decreasing economic inequality can be divided into two categories. Drawing from a belief that dollarization will indeed lead to increased economic growth, certain dollarization proponents adopt a trickle-down approach that assumes that whatever is good for the national economy as a whole must necessarily be good for most participants in that economy. While this argument is often made implicitly, Hanke (2003, 138) gives voice to the logic behind this approach when he claims that, “with dollarization, stability is established, competitiveness improves and real wages rise because the cost of capital is lower than it is with a junk domestic currency. Dollarization is, therefore, a tonic for both capitalists and their employees.”

Other authors who suggest an equality-enhancing role for dollarization focus on specific manners in which the economically disadvantaged reap particular benefits from the macroeconomic stability brought on by dollarization. Various authors (Bogetic 2000; Erosa and Ventura 2002; López 2002; de Ampuero 2006; Heer and Süssmuth 2007) argue that it is precisely the poorest workers and those who live on fixed incomes that stand to gain the most from the domestic price stability associated with dollarization because these low income groups are most severely affected when inflation introduces pronounced reductions in the purchasing power of the local currency. As Bogetic (2000, 203) notes, “the young, financially sophisticated,
and wealthy are often better able to preserve and expand their wealth during periods of high inflation ... [because] shifting assets from domestic currency to dollars, or among different kinds of investments in domestic currency, requires time and effort, and there is often a minimum threshold level of transaction, which leaves the poor the captive payers of inflation tax.” If “a rise in inflation generates a larger impact on the poor, who typically hold a relatively greater proportion of their wealth in cash and whose income comes mostly from labor earnings” (Halac and Schmukler 2003, 32), then it follows that the poor would benefit in those cases where dollarization reins in particularly high and/or unstable inflation rates.

Indeed, in their cross-country study of the influence of monetary policy on income inequality and the incidence of poverty, Romer and Romer (1999) find that the average income of the poorest quintile of the population is negatively related to inflation rates, while Gini coefficients are positively correlated to inflation rates. Easterly and Fischer (2001) elaborate on the relationship between inflation and poverty; in addition to finding that a movement from hyperinflation to zero inflation would be expected to result in a 27.4% increase in the percentage of GDP received by the poorest fifth of the population, they also demonstrate that a reduction in the inflation rate would be expected to result in an increase in the real minimum wage. Heer and Süssmuth (2007) find that even when comparing between two relatively low inflation rates – specifically, they compare an inflation rate of 6.43% (the average rate in the US during the Volcker era) to an inflation rate of 3.06% (the average rate under Greenspan) – the distribution of wealth is more unequal under the higher rate of inflation.

In comparison to the limited number of arguments that have been made predicting an equalizing effect of dollarization, the reasons that have been presented arguing why we should expect dollarization to exacerbate income inequality have been relatively numerous. Often, these
arguments begin by focusing on two of the sectors that are presumed to be amongst the primary beneficiaries of dollarization – importers and the domestic banking sector. The mechanisms through which these two sectors emerge as the winners of dollarization are quite straightforward; because both bankers and importers are spared the costs and risks associated with operating in a dual-currency system, their profitability increases at the same time as their risks are reduced – the ultimate win-win situation. It follows that, unless the benefits that dollarization provides for the banking and importing sectors are counterbalanced by welfare-improving changes for the working class, dollarization will aggravate income inequalities.

For Henke’s assertion that dollarization will serve as “a tonic for both capitalists and their employees” to qualify as an argument that dollarization will combat economic inequality, one must accept the rather heroic assumption that capitalists will voluntarily allow a disproportionately high proportion of their capital cost savings to trickle down to the workforce in the form of higher wages. In the absence of such generosity, the benefits associated with decreased transaction costs will remain with the capitalists and therefore increase the welfare gap between them and their employees. Similarly, we cannot simply assume that the financial capital freed up by the elimination of transaction and information costs, or the additional financial capital that dollarization and its stabilizing impact on inflation and interest rates may recruit into the country in the form of foreign direct investment, will necessarily be invested into domestic production. If new investment is instead focused on the commercial and financial sectors – sectors that provide relatively little employment – dollarization will do little if anything to spur job growth.

While pro-dollarization commentators point to the expansionary impact that cheaper credit should have on economic growth, they do so without pausing to consider the fact that the direct
benefits of lower interest rates are unlikely to extend to the poor in countries where most small landholders and urban poor do not have access to formal credit. Along the same lines, the poor do not reap any direct benefits from the increased financial sector stability that dollarization may provide because they generally do not have banking accounts. Similarly, arguments that focus on the trade-producing benefits of dollarization (if there are any) do not discuss the fact that, since the economic production of most small landholders and the urban poor is destined for local consumption, these people may not receive any immediate benefits from measures that reduce the transaction costs of bilateral trade. If these benefits of dollarization do indeed bypass the poor, then although they may not be any worse off in absolute terms, they would suffer a relative loss in economic well-being vis-à-vis the wealthier classes who do have bank accounts and access to credit.

Another concern is that both the one-time stock cost and the eternal seigniorage loss associated with adopting a foreign currency may translate into reduced social spending, unless the government is willing and able to replace these lost revenues through increased (and progressive) tax collection. This potential decrease in government social spending may be particularly harmful for the poor when the economy is subject to an external shock; Vos and León (2003, 4-5) detail how dollarized countries’ increased vulnerability to external shocks may simultaneously harm aggregate economic output and exacerbate economic inequality:

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9 Halac and Schmukler (2003) make reference to a 2000 World Bank study which found that only 14% of Mexico City residents had a savings or debit account, and even fewer had checking accounts (5%) or time deposits (3%). That same study also found that people in the top half of the income distribution were 5.25 times more likely to have access to a bank account than people in the lower half of the income distribution.

