



Exchange Rate Unification

The Cuban Case

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1. Introduction

Since 2011, the Cuban authorities have placed exchange rate unification as one of their top policy priorities. Indeed the current dual exchange rate system—whereby a one-to-one exchange rate for the “convertible peso” coexists with a twenty four-to-one exchange rate for the “Cuban peso” (both against the US dollar)—introduces severe and pervasive distortions with costly consequences for resource allocation and the growth potential of the Cuban economy. At the same time, the unusually large (by international comparison) spread between the two exchange rates exacerbates the transition costs and thus constitutes one of the main reasons delaying their unification.¹

This paper reviews from an international perspective the challenges faced by Cuba in unifying its exchange rate system and compares various options to meet this objective. It argues in favor of an immediate unification cushioned by a system of lump-sum taxes and subsidies to be phased out during a preannounced transition period. By allowing for relative price changes to operate in full from the start, the immediate unification would maximize efficiency gains. At the same time, by cushioning the Cuban economy from potentially large transitional pains—including fiscal revenue losses, productive dislocations, inflationary outbursts and distributional effects—the lump-sum taxes and subsidies would ease the transition, thereby boosting policy credibility. These lump-sum taxes and subsidies would be set on an enterprise-by-enterprise basis so as to fully neutralize, initially, the windfall losses or gains that individual enterprises would otherwise make upon the unification of the exchange rate.

By replacing at the outset the taxes and subsidies *implicit* in the current exchange rate spread with *explicit* taxes and subsidies of equivalent magnitude, the traumatic effects the unification would have on impact would be eliminated. Thereafter, however, both the enterprises and the government will have to adjust, albeit gradually, because the lump-sum taxes and subsidies would be phased out according to a preannounced timetable. But such adjustment process would be facilitated by efficiency gains, given that—at the margin—the incentives faced by existing enterprises to invest and produce would be completely independent of the lump-sum taxes or subsidies which, by definition, would be set as an absolute amount that does not vary with productive effort (or lack thereof). In effect, the incentives faced by *existing* enterprises would be at par with those faced by the *new* enterprises. However, to facilitate a positive supply response (i.e., to ensure that the change in relative prices associated with the exchange rate unification leads to an early materialization of efficiency gains) and to further ease transition pains as lump-sum subsidies are phased out, important habilitating reforms will be needed, particularly as regard the governance of state-owned enterprises and a retargeting of subsidies.

¹ For information on the economic situation in Cuba and the circumstances underpinning the exchange rate system, see Orro (2000), Di Bella and Wolfe (2008), Dreher (2009), Vidal (2012a, 2012b), Vidal and Villanueva (2013), and Feinberg (2013).

The rest of the paper is organized as follows. Section 2 briefly reviews the international experience on exchange rate unification, based on the academic literature, some statistics about the evolution of exchange rate regimes across the world, and a comparison of current Cuban spreads and macroeconomic conditions with those prevailing at the onset of unification in other Latin American countries that underwent similar experiences in the not too distant past. Section 3 focuses on what is special about Cuba and what this implies for policy. Section 4 compares and contrasts the pros and cons of four policy options. Sections 5 and 6 provide rough sketches of how the proposed fiscally-cushioned big bang option would work for two specific sectors of the Cuban economy, specifically the foreign-managed tourism industry and the state-owned importers and local producers, respectively. Section 7 concludes by discussing key habilitating reforms (fiscal, monetary and public sector governance) and some sequencing issues. It also briefly addresses the related yet distinct issue of currency unification.

2. Some lessons from international experience

Understanding well what caused the original dislocation that led to a multiple exchange rate regime is the inescapable starting point for defining a successful policy agenda towards exchange rate unification. Typically, multiple rate systems emerge after a large shock hits the economy that exerts substantial pressure on the foreign exchange market and calls for a major depreciation of the equilibrium real exchange rate. The shock can be a *supply* shock, such as the deterioration in the terms of trade that severely weakens the external trade account or an increase in world interest rates that sharply raises the servicing costs of the country's external debt. Or it can be a *demand* shock, such as a surge in local demand for foreign assets (capital flight) triggered by financial repression and/or unsustainable macro policies. In the first case, the required exchange rate depreciation reflects the deterioration in the country's purchasing power; in the second case, it reflects the relative price change needed for reducing the country's demand for tradable goods so as to allow its citizens to transfer their assets abroad.

To avoid a politically explosive fall in real wages and a rise in inflation due to an increase in the cost of imported inputs, governments may introduce a dual exchange rate regime. The more depreciated "free rate" (the market determined rate) is used for capital account transactions and "non-basic" imports, while the "official rate" is used for "basic" imports and "must-surrender" export proceeds. In theory, this can help limit inflation, protect socially sensitive economic activities, channel resources to developmental priorities, and redistribute income progressively (including by avoiding rewarding the owners of foreign currency-denominated assets through devaluation-induced valuation gains).

