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2013

working paper series

**AID, EXCHANGE RATE REGIMES
AND POST-CONFLICT MONETARY STABILIZATION**

Ibrahim Elbadawi and Raimundo Soto

Working Paper No. 751

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May 2013

An earlier extended version of this paper was prepared for the World Bank-McGill University research project on “Peace and Development”. The views expressed in this article do not necessarily represent the official positions of the Dubai Economic Council.

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First published in 2013 by
The Economic Research Forum (ERF)
21 Al-Sad Al-Aaly Street
Dokki, Giza
Egypt
www.erf.org.eg

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Abstract

This paper asks whether the choice of the exchange regime matters for macroeconomic stabilization in the aftermath of civil conflicts. This important aspect of the macroeconomic agenda for post-conflict countries has been largely ignored by the literature. Using a panel of 132 countries (38 post-conflict countries and a control group of 94 economies) in the period 1970-2008 we estimate the effect of the main exchange rate regimes (fixed, managed floating and free float) on the demand for money balances and inflation. The optimality of the three Exchange rate regimes was assessed in terms of their capacity to create an 'enabling' policy environment for aid effectiveness in promoting the re-monetization and inflation stabilization of post-conflict economies. The evidence broadly suggests that the managed floating regime appears to have an edge.

JEL classification: F3

Keywords: post-conflict, aid, exchange rate regime, demand for money, inflation.

ملخص

تتسأل هذه الورقة عما إذا كان اختيار نظام الصرف يعد هاما للانتعاش الاقتصادي في أعقاب الصراعات الأهلية. تم تجاهل هذا الجانب الهام من جدول أعمال الاقتصاد الكلي للبلدان في مرحلة ما بعد الصراع إلى حد كبير من الأدب. باستخدام مسح من 132 بلدا (38 بلدا في مرحلة ما بعد الصراع ومجموعة تحكم من 94 اقتصادا) لفترة 1970-2008 نقوم بتقدير تأثير نظم أسعار الصرف الرئيسية (الثابتة، التعويم المدار والتعويم الحر) على أرصدة الطلب على النقود والتضخم. وجرى تقييم تحقيق الشكل الأمثل لنظم أسعار الصرف الثلاث من حيث قدرتها على خلق "تمكين" لبيئة السياسات لقياس فعالية المعونة في تعزيز إعادة التسييل واستقرار التضخم في اقتصادات ما بعد الصراع. وعلى نطاق واسع توحى الأدلة بأن النظم العائمة قد يكون لها ميزة أكبر.

1. Introduction

On view of the high aid dependence of countries coming out of civil wars, it is not surprising that aid effectiveness issues have dominated the agenda for post-conflict economic recovery. However, the received literature has so far almost exclusively focused on the role of institutions, fiscal policy and the real exchange rate as factors shaping the enabling policy environment for aid effectiveness. Moreover, the latter was largely assessed in terms of its capacity to restore growth and expand exports in the aftermath of civil wars¹. On the other hand, other critical policy objectives, such as the role of aid in facilitating the re-monetization and control of inflation in post-conflict economies have, by and large, been missing from the aid effectiveness debate. In this context Elbadawi and Soto (2012) argue in a recent paper that the received literature has been lopsided, in that it has largely ignored the important issue of what constitutes an optimal exchange rate and monetary regime for post-conflict. Elbadawi and Soto attempt to address this by analyzing the ‘conditional’ impact of aid on GDP per capita and export growth under three broad exchange rate regimes (fixed, managed and floating). They assess aid effectiveness conditional on the presence of “good” policy environment, where the latter is given by the real exchange rate undervaluation². There is a growing, albeit small, literature on the role of the real exchange rate undervaluation as a growth fundamental³, including its potential contribution to enhancing post-conflict aid (e.g. Elbadawi et al. 2008; Elbadawi 2012).

This paper complements Elbadawi and Soto’s paper and attempts to contribute to this literature by assessing the post-conflict macro stabilization outcomes of the three broad types of exchange rate-monetary regimes. We ask whether the effectiveness of aid as an instrument for the re-monetization and inflation stabilization of post-conflict economies is conditional on the choice of exchange rate regime. The received literature suggests that, among other things, restoring growth and achieving stable inflation are critical for minimizing the risk of post-conflict relapse in the aftermath of civil wars (e.g. Elbadawi 2008).

The few notable exceptions to the dominant strand of the received literature include Elbadawi and Schmidt-Hebbel (2008), who estimate demand for money using a large global sample of 99 countries, almost half of which are comprised of civil war-affected countries, and find that money demand is highly unstable over the conflict cycle; and that after the onset of peace, significant real monetization takes place in countries that have suffered from civil wars – a result of output recovery and inflation stabilization, as well as structural shifts in money demand. On the basis of this finding they argue that standard money-based stabilization may be deflationary if it does not account for possible structural shifts in the demand for money during conflicts or after their resolution. Instead, they recommend that authorities responsible for monetary policy and macroeconomic stabilization at the end of conflicts should accommodate the likely large positive structural shifts in money demand by allowing for strong monetization. This recommendation appears to cohere with the salient features of conflict-affected economies. It has been argued that as institutions for contract enforcement start to break down during civil wars and the collapse of social order, agents disengage from transactions-related activities (e.g. transport and trade) and asset-providing activities (transport, financial services), as well as from economic sectors that are intensive in assets

1 Examples from the recent literature in these areas include, Boyce and O’Donnell (2007), Collier and Hoeffler (2004), Elbadawi, Kaltani and Schmidt-Hebbel (2008), and Elbadawi, Kaltani and Soto (2012).

2 Simply put, a country will experience a real currency undervaluation (overvaluation) when it produces a given basket of goods and services that can be traded across international borders at a lower (higher) cost than what would be consistent with its sustainable economic fundamentals –such as the external terms of trade; the level of sophistication of its economy or the stock of wealth generated by or endowed with the economy. Moreover, real exchange rate (real currency) undervaluation (overvaluation) is consistent with higher price of traded goods relative to non-traded domestic goods and services. When a currency is undervalued, it is necessarily misaligned relative to its long-term equilibrium level.

3 See, for example, Rodrik (2008); Elbadawi et al. (2012); Aghion et al. (2009); Aguirre and Calderon (2006); and Williamson (1997).

and/or transactions, like manufacturing. As the latter sectors are built-up following the end of conflicts, the same sectors that are most severely impacted by wars are likely to be the ones that would experience the most dynamic recovery at peace onset (Collier 1999). Therefore the demand for domestic money, as an asset that facilitates transactions and stores value, would shrink and recover during the conflict cycle.