10 Although standard trade theory would predict that the more abundant factor of production – unskilled labor both in Ecuador and in El Salvador – would be the primary beneficiary of increased trade, Vos and León (2003, 3) argue, that trade liberalization in Ecuador “induced greater income inequality, particularly between skilled and unskilled workers, offsetting the poverty-reducing impact of aggregate income gains.” They explain that this unexpected result occurs because “the limiting assumptions of the Stolper-Samuelson theorem [perfect competition and constant returns] do not apply in a typical developing country setting.”

“Real wage adjustment may be slow to achieve restoration of the internal and external equilibrium in the advent of an adverse shock, hence resulting in possible high costs in terms of output contraction and employment losses.... Output contraction following an adverse terms of trade shock could push the economy into a deflationary spiral, lessening investor confidence, depletion of dollar reserves, and increasing job losses and poverty, making the monetary regime socially untenable.”

In addition to the negative impact of these broad, structural effects, the poor are also disproportionately affected by various idiosyncratic costs occasioned by the process of switching from one currency to another. In the absence of extensive pre-dollarization educational campaigns, the elderly and the uneducated are vulnerable to being swindled by merchants who take advantage of people’s unfamiliarity with the new currency to shortchange their customers. In addition to this short-term cost, the poor are also most severely affected by any rounding up of prices that may occur as a result of the adoption of the new currency as a result of their particular spending habits (since their limited cash flow forces them to make numerous small purchases rather than fewer, larger ones). These idiosyncratic costs, both those due to legitimate rounding and those caused by opportunistic merchants, result in both a relative and an absolute reduction in the purchasing power of the poor.

The rest of this paper will examine the impact that dollarization has had on poverty and on income distribution in Ecuador and in El Salvador in order to test the arguments that have been presented in this review of the general arguments that have been made regarding the distribution of the costs and benefits of dollarization. The brief section that follows will provide a justification both for the case study approach and, more importantly, for the selection of these two particular cases.
Examining Official Dollarization in Practice

Gerring (2004, 342) defines a case study as “an intensive study of a single unit for the purpose of understanding a larger class of units.” The present study, which aims to refine the calculus of the pros and cons of dollarization by examining how its costs and benefits are distributed through the economy, fits into at least two of Gerring’s seven categories of research in which case studies may be particularly useful: studies where “the strategy of research is exploratory, rather than confirmatory” and those for which “useful variance is available for only a single unit or a small number of units” (Gerring 2004, 352). Although, as the previous section detailed, various arguments have been offered regarding the distributive impact of dollarization, our current state of knowledge regarding the matter parallels Eichengreen’s conclusion regarding the aggregate costs and benefits of dollarization – we are currently “unable to say with confidence whether dollarization is a good or bad idea.” Therefore, the present study is exploratory inasmuch as it attempts to shed light on the question of whether (and under what circumstances) dollarization is a good or bad idea.

As for issues concerning the availability of useful variance, which I take as the more crucial justification for the use of case study research in the present context, I argue that the difficulties we face in attempting to identify either the aggregate impact of dollarization or the distribution of its costs and benefits result from a dearth of cases that might be subjected to meaningful investigation. Although Schuler (2005, 121-123) provides a list of 105 “historical episodes of dollarization,” only 36 of those episodes of dollarization occurred in fully independent states, entities that might be expected to maintain a national currency and an independent monetary policy. Moreover, most of the independent states that are (or have) dollarized are so small that any systematic analysis of dollarization’s impact on their economies may be impractical (and
likely unproductive). Of the fifteen independent states that Schuler lists as presently dollarized, only five have populations that exceed 100,000, and only three (Ecuador, El Salvador, and Panama) have populations in excess of one million. Because the economies of microstates such as Monaco or Tuvalu generally exhibit a very limited amount of diversification and also a fairly limited amount of independence regardless of whether or not they maintain a domestic currency, it is not at all clear that more would be better, i.e. it is not clear that the examination of dollarization in these cases would provide useful predictions about how dollarization might affect different sectors or different groups in a larger, more diversified economy.

Aside from the fact that Ecuador and El Salvador are the two largest dollarized countries, they stand out as candidates for a comparative case study because they both adopted the same currency at roughly the same time. As a result, their experiences with dollarization have been influenced by the same decline in the value of the US dollar against other benchmark currencies, a devaluation that served to increase the competitiveness of both countries’ exports. Another similarity between the Salvadoran and Ecuadorian economies that furthers the argument that these are indeed comparable cases is the important role that emigration and remittances play in both economies (and the effects they have on poverty levels and income inequality).

In their study of the effects that emigration and remittances have on the Ecuadorian economy, Serageldin et. al. (2004) document two ways in which emigration furthers the relative impoverishment of the poorest of the poor. First, because emigration (legal or illegal) requires a significant initial investment, the poorest households are unable to finance migration, and they are subsequently unable to supplement their domestic earnings with remittances from abroad. Second, the influx of dollars that enters the country in the form of remittances leads to localized, unproductive. The other twelve countries on this list are: East Timor, Micronesia, Kiribati, Marshall Islands, Andorra, Liechtenstein, Monaco, San Marino, Palau, Nauru, Tuvalu, and the Vatican.
sector-specific inflation, as the families of those who have emigrated bid up land prices and construction costs, making affordable housing harder to obtain for the poorest of the poor who cannot make the initial investment necessary to enter into the remittance economy. Closing out the cycle, the increased economic inequality that is partially the result of emigration at time $t-1$ amplifies the incentives for migration at time $t$, which will in turn increase economic inequality at time $t+1$. Bradbury and Vernengo (2008, 12) link migration back to dollarization by noting that the balance of payments is sustained by the remittances sent back home by migrant workers; indeed, they suggest that this link may be evidence of a new development model “based not on the old Commodity-Export Model, but on a new Anthropo-Export Model … which depends increasingly on its ability to export what seems to be its most competitive product, namely: its own people.”