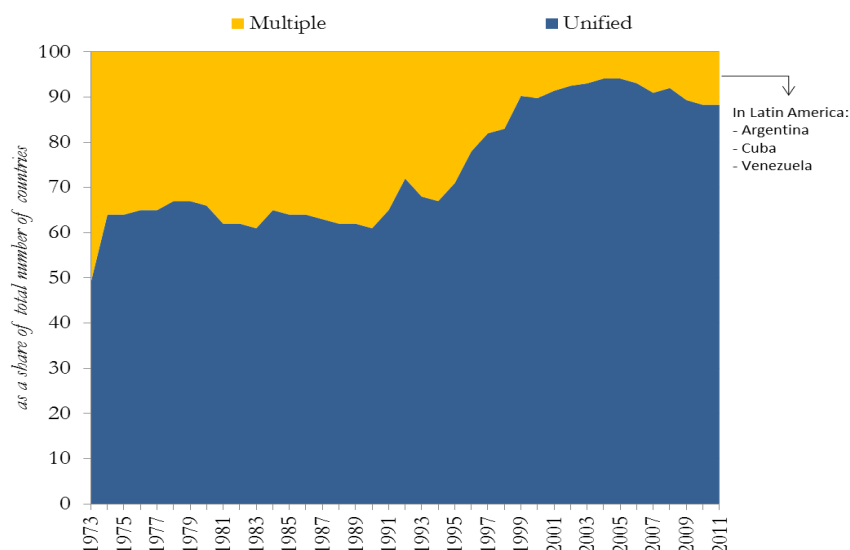
In practice, however, dual exchange rates typically cause large efficiency losses. The exchange rate spread acts as a tax on exports (through surrendering requirements) and a subsidy on "basic" imports, which are detrimental to the country's exporting and

import-substituting productive activities, thereby hindering economic growth and job creation. Differentiating between “basic” and “non-basic” imports can give rise to similarly severe resource misallocations and opacities. In all cases, the exchange rate spread causes growing wedges between private and social interests that translate into enforcement nightmares and multifaceted, socially destructive rent seeking activities. The costs of such distortions accumulate and worsen over time, particularly in the case of a supply shock that calls for a permanent real exchange rate adjustment. As dual rates persist and become fossilized throughout the economy, they end up causing increasingly pernicious and ingrained segmentations between the winning sectors (that found access to preferential exchange rates) and the losing sectors (that did not).² *Exchange rate unification should therefore originate both static efficiency gains (i.e., a better allocation of existing resources, so that more income and output can be generated with the same labor, land, and capital that are already available today) and dynamic efficiency gains (i.e., the income expansion arising from the process of accumulation and better use of resources over time).*

Reflecting the growing awareness of such efficiency costs, but also improved macro-monetary policy frameworks, the share of countries with multiple exchange rate regimes across the world has steadily declined over the last forty years, albeit with a slight resurgence in the last 5 years (see Figure 1). In Latin America, this resurgence included some churning between the return of parallel rates in countries that had successfully unified their exchange rates (Venezuela and Argentina) and the successful recent unification of the exchange rate in countries with formerly dual exchange rate regimes (such as the Dominican Republic; see Figure 2). Arguably, however, multiple exchange rates appear to be for the most part a species on the verge of extinction.

² Agenor (1992) provides a good summary review of the literature on parallel exchange rates, including causes, welfare impacts and policy implications. Frenkel and Razin (1986) analyze the restrictive conditions under which a dual exchange rate system that separates capital from current account transactions can be sustained indefinitely.

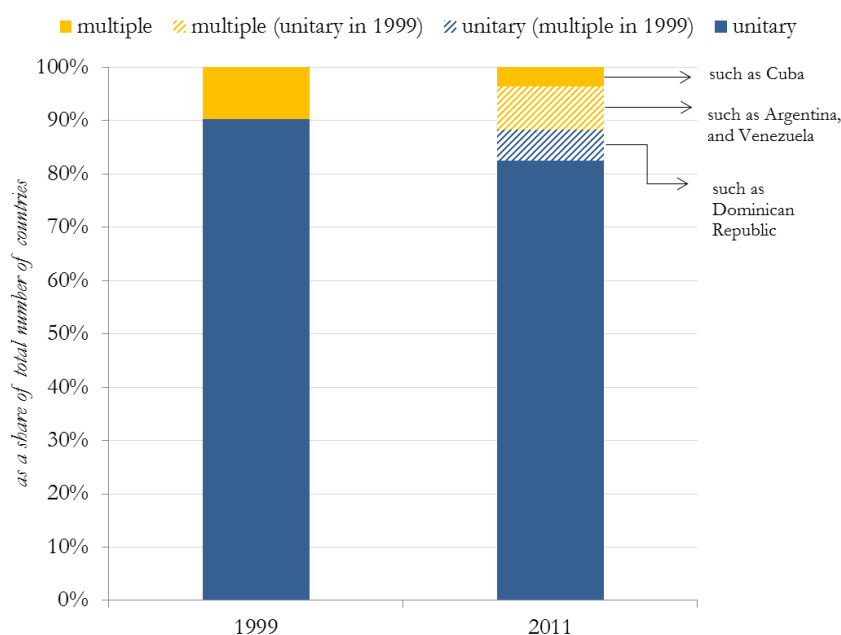
Figure 1: World Share of Multiple vs. Single Exchange Rate Regimes
1973-2011



Sources: Rogoff et al. (2003) and IMF AREAER online database.

Conversely, the persistence of multiple exchange rate regimes in the few remaining countries that still have them is likely to reflect in part the challenges and costs associated with exchange rate unification. These costs depend on the roots of the original split. In countries where the originating shock was a demand shock resulting from financial repression or poor macro-monetary management, a reversal towards sounder macro-financial policies may be all it takes to discourage capital flight and, hence, absorb the pressures that led the parallel rate to deviate from the official rate in the first place. Instead, in countries where the shock came from the supply side and where the factors behind the shock still endure (for example a permanent worsening in the terms of trade), unification is likely to have more substantial costs. This is because in these cases unification is likely to take place at the most depreciated (parallel) rate, rather than at the most appreciated (official) rate. Thus, absent offsetting mechanisms, a large depreciation of the official rate can have substantial inflationary and redistributive implications.