Another notable exception to the dominant strand of the received literature is Adam, Collier, and Davies (2008), who analyze the role of aid in restoring post-conflict macroeconomic stability through promoting the recovery in the demand for money. They discuss the financing implications for the government of the decline in the demand for money associated with reduced income and asset substitution away from domestic money during conflicts. This, they argue, is likely to worsen the tradeoff between seigniorage and inflation, given that governments fighting civil wars are in need to finance higher military expenditure with limited borrowing options. Under these conditions, they formally show that the equilibrium rate of inflation that the government is willing to tolerate for a given level of seigniorage will be much higher than under normal peaceful conditions. As a result of the slow recovery in the demand for money in the aftermath of conflict and the high level of financing, inflation is not likely to decline even after war ends. The key insight of Adam et al. is that without aid, conflict and post-conflict countries are likely to experience explosive inflation; aid can help reestablish the pre-conflict equilibrium level of inflation. This paper extends their analysis based on the observation that the ability of aid to finance post-conflict monetary reconstruction may depend in a substantial manner on the choice of the exchange regime. As long recognized, exchange rate regimes provide for different degrees of independence to monetary policy, protection against real shocks, and macroeconomic stabilization. Consequently, the support that aid can give to monetary reconstruction is likely to be different in fixed, managed or floating systems.

The rest of the paper is organized as follows. Section 2 briefly reviews the received knowledge about the impact of civil wars on conflict-affected economies, and the recovery process after peace is achieved. We briefly identify the salient features that a framework for choosing monetary and exchange rate regimes ought to consider. Section 3 reviews the empirical evidence on a selective set of potential macroeconomic correlates of indicators of monetary stability in conflict-affected economies. This section is also aimed at identifying additional stylized facts that might be important to account for when choosing exchange and monetary regimes in post-conflict economies. Section 4 undertakes the empirical testing of the set of questions raised in the previous sections. We first replicate the main results of the empirical literature on the determinants of inflation and money demand. Later these models are extended to consider the differential role of exchange and monetary regimes in conflict economies. Our database comprises an unbalanced panel of 132 economies; including 38 affected by civil war, and eight consecutive five-year periods spanning 1970-2008. The econometric estimations are performed using the generalized method-of moments (GMM) estimator for dynamic models of panel data. These estimators deal effectively with dynamic models, unobserved country-specific effects, and the potential problem of endogeneity of the explanatory variables. Section 5 concludes.

2. An Overview of the Received Knowledge⁴

While there may be disagreement on the best way to model the determinants of political violence⁵, a broad consensus has emerged that civil conflicts are quite costly. Based on a sample of 19 civil wars in the period 1960-1989, Collier (1999) finds that on average war incidence reduces annual real per capita GDP growth by as much as two percentage points

⁴ Some components of this and next section draw from our earlier companion paper (Elbadawi and Soto 2012).

⁵ For an extensive review of the causes of civil wars and other types of political violence, see Bodea and Elbadawi (2007).

and that the negative impact persists long after the conflict has ended⁶. Beyond the activity decline, Caplan (2002) find evidence in a sample of 66 countries over the period from 1950-1992 that the negative growth effect is shaped by changes in fiscal policy, as the composition of government spending switches from social to military spending. Gupta et al. (2002) and Adam et al. (2008) provide evidence that conflicts lead to higher inflation and argue that, most likely, this is a direct consequence of the government's need to finance increased military expenditures in a context where borrowing is unlikely to be an option. Staines (2004) finds that the damage to growth caused by poor macroeconomic policies was nearly as great as the direct impact of conflict.

External assistance had been identified as affecting conflict duration and the recovery process after peace. Early studies identified foreign aid as an important factor in sustaining conflicts in the aftermath of the Cold War era (Michailof et al. 2002). Recent studies, nevertheless, indicate that donors now generally reduce assistance sharply during conflicts but tend to increase assistance equally sharply after the conflict (Staines 2004). This may have contributed to more severe economic contractions and imbalances experienced by countries in these later conflicts and plausibly also contributed to their shorter duration.

The costs of civil conflicts are high even after they end Collier (1999), though post-war economic recovery is quite rapid in cases where resolution of conflicts led to at least ten years of uninterrupted peace. For a sample of 22 countries, Chen et al. (2008) observe a tremendous postwar surge in per-capita income growth, which rises about 2.5 percent points above the prewar level. The strong recovery in income is linked to the high potential for catch-up growth following the destruction of war and is supported by an increase in both investment and capacity utilization. The length of the conflict, nevertheless, negatively affects the speed of recovery. Also, while it takes several years to re-establish the pre-conflict income levels, institutions and social indicators take much longer to improve.

The rebound in growth is also associated with a rapid decline in inflation and a realignment of fiscal policy away from military expenditure, a much needed policy since there is a tendency for countries to emerge from conflict with severely reduced domestic revenues and damaged tax administration (see Fallon et al. 2004). Chen et al. (2008) found that military expenditure (as a percentage of government expenditure) reveals a clear and significant declining trend in the aftermath of war. On the other hand, they find that inflation is significantly higher after the war. Staines (2004) notes, nevertheless, that in most of the post-1990 conflict countries inflation declined to single digits within two years. In turn, price stabilization tends to significantly increase monetary holdings in economies transiting from conflict to peace (Elbadawi and Schmidt-Hebbel 2008).

External aid flows also play a significant role in affecting the aftermath of conflicts. Based on a sample of 27 post-conflict countries in the 1990s, Collier and Hoeffler (2004) find that during the first three post-conflict years absorptive capacity for aid is no greater than normal, but that in the rest of the first decade it is approximately double its normal level. Consequently, they advocate for reversing the current profile of post-conflict aid flows, which tend to be initially high, similar to pre-conflict levels, but prematurely taper out over the course of the decade at a time when the recipient countries have achieved the required capacity for absorbing more aid. Adam et al. (2008), on the other hand, indicate that post-conflict aid stimulates the demand for money directly, by substituting for seigniorage, and indirectly, by restoring income growth and supporting a modest portfolio shift in favor of domestic money. However, the recovery in the demand for money is slow and inflation is not likely to decline rapidly if government financing remains high. Consequently, post-conflict

⁶ For more recent evidence on the growth impact of civil war and other manifestations of political violence, see Bodea and Elbadawi (2008)

countries are likely to experience explosive inflation unless foreign aid is available to finance fiscal imbalances and help reestablish the pre-conflict equilibrium level of inflation.