Although I contend that there is much to be gained by examining these two countries’ experiences with dollarization, there are a few complications that must be noted. The fact that dollarization in Ecuador (an oil exporter) coincided with the initial stages of what has turned out to be a steady and significant rise in world oil prices makes it more difficult to judge the extent to which dollarization in and of itself may have contributed to Ecuador’s economic recovery. The week that president Mahuad announced his plan to dollarize the Ecuadorian economy, the price of Ecuador Oriente crude was at $28.20/bbl., 257% higher than it had traded at just thirteen months earlier. As a result, government oil revenues for 2000, the year that dollarization was implemented, were 39.2% ($411.5 million) higher than they had been the previous year. Although annual average Ecuador Oriente crude prices were lower in 2001-2003 than they had been in 2000, they remained well above pre-dollarization levels, and then shot up again
beginning in 2004. There can be little question that the expansion of oil export revenues played some role in stabilizing the Ecuadorian economy.

Just as our ability to identify the extent to which dollarization is responsible for Ecuador’s post-dollarization economic performance is complicated by the fact that dollarization coincided with an extremely favorable increase in world oil prices, any analysis of dollarization’s impact on the Salvadoran economy is made more difficult by one particularly important exogenous shock – the earthquakes that shook the country on January 13, 2001 (just twelve days after the dollar became legal tender, alongside the colón) and a month later, on February 13. These natural disasters, which caused more than 1,200 deaths, left roughly 25% of the nation’s housing damaged or destroyed, and caused considerable damage to the country’s infrastructure (with overall damage estimated at between $1.5 and $2 billion), certainly had an important and difficult-to-quantify impact on El Salvador’s subsequent economic performance.

With these caveats in mind, the following two sections examine the impact that dollarization has had on the Ecuadorian and Salvadoran economies, with a focus on how the costs and benefits engendered by the adoption of the US dollar have been distributed in these two countries. Because both the macroeconomic situation prior to dollarization and the specific rationales put forth by government policymakers in defense of the policy were so very different in the two countries, each section will begin with an abbreviated case history designed to provide the context necessary to interpret the post-dollarization performance of the Ecuadorian and Salvadoran economies.
Ecuador: Dollarization as “Hail Mary”

While fixing the exact date when the Ecuadorean economy began to sour may not be possible, the eventual free fall of the sucre can be dated to May 1982, when the government reacted to the destabilizing impact of the country’s rapidly growing external debt by devaluing the sucre, which had been pegged at $25 = $1 for more than a decade. As Figure 1 shows, frequent devaluations instantly became the norm as successive governments preferred inflationary monetary policy to the adoption of politically-costly reforms that might have addressed the country’s real economic problems, including its insufficient physical infrastructure, a poorly performing education system, and an excessive reliance on the export of crude oil and other primary goods. By the end of the 1980s, the sucre had lost over 96% of its value as the exchange rate reached $648.40 = $1.

The 1990s brought Ecuador’s economy more of the same – frequent devaluations and anemic economic growth. Financial liberalization measures enacted in 1994 precipitated a series of domestic bank failures, beginning in October 1995. This financial crisis led then-president Abdalá Bucaram to announce, in December 1996, that Ecuador would adopt a convertibility program, similar to Argentina’s, that was to go into effect in July 1997. Though Bucaram could not implement his convertibility plan because Ecuador’s National Congress declared him mentally unfit and stripped him of the presidency on February 6, 1997, less than six months into his term, the idea of adopting a convertibility plan like Argentina’s retained a spot in the national dialogue.

As a prolonged slump in world oil prices, increased defense spending in the aftermath of a 1995 border conflict with Peru, and the extensive economic damage caused by El Niño-related flooding in 1997-98 helped to accelerate the pace of Ecuador’s economic deterioration, a second
wave of domestic bank failures began in March 1998. In a desperate and ill-fated attempt to restore confidence and inject some much-needed stability into the domestic banking sector, Ecuador’s legislature passed the “Ley de la Agencia de Garantía de Depósitos” (Ley AGD), which committed the government to guarantee 100 percent of all domestic bank deposits. On December 1, 1998, the day this measure went into effect, the AGD was forced to take over operations of Ecuador’s largest bank – a sign that the government’s guarantee was unable to reduce pressure on the banking system. Though ostensibly designed to prevent impending financial doom, the Ley AGD is cited by current president Rafael Correa as the mechanism through which domestic bank failures were converted into much broader fiscal, monetary, and productive crises.

On February 12, 1999, Ecuador’s Central Bank abandoned the exchange rate band system through which it had managed the sucre’s value vis-à-vis the US dollar and allowed the sucre (which then traded at the rate of s/7,305 = $1) to float. Following the Central Bank’s decision, the bank runs that had begun in August 1998 accelerated to such an extent that the government was forced to take additional, desperate measures to avoid a general collapse of the financial system. By March 8, when the government declared a week-long bank holiday, the value of the sucre had dropped by more than 41% in less than a month. On March 15, the government announced that most bank deposits would be frozen for one year, a policy designed both to avoid the collapse of the banking system and to slow down the sucre’s freefall by taking 72% of the nation’s money supply out of circulation. In the midst of this financial crisis, Ecuador’s economic production plummeted – in 1999, GDP per capita dropped by 7.65% as the official urban employment rate reached 15.1% (62% higher than it had been in 1997). The country – and the extent of its economic downfall – even made global headlines in October 1999, when
Ecuador gained the dubious honor of becoming the first country ever to default on its Brady bonds.

