Exchange rate unification vs. currency unification

- The dual exchange rate system in Cuba overlaps with a dual currency system
  - Two *official* exchange rates for the Cuban peso, CUP
    - 1 CUP per 1 USD for the state enterprise sector and public institutions
    - 24 CUP per 1 USD for the rest
  - Two currencies: CUP and CUC, where 1 CUC = 1 USD

- However, the two systems respond to different motives...
  - The dual exchange rate was introduced to protect basic imports and the BOP
  - The CUC currency was created to mitigate dollarization

- ...and their unification can be conceptually and practically de-linked
  - The two exchange rates could be unified while keeping the two currencies
  - A single currency could be mandated but two exchange rates could be kept

- Three policy decisions: e-rate unification, monetary unification, post-unification exchange rate regime; the focus here is mainly on the first
What is special about the unification challenge in Cuba?

- The dual exchange rate originated in an exogenous shock (TOT deterioration and dry-up of foreign aid) rather than in endogenous capital flight
  - This mitigates concerns about speculative financial turbulence during unification
- Pre-unification inflation is low but the e-rate spread is unusually large
  - This highlights the importance of tight monetary control during & after unification
- The dual rate system is a fiscal scheme of large but implicit taxes & subsidies
  - Net sellers of dollars (or CUCs) at 1:1 (foreign hotel operators) are heavily taxed
  - Net buyers of dollars (or CUCs) at 1:1 (state enterprises) are heavily subsidized
  - Workers in the CUC circuit do not receive payments directly in CUCs, but in CUPs via a government employment agency => the system acts as a huge tax on labor
  - Unification requires decoupling e-rate from fiscal policy (major fiscal reform)
- The responsiveness of economic actors to price signals is weaker
  - This can delay efficiency gains, which are the *raison d’être* of unification
Post-unification inflation appears to depend on pre-unification spread and inflation

<table>
<thead>
<tr>
<th>Country</th>
<th>Beginning of Unification Process</th>
<th>Pre-Unification Premium</th>
<th>Phasing</th>
<th>3 months before unification begins</th>
<th>...3 months after</th>
<th>...12 months after</th>
<th>...24 months after</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venezuela</td>
<td>Mar. 1989</td>
<td>200%</td>
<td>Fast</td>
<td>36%</td>
<td>103%</td>
<td>81%</td>
<td>36%</td>
</tr>
<tr>
<td>Argentina</td>
<td>Feb. 1989</td>
<td>50%</td>
<td>Gradual</td>
<td>372%</td>
<td>460%</td>
<td>8163%</td>
<td>232%*</td>
</tr>
<tr>
<td>Peru</td>
<td>Jun. 1989</td>
<td>165%</td>
<td>Gradual</td>
<td>3414%</td>
<td>5704%</td>
<td>1968%</td>
<td>207%*</td>
</tr>
<tr>
<td>Ecuador</td>
<td>Sept. 1992</td>
<td>30%</td>
<td>Gradual</td>
<td>50%</td>
<td>64%</td>
<td>46%</td>
<td>27%</td>
</tr>
<tr>
<td>Dominican Rep.</td>
<td>Oct. 2003</td>
<td>10+%</td>
<td>Fast</td>
<td>26%</td>
<td>40%</td>
<td>52%</td>
<td>0%</td>
</tr>
<tr>
<td>Cuba</td>
<td>?</td>
<td>2300%</td>
<td>?</td>
<td>4%</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
</tbody>
</table>

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 starts. Phasing is defined by the duration of the coexistence of official and parallel rates after unification starts—“Fast” is defined as 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), AREAER (several publications), Pick’s currency yearbook (several publications), Kiguel and O’Connell (1995), Marion (1999), Reinhart and Rogoff (1999), Kamin (1991), IFS database.
The dual exchange rate regime is the most important and overarching binding constraint to growth...

- It entails huge efficiency losses...
  - Implies a heavy tax on local labor, hence the remuneration to workers is excessively low but the labor cost to foreign firms excessively high
    - Cuba is expensive for tourists
  - Creates a relative price and valuation fog that fundamentally vitiates the information on relative scarcities and disables the functioning of input markets
    - Cuentapropistas that earn in CUC do not have access to import markets
  - Introduces a major wedge between individual and social interests
    - Stealth employment in CUC circuit, opacity, enforcement nightmares, rent seeking, etc.

- ...which amplify pressures on central government finances and the BOP...