In spite of its beneficial financing role, foreign aid flows can have significant side effects on exchange markets. Civil wars disproportionately affect the traded goods sector and the extent of recovery in this sector is thus likely to have a significant effect on post-conflict growth. While aid can directly contribute to the growth of the traded-goods sector, it also raises concerns on its potential capacity to overvalue the currency. In this regard, the evolution of the real exchange rate (RER) is an important indicator of the evolution of post-conflict economies. Corroborating the received literature, Elbadawi and Soto (2012) provide evidence that aid promotes growth but with diminishing returns. Moreover, they also find that for post-conflict countries RER undervaluation has indirect positive effect on GDP per capita and export growth through its interaction with aid. Therefore, their evidence suggests that aid can be highly effective in promoting post-conflict growth, provided that it was also spent in a way that avoids RER overvaluation.

In summary, the existing research provides ample evidence on the economic impacts of armed conflicts. However, the received literature has so far failed to produce a critical mass of knowledge on the effects that the choice of monetary and exchange rate regimes can have on post-conflict economic recovery and macroeconomic stability. In our companion paper (Elbadawi and Soto 2012) we attempt to address the lopsidedness of this literature by asking the question as to which exchange rate regime is more conducive to fast and high post-conflict economic growth and export expansion. This paper compliments this effort by asking the parallel questions regarding which exchange regime allows for easier monetization after conflicts and thus regaining of normal operations of monetary policy; and, do the different monetary and exchange rate regimes allow for different speeds in achieving macroeconomic stability (e.g., low inflation)?

3. Selective Stylized Facts

We review empirical evidence on some selective correlates of macroeconomic stabilization indicators of economies with significant armed conflicts to validate previous findings and identify additional stylized facts that we deem important when choosing exchange and monetary regimes. We built a database for 38 countries with significant armed conflicts in the period 1970-2008 and a control group of around 94 economies. Table 1 identifies the countries and time periods of civil-conflicts in our sample.

Clearly, wars initiated in the 1970s and 1980s lasted much longer than those initiated in the 1990s, a fact that is consistent with the evidence in Staines (2004). Our sample does not significantly overlap with that of Staines, since we use a more strict definition of what constitutes a significant conflict and consider a longer period of time and larger number of countries.⁷ The average length of conflict before 1990 is around 15 years, while afterwards they last around five years. Note also that the majority of conflicts are located in Africa (50%), while the rest spread evenly between Latin America, Middle East and North Africa, and Asia.

We follow Chen et al. (2008) in using an event study methodology in which calendar time is transformed into “event time” in order to aggregate a collection of experiences that share a particular event in common and extract meaningful conclusions from them. While this is useful, one should bear in mind the potential limitations of combining experiences that actually occurred at different periods of time. The econometric analysis in Section 4 overcomes this limitation.

⁷ We use PRIO (<http://www.prio.no/>) Type 1 and 2 (see UCDP/PRIO Armed Conflict Dataset v4-2009), while Staines includes also Type 3 conflicts.

Table 2 provides selected indicators of the macroeconomic performance of the countries in our sample, which we split into conflict economies and other emerging economies. Some of the stylized facts of the literature found by other authors are reproduced in our sample. We find that civil wars are very costly: the annual growth in GDP per capita during the conflict is around two percent points below that of other developing countries. When compared to non-conflict emerging countries, economies with significant civil conflicts also suffer from higher levels of inflation and more restrictive capital controls.

Countries that have suffered a civil war also tend to have had poor macroeconomic performances before the onset of the conflict. This shows in a few selected indicators of relevance to monetization and stabilization of inflation (Table 2). On one hand, economic growth faltered for at least five years before the conflict, as reflected in a very slow growth in per capita GDP. Other macroeconomic indicators associated with higher degrees of development indicate conflict countries were lagging behind before the strife erupted, including financial development (credit to the private sector), trade openness (exports as ratio to GDP) and capital account openness⁸.

The evidence in our sample indicates that countries engaging in civil conflicts see aid flows diminish somewhat –though not by as much as noted by Staines (2004)— and confirms that donors increase their transfers substantially after conflicts end. On the other hand, conflicts affect somewhat fiscal revenues, which decline by around two percentage points of GDP but quickly recover pre-conflict levels after achieving the peace. Finally, countries emerge from conflicts with more open capital accounts, which is congruent with higher levels of foreign direct investment.

We also found that short duration conflicts –less than eight years— tend to be far more intense than long-term wars. Short conflicts lead to substantial drops in per-capita GDP of around three percentage points per year. On the contrary, economic growth in countries that suffer long-term conflicts is reduced by around one percent point with respect to non-conflict economies, but maintains a positive long-run trend, including achieving positive in-conflict growth.

Beyond economic growth, conflict economies do not appear to show macroeconomic indicators significantly different before, during and after the conflict. In fact, Table 2 suggests that civil-war economies are not radically different from non-conflict countries. Nevertheless, further scrutiny shows that there are significant differences in economic performance and key macroeconomic indicators in conflict economies when looking at the exchange regime. We use Reinhart and Rogoff (2004) classification of exchange rate regimes, which we extend to 2008 based on IMF information. For empirical purposes, we group the data in three categories: fixed exchange systems (dollarization, currency boards, and participation in monetary unions), intermediate systems (from adjustable and crawling pegs to managed floats) and free floats.

In Table 3, we observe that before the conflicts economic growth was much higher among countries that had intermediate exchange rate regimes as compared to countries in either fixed or floating exchange systems. After conflicts ended, nevertheless, economic growth has rebounded strongly across regimes. Inflation rates before conflicts differed notably: the high inflation observed in floating exchange regimes (65% per year) is largely due to the presence of Latin American economies that historically have had chronic high inflation. Notably, inflation declined substantially in all countries after conflicts, independent of their exchange regime.

⁸ Chinn-Ito's index of capital account openness weighs IMF data on the presence of multiple exchange rates; restrictions on current account transactions; restrictions on capital account transactions; and the requirement of the surrender of export proceeds. It is, thus, an index on de jure restrictions ranging from -1.8 to 2.5, where a higher value indicates fewer restrictions. See Chinn and Ito (2006).

The vigorous economic recovery after civil conflicts also shows in the substantial expansion in domestic credit ratio to the private sector for the case of countries with fixed and floating exchange rate regimes, while no such expansion materialized for the case of managed floating regime. On the other hand, though private credit ratios in post-conflict were much lower than the ratios prevailing in non-conflict emerging economies (at 31%), the gap was much larger for the floating regime, which despite the strong recovery has, nevertheless, remained low at about 16%.