**Figure 2: Churning Between Multiple vs. Unified Exchange Rate Regimes
1999-2011**



Notes: Countries with multiple exchange rates in 2011 but with a unified rate in 1999 are Angola, Argentina, Eritrea, Georgia, Guinea, Kyrgyz Republic, Malawi, Maldives, Mongolia, Nigeria, Sao Tome and Principe, Sudan, Ukraine, Uzbekistan, and Venezuela. Countries with a unified rate in 2011 but with multiple rates in 1999 are Afghanistan, Belarus, Botswana, Cambodia, Dominican Republic, Egypt, Iran, Lao, Libya, Russia, and Turkmenistan. Source: IMF AREAER online database.

The post-unification equilibrium exchange rate is typically expected to lie somewhere within the two exchange rates in effect before the unification. The reasoning behind this expectation is straightforward. A depreciation of the more appreciated (official) exchange rate should reduce the demand for basic imports—thereby freeing some foreign exchange—or promote exports—thereby allowing additional foreign exchange to come in. As this additional supply of foreign exchange finds its way into the market, it should allow the more depreciated (parallel) rate to strengthen. Thus, as one continues depreciating the official exchange rate, the two rates should gradually move towards each other, eventually converging somewhere inside the initial spread. In practice, however, because the demand for basic imports is generally fairly inelastic and the response of exports to a more competitive exchange rate tends to take time to materialize (e.g., it is short-run inelastic), the depreciation of the official rate is unlikely to free much foreign exchange, at least in the short run. If so, unless there is a sufficiently deep, forward-looking foreign exchange market that anticipates future foreign exchange inflows, the two rates will tend to meet close to the bottom of the range, i.e., close to the parallel market rate.³

³ This is what Agenor (1992) finds in the experience of exchange rate unifications in a number of African countries during the 80s. He concludes that “the post-unification exchange rate is typically close to the pre-reform parallel

Table 1: Post-Unification Inflation in Selected Latin American Countries

Country	Beginning of Unification Process	Pre-Unification Premium	Phasing	Point-to-Point Annual Inflation			
				3 months before unification begins	...3 months after	...12 months after	... 24 months after
Venezuela	Mar. 1989	202%	Fast	36%	103%	81%	36%
Argentina	Feb. 1989	53%	Gradual	372%	460%	8163%	232%*
Peru	Jun. 1989	166%	Gradual	3414%	5704%	1968%	207%*
Ecuador	Sept. 1992	27+%	Gradual	50%	64%	46%	27%
Dominican Republic	Oct. 2003	10+%	Fast	26%	40%	52%	0%
Cuba	?	2300%	?	4%	?	?	?

Notes: *Premium* is defined as the average spread between the parallel and official rates as a percent of the official rate in the last quarter before unification. *Phasing* is defined by the duration of the coexistence of official and parallel rates after unification—"fast" is less than 3 months. * 28 months after, to capture the effects of the formal introduction of Convertibility in April 1991 (Argentina) and the final currency unification in August 1991 (Peru). Sources: EIU, World Currency Yearbook (several publications), ARAER (several publications), Pick's currency yearbook (several publications), Kiguel and O'Connell (1995), Marion (1999), Ilzetzi, Reinhart, and Rogoff (2008), Kamin (1991), IFS database.

Moreover, the above reasoning assumes that there is no change in the demand for foreign exchange coming from the capital account. But this will not be the case if expectations of post-unification inflation (more on this below) induce a shift towards the dollar (e.g., if there is a *private* portfolio shift toward the dollar), or if the central bank starts accumulating foreign reserves after the unification (e.g., if there is a *public* portfolio shift toward the dollar). In both cases, the post-unification single exchange rate could well depreciate (overshoot) beyond the pre-unification parallel rate.⁴

Unless offset through fiscal adjustments (more on this below) a one-time post-unification inflation can generally be expected from the pass-through of the official exchange rate depreciation to inflation (e.g., *cost-based inflation*).⁵ Moreover, the rise in the price level may turn into a permanent rise in the *rate* of price increases when the

rate, casting doubts on the argument that the equilibrium exchange rate is an average of the official and parallel rates".

⁴ See Lizondo (1987) and Agenor and Flood (1992).

⁵ However, such supply side pressures may be relatively subdued in countries where domestic prices already reflected for the most part the parallel rate (rather than the official rate).

initial supply shock leads to wage-price spirals that are accommodated by a weak (or not credible) monetary policy (e.g., *expectations-based inflation*); or when the unification gives rise to lasting fiscal imbalances (e.g., *demand-based inflation*) resulting from the loss of quasi-fiscal income generated by the dual exchange rate regime (in particular, an abrupt reduction in the implicit taxation of exports).

Table 1 provides a bird-eye view of post-unification inflationary experiences in Latin American countries that have unified their exchange rate in the not too distant past. The table shows that post-unification inflation tended to be higher in countries with high pre-unification inflation (Argentina, Peru) or in countries with high pre-unification spreads (Venezuela, Peru). By contrast, for countries with relatively low pre-unification inflation and spreads (Ecuador, Dominican Republic), post-unification inflation was relatively subdued. For Cuba this is both good news and bad news. While pre-unification inflation is low, the spread is way above anything observed in other countries of the region.

