

## FINANCIAL INTEGRATION AND DOLLARIZATION: THE CASE OF PANAMA

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Panama's unique macroeconomic and monetary arrangements embody, as no other country, freedom of choice in the capital markets. This article discusses and explains how Panama's macroeconomic system operates. Panama's system has a long-standing record of stability stemming from consistent market-based institutional arrangements. The study of Panama's experience will give a new perspective on how to deal with monetary disequilibrium and systemic risk.

### Panama's Institutional Framework

Panama's macroeconomy is characterized by dollarization, full financial integration, and specialization in service exports. These features are at the core of a consistent free-market institutional system that has produced a stable economic order and an efficient macroeconomic adjustment mechanism. This experience contrasts with other emerging markets that typically rely on macro-management or policy action and have a record of macroeconomic instability.

#### *Dollarization*

The U.S. dollar has been Panama's legal tender for 100 years. Successive governments have chosen to maintain this "self-denying ordinance" because the dollar anchor has given the country a degree of monetary stability. The absence of a central bank ensures no monetary intervention, so Panama essentially has a private monetary system in which the stock of money is determined by the decisions of private agents and banks. The unified currency system eliminates

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foreign exchange risk, currency mismatches, and speculative attacks so common in other countries with central banks and “sovereign” money. The absence of “policy decisions” regarding monetary or exchange rate affairs reduces risk because less information is needed by outside investors.

Panama meets many of Robert Mundell’s conditions for an optimal currency area with the United States. However, a point should be made about Panama’s production structure. Panama is not a large producer of goods, as its industries are mainly intermediaries. Thus, a revaluation or devaluation of the dollar tends to shift demand from imported U.S. goods to imported Japanese goods (or vice versa)—without affecting the real effective exchange rate (REER). More industrialized nations, or countries more integrated with their neighbors or subject to significant terms of trade shocks, may require a more flexible exchange regime.

#### *Full Financial Integration*

A large number of major international banks operate in Panama and intermediate between the local and the international financial system, inducing a complete or full financial integration. Financial integration equalizes Panama’s and world interest rates and implies that capital inflows and outflows arising from banks’ portfolio adjustments are a crucial element in the macroeconomic adjustment process. The banking system is highly competitive with almost no government intervention, not even reserve requirements. There is freedom of entry for foreign investors, no restrictions on capital movements, and market-determined interest rates. The system is successful in the microeconomic sense, with large inflows of financial resources, low interest rates, and credit balances of more than 100 percent of gross domestic product. Efficient banking operations, due to competition, are evidenced by widespread loan securitization—both domestic and foreign, without any special law or institution—and commercial bank lending to small enterprises.

#### *Specialization in Service Exports*

Revenues from exports are more than 30 percent of GDP, and come mainly from services related to the Panama Canal, commercial intermediation from the Colon Free Zone (CFZ), tourism, and port container transshipment. Financial intermediation services and legal services, such as registrations of firms and ships, are particularly important. Many export activities take place in free markets with no government intervention or restrictions, and foreign ownership is large. Unlike commodity exports, service exports are stable from year

to year, with no extreme swings in their prices and revenues. In addition, service exports are diversified among activities, countries, and regions. This diversification increases stability and helps the export sector adjust well to shocks without disrupting domestic employment.

### *Other Characteristics of the Economy*

Stability and the adjustment process are enhanced by additional characteristics of the production structure. The large share of commercial activities in GDP favors the adjustment process, because wages adjust automatically via changes in commissions, and the prevalence of temporary contracts facilitates adjustment of employment. The existence of an informal sector and subsistence agriculture, which adjust via changes in income, also means less wage rigidity. Also, the absence of a central bank means that the government cannot monetize its deficits, thereby imposing an effective hard budget constraint. This forces the government to avoid deficits by maintaining high prices for public enterprises, using cross-subsidies, and privatizing state-owned firms to obtain extra resources. The system has induced the government to act with some degree of fiscal prudence, and it has learned to do so, maintaining fiscal deficits within bounds, populist governments included. However, the access of the government to international capital markets at relatively low rates of interest has induced fiscal deficits and debt levels that are larger than the norm for emerging markets.