In addition, the evidence suggests that tax collection does not improve substantially after the conflict ends. Moreover, there are virtually no differences between countries adopting fixed or floating exchange regimes. Theoretically the choice of the optimal monetary and exchange rate regime ought to depend to some extent on the fiscal policy stance. Our evidence, nevertheless, does not support that theory.

One issue that remains unaddressed is that of currency substitution. Agents living in economies that undergo dramatic events (hyperinflation, financial collapse, or civil wars) usually defend their financial assets by holding foreign currency. As discussed by Feige (2002) the existence of a typically unknown amount of foreign currency in circulation makes the outcome of domestic monetary policy uncertain. The effective money supply may be much larger than the domestic money supply and be subject to endogenous behavioral responses reflecting currency substitution on the part of the public. Eichengreen and Hausmann (1999) note that the market for domestic government debt may be completely missing in highly dollarized countries, with adverse consequences for government financing and economic growth. On the other hand, dollarization will tend to dampen government efforts to employ inflationary finance to impose implicit taxes on domestic monetary assets. As shown in Table 3, dollarization in fixed exchange rate regimes did not change markedly between the pre and post-conflict period. In floating exchange regimes dollarization increased substantially while in intermediate regimes it declines significantly.

An important element that should be noted is that there exists substantial “persistence” in exchange rate systems. That is, countries tend to maintain their pre-conflict exchange rate system for as long as possible and, most often than not, enter the peace period with the same system they had at the onset of the conflict. As shown in the diagonal of Table 4, of the 40 countries in our sample, 28 maintained or adopted after the transition to peace exactly the same system they had before the onset of the armed conflict (i.e., 70%). Countries that remained in fixed exchange rate systems largely belong to African currency unions. Most of the changes in exchange regime resulted from countries abandoning fixed or pegged regimes towards floating schemes, thus increasing degrees of exchange flexibility after conflicts. Only two economies chose to implement fixed exchange regimes after the conflict, one of those choosing to dollarize its economy to control inflation (El Salvador).

4. Empirical Analysis

In this section we undertake the empirical testing of the set of questions raised in the previous sections. We proceed first to replicate the main results of the empirical literature on the determinants of two pivotal indicators of monetary stabilization: inflation and money demand. We then extend these models to consider the role of exchange and monetary regimes in conflict economies.

We estimate dynamic panel-data models of inflation and money holdings. Our sample is dictated by data availability, particularly that for conflict economies. It contains 132 countries representing all major world regions (see Appendix B for a complete list). The regression analysis is conducted using averages of five-year periods. Each country has a minimum of three and a maximum of eight non-overlapping five-year observations spanning the years 1970–2008. Since one observation must be reserved for instrumentation, the first period in

the regression corresponds to the years 1975–1979. Due to the presence of missing observations the actual number of countries and observations varies from model to model; however, each table identifies the number of countries used in the estimation.

Our main econometric methodology is the generalized method-of moments (GMM) estimator developed for dynamic models of panel data, which was introduced by Holtz-Eakin, Newey, and Rosen (1988), Arellano and Bond (1991), and Arellano and Bover (1995). These estimators deal effectively with the three challenges posed by our different models. First, the regression equation is dynamic in the sense that it represents a lagged-dependent variable model. Second, the regression equation includes an unobserved country-specific effect, which cannot be accounted for by regular methods (such as the within estimator) given the dynamic nature of the model. Third, the set of explanatory variables includes some that are likely to be jointly endogenously determined with the dependent variable. Moreover, the GMM estimator is best suited for the case of panel data models with a large number of cross section units and relatively short time periods.

4.1 Money holdings

As discussed before, civil war reduces GDP growth by around 2 percent over a period of seven years. Hence, the demand for money is likely to be reduced for a prolonged period both directly, as a result of the fall in income, and indirectly, as a result of the attempts of agents to protect assets from the ravages of war through capital flight. The decline in the demand for money reduces seigniorage and exacerbates the difficulties of governments to finance expenditures, which are typically heightened by military spending. As noted by Adam et al. (2008), seigniorage is strategic, both because as revenue of last resort it reveals government preferences and because the ability to raise it reflects the degree of confidence of private actors in a fundamental government commitment. While the restoration of the demand for money is beyond the capacity of the typical post-conflict government, it is both an important objective in itself and a useful indicator of the broader restoration of confidence.

We use a very simple demand for real money based on the following specification:

$$\log M_{it} = \alpha' \log SV_{it} + \beta' AC_{it} + \gamma_j AID_{it} + \mu_i + \lambda_t + \varepsilon_{it} \quad (1)$$

where M is money (as % of GDP), SV are scale variables (e.g., the log of real GDP), AC are variables representing the alternative cost of holding money, AID is foreign aid flow (as % of GDP) and parameters μ , λ , and ε represent country-fixed effects, time-fixed effects and innovations, respectively.

4.2 Money determinants

The choice of money is not innocuous. Narrow money definitions (such as M1) tend to produce highly unstable econometric estimations in particular in dollarized economies, as reported in several studies (see Elbadawi and Schmidt-Hebbel, 2008; Oomes and Ohnsorge, 2005; Feige, 2002). Broad money demand estimations –including foreign cash holdings—tend to be more stable but also tend to become less representative of domestic monetary policies. Regarding the selection of the appropriate scale variable, standard portfolio theory of asset demands suggests using financial wealth while transaction theories of money would indicate the use of flow variables such as real GDP or real private consumption. Data availability forces us to use real GDP as the main scale variable, which we complement with population to allow for the possibility that the per-capita income elasticity of the demand for money deviates from 1.

The alternative cost of holding money would include both the CPI-based inflation tax and the pure alternative cost in terms of foregone interest. Domowitz and Elbadawi (1987) and Easterly et al. (1995) claim that in countries where financial assets are not good substitutes

for cash balances or which experience high inflation, the rate of inflation is a dominant measure of the opportunity cost of holding money. Foregone interest, on the other hand, presents practical complications, as the data on interest rates is scarce and usually contaminated with government controls, in particular in the 1970s and 1980s. We focus only in a measure of inflation tax, namely $\pi_t/(1 + \pi_t)$, which is theoretically consistent for discrete-time variables and therefore the most appropriate measure of the inflation cost of holding money (see Calvo and Leiderman 1992).