- ...and drag down economic and social progress
  - Penalizes employment-generating production of importables and exportables
  - Hinders new FDI
  - Raises costs and undermines quality of tourism services
...but the short-term pain of unification can dominate, hence, the premium should be on transition design

- The raw initial impacts of unification can be quite painful
  - Tug of war between losers and winners, major fiscal revenue losses, productive dislocations, inflation outbursts, regressive distributional effects

- Over time, efficiency gains should more than compensate the pain – by boosting the size of the cake, they should result in a win-win for all
  - But progress towards a market economy and credible rules of the game would be needed for significant gains to materialize

- In the short-run, the pain can dominate as the size of the cake is given
  - Increases in capital stock and reallocations of labor and capital take time

- A successful transition should appropriately balance pain and gain...
  - **Cushion the short-term adjustment pain until efficiency gains materialize**
  - **Boost the pace at which efficiency gains materialize**

- ... and ensure the viability of post unification exchange rate regime
  - Hence, better to unify at the 24:1 rate
Option one: raw big bang

**Policy**
- Unify on day one the two exchange rates, at 24:1 (to limit BOP pressures)

**Pros**
- Simple and straightforward
- Potentially most credible (all done on day one)

**Cons** – does not address the pain/gain balance at all
- In principle, a raw big bang maximizes the gains...
- ...but, in practice, by concentrating all the pain at the beginning...
- ...it may be so traumatic (socially and politically)...
  - Enormous re-distributional and reallocation frictions
- ...as to unleash de-stabilizing macroeconomic (especially fiscal) responses...
- ...which *may render the whole experiment unviable*
- Hence, the initial credibility may soon dissipate
Option two: sector-by-sector gradualism

- **Policy**
  - Gradually depreciate the 1:1 rate towards the 24:1 rate on a sector-by-sector basis, in different degrees and at different speeds

- **Pros**
  - Less traumatic than option one, as the pain is spread over time

- **Cons** – addresses the pain/gain balance only minimally
  - Lower-intensity of pain than in option one...
  - ... but it is protracted, lasting for a prolonged period of time...
  - ... during which it is unlikely to be offset by sufficient efficiency gains...
  - ... because much of the supply response would be postponed
    - Policy uncertainty (discretionary adjustments with risk of incomplete reform)
    - Even greater multiplicity of exchange rates (that would segment markets and so distort price signals as to impede efficient resource allocation across sectors)
Option three: economy-wide gradualism

- **Policy**
  - Preannounce a path of gradual convergence of the 1:1 rate to the 24:1 rate for the entire economy

- **Pros**
  - Much simpler than option two
  - It is less traumatic than option one (pain is spread over time)...
  - ... and avoids the additional distortions of option two during the transition

- **Cons** – addresses the pain/gain balance to an insufficient extent
  - The pain is of lower intensity than option one but lasts over a prolonged period (broadly similar in this respect to option two)...
  - ... during which the gains are greater than in option two but are likely to be insufficient to offset the pain...
  - There is a clear risk of a self-fulfilling failure: investors wait => raises transition costs => forces abandonment of preannounced path => justifies waiting
Option four: fiscally-cushioned big bang

Policy

- Unify on day one the two exchange rates, at 24:1 (to limit BOP pressures)
- Replace on day one the (dual rate-based) for each existing enterprise/institution the shadow tax or subsidy with a dollar-equivalent lump-sum tax or subsidy
- Allow all economic actors (new and old) to operate under the new rules and a consistent (even if partial) set of efficiency-oriented incentives
- Preannounce a gradual phase down of the lump-sum taxes and subsidies

Pros – adequately addresses the pain/gain balance...

- Lump-sum taxes and subsidies cushion the pain by distributing it over time ...
- ... and instantly unveil the true financial situation of enterprises
- Calculating the lump-sum taxes and subsidies is easy: the central bank knows
- Relative price changes work their way to maximize efficiency gains from day one
  - Investment/production decisions are totally independent of the lump-sum

...and immediately reveals true financial situation of state enterprises

Cons – requires non-trivial preparation and major changes in economic policy
Currency unification

- Full dollarization would be unwise, as it would
  - Increase Cuba’s vulnerability to adverse terms of trade or other large shocks
  - Promote inflation as the main channel for real appreciation

- No clear benefits of maintaining the CUC after exchange rate unification
  - Keeping the CUC as a currency board-based *electronic unit of account* might help re-monetize into CUC deposits while confidence 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 the strengthening of monetary management capacity...
  - ...and, as long as state enterprises remain as the main depositors, there is little risk of a depositor flight into dollar cash

- Therefore, combining exchange rate unification with currency unification (mandatory conversion of CUCs into the new currency) seems preferable
Post-unification monetary regime sequencing

- The fiscally-cushioned unification will require a gradual strengthening of the central bank’s monetary instruments and management capacity...

- ...in tandem with a gradual development of interbank and exchange rate markets, and sound financial intermediation

- Hence, while a flexible exchange rate would reduce better help absorb shocks and limit de facto dollarization...

- ... a realistic post-unification exchange rate regime could follow three phases
  - **Initial**: a fixed exchange rate with control of central bank credit expansion and of excess liquidity in the interbank market
  - **Intermediate**: a flexible (but managed) exchange rate with money targeting
  - **Final**: a flexible (but still managed) exchange rate with inflation targeting
Thank you
Extra slides
Partly reflecting improved macro management in EMs, multiple exchange rates have become a vanishing breed.