3. The case of Cuba

The Cuban dual exchange rate system overlaps with a dual currency system. The latter consists of the Convertible Peso (CUC)—a fully convertible currency that exchanges at one to one against the dollar—and the Cuban Peso (CUP)—that exchanges at 24 to one dollar.⁶ Hence, the dual currency entails dual exchange rates. For simplicity, we will use in what follows “CUC” to refer to the more appreciated CUP rate (1 per 1 USD) and “CUP” to refer to the more depreciated CUP rate (24 per 1 USD).

The two systems responded to the same initial shock although they are sustained by different motives. The dual exchange rate system goes back to the early sixties when a separate exchange rate was used for trade with the socialist countries, particularly the former Soviet Union. The market segmentation was abruptly exacerbated during the 1990-1993 period when the political changes in the former Soviet Union led to a redefinition of commercial relations with Cuba that resulted in a huge worsening in Cuba’s terms of trade. The CUC was subsequently created (in 1994) to limit dollarization—by providing an alternative to the US dollar as a unit of account and a store of value—in the environment of rapidly rising and highly volatile inflation that followed the adverse terms of trade shock. This overlap and common origin has led many observers to see the dual exchange rate and the dual currency systems as “joined at the hip.” But they are clearly driven by different motives and pursue different

⁶ Actually, the CUP exchanges at 24 CUP per dollar households and at 1 CUP per dollar for the state enterprises and institutions. Persons can exchange dollars or CUCs for CUPs (at 24 to 1), as well as CUPs for CUCs (at 25 to 1), in the exchange bureaus (Cadecas). State enterprises and institutions conduct exchange transactions with the Central Bank and are prohibited from using the Cadecas to arbitrage between the exchange rates. There are no indications at this time, however, of a significant spread between the 24 per 1 USD rate at the Cadecas and the rate in informal transactions on the street. For details see Vidal (2012a).

objectives. Exchange rate unification can thus be conceptually and practically de-linked from the currency unification.

What makes the case of Cuba special when compared to other cases of dual exchange rate regimes in Latin America? At least four features stand out. First, because the origin of the Cuban dual exchange rate system is primarily real (linked to a terms of trade shock) rather than financial (linked to capital flight), it basically amounts to a *quasi-fiscal scheme*. It taxes exports and some other types of foreign exchange incoming flows while subsidizing basic imports. This is both good news and bad news. It is good news because it mitigates concerns about speculative financial turbulence during unification. Such concerns are further limited by the fact that much of the population's savings are already held in the form of cash dollars (hence do not generate a pent-up demand for dollars) while most bank deposits (whether in CUPs or CUCs) belong to public enterprises (hence are unlikely to trigger speculative shifts into dollars). However it is also bad news because, unless fiscally neutralized, the exchange rate unification will unavoidably have large re-distributional implications, making the former sellers of CUCs better off and the former purchasers (and their clients) worse off. While such re-distributions can be offset through bold yet temporary fiscal means, the sustainability of the unification in the medium-term will require comprehensive fiscal reforms (more on this below).

Second, the spread between the two exchange rates in Cuba, at 2,300 percent, is by far the largest in post-World War II Latin American history. This implies that there is a significant risk that the pass through effects of the depreciation of the CUC rate may unleash a wage-price spiral. To avoid it, a premium will need to be placed on maintaining a very tight control over monetary expansion during and after the unification.

Third, the Cuban the government can exert control over the actions of public enterprises arguably more than in other countries. This may complicate some things and facilitate others. The materialization of efficiency gains would require a sufficiently elastic supply response (in the form of decisions to increase investment and production) to the changes in relative prices. But this supply elasticity depends on the quality of relative price signals and on the responsiveness of decentralized economic actors to such signals (and to other market incentives), both of which are likely to be weak or sluggish in the large state sector of the economy. On the plus side of the ledger, however, the control of public enterprises by the government can also help limit price increases on the most basic goods during the transition (more on this below).

Fourth, Cuba has limited access to international finance. This is an important further complication. Indeed, concessional finance, if available, could facilitate unification by allowing expenditure to exceed income during the transition.

4. Exchange rate unification options

In view of the constraints mentioned above, *the key challenge for Cuba is to balance the short-term reallocation pains of the exchange rate unification with its medium and long-term efficiency gains*. Over time, by boosting the size of the cake, efficiency gains should provide plenty of room to offset the initial reallocation pain. Thus, in the end, unification should be a win-win for all. Indeed, the achievement of such efficiency gains is the *raison d'être* of unification. The problem is that the size of the cake is likely to be largely given in the short-term, as the increase in the capital stock (including in foreign direct investment—FDI) and reallocation of resources that are required for efficiency gains will likely take time to materialize. Thus, unless cushioned in some way, the raw initial impacts of unification (fiscal revenue losses, productive dislocations, inflation outbursts, and regressive distributional effects) could be quite painful.

A successful transition strategy should thus pursue two objectives. First, to limit the short-term pains until efficiency gains materialize and come to the rescue. Second, to boost the pace at which such efficiency gains materialize. The extent to which these two objectives are fulfilled should therefore provide the basic measuring rod with which to compare and rank available unification options. We distinguish four typological options.