4.3 Estimation results

For our econometric estimation we use data for both M1 and M2 as percent of GDP for around 120 countries (650 observations). In Table 5, it can be seen that the estimated model for M1 in column (1) is an unlikely description of the data as the parameters are insignificant or have the wrong signs. The instability of this specification does not reduce if interaction terms for the impact of aid flows and non-linear effects are included in the estimation, as shown in column (2).⁹ On the contrary, the results in column (3) indicate that the model for broad money provides an economically sound description of monetization: the estimated coefficients for the scale variables (real GDP and population size) and aid flows are statistically significant and economically meaningful. The cost variable displays a negative sign as expected and is in line with other studies (e.g. Elbadawi and Schmidt-Hebbel, 2008). When conflict and post-conflict interaction terms are included in the estimation, our results indicate that the only non-linear effects arise from the aid channel, where aid flows allow the conflict and post conflict economy to maintain higher levels of monetization. On the contrary, there is no evidence of non-linear impacts from economic activity and/or inflation.

We now investigate the possible differences in monetization across exchange regimes and present the results in Table 6. Again, the model for M1 is not successful in providing an adequate description of the data: the estimated coefficients for aid and economic activity (real GDP) are not significantly different from zero, and that for population has an unexpected negative sign. The model for M2 is more consistent with the underlying data generating mechanisms: the estimated parameters are highly significant both statistically and economically and by being similar to those in Table 5 they indicate that the estimation is robust. The results indicate that countries with polar exchange regimes do not see monetization decline during the civil conflicts, contrary to the conclusions by several authors. It is the countries with managed float regimes that suffer from de-monetization during civil wars as a result of the decline in external aid. However, the estimated conflict-growth interaction term for the case managed float is rather implausible, as it predicts monetization when the economy contracts. Inflation changes in conflict economies do not explain movements in monetization in any exchange regime.

After conflicts end, monetization again does not appear to be linked in a systematic fashion to economic activity in polar exchange regimes. However, in managed float economies monetization is lower after conflicts end, as indicated in the negative sign obtained for the estimated coefficient. On the contrary, our evidence indicates that aid flows induce higher degrees of monetization in post-conflict economies if they have set up fixed or managed float exchange systems. Finally, inflation taxes in post-conflict countries do have differential impacts on monetization. There are no perceivable effects in fixed exchange rate countries, reflecting both the stability of inflation rates in these economies (as reported in Table 3) and the fact that agents care only for total holdings of currency and not for their composition in

⁹ Currency substitution could account for the instability of narrow-money demand functions as it could well be reflecting the fact that agents hold both domestic and external currency and can easily switch from one to the other. Consequently, monetary aggregates –such as base M1– would exhibit instability and unpredictability complicating monetary policy. On the other hand, currency substitution could explain the fact that monetization is equally strong under flexible and floating exchange rates after conflicts end. The data for dollarization is scarce and plagued with methodological shortcomings, in particular in conflict economies, which precludes us from undertaking an econometric test.

terms of domestic and foreign monies. In countries with managed floating exchange rates, there has been a significant re-monetization of the economy as a result of the inflation decline that characterizes post-conflict periods. Contrarily, in economies with purely floating exchange systems, the decline in inflation has also been accompanied by a reduction of monetary holdings, perhaps as a reflection of the fact that in countries with floating regimes households maintain rather large fractions of their wealth in foreign currencies, perhaps due to doubts about the ability of these countries in controlling inflation in the absence of a credible anchor.

4.4 Inflation

After the emergence of a consensus in the 1980s on the harmful effects of inflation, the last two decades have witnessed a marked reduction in inflation rates across the world. Empirical evidence collected from large cross-country analyses and numerous case studies indicated that the negative effects of high and variable inflation on macroeconomic stability, economic growth, and income distribution largely outweigh the potential benefits derived from financing fiscal deficits through monetization. However, controlling inflation has not been an easy task and monetary policies have largely been coordinate to exchange regimes. Some countries have resorted to fixing the exchange rate in order to curtail the growth in nominal prices. Others have implemented harsh monetary policies under floating exchange rates. Calvo and Vegh (1999) study these stabilizations attempts and conclude that beyond an initial boost to economic activity, these policies tend to appreciate the currency –even when policies are credible—, raise interest rates, and worsen the current account and the balance of payments. It is thus useful to study the case of post-conflict economies that, in addition to the difficulties of post-war economic reconstruction, had to deal with substantial aid flows and/or currency misalignment.

Based on previous research on the determinants of inflation we posit an empirical dynamic model of the form:

$$\pi_{it} = \alpha\pi_{it-1} + \beta' X_{it} + \mu_i + \lambda_t + \varepsilon_{it} \quad (2)$$

Where π_{it} is the annual inflation rate, X_{it} is a vector of fundamentals and, as before, λ_t is a period-specific effect, μ_i represents unobserved country-specific factors, and ε_{it} is the regression residual. As in the previous section, we estimate a dynamic panel-data model of inflation using 500 observations from around 110 countries.

4.5 Inflation determinants

With regards to the fundamentals, we follow De Brouwer and Ericsson (1998) and others and posit a cost based explanation for the long-run course of consumer prices in the countries of our sample, which we extend to consider the role of active monetary policies. We thus include variables reflecting the state of the aggregate demand (which we proxy using the real interest rate) and the cost of domestic vs. imported production goods (which we proxy using the real exchange rate).

We also include a dummy to recognize the effect of monetary policies with an explicit inflationary target. This relatively novel scheme for monetary policy conduct has been positively appraised by several studies. An early cross-country study by Corbo et al. (2002) conclude, on the basis of a variety of econometric models, that inflation-targeting countries perform consistently better than the control group in terms of controlling inflation and, most importantly, without inducing additional volatility in output. Some 25 countries are inflation targets in our sample.

In addition, since we work with a sample of heterogeneous countries with very different institutional frameworks, we control for more structural variables such as the level of

development (which we proxy with per-capita GDP at PPP levels), the degree of openness of the capital account, and the depth of the financial sector. Finally, we include as a regressor the flows of foreign aid as ratio to the GDP, on the grounds that its presence influences aggregate demand and, evidently, inflation. Because we include time-specific dummies, we can effectively control for the world economic inflation, and their transmission to each country's performance.

4.6 Estimation results

The results are reported in Table 7. In column 1, which corresponds to the baseline regression, indicate that inflation tends to decline –as expected— with higher degrees of development of the financial sector, higher openness of the capital account, tight monetary policy as reflected in a high real interest rate and when central banks adopt an inflation targeting scheme for monetary policy. Aid flows only have a very mild inflationary effect. Note that RER undervaluation (overvaluation) leads to higher (*lower*) inflation, which could be the result of the attempt by monetary authorities of using a rigid nominal exchange rate as a tool for stabilization. This latter observation prompts us to extend our base model to include dummy variables for testing whether exchange regimes make some difference on inflation levels. The results in column (2) indicate that countries with fixed or managed float exchange regimes tend to have lower inflation levels. Note also that at the same time the estimated coefficient for RER undervaluation is now insignificant. This would suggest that monetary authorities intervene in the foreign exchange market to control inflation even at the cost of incurring a currency overvaluation that, as discussed in the previous section, could be costly to economic recovery.