Source: Rogoff et al. (2003) and AREAEER online database
Significant churning within the small set of countries with multiple exchange rate regimes

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, Turkmenistan. Source: AREAER online database
1970 | 1987 | 1997 | 2010
---|---|---|---
Argentina | Bahamas, The | Bahamas, The | Bahamas, The
Bahamas, The | Barbados | Barbados | Barbados
Barbados | Belize | Belize | Belize
Belize | ECCB | ECCB | ECCB
Costa Rica | Panama | Guyana | Panama
ECCB | Guyana | Panama | Panama
Guatemala | Haiti | Bolivia | El Salvador
Guyana | Jamaica | Brazil | Panama
Barbados | TTO | Chile | Suriname
Belize | Barbados | Ecuador | Barbados
Bolivia | Costa Rica | Guatemala | Costa Rica
Brazil | El Salvador | Guyana | Ecuador
Chile | Guatemala | Haiti | Guyana
Colombia | Argentina | Costa Rica | Argentina
Costa Rica | Bolivia | Brazil | Bolivia
Ecuador | Paraguay | Nicaragua | Costa Rica
El Salvador | Peru | Nicaragua | Nicaragua
Guatemala | Uruguay | Paraguay | Paraguay
Honduras | Venezuela | TTO | Venezuela
Jamaica | Haiti | Paraguay | Paraguay
Mexico | Urugua | Uruguay | Guatemala
Nicaragua | Venezuela | Paraguay | Paraguay
Paraguay | Brazil | Chile | Ecuador
TTO | Peru | Colombia | TTO
Brazil | Perú | Mexico | Mexico
Chile | Suriname | Paraguay | Paraguay
Colombia | Uruguay | Dom. Rep. | Argentina
Peru | Venezuela | Uruguay | Uruguay
Uruguay | TTO | Brazil | Brazil

Source: Ilzetksi, Reinhart and Rogoff (2011) and LAC Chief Economist calculations.
... but with the bigger countries clearly going towards inflation targeting

Source: Ilzetzki, Reinhart and Rogoff (2011) and LAC Chief Economist Office calculations.
Illustrating the Fiscally-Cushioned Unification

Non-exporting state enterprises
The challenge

- The current system entails huge efficiency losses...
  - Using the 1:1 rate for basic imports and the 24:1 rate for wages amounts to subsidizing basic imports and penalizing consumption of non-basic imports
    - (This may contribute to evening out welfare across Cubans)
  - The implicit subsidization scheme weakens the central government finances...
  - ... penalizes the employment-generating production of importables...
  - ...and promotes imports of basic goods, putting pressures on the BOP

- ...but a “raw big bang unification” would be traumatic on impact
  - While it would improve the BOP and central government finances...
  - ... it would generate cost-pushed price increases on the goods produced or imported by import-intensive state enterprises...
  - ...thereby triggering supply inflation and contractionary pressures on output
  - By eroding the purchasing power of low-paid workers, it would raise inequality
Using lump-sum taxes/subsidies to balance pains & gains

- **The policy**
  - On day one, unify the exchange rate at 24:1, so as to limit BOP pressures...
  - ...replace the inefficient import subsidy with a *dollar-equivalent lump-sum subsidy* that neutralizes the fiscal, BOP, and inflationary impacts...
  - ...and *pre-announce a gradual, multiyear phase-down of the lump-sum subsidy*
  - Direct state enterprises decisions towards cost minimization/profit maximization, conditional on maintaining affordable prices during the transition

- **The pain/gain balance**
  - It would immediately enhance budgetary and public sector transparency
    - Existing loss making enterprises will come out into the open
  - *All* enterprises (existing state enterprises and the new private or public competitors) would operate under new rules of the game...
  - ...thereby maximizing the scope for efficiency gains from day one
    - Gains would continue to build up overtime as market price signals improve
Summing up...

<table>
<thead>
<tr>
<th>Immediate impact of unification at 24:1</th>
<th>Foreign-managed tourism services</th>
<th>Non-exporting state enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiscal losses causing demand inflation</td>
<td>Price adjustments causing supply inflation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Immediate policy response</th>
<th>Lump-sum tax on existing enterprises</th>
<th>Lump-sum subsidy on existing enterprises</th>
</tr>
</thead>
</table>

| Over time policy response | Phase out the lump-sum taxes | Phase out the lump-sum subsidies |
Fiscal, State Enterprise Governance, and Market-Oriented Reforms
Fiscal reforms

- Prepare replacement of shadow taxes/subsidies with transitional lump-sum taxes/subsidies

- Prepare further fiscal reforms
  - Reform the tax system, from the perspective of a new long-term and market-oriented environment (VAT, foreign trade taxes, FDI taxation, etc.)
  - Create a system of (cash or coupon) transfers targeted to the lowest income households to support basic consumption

- A healthy fiscal position would facilitate the transition
  - A pre-unification fiscal surplus – to underpin initial int’l reserve accumulation that would subsequently “finance”
Governance and market-oriented reforms

- Governance and accounting reforms would be needed to make state enterprises more responsive to market signals
  - Give enterprises market-compatible mandates (i.e., cost minimization/profit maximization) and assess their performance accordingly
  - Based on emerging market prices, introduce modern accounting practices
  - Establish a plan to close or restructure unviable state enterprises
  - Net out and restructure inter-enterprise claims sheets as needed