Unsurprisingly, the poor paid the greatest price as Ecuador’s economic crisis spiraled out of control. While the share of national income received by the richest 20% of Ecuadorians rose from 52% to 61.2%, the income of the poorest quintile fell from 4.6% to 2.46%, the proportion of the population living in poverty more than doubled, from 34% (in 1995) to 71% (in 2000), and the percentage living in extreme poverty jumped from 12% to 31% (Bradbury and Vernengo 2008). Many Ecuadorians reacted to this economic crisis by migrating to Spain and to the United States; Serageldin et. al. (2004) cite estimates that between 600,000 and 1 million Ecuadorians left the country in search of work between 1999 and 2003. The money that these economic refugees send to family members back home became, for the first time, an important component of the Ecuadorian economy; remittances, which had accounted for only 0.63% of GDP in 1992, reached a high mark of 8.29% of GDP in 2000.

Such was the state of the Ecuadorian economy when President Mahuad announced the extreme measure of abolishing the national currency. Analysts’ initial reactions to Ecuador’s dollarization were swift, and predominantly negative. IMF managing director Michel Camdessus stated that “dollarization was not, I must be frank, the kind of policy we would have recommended at this stage to Ecuador” (Hanke 2003, 134). Sebastian Edwards opined that “Ecuador has so many problems that if dollarization works, it would just be a coincidence” (Katz 2000). Of the Ecuadorian government’s plan to “restore confidence in the currency by abolishing it,” Paul Krugman wrote that “observers say this could work if it is accompanied by extensive domestic reform – which is a bit like saying that you can kill someone with witchcraft if you also give him plenty of arsenic” (Hanke 2003, 135).
Harsher than these words was the initial response of the Ecuadorian public; following a week of public protests, Mahuad was forced to abandon the presidency on January 21 – just twelve days after he had announced his plans to dollarize the economy – when the national legislature was seized by a coalition of indigenous groups and military officials who briefly ruled the country before handing power over to Mahuad’s vice president, Gustavo Noboa, the following day. Undeterred by the fate of his predecessor, it was Noboa who pushed forward with Mahuad’s plan to dollarize the Ecuadorian economy, gaining the legislature’s approval for the abolition of the sucre on February 29. A CEDATOS poll conducted in May 2000, two months after dollarization went into effect, found that 69% of Ecuadorians were unhappy with dollarization, 81% believed that their incomes had declined with dollarization, and 85% felt that their purchasing power had declined (Hira and Dean 2004, 475). In November 2002, when national elections provided the broader Ecuadorian public with a more meaningful opportunity to voice its opinion regarding the decisions taken by the architects of dollarization, the electorate demonstrated its lack of support for the previous regime’s economic policies by electing Lucio Gutiérrez – a military colonel who had been one of the three members of the “National Salvation Junta” that was established following the coup that ended Mahuad’s presidency and who had named his political party the January 21 Patriotic Society Party in honor of that coup – to the presidency.

Inasmuch as the primary motive for Mahuad’s decision was the hope that dollarization might succeed where previous policies had failed to bring about macroeconomic stability, it is only fair to begin any evaluation of the success or failure of Ecuador’s dollarization with an examination of just how well the policy has stabilized the Ecuadorian economy. The immediate impact of dollarization on the inflation rate ran squarely counter to expectations; inflation peaked
at 96.1% in 2000, the year that the sucre was replaced by the dollar. Three explanations exist for this unexpected burst of post-dollarization inflation; this peak in inflation may represent the delayed effect of the previous year’s peak in the devaluation of the sucre, it may have been the consequence of the liberation of the bank deposits that had been frozen in March 1999, or it may have been caused by a poorly-chosen conversion rate.\textsuperscript{13} As shown in Figure 2, the purported anti-inflationary effects of dollarization did not really begin to pay dividends until 2002, when inflation fell to its lowest level since 1979.

Other measures of macroeconomic stability also support a favorable evaluation of Ecuador’s dollarization. Interest rates on dollar-denominated loans, which were at 16.6% at the end of 1999, had dropped to 12.14% by 2003. Representative of restored confidence in the nation’s banking system, the total value of bank deposits rose from $2.42 billion at year-end in 1999 to $5.01 billion three years later (Hanke 2003). Dollarization also helped restore confidence amongst international lenders. As sarcastically noted by Jameson (2003, 653), dollarization provided the “good housekeeping seal of approval” that allowed Ecuador to draw the initial $114 million payment from a $304 million IMF standby loan on April 1, 2000 (less than three weeks after dollarization went into effect). The IMF’s demonstrated support for Ecuador’s efforts to restore macroeconomic stability influenced other multilateral lenders, who in turn gave the country access to $2 billion in new loans and allowed the government to negotiate a 16.7% reduction of its debt and a restructuring of its payment schedules. Although Ecuador’s exports appear not to have been systematically affected by dollarization, the country’s ability to solicit

\textsuperscript{13} Vos and León (2003, 8) argue that the conversion rate was set at s/25,000 = $1 due to “a fear that insufficient (cash) dollars [were] available to convert the entire stock of national currency and coins. Likely this was a misperception and a much lower conversion rate (say, at 18,000 per dollar) would have been sufficient and could have avoided the initial inflationary impact as well as the severe erosion of financial asset values redistributing wealth from deposit holders to the banks.”
foreign investment has demonstrated marked improvement in line with the immediate elimination of devaluation risk.