We supplement to our previous specification with interaction terms with the aim of studying the existence of differential indirect effects of exchange rate regimes in the conflict and post conflict periods. We concentrate again on the inflationary impact of aid and RER undervaluation under different exchange rate regimes. The estimation results of this extended specification are contained in regression 3 of Table 7.

The results indicate that there is evidence to support the notion that external aid during conflicts has an inflationary impact on economies with polar exchange regimes, even if one controls for the eventual overvaluation (negative undervaluation) of the currency induced by aid flows (interaction 1). From an economic viewpoint, nevertheless, only the effect in countries with floating exchange rates is significant. Note also that there are no indirect effects of RER undervaluation, as all coefficients in the interaction 2 are insignificant. On the other hand, external aid given to countries with floating exchange regimes after conflicts end, tend to support stabilization efforts as indicated in the negative estimated coefficient in interaction 3 of Table 7.

5. Conclusions

This paper contributes to the macroeconomic agenda of post-conflict reconstruction by addressing the relatively under-researched area of monetary policy and exchange rate regimes. Specifically the paper asks whether the choice of exchange rate regime matters for aid effectiveness in restoring macroeconomic stability. In this context the paper considers three broad exchange rate regimes: fixed, managed and floating. The experience of 38 countries that endured onset and end of civil wars during 1970-2008, suggests that the post-conflict performances of the fixed and managed regimes were very similar, and were superior to that of the floating regime. While inflation was in single digits under the fixed and managed floating regimes, it was more than 16% under the floating regime. Also, while the share of domestic credit to the private sector reached more than 20%age points of GDP under the two former regimes, it was less than 16% under the latter.

Though the preliminary evidence suggests that the fixed and managed regimes might have an edge in promoting post-conflict macro stabilization, a proper assessment requires formal modeling of the marginal contribution of the three regimes in fully specified models of the two pivotal indicators of monetary stabilization: the demand for money balances and inflation. The paper estimates extended versions of these models in a panel over 1970-2008 covering 132 countries, including the 38 post-conflict countries and 94 peaceful ones as a control group. The regressions results for the standard determinants of the two macroeconomic performance indicators are, of course, not new and are consistent with the evidence from the received literature. The new and, in our view, novel results relate to the findings associated with the impact of the exchange rate regimes, especially with regard to their interactions with aid

Firstly, in post-conflict economies the exchange rate regime has no statistically significant direct effect on overall on the demand for money, while both of the fixed and managed regimes have direct stabilizing effects on inflation. Secondly, aid was found to help restore the post-conflict demand for broad money (M2) under all three regimes, while it would promote the demand for narrow money (M1) only under the managed and floating regimes. Instead, aid was found to have a deleterious effect on the M1 demand for the case of fixed regime. Thirdly, aid has no direct effect on post-conflict inflation under the fixed and managed regimes, while it was found to have a stabilizing impact under the floating regime.

In conclusion, the above evidence suggests that the free-floating exchange regime is not appropriate for countries coming out of civil wars. This is because aid does not promote re-monetization under the floating regimes. Moreover, the evidence that aid is likely to be more effective in controlling post-conflict inflation under the latter regimes is not necessarily a huge advantage because conflict-affected countries under floating regimes enter peace with much higher initial inflation. On the other hand, though these countries appear to do almost just as well under the other two regimes in terms of inflation; the managed floating regime appears to have an edge on two critical areas of economic performance. First, under the managed regime aid promotes post-conflict demand for money balances. Second, also because it promotes the demand for money under managed float, the monetary reconstruction role of aid (see Adam et al., 2008) is likely to be more effective under this exchange rate regime. The indirect impact of aid under managed float is important because aid was not found to have a direct effect on inflation under the two less flexible regimes, while it tends to directly reduce inflation under the floating regime.

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Table 1: Countries, Duration, and Dates of Conflicts

Africa	Latin America	Asia
Angola (1976-2002)	Argentina (1974-1977)	Bangladesh (1975-1992)
Burundi (1994-2001)	Colombia (1978-2004)	India (1985-2008)
Central African Rep. (2004-2008)	El Salvador (1979-1992)	Indonesia (1975-2002)
Chad (1976-2008)	Guatemala (1975-1995)	Nepal (1996-2002)
Congo (1997-1999)	Haiti (1995-1999)	Pakistan (1975-1977)
Congo Dem. Republic (1996-2001)	Nicaragua (1978-1979)	Philippines (1970-2008)
Ethiopia (1975-1991)	Peru (1980-1983)	Sri Lanka (1983-2001)
Guinea-Bissau (1998-1999)		Thailand (1975-1982)
Mali (1990-1995)		
Mauritania (1975-1978)		
Mozambique (1975-1992)	Mid. East & N. Africa	
Rwanda (1991-1994)		
Senegal (1989-1997)	Algeria (1991-2008)	
Sierra Leone (1991-2001)	Egypt (1994-1997)	
South Africa (1976-1988)	Iran (1978-2008)	
Sudan (1982-2002)	Morocco (1975-1989)	
Uganda (1978-1986)	Syria (1979-1982)	
Zimbabwe (1974-1979)		

Source: Own elaboration based in data from PRIO and Elbadawi et al. (2012).

Table 2: Main Macroeconomic Indicators of Conflict and Non-Conflict Emerging Economies (1970-2008)

	Non Conflict Countries	During conflict	Conflict Economies			
			Five years before start of conflict	Five years after end of conflict	Short duration conflicts	Long duration conflicts
Economic Growth ^a	2.0	0.3	0.8	2.6	-2.4	1.0
Annual Inflation Rate ^b	8.1	10.9	10.9	8.5	9.8	11.0
Dom. Credit to Private Sector ^c	31.1	21.9	19.2	22.6	18.2	22.7
Capital Account Openness Index ^d	-0.27	-0.80	-0.74	-0.50	-0.80	-0.79
Tax Revenue ^c	16.4	11.2	13.2	13.1	10.7	11.4
External Aid ^c	6.8	6.0	7.9	11.8	10.2	4.9

Notes: (a) annual change in real GDP per capita (%); (b) annual rate for the median country (%); (c) annual average, as percent of GDP, and (d) Chinn-Ito index.

Source: own elaboration based on IMF and World Bank data (see Appendix A for details on definitions and sources).