Option One may be labeled *raw big bang*. It consists in unifying the exchange rates on day one. To limit initial income effects (hence balance of payments and foreign exchange market pressures), the CUP rate would remain unaltered—that is, the rates would be unified the rate of 24 (new) pesos per dollar. The elimination of the CUC exchange rate would thus imply that all exchange transactions would thereafter take place at the single new rate. The main advantages of this option are its simplicity and initial credibility. It can be implemented with the stroke of a pen. Moreover, by doing the whole adjustment up-front and not leaving anything hanging, it would signal at once the authorities' full commitment to unification. On the minus side, however, it does not address at all the objective of mitigating the pain while efficiency gains materialize. The one time devaluation of the CUC rate would have large up-front fiscal, redistributive, reallocation, and inflationary costs. The economic and political consequences could thus be so traumatic as to render the whole experiment unviable.

Option Two can be labeled *sector-by-sector gradualism*. It would consist in gradually depreciating the CUC rate towards the CUP rate on a sector-by-sector basis, that is, in different degrees and at different speeds for different sectors. On the plus side, by spreading the pain by sectors (hence over time), this option would be less traumatic than Option One. In addition, it could give the authorities some scope for experimentation, hence better control over the entire unification process. On the negative side of the ledger, however, this option would also spread the gains over time. By delaying the relative price changes across sectors (hence the supply response) it would limit the scope for efficiency gains. Thus, Option Two would meet the objective of mitigating the pain better than Option One, but at the cost of falling behind as regard

the objective of front-loading and maximizing the gains. In addition, the more Option Two seeks to give the authorities a margin of control (i.e., unannounced, discretionary adjustments), the more policy uncertainty it would create, especially because there may be a tendency to postpone dealing with the most distorted sectors. At the extreme, Option Two might even raise doubts as to whether the unification reform will ever be completed. Such uncertainties would likely promote a wait-and-see attitude, thereby further delaying the supply response. Last (but not least), the even greater multiplicity of exchange rates during the transition could further segment markets and distort price signals, impeding in particular the efficient resource allocation across sectors.

Option Three may be labeled *economy-wide gradualism*. It would consist in preannouncing a path of gradual convergence of the CUC rate toward the CUP rate, which would apply uniformly to all sectors, actors, and activities in the economy. By spreading the pain over time, Option Three would be less traumatic than Option One. Because of its economy-wide application, it would be “cleaner” than Option Two, thereby avoiding the additional cross-sector distortions of this latter option during the transition. On the minus side, however, Option Three suffers from similar, albeit less intense, drawbacks as Option Two. It is quite comparable to Option Two in terms of mitigating the initial pain. And while it would do much better than Option Two in terms of front-loading efficiency gains, the materialization of these gains would likely be insufficient to offset the transitional pain. The pain would be of lower intensity but would last over a more prolonged period. Moreover, Option Three carries a risk of policy uncertainty leading to self-fulfilling failure. As in Option Two, by spreading the adjustment over time, investors under Option Three would also be induced to pursue a wait-and-see attitude, just in case the unification’s pain would lead to a policy interruption. By postponing efficiency gains, the lack of supply response could further raise transition costs. In turn, by eventually inducing the authorities to abandon the preannounced adjustment path, this could end up validating the initial skepticism and turn it into a self-fulfilling prophecy.

Option Four may be labeled *fiscally-cushioned big bang*. As in the case of Option One, the two exchange rates would be unified on day one at the (new) rate of 24 pesos per dollar. However, to mitigate the initial pain, the shadow taxes and subsidies implicit in the dual exchange rate would be replaced by explicit, revenue neutral, non-distortionary *lump-sum* taxes and subsidies. The latter would apply to each enterprise that is currently conducting any transactions at the CUC rate.⁷ Take the example of an enterprise that sold X dollars at the CUC rate during a full calendar year prior to the unification (hence received in exchange X pesos). After unification, the enterprise would now receive 24*X pesos at the unified exchange rate. Hence, on year one after the unification, the enterprise should be subject to a lump-sum tax of 23*X pesos, leaving it with the same X pesos after the unification as before. The lump-sum tax would then be gradually phased out over a period of n years. For example, the tax might decline to 15*X pesos on year 2, 7*X pesos in year 3, and might be altogether eliminated in year 4.

⁷ The amount of, say, the annual subsidy or tax implicit in the exchange rate spread that is received or paid, respectively, by each individual enterprise is known because the central bank keeps records on the amounts of CUCs sold to or purchased from each enterprise.

Similarly, an enterprise which benefitted from purchases of Y dollars at the CUC exchange rate during a full calendar year prior to unification would benefit from a lump-sum subsidy equal to $23 \times Y$ pesos during a full calendar year after unification. As in the case of the lump-sum taxes, the lump-sum subsidies would then be gradually phased out.

Option Four would maximize efficiency gains because it would allow from the start all economic actors (both old and new) to operate under a new set of relative prices, hence market-oriented incentives. Indeed, provided that appropriate safeguards are put in place (more on this below), the enterprises' decisions on investment and production would be totally unaffected by the lump sum taxes and subsidies. In effect, the virtue of lump-sum subsidies or taxes is that their absolute magnitude does not change with the intensity of production and efficiency-enhancing effort (or lack of effort) of the enterprise in question. Yet, unlike Option One, Option Four would be far more effective in shielding the economy from the transition pains, first by neutralizing them through lump-sum taxes and subsidies and then by offsetting (much if not all of) their impact through efficiency gains. Thus, this option would much better address the pain/gain balance.⁸ It does require, however, an adequate and non-trivial preparation, including major concomitant changes in economic policy, as discussed in Section 7. Before doing so, however, in the next two sections we illustrate the basic features of Option Four (*fiscally-cushioned big bang*) by sketching how it would be implemented in the case two key sectors of the Cuban economy: the foreign-managed tourism industry and the sector of importing state enterprises.