Various measures suggest that the monetary stability that resulted from the adoption of the dollar has been accompanied by real-world improvements. Urban unemployment, which had reached a high of 15.1% in 1999, fell to 10.3% the following year, 8.1% in 2001, and 7.7% in 2002. Underemployment, which reached its high of 51.8% in 1998, had fallen to 30.7% by 2002. GDP per capita soon recovered from the drop experienced in 1999. Moreover, beginning in the year 2001, GDP growth outpaced remittance growth, suggesting that increased domestic employment opportunities served to mitigate the incentives to migrate. In sum, these data suggest that Ecuador’s dollarization succeeded just as its proponents envisioned it would – the reduction and stabilization of inflation and interest rates contributed to lower levels of unemployment and accelerated economic growth.

That said, Vos and León (2003, 22) do well to note that, because the Ecuadorian economy experienced “a mixture of adverse external shocks, structural economic weaknesses, policy mistakes, and political upheavals” throughout the 1990s, “assessing the impact of specific shocks and policy reforms in this context is therefore difficult.” Also, as Jameson (2003, 654) points out, it is to be expected that “economies rebound after shock-induced recessions.” Furthermore, the decline in unemployment and underemployment figures can be attributed, at least to some extent, to the exodus of workers who abandoned the country in search of employment elsewhere – a phenomenon that has its own impact on labor productivity and on income inequality. In the

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14 Unemployment and underemployment data are only presented through 2002 because Ecuador’s central bank changed its methodology in 2003, making more recent data not comparable to the figures reported.
15 In the six years preceding dollarization, the Ecuadorian economy was the poorest performer in the Andean region, as its GDP per capita decreased by 1.8% while Colombia (1.4%), Bolivia (11.1%), and Peru (21.1%) all experienced some measure of GDP per capita growth. In the six years following dollarization, Ecuador’s GDP per capita rose 20.0%, outperforming all three of its neighbors (Peru 14.8%, Colombia 10.6%, and Bolivia 5.5%).
16 Again, this runs counter to the experience of Peru, Bolivia, and particularly Colombia, where remittance growth continues to outpace GDP growth.
final analysis, then, it may be fair to conclude that dollarization’s contribution to the economic growth that Ecuador has experienced since it adopted the dollar is limited to two factors, the introduction (after a prolonged adjustment period caused by a poorly chosen conversion rate) of low and stable inflation rates and the increase in Ecuador’s access to foreign dollar flows that resulted from the elimination of devaluation risk. Indeed, in analyzing the short-term impact of Ecuador’s dollarization, Jameson (2003, 659) concludes that “the balance has been positive, almost entirely because it has given the country greater access to international dollar resources.”

However, an examination of the evolution of Ecuador’s foreign debt in the years following dollarization demonstrates that, as in the case of Panama, dollarization has not had the desired effect of acting as a fiscal straightjacket. Although debt has continued to fall as a percentage of GDP, due to the country’s revitalized economic growth, the actual amount owed ($17 billion at year’s end 2004) soon surpassed the pre-dollarization high ($16.4 billion in 1998), indicating dollarization’s inability to remedy the country’s long history of fiscal deficits. Absent additional economic (and perhaps political) reforms needed to reduce the country’s debt burden, minimal investment in education and infrastructure will continue to forestall the increases in productivity and job creation that are needed to produce further improvements in the country’s unemployment and underemployment figures. As such, Jameson (2003, 655-657) finds that, in the long-term, the increased access to foreign dollar flows that Ecuador’s dollarization enabled will not have a

significant, lasting impact on the country’s economic performance:

“In the medium term the economy may continue to improve; however, it will progressively move toward the limit of its access to foreign saving, the major contributor to improved economic performance.... So the future of Ecuador under dollarization does not seem to differ greatly from its past.”
If this impact of dollarization is indeed ephemeral, then we are left to conclude that dollarization’s long-term impact on the Ecuadorian economy is limited to the effects of reduced and stabilized inflation rates.

Recalling the earlier discussion of the inverse relationship between inflation and income inequality, this conclusion that the principal impact that dollarization has had on the Ecuadorian economy has been the introduction of single-digit inflation rates implies that Ecuador’s poor received a disproportionately large share of the benefits of dollarization. Although measures of time-series movements in the percentage of GDP received by the bottom quintile, a measure that would demonstrate whether the reduction of inflation has indeed had the expected positive impact on the incomes of the poor, are not available, more indirect measures that are available do indeed lend support to the argument that dollarization has helped reduce income inequalities and lower the incidence of poverty in Ecuador. Even when emigration is taken into consideration, the improvements in the unemployment and underemployment figures that have followed the adoption of the dollar suggest that the elimination of monetary instability has helped reactivate domestic economic activity. Moreover, not only is it the poor who would have benefited most from reduced unemployment and underemployment rates, but it is also the poor who would have been the primary beneficiaries of the substantial rise in the real minimum wage that occurred in the years following dollarization – between 2000 and 2005, Ecuador’s real minimum wage increased by 25.9%, more than twice the regional average of 11.5%. It may be precisely these changes in the Ecuadorian economy that explain why public opinion regarding dollarization had experienced an about-face by 2006, when Ecuadorian voters were called to the polls for the second post-dollarization presidential election. With poll data suggesting that 75% of the population supported maintaining the US dollar as Ecuador’s currency, none of the major
presidential candidates – not even eventual winner Rafael Correa, the former Economy and
Finance Minister who initially had been publicly critical of dollarization – campaigned for a
return to the sucre (Coló 2006).

It stands to reason that, even though the poor were likely disproportionately affected by
certain idiosyncratic details of the dollarization process – particularly the initial shortage of
dollar-denominated coinage that led to price increases and/or the bundling of low-priced goods –
these costs were likely outweighed by the positive impact of increased job creation and rising
wages. In sum, then, the Ecuadorian experience suggests that dollarization may indeed produce
positive distributive effects in situations where prevailing domestic currency instability combines
with high inflation rates to impede international investment and/or lending and to hinder
domestic economic production. Jameson (2003, 659) suggests that “the success of Ecuador was
so specific to its circumstances that other governments would be unlikely to dollarize unless they
had no other option.” In order to examine the accuracy of this claim, I now turn to an
examination of El Salvador’s dollarization.