Table 3: Macroeconomic Indicators of Conflict Economies According to Exchange Systems

	Average of Five Years Before Conflict Started			Average of Five Years After Conflict Ended		
	Fixed	Interm.	Floating	Fixed	Interm.	Floating
Economic Growth ^a	0.2	2.1	-2.6	3.0	2.7	2.1
Annual Inflation Rate ^b	5.6	14.3	64.8	4.7	7.6	16.3
Domestic Credit to Private Sector ^c	17.4	22.6	9.2	23.6	21.1	15.6
Capital Account Openness Index ^d	-0.39	-1.00	-0.81	-0.54	-0.33	-0.79
Tax Revenue ^c	11.0	17.6	n.a.	11.4	13.0	15.1
External Aid ^c	8.0	9.0	2.1	11.1	10.5	17.4
Dollarization ^e	0.19	0.35	0.29	0.13	0.23	0.43

Notes: (a) annual change in real GDP per capita (%); (b) annual rate for the median country (%); (c) annual average, as percent of GDP, (d) Chinn-Ito index, (e) deposit dollarization over total deposits ratio; and, n.a. indicates less than five observations.

Source: own elaboration based on IMF and World Bank data (see Appendix A).

Table 4: Exchange Rate Systems Before and After Conflicts

		After conflict			
		Fixed	Intermediate	Floating	Total
Before conflict	Fixed	12	2	4	18
	Intermediate	2	14	3	19
	Floating	0	1	2	3
	Total	14	17	9	40

Source: own elaboration based on IMF and World Bank data (see Appendix A).

Table 5: Econometric Results: Monetary Holdings (% of GDP)

Variable	Log M1 (% of GDP)		Log M2 (% of GDP)	
	(1)	(2)	(3)	(4)
Standard Controls				
Real GDP (in logs)	0.007 (0.028)	0.006 (0.028)	0.209 (0.02)***	0.203 (0.02)***
Population (in logs)	-0.190 (0.066)***	-0.205 (0.067)***	0.325 (0.06)***	0.305 (0.06)***
Inflation (log (1+inflation rate))	-0.052 (0.018)***	-0.052 (0.020)***	-0.095 (0.02)***	-0.095 (0.02)***
Aid (% of GNI, in logs)	-0.002 (0.002)	-0.002 (0.003)	0.798 (0.25)***	0.380 (0.29)
Additional Controls				
Interaction 1: Conflict*Real GDP		-0.002 (0.005)		-0.004 (0.005)
Interaction 2: Conflict*Aid		0.017 (0.006)**		0.009 (0.005)**
Interaction 3: Conflict*Inflation		0.066 (0.058)		0.043 (0.049)
Interaction 4: Post Conflict*real GDP		-0.011 (0.008)		-0.010 (0.006)
Interaction 5: Post Conflict*Aid		0.014 (0.004)***		0.013 (0.004)***
Interaction 6: Post Conflict*Inflation		0.015 (0.069)		0.023 (0.059)
Constant	1.667 (1.538)	2.006 (1.535)	-8.429 (1.00)***	-7.965 (1.01)***
<i>Serial correlation test of order 1</i>	-1.40	-1.79*	-0.92	-1.24
<i>Serial correlation test of order 2</i>	-0.07	-0.14	-1.41	-1.65

Note: Number of countries=117, number of observations=653, maximum number of instruments=44, time dummies and country dummies included. (*, **, ***)= significant at 90%, 95% and 99% confidence, respectively.

Table 6: Econometric Results: Monetary Holdings (% of GDP)

	Log M1 (% of GDP)	Log M2 (% of GDP)
Standard Controls		
Real GDP (in logs)	0.006 (0.028)	0.206 (0.022)***
Population (in logs)	-0.205 (0.067)***	0.271 (0.052)***
Inflation (log (1+inflation rate))	-0.052 (0.020)***	-0.104 (0.017)***
Aid (% of GNI, in logs)	-0.002 (0.003)	0.003 (0.003)
Additional Controls		
Interaction 1: Conflict*Real GDP		
Fixed Exchange Rate	-0.007 (0.012)	-0.008 (0.012)
Managed Float Exchange Rate	-0.014 (0.007)**	-0.014 (0.007)**
Floating Exchange Rate	0.002 (0.089)	0.002 (0.089)
Interaction 2: Conflict*Aid		
Fixed Exchange Rate	-0.005 (0.009)	0.005 (0.009)
Managed Float Exchange Rate	0.033 (0.010)**	0.033 (0.010)**
Floating Exchange Rate	0.013 (0.033)	0.014 (0.033)
Interaction 3: Conflict*Inflation		
Fixed Exchange Rate	0.008 (0.107)	0.008 (0.107)
Managed Float Exchange Rate	-0.007 (0.072)	-0.007 (0.072)
Floating Exchange Rate	0.133 (0.2487)	0.133 (0.249)
Interaction 4: Post Conflict*Real GDP		
Fixed Exchange Rate	-0.007 (0.012)	0.005 (0.011)
Managed Float Exchange Rate	-0.014 (0.007)**	-0.045 (0.015)***
Floating Exchange Rate	0.002 (0.089)	0.032 (0.021)
Interaction 5: Post Conflict*Aid		
Fixed Exchange Rate	-0.005 (0.009)	0.015 (0.006)***
Managed Float Exchange Rate	0.033 (0.010)**	0.015 (0.005)***
Floating Exchange Rate	0.013 (0.033)	0.005 (0.029)*
Interaction 6: Post Conflict*Inflation		
Fixed Exchange Rate	0.008 (0.107)	0.114 (0.077)
Managed Float Exchange Rate	-0.007 (0.072)	-0.300 (0.155)**
Floating Exchange Rate	0.133 (0.248)	0.826 (0.455)*
Constant	2.188 (1.292)***	-7.547 (0.97)***
<i>Serial correlation test of order 1</i>	-2.02***	-1.59
<i>Serial correlation test of order 2</i>	0.18	-1.68

Note: Number of countries=117, number of observations=653, maximum number of instruments=56, time dummies and country dummies included. (*, **, ***)= significant at 90%, 95% and 99% confidence, respectively.