5. The foreign-managed tourism industry

The current system for foreign-owned tourism services entails very large efficiency losses. Because foreign hotel operators must pay for labor in dollars at the CUC exchange rate but the employee receives her payment in CUP, the CUC-CUP spread implies a heavy tax on local labor. Out of every dollar paid by the hotel operator, the worker receives only $1/24$ dollars (about 4 cents), with the state retaining the remaining $23/24$ dollars (about 96 cents) as a tax.⁹ While this arguably allows the Cuban government to capture and redistribute much of the rents from the tourism industry, the tax distorts the allocation of productive resources in a major way and the high labor costs faced by the hotel operator severely discourages job creation, undermines the quality of hotel services, hinders new FDI, reduces tourism inflows, and promotes stealth employment (direct but not legal sale of labor services) in the tourism sector.

A *raw big bang unification* (Option One) would be traumatic on impact because of its major re-distributional effects. As long as average wages remain where they are today (which is likely to be the case if hidden unemployment remains prevalent in Cuba) and hotel prices do not decline (which is likely to be the case as long as competitive

⁸ Unifying at the CUP rate (24 pesos per 1 USD), rather than any other rate, is critical to fully neutralize the initial income effect of the unification, since the lump-sum taxes and subsidies would be computed that rate.

⁹ Labor payments are made not directly to the worker but to a state-managed employment agency.

pressures do not build up), foreign operators would effectively benefit from rents conducive to large windfall profits. Conversely, fiscal revenues would collapse, thereby undermining the government's ability to compensate the losers and generating (via a widening fiscal deficit) demand-side upward pressures on prices. Foreign operators would have more dollars to repatriate and this would weaken the balance of payments (BOP) to the extent that such repatriation is not compensated by new FDI inflows, which would take time to materialize.

Instead, the windfall gains and losses that would occur under a *raw big bang* could be initially fully neutralized under a *fiscally-cushioned big bang* (Option Four) through a dollar-equivalent lump-sum tax paid by each hotel operator in accordance with the average value of foreign exchange transactions at the CUC rate it conducted over the previous year(s). Once set for the first year, the lump-sum tax would be gradually phased out over a predetermined period according to a preannounced phase-down schedule. Because each operator would have to pay the tax no matter what and the amount to be paid would be independent of what the operator does (or does not do) in Cuba, the tax would be non-distortionary (i.e., it would have no impact on the operator's investment or production decisions). For the system to work, however, the operator should not have the option to default on its tax obligations, for example by selling out its Cuban venture and exiting the country. The simplest way to prevent such default is via internationally binding contracts, so that operators would have to honor their commitments whether they leave Cuba or not.

As long as competitive pressures remain moderate, the exchange rate unification, by lowering labor costs, should boost the *marginal profitability* of both existing investments (i.e., expanded hotel occupation) and new investments (i.e., expanded capacity). Thus, existing enterprises should expand capacity and improve quality of service so as to secure and expand their market share in anticipation of greater competition. On impact (with the current stock of FDI), employment and service quality should rise, thereby raising tourism inflows. As a result, BOP and fiscal pressures should ease. Over time, the new rules of the game should boost new FDI and promote local investment, further benefitting the BOP and fiscal accounts. This would in turn allow for a smooth phasing down of the lump-sum taxes. Over the longer term, labor productivity should steadily increase, allowing for real wages to rise and the real exchange rate to appreciate, much as has happened in other economies in transition.

While the existing hotel operators would not incur any competitive disadvantage (at the margin both new and old would compete under the same plain level field), they could object to the deal by arguing that the lump-sum taxes will erode their *average profitability* looking forward. They could fear that as new entrants come in and/or existing operators start competing more aggressively against each other, hotel prices would fall, thereby eroding their average (after lump-sum tax) profit margins. Yet, there are at least three strong counter-arguments to this line of reasoning. First, because the existing hotel operators can take full advantage of their installed capacity and knowledge of the local market, they should be the main beneficiaries of the initial boost in profitability and can position themselves to take the best advantage of any new business opportunity that becomes available as a result of unification. Second, even if

profit margins become compressed due to increased competition, volume increases should offset much, if not all, of the decline in profit margins. Third, even in the worst-case scenario of a transient decline in the average profitability of existing Cuban hotels (due to the payment of lump-sum taxes in a more competitive environment), because the current owners (or managers) of these hotels are mostly large international chains, they should be able to absorb this decline without much impact on their bottom line.

6. State-owned importing industries

Consider now the case of the state-owned importing industries. Again, the current system entails huge efficiency losses. Using the CUC rate for basic imports and the CUP rate for wages amounts to subsidizing basic imports while penalizing the consumption of non-basic imports. While this may contribute to evening out welfare across Cubans, the implicit subsidization weakens the central government's finances, penalizes the employment-generating production of importables and promotes instead the importation of basic finished goods or of the inputs needed to produce them locally, thereby pressuring the BOP. Exchange rate unification should thus result over time in a much improved allocation of resources as enterprises take full advantage of the low local labor costs and other comparative advantages.