**El Salvador: Dollarization in an Environment of Macroeconomic Stability**

Whereas Ecuador’s dollarization “occurred in the midst of an economic and banking crisis,”
El Salvador dollarized its economy in order “to enhance the set of previous structural reforms put
in place to support economic stability and thus attract foreign investors” (Quispe-Agnoli and
Whisler 2006, 55). The president who introduced the plan, Francisco Flores, was the third in an
unbroken line of presidents belonging to the National Republican Alliance (ARENA), the right-
ing wing party that had first gained control of the government following the presidential election of
1989. In 1993, one year after El Salvador’s decade-long civil warfare had come to an end with
the signing of an UN-mediated peace agreement, the Banco Central de Reserva established a fixed exchange rate (¢8.75 = $1) that has remained unchanged ever since. After peaking at 18.5% in 1993, El Salvador’s annual inflation rate had dropped below 5.0% by June 1997, and it remained below that level for the remainder of the decade (as shown in Figure 3). With inflation firmly under control and devaluation nonexistent, what prompted Flores to call for the dollarization of the Salvadoran economy?

In spite of El Salvador’s macroeconomic stability, interest rates remained relatively high (interest rates for a colón-denominated loan of twelve months or less were at 12.41% when Flores set dollarization in motion), reflecting at least in part the financial sector’s fear of the possibility of a future devaluation of the colón. By eliminating devaluation risk, dollarization, it was argued, would bring interest rates down, which would, in turn, attract greater foreign investment and subsequently spur accelerated economic growth. Indeed, when he addressed the Salvadoran public via a national television and radio broadcast on November 22, 2000 – the same day that the “Monetary Integration Law” was sent to the national assembly – Flores explained the policy as a move designed to bring the Salvadoran economy out of its slump by encouraging foreign investment. Additional arguments in favor of the policy also included the favorable impact dollarization would have on the transaction costs involved in international trade and in the transfer of remittances from the United States.

Not convinced that the lowering of interest rates represents a sufficient cause for the elimination of a nation’s currency, skeptics of the Flores administration’s public justification of the move to dollarize the Salvadoran economy argue that the true rationale for the decision was in fact political in nature. As Bogetic (2000, 208) notes, ARENA politicians (and the banking and commercial interests they represent) had advertised their preference for dollarization long
before Flores’s announcement. Indeed, then-president Armando Calderón Sol first suggested plans for dollarization in 1995 before backing down in the face of political opposition, and he reiterated his support for dollarization prior to the March 1999 presidential election that would determine his successor. There is considerable merit in the explanation offered by Towers and Borzutzky (2004) that ARENA’s support for dollarization can be understood as the consequence of a changing of the guard within the party, in which the traditional agricultural oligarchy was usurped by the emerging financial and commercial sectors (sectors that would be the most obvious direct beneficiaries of dollarization’s elimination of devaluation risk and exchange transaction costs) represented by the National Association of Private Businesses (ANEP).

Party politics are also identified as the key to explaining why dollarization, which had failed to garner sufficient political support when the policy was suggested by Calderón Sol in 1995, was able to move from policy suggestion to law of the land within a scant six weeks following Flores’s announcement. As Brea et. al. (2001) suggest, the fact that the left-wing Farabundo Martí National Liberation Front (FMLN) won a plurality of seats in the March 2000 legislative elections infected dollarization’s proponents with a newfound sense of urgency. Fearing the possibility that voters’ increasing support of the FMLN might eventually result in the election of a leftist government that would perhaps move to dismantle the series of market-oriented structural reforms that had been implemented during eleven years of ARENA rule, the financial and importing sectors that dominated ANEP pushed for dollarization as an instrument for fixing the nation’s monetary policy in such a way that future governments would be virtually unable to change the status quo.

While this analysis of the political determinants of the decision to dollarize contains nothing beyond politics as usual – the competition between interest groups intent on implementing
policies for their own benefit – at least one account (CIS 2000) suggests that the murkier side of party politics also influenced the rapid approval and implementation of dollarization in the face of widespread public disapproval:

“The approval of the law was part of a complex agreement trade between ARENA and PCN [the conservative National Conciliation Party, which held 13 of the 84 seats in the Legislative Assembly] which included an agreement to not revoke the impunity of Francisco Merino, ex-vice-president and current president of the legislative fraction of the PCN, who while intoxicated fired, with intent to kill, at various police officers, gravely wounding a police agent. Whether he would be tried or not depended on whether the Legislative Assembly would revoke his impunity or not. ARENA, who in the beginning supported taking away his impunity, at the last moment said there was not indisputable evidence and voted for Merino’s impunity.”

Although the initial public disgust with the adoption of the US dollar did not have the drastic political consequences in El Salvador that it had in Ecuador, the Salvadoran public’s disapproval of dollarization has been much more persistent. When Salvadorans were asked in May 2004 to identify the main failure during the Flores presidency, dollarization was the most popular response by far; among those Salvadorans who offered any response to the question, 26.6% identified dollarization as the outgoing government’s principal failure (compared to only 10.8% who mentioned unemployment, the next most frequent response) (IUDOP 2004a). Three years later (and six years after the implementation of dollarization), 11.4% of Salvadorans who offered a response identified dollarization as the principal failure of the third year of Antonio Saca’s presidency in spite of the fact that the colón had been replaced by the US dollar more than three years before Saca took office (IUDOP 2007a). In three other national surveys, the percentage of Salvadorans who reported that dollarization has had a positive impact on the national economy and/or on the respondents’ personal economy has never been greater than 26.8%, while the percentage who believed that the impact of dollarization has been negative has never dropped below 60.7% (IUDOP 2006a; 2004b; 2002). In light of the previous section’s discussion of the extent to which the Ecuadorian public’s opinions regarding dollarization have experienced a
striking about-face, it seems reasonable to ask whether Ecuadorians’ and Salvadorans’ divergent evaluations of the impact of dollarization might be an indication of divergent post-dollarization economic outcomes.