Table 7: Econometric Results: Inflation (annual %)

	(1)	(2)	(3)
Standard Controls			
Initial Real GDP per capita (in logs)	0.467 (0.164)***	0.295 (0.154)*	0.293 (0.154)*
Capital Account Openness (Ito-index)	-0.209 (0.049)***	-0.149 (0.047)***	-0.154 (0.046)***
Inflation Targeting (Dummy)	-0.450 (0.195)**	-0.521 (0.179)***	-0.504 (0.176)***
Real Interest Rate (% , ex-post)	-0.957 (0.404)***	-1.138 (0.371)***	-0.646 (0.387)
Financial Development (log private credit)	-0.513 (0.169)***	-0.362 (0.158)**	-0.371 (0.159)**
Additional Controls			
RER undervaluation (log dev. from HP trend)	0.022 (0.012)*	0.008 (0.012)	0.024 (0.012)**
Aid (% of GNI, in logs)	0.020 (0.011)*	0.013 (0.010)	0.012 (0.011)
Exchange Regime			
Fixed Exchange Rate		-1.419 (0.511)***	-1.405 (0.505)***
Managed Float Exchange Rate		-0.999 (0.493)**	-0.945 (0.487)***
Floating Exchange Rate		0.210 (0.474)	0.182 (0.466)
Interaction 1: Conflict*Aid			
Fixed Exchange Rate			0.050 (0.023)**
Managed Float Exchange Rate			-0.005 (0.026)
Floating Exchange Rate			0.578 (0.360)*
Interaction 2: Conflict*RER undervaluation			
Fixed Exchange Rate			0.026 (0.064)
Managed Float Exchange Rate			-0.038 (0.052)
Floating Exchange Rate			0.044 (0.073)
Interaction 3: Post Conflict* Aid			
Fixed Exchange Rate			-0.015 (0.014)
Managed Float Exchange Rate			0.000 (0.015)
Floating Exchange Rate			-0.647 (0.262)***
Interaction 4: Post Conflict* RER undervaluation			
Fixed Exchange Rate			-0.058 (0.080)
Managed Float Exchange Rate			-0.024 (0.055)
Floating Exchange Rate			-0.554 (0.489)
Constant	-6.093 (1.482)***	-3.802 (1.497)**	-3.439 (1.48)**
<i>Serial correlation test of order 1</i>	-5.66 ***	-5.54***	-5.56***
<i>Serial correlation test of order 2</i>	-0.79	-0.76	-0.38

Note: Number of countries=107, number of observations=498, maximum number of instruments=54, time dummies and country dummies included. (*, **, ***)= significant at 90%, 95% and 99% confidence, respectively.

Appendix A: Definitions and Sources of Variables Used in Regression Analysis

Variable	Definition	Source
Real GDP per capita	Ratio of total GDP to total population. GDP is in 2005 PPP-adjusted US\$	World Development Indicators (2009)
Population	Total population	World Development Indicators (2009)
Normalized Inflation Rate	CPI inflation rate/(1+CPI inflation)	World Development Indicators (2009).
Domestic credit to the private sector (% of GDP)	Ratio to GDP of the stock of claims on the private sector by deposit money banks and other financial institutions.	World Development Indicators (2009).
Capital Account Openness Index	Index based on the binary dummy variables that codify the tabulation of restrictions on cross-border financial transactions reported in the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions	Chinn, M. and H. Ito (2006) updated database.
Tax Revenue	Ratio of total tax revenue to GDP at current prices.	International Financial Statistics.
External Aid	Ratio of official development assistance to GDP (both in current US\$)	World Development Indicators (2009).
Dollarization	In-shore deposit dollarization in the financial sector as ratio to GDP.	From Levy Yeyati (2006)
Exchange Rate Regime Classification	Fixed exchange systems include dollarization, currency boards, and monetary unions. Intermediate systems include from crawling pegs to managed floats. Other systems are considered free floats.	Author's calculations, based on data from Reinhart and Rogoff (2004)
Inflation Targeting	Dummy	Calderon and Schmidt-Hebbel (2008); and Elbadawi, Schmidt-Hebbel and Soto (2011)
Real Exchange Rate Misalignment	Measured as the deviation of the actual RER from its equilibrium computed using the Hodrick-Prescott filter.	Author's calculations, based on data from World Development Indicators (2009).
Money M1	Currency and demand deposits outstanding at the end of the year as percentage of GDP.	International Financial Statistics.
Money M2	M1 plus currency and demand deposits outstanding at the end of the year.	International Financial Statistics.
Price Level	End-of-year consumer price index (CPI).	World Development Indicators (2009).
Interest Rate	Nominal interest rate offered for demand deposits, end-of-period.	International Financial Statistics.
Nominal Exchange Rate	End-of-period nominal exchange rate, local currency per US\$ dollars.	International Financial Statistics.
International Interest Rate	LIBOR nominal interest rate.	Author's calculations, based on data from International Financial Statistics.
Period-specific shift	Time dummy variable.	Authors' construction.

Appendix B: Countries Included in the Sample

Albania	Algeria	Angola
Argentina	Armenia	Aruba
Australia	Austria	Bahrain
Bangladesh	Barbados	Belgium
Belize	Benin	Bhutan
Bolivia	Botswana	Brazil
Brunei Darussalam	Bulgaria	Burkina Faso
Burundi	Cameroon	Canada
Central African Rep.	Chad	Chile
China	Colombia	Congo, Dem. Rep.
Congo, Rep.	Costa Rica	Cote d'Ivoire
Croatia	Cyprus	Czech Republic
Denmark	Dominica	Dominican Republic
Ecuador	Egypt, Arab Rep.	El Salvador
Equatorial Guinea	Ethiopia	Finland
France	Gabon	Gambia, The
Georgia	Ghana	Greece
Guatemala	Guinea-Bissau	Guyana
Haiti	Honduras	Hong Kong, China
Hungary	Iceland	India
Indonesia	Iran, Islamic Rep.	Ireland
Israel	Italy	Jamaica
Japan	Jordan	Kazakhstan
Kenya	Korea, Rep.	Kyrgyz Republic
Latvia	Lesotho	Luxembourg
Madagascar	Malawi	Malaysia
Mali	Mauritania	Mauritius
Mexico	Moldova	Mongolia
Morocco	Mozambique	Namibia
Nepal	Netherlands	New Zealand
Nicaragua	Niger	Nigeria
Norway	Oman	Pakistan
Panama	Papua New Guinea	Paraguay
Peru	Philippines	Portugal
Rwanda	Saudi Arabia	Senegal
Seychelles	Sierra Leone	Singapore
Slovenia	South Africa	Spain
Sri Lanka	Sudan	Suriname
Swaziland	Sweden	Switzerland
Syrian Arab Republic	Tanzania	Thailand
Togo	Trinidad and Tobago	Tunisia
Turkey	Uganda	United Kingdom
United States	Uruguay	Venezuela, R.B.
Yemen, Rep.	Zambia	Zimbabwe