However, as in the case of the tourism industry, a *raw big bang unification* could be quite traumatic on impact. This would be the case if the state enterprises responded to the unification as private enterprises would, i.e., by seeking to cut their losses. They would raise prices, thereby triggering supply-side inflation, and cut down on employment in the face of declining demand, thereby exerting contractionary pressures on the economy. While this would improve the BOP and (depending on public finance responses) the central government finances as well, it would raise unemployment and erode the purchasing power of low-paid workers.

Alternatively (and perhaps more realistically), the initial impact under a raw big bang would just affect the public enterprises' accounts and nothing else. The enterprises would continue importing and producing in the same fashion but just run large deficits that would need to be covered by high and now explicit subsidies, as the subsidies implicit in the previous (dual) exchange rate system would come to the surface. The basic problem with this second scenario, however, is that granting such subsidies automatically would fundamentally undermine the central government finances (as the government would no longer receive the income from the exchange rate spread) while taking away the incentives for public enterprises to become more responsive to market signals, cut their costs, and improve their efficiency (business for them would basically continue as usual).

Option Four (*fiscally-cushioned big bang*) would obviate the above problems by replacing the inefficient import subsidy with a dollar-equivalent lump-sum subsidy that initially fully neutralizes the fiscal, BOP, and inflationary impacts of the exchange rate unification. As in the case of the tourism industry, the subsidies would be gradually

phased out over a period of years. This would immediately enhance budgetary and public sector transparency. In particular, loss-making enterprises will come out fully into the open. The explicit subsidies should thus help promote accountability and market responsiveness. The fact that the unified exchange rate would apply to all foreign exchange transactions should help enhance competition, hence market discipline and responsiveness. Indeed, all enterprises (existing state enterprises as well as potential new private entrants or emerging public competitors) would operate from the start under the new rules of the game.¹⁰

This being said, for public enterprises to alter their behavior it is crucial that the unification be accompanied, as soon as feasible, by appropriate reforms of their governance as well as by an in-depth reform of the scheme for subsidizing basic goods. Otherwise, the enterprises could, as in Option one, continue conducting their business as usual. They could simply wait for the government to extend the subsidies indefinitely into the future under the threat of social upheavals induced by across-the-board subsidy reductions leading to price increases. To prevent such outcome, the public enterprises should be initially required, as a counterpart to the subsidies they will receive, to set their *pricing decisions* so as to limit price increases, particularly on the most basic goods (indeed, the subsidies should make stable prices consistent with profitability). At the same time, however, to ensure that efficiency gains do materialize, the enterprises' *production decisions* (i.e., the choice of inputs) should be nudged towards cost minimization and profit maximization. Indeed, this is where the mix of the government's control of public enterprises and market forces should come handy, one focusing on (temporarily) stable prices while the other focuses on profit maximization.

However, notwithstanding the efficiency gains obtained over time by enterprises as they reorganize their production under the new market prices, some price increases will become unavoidable as subsidies to enterprises are gradually phased out. A comprehensive reform of the public subsidy scheme will therefore also be needed in due course to limit the social impact of such increases while limiting the fiscal costs of any remaining subsidies. We expand below on both of these key issues.

¹⁰ The option of staggering the *fiscally-cushioned big bang* unification over a period of time on a sector-by-sector basis remains open. Thus, sector A (say, the tourism industry) could enter at once the single exchange rate regime while sector B (say, the state-owned importing industries or the exporting sector) could remain for a little while under the old regime. This option might give the authorities (or the affected enterprises in any given sector) more preparation time where absolutely needed. This would be superior to Option Three (*economy-wide gradualism*) in that, even when applied on a sector-by-sector basis, the non-distortive nature of lump-sum taxes and subsidies would more effectively stimulate decisions to invest and raise production and, hence, yield greater efficiency gains from the outset. As long as all enterprises in any given sector are brought it together into the unification scheme (instead of phasing in only a few, discretionally selected firms within a sector, while leaving other firms within the same sector shielded from competition), the resulting distortions should be limited and the market complications manageable.

7. Habilitating reforms and sequencing issues

As noted, for the fiscally-cushioned big bang approach to work optimally, there is a need for careful preparation, including the introduction (not necessarily before the unification but certainly as soon as feasible) of a number of crucial habilitating reforms. The first area that would require habilitating reforms is the fiscal area. As discussed earlier, the shadow taxes and subsidies implicit in the current dual exchange rate system will first need to be replaced by transitional lump-sum taxes and subsidies calculated for each enterprise affected by the exchange rate unification. Subsequently, however, the lump-sum taxes and subsidies will need to be themselves replaced by permanent, well-designed taxes and subsidies.

On the tax side, the government may need to revisit and adapt the tax system from the perspective of a new long-term, market-oriented environment. This may include first of all revising the taxes that have linkages to the foreign exchange market, such as FDI or trade (import and export) taxation. But it may also involve introducing or touching up for revenue mobilization purposes some domestic taxes such as the value added tax.

On the subsidy side, the government may likely need to introduce a well-focused system of (cash or coupon) transfers *targeted* to the most basic goods and lowest income households. As noted above, unless this is done, the government would probably be facing an unsavory choice between a rapid but socially traumatic phasing-out of the subsidies and an indefinite prolongation of an unwieldy, inefficient, costly (and hence ultimately unsustainable) subsidy scheme.

In all cases, a *healthy fiscal position* would facilitate the transition. A *pre-unification* fiscal surplus could allow the government to accumulate foreign reserves that could subsequently be used to “finance” temporary post-unification BOP deficits. A strong *post-unification* fiscal position would greatly ease monetary control.