Setting politics and public opinion aside, it is fair to begin the evaluation of El Salvador’s dollarization in the same manner as was followed in the Ecuadorian case – by examining how well the measure succeeded in accomplishing its publicly-stated goals (in this case, reducing interest rates and increasing foreign direct investment). As shown in Figure 4, dollar-denominated interest rates, which had been ticking upwards ever so slightly during 1999-2000, begin to decrease shortly after dollarization went into effect. While it may be too early to determine whether or not this reduction in interest rates may eventually result in a systematic increase in foreign direct investment, available data (through 2004) do not demonstrate any definite pattern. Brea et. al. (2001) correctly note that El Salvador’s history of sociopolitical instability and its endemic crime (estimated to cost the country 13% of annual GDP) likely scare many potential investors away from the country, regardless of the prevailing interest rates. In light of this situation, it is perhaps not surprising that dollarization would fail to have any immediate impact on investment inflows. As for any impact of dollarization on international trade, patterns of import and export growth (and of a rapidly growing trade deficit that is financed largely by workers’ remittances from abroad) also appear not to have been affected by the adoption of the dollar.

Any discussion of El Salvador’s economy would be incomplete without at least some mention of the price and labor market distortions that result from the country’s reliance on remittances. In 1978, agricultural exports accounted for 81% of El Salvador’s foreign exchange earnings, compared to 8% contributed by remittances from abroad. As a result of massive
emigration that began during the country’s civil war and has continued ever since, the importance of these two “sectors” has completely flipped, with agricultural exports accounting for only 5% of foreign exchange earnings in 2004, compared to 70% for remittances. The dollars sent to Salvadorans by their “hermanos lejanos” (far-off brothers and sisters) and the return visits made by those who have obtained legal status abroad have resulted in an economic boost for certain industries, such as telecommunications, air travel, tourism, banking, construction, and real estate. The exodus of the workforce has also resulted in growing regional disparities in rural wages (with higher wages being necessary to lure sufficient labor in areas where a large percentage of the potential workforce has abandoned the country) and in a shortage of seasonal workers – in recent years, increasing numbers of Nicaraguan and Honduran laborers have been recruited as contractual labor during sugar cane and coffee harvesting seasons.

El Salvador’s economic growth, which had been anemic prior to dollarization, has become even more moribund in the wake of dollarization. In the five years prior to dollarization, cumulative GDP per capita growth had been 4.9% (second lowest in Central America); in the five years following the introduction of the dollar, cumulative GDP per capita growth was only 1.7% (again, the second lowest rate in Central America). While the percentage of the workforce engaged in the informal sector has remained steady (fluctuating between 46% and 50%), underemployment has shot up significantly (from a low of 26.3% in 2000 to a high of 37.1% in 2003). These employment figures appear to provide support for the argument that dollarization constrains the government’s ability to react to unexpected economic shocks, particularly in light of the fact that underemployment actually went down in the (pre-dollarization) aftermath of 1998’s Hurricane Mitch, another natural disaster that affected the Salvadoran economy in much the same way as the 2001 earthquakes. The ratio of remittances to GDP (shown in Figure 5),
which had been declining during the first half of the 1990s before turning back upwards in 1997, has continued to rise, providing further evidence that domestic job growth has been insufficient. Moreover, this anemic job growth has been coupled with unfavorable changes in the economy’s wage structure – in the first five years following dollarization, the real minimum wage fell by 8.9%, the second-largest decline in the region during that period. Although the incidence rates of poverty and of extreme poverty have continued to fall, the pace of their decline has decelerated in the aftermath of dollarization.\footnote{In the last four years prior to dollarization, the percentage of households in poverty fell by 12.9% (from 51.7% to 38.8%) and the percentage of households in extreme poverty dropped by 5.9% (from 21.9% to 16.0%). In the first four years following dollarization, these percentages dropped by 4.2% and 3.4%, respectively.}