At the same time, *public sector governance reforms* would also be essential to ensure that state enterprises become more responsive to market signals. Enterprises should be given market-compatible mandates (i.e., cost minimization and profit maximization) and their performance assessed (and their managers rewarded) accordingly. Based on the newly emerging market prices, accounting practices should be simultaneously revisited to identify unviable state enterprises and facilitate their closure or restructuring. Inter-enterprise claims across balance sheets should be netted out and restructured as needed.

These governance reforms should ideally be accompanied (or followed as soon as possible) by *market-oriented reforms*. In particular, the entry of non-state firms should be encouraged to boost supply, both directly and indirectly (i.e., by exerting competitive pressures on state enterprises). It would also be desirable for efficiency purposes to disengage state firms from intermediating the business activities of private firms and

citizens by, for example, allowing companies in the tourism sector that have foreign capital participation to select and hire their workers directly.¹¹

To maintain inflation under control and allow the exchange rate to play a more substantial buffering role, the scheme will require the gradual *strengthening of the central bank's monetary instruments and management capacity*. This in turn is likely to require reforms to facilitate the gradual development of the interbank and exchange rate markets, as well as a sound and more vibrant financial intermediation.¹²

A *flexible exchange rate regime*, if feasible from the start, would arguably be desirable, as it would help smooth out the unification process. In the short term, it would help identify the equilibrium post-unification exchange rate and reduce the risks of emerging exchange rate misalignments. Indeed, as firms previously transacting at the CUC rate start to respond to the change in market prices, thereby lowering the demands for imports and raising the supply of exports, some appreciation of the exchange rate is likely to materialize. Over the longer term, further appreciation pressures are likely as efficiency gains translate into purchasing power gains (hence real exchange rate appreciations). A flexible exchange rate system would thus have the benefit of allowing the real exchange rate to appreciate through nominal appreciation rather than inflation. At the same time, it would help absorb external shocks and limit de facto dollarization.

However, a flexible exchange rate regime may not be feasible because the reforms to establish the market and institutional infrastructure necessary to allow an independent monetary policy with exchange rate flexibility will take time to implement, and waiting for these conditions to be in place might excessively delay the unification. Moreover, maintaining a fixed exchange rate immediately after unification might help stabilize expectations at a time of substantial, potentially discomfiting changes. It might thus be preferable to first unify the exchange rate system and then move gradually to a more flexible exchange rate system, following a three-phased agenda of monetary reform:

- *Initial phase*: a fixed exchange rate with control of central bank credit expansion and of excess liquidity in the interbank market
- *Intermediate phase*: a flexible (but managed) exchange rate with monetary-aggregate targeting
- *Final phase*: a still managed but more flexible exchange rate with inflation targeting

One final issue to be considered is *currency choice and unification*. As noted earlier, this is a conceptually and practically different issue than the one that has occupied this paper, namely, the choice and unification of the exchange rate. The issue of currency unification arises because Cuba currently has, in addition to two exchange

¹¹ Under the fiscally-cushioned unification option, the fiscal loss that would result from allowing companies in the tourism sector to hire employees directly would be fully offset by the fiscal gain associated with the lump-sum tax on these companies.

¹² See Vidal and Villanueva (2013).

rates, two currencies (the CUC and the CUP) that act as units of account, means of exchange, and stores of value.¹³

When it comes to the issue of currency choice and unification, there are three main options: (i) formally adopting the dollar as the single currency; (ii) maintaining a dual currency system; and (iii) adopting the (new, post-unification) Cuban peso as the single currency. The pros and cons of these three options are as follows:

- *Full dollarization* would be unwise, as it would increase Cuba's vulnerability to adverse terms of trade or other large shocks, especially by magnifying their recessionary impact. It would rely on inflation or deflation as the main channels for real exchange rate adjustment. Given that shocks to Cuba are not necessarily symmetric to shocks to the United States (the country that issues of the dollar), the equilibrium real exchange rate in Cuba would need to adjust in directions that would not necessarily coincide with those needed by the U.S. economy. Hence, under full dollarization, Cuba would lose the option to use its own currency as a policy instrument and shock absorber.
- *A dual currency system*, whereby the new (post-unification) peso coexists with the CUC may have some advantages. In this case, it would be better if CUC bills disappear and the CUC continues to exist solely as an *electronic unit of account* in which bank deposits and loans could be denominated. The CUC would retain the one-to-one relation and convertibility to the U.S. dollar, which would be in turn backed by a currency board arrangement. Maintaining the option of saving and lending in CUCs might help the economy re-monetize while confidence in the new peso builds up. However, as long private citizens prefer dollars in cash, the shift of savings towards CUC-denominated deposits is likely to be limited. Instead, by fragmenting credit and reducing market depth, the dual currency can hinder and delay the process of strengthening monetary management. At the same time, as long as state enterprises continue to be the main depositors, there is little risk of a depositor flight into dollar cash.
- *Full peso-ization* is therefore arguably the preferred option. It would imply that, simultaneously with the exchange rate unification, all CUC are mandatorily converted into new pesos.

¹³ Actually, Cuba has more than two currencies if the dollars or Euros that Cubans hold in cash are taken into account.

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A stylized graphic of the American flag, featuring a large, light blue star in the upper left corner and two vertical stripes, one light blue and one dark blue, running down the right side of the page. The background is a dark, textured blue.

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