Quite simply, one is hard-pressed to find any indicator that would suggest that dollarization has had a significant net impact on El Salvador’s overall economic performance. That conclusion does not imply, however, that the policy did not create domestic winners and losers. Quispe-Agnoli and Whisler (2006, 68) detail how the domestic banking sector has emerged as the primary beneficiary of dollarization: “lower lending rates and recent depressed credit have given Salvadoran banks a comparative advantage versus other Central American banks, encouraging larger Salvadoran banks to expand their lending to neighboring countries.” Trade data confirms that importers, the other sector that is generally predicted to be an immediate beneficiary of dollarization, have also seen their fortunes expand considerably, as El Salvador’s imports increased 54.18% over the course of the first six years following dollarization (exports, on the other hand, increased only 19.45% during that same period). It follows that, if dollarization created domestic winners (bankers and importers) and if its overall impact on the economy was negligible, then there also must have been losers (not only in relative terms, but also in absolute terms).
Examining the lingering effects of the 2001 earthquakes, Towers and Borzutzky (2004, 44) note that, faced with the need for continued emergency relief spending and unable to obtain sufficient international finance (and, of course, also unable to implement expansionary monetary policy), “the government chose to cut ministerial budgets by 17 percent in 2002 ... [resulting] in a reduction of social services and programs, with a predictably negative impact on lower-income groups.” Noting that even calculators and currency conversion tables proved to be an insufficient solution “for the 21 percent of Salvadorans who cannot read or write, much less multiply and divide by 8.75,” Towers and Borzutzky (2004, 46) provide an excellent framework for examining the distribution of the idiosyncratic costs of dollarization. Post-dollarization price rounding disproportionate affected the poor, who “instead of [making] a trip to the supermarket to purchase 30 dollars’ worth of goods for the week ... visit the comer store several times a day to purchase one colón of tomatoes, later two colones of tortillas, and again for a colón of detergent” (Towers and Borzutzky 2004, 48). Even from an honest rounding up of prices, the price of a one-colón item experiences a 5% increase when its price is raised to $0.12. In actuality, the one-time increase in the price of small goods has been even greater, since rounding up to the nearest five cents has raised prices from one colón to $0.15 (an increase of 31.25%) and from two colones to $0.25 (an increase of 9.38%). Although the legislation that brought dollarization into place in El Salvador specified that prices could not be raised in this manner as part of the conversion process, enforcement never reached the rural areas or the informal economy where the poor make most of their purchases. As such, it has been rural populations and the urban poor who have suffered the greatest impact of this “conversion inflation.”

This notion of conversion inflation may help explain the persistent incongruity that exists between government inflation figures and public sentiment regarding the cost of living. National
surveys conducted in four consecutive Novembers (2004-07) asked Salvadorans “how much has the cost of living increased in the past year – a lot, some, a little, or not at all?” In spite of the fact that the government-reported annual inflation rate never exceeded 6.2% during those four years, Salvadorans were consistently convinced that inflation was out of control – the percent of respondents who stated that the cost of living had increased “a lot” during the past year was 68.9% in 2004, 72.3% in 2005, 76.0% in 2006, and 82.2% in 2007 (IUDOP 2007b; 2006b; 2005; 2004b). When further asked what they believed had caused the cost of living to increase, most respondents (65.0% in 2005, 50.3% in 2007) placed the blame on dollarization – not surprising, given that Salvadoran workers frequently complain that “prices are in dollars, but we still get paid in colones” (an assertion that finds some support in the aforementioned decline in the real minimum wage).

Faced with increased underemployment, stagnant job growth in the formal economy, inflationary price-rounding, and a decline in the real minimum wage, it has been the poorest of the poor, those who cannot afford to migrate, that have emerged as the losers of El Salvador’s dollarization. Until future economic and sociopolitical reforms succeed in encouraging increased investment in productive activities domestically – something that dollarization has not been able to accomplish – the Salvadoran economy will likely continue to rely on labor exports, a dangerous strategy considering the uncertainty surrounding immigration reform in the United States.

**Conclusions and Implications**

While it is of course rather fanciful to speak of “conclusions” based on an examination of only two cases, the post-dollarization performance of the Ecuadorian and Salvadoran economies
does at least provide some useful “suggestions” regarding the distributive impact of dollarization. The absence of any positive impact of dollarization on the overall performance of the Salvadoran economy lends support to Jameson’s (2003) claim that the relative success of dollarization in Ecuador may be a consequence of the unique set of circumstances that existed at the time of President Mahuad’s decision to replace the sucre. Moreover, if inflation control is the primary mechanism through which dollarization contributed to improvements in Ecuador’s economic performance and a reduction in income inequalities, one must ask whether the country would not have done just as well to rein in its inflation rate through more conventional means. It is important to note that, although dollarization’s proponents point to the return of single-digit inflation as evidence of the policy’s success, skeptics might argue that Ecuador’s Andean neighbors Bolivia (where inflation reached 11,750% in 1985) and Peru (where the inflation rate peaked at 7,482% in 1990) both managed to bring inflation under control without forfeiting their monetary policy independence. A future study comparing the long-term performance of the Ecuadorian economy to the experiences of other countries that have recovered from destabilizing bouts of high inflation without sacrificing their monetary policy independence would help us determine whether Mahuad’s decision was justified, or whether other, less-binding reforms would have had the same overall effect as dollarization while avoiding the increased sensitivity to exogenous shocks associated with the loss of monetary policy control and the specific price-rounding and informational effects that generally place a disproportionate burden on the poor.

This paper’s examination of the distributive impact of dollarization suggests that there is some merit to the oft-repeated popular complaint that most of the benefits of dollarization accrue to the banking sector and the importers. The obvious political implication of this finding is that, in the absence of an Ecuador-like situation of impending macroeconomic chaos, the poor should
be wary of any government’s claims that dollarization will result in improved socioeconomic well-being for all. Additionally, the suggestion that there may be some sort of causal link between dollarization and emigration should give government officials in other Latin American countries that may consider the possibility of officially dollarizing their economies one more issue to ponder, particularly in light of the fact that the United States and Spain – the two countries that have received the bulk of Ecuadorian and Salvadoran emigrants – have both taken steps in recent years to combat illegal immigration.
Data Sources

Figure 1: Brea et. al. (2001)
Figures 2: Inter-American Development Bank
Figures 3-5: Banco Central de Reserva (El Salvador)

Works Cited


Figure 1. The Devaluation of the Sucre, 1982-2000

Figure 2. Ecuador’s Annual Consumer Price Inflation, 1979-2005
Figure 3. El Salvador’s Inflation Rate, Jan. 1997 - March 2007

Figure 4. El Salvador’s Interest Rates, 1999-2008
Figure 5. El Salvador's Remittances, by Quarter, 1991-2006

- Remittances (Millions US$)
- Remittances as % of GDP