Government wealth is substantial, arising from the reversion of the Panama Canal, land, and installations, as well as privatization proceeds held in a special trust fund. This trust fund, a cash buffer for shocks, amounts to approximately 10 percent of GDP, and constitutes a de facto reserve for external debt. Government assets make it possible to finance fiscal deficits without borrowing. Furthermore, the government debt profile is relatively good, with a 7.1 percent average interest rate and a 12-year maturity, and the Panamanian government has had ready access to international capital markets. Nevertheless, some important financial challenges remain, including achievement of a fiscal position consistent with debt sustainability, reform of the pension system, and reduction of a relatively high public debt level (external debt is around 50 percent of GDP).<sup>1</sup> The resolution of these

<sup>1</sup>Panama also needs to limit its protection of agriculture, reform labor laws, implement a competitive market in all sectors, modernize the tax and legal system, and reduce government intervention.

important challenges will test the system's resiliency, forcing the government to face financial constraints before a fiscal crisis.

Another feature of Panama's economy is the set of conditions surrounding the home mortgage market. In many countries credit constraints on the availability of mortgage loans have been portrayed as a market failure, especially to middle- or low-income families. Insufficient mortgage credit has been explained by lack of savings, inadequate financial depth, time-mismatch between banks' assets and mortgage liabilities, and inability to use human capital as collateral. A lack of well-defined and expedient legal procedures to enforce claims and foreclosures has been blamed for increasing default risks and lending costs, while asymmetric information augments imperfect credit market conditions and induces adverse selection and rationing. As a result, mortgage markets are characterized by high interest rates, large down payments (related to liquidity constraints), and shorter maturities.

Due to the dearth of private home-mortgage credit, many governments have taken the responsibility to solve this problem. Yet, there is an assortment of program failures in public-housing construction programs, high losses, insolvency of government mortgage institutions, and nonperforming subsidy schemes. Even developed countries have experimented with large government housing programs, with occasionally spectacular failures. Solving the home-mortgage problem requires sufficient financial resources, low cost-risk operations, and affordable loan conditions. Usually government housing programs in developing countries are unable to provide sufficient financial resources, and they show high delinquency rates.

The case of Panama is markedly different. Commercial banks provide sufficient resources for affordable mortgages, which are available to a relatively large cross-section of the population. For example, banks routinely offer 30-year mortgages at 5 to 6 percent variable interest rates, with a down-payment requirement of 0 to 2 percent, and outstanding mortgages are 22 percent of GDP. In addition, the government gives middle- and low-income groups a mortgage interest subsidy of about 4 percentage points for 10 years.

What is the reason for Panama's success? First, Panama's stability, and also its macroeconomic structure with financial integration and dollarization that make large financial resources available, and competition in banking offer the best credit conditions. The initial expansion of mortgage and credit markets came just after the opening of the banking system in the early 1970s. Even now, international banks lead the market by offering lower interest rates on mortgage loans. In addition, the stability and low volatility of the economy

validates long-term lending by banks. But this is not enough. Institutional provisions add substantially to the efficiency of banks' mortgage operations. Initially, banks required several third-party guarantees, which used to be the most stringent condition to fulfill, but they are no longer in effect. More important, for many decades automatic payroll deductions have been in place at both private businesses and public organizations, including deductions from Social Security pension payments that increase access to credit facilities. The bank and the borrower sign an irrevocable contract, accepted by the employer, to discount loan payments from wages, which effectively gives mortgage loans a senior debt status.

In this way banks have been able to treat future expected wage earnings as collateral for loans, and also reduce transactions costs significantly via lower information requirements (and fewer asymmetric information problems), reduced credit payment risk, and almost zero collection costs. Furthermore, market and legal conditions allow the relatively speedy impounding of mortgaged assets and foreclosure execution. It is common that law firms purchase the delinquent mortgages. In other cases, assets are held in trust in the lender's name. The system may actually pay for itself because in the long run the large amount of net mortgage payments generate savings to finance additional mortgage credit.

This credit environment also applies to other family loans and pensioners (practically unavailable elsewhere), leading to the development of "consumer" credit facilities by banks and specialized private financial institutions (*financieras*). Panamanian banks' outstanding loans to consumers were 19 percent of GDP at the end of 2003 (compared with only 6.4 percent in Chile). These loans are profitable for banks because of the low credit risk due to life insurance, automatic payroll deductions, and relatively high service fees.

Panama's experience in housing demonstrates that what is needed to enable a competitive market solution to work is a well-designed set of rules that provide the right incentives. Thus, the usual characterization of the mortgage market in developing countries as a case of "market failure" is incorrect. Panama's housing mortgage arrangement should be a standard feature for emerging markets.

### Market-Based Macroeconomic Stability

In Panama, prices affecting the economy as a whole—the real exchange rate, real interest rate, asset prices, and arguably real wages—are stable and free from distortions. Correct prices have the effect of preempting false price signals, which have been a source of

erroneous decisions on expenditures and borrowing in other countries. Inflation in Panama is systematically lower than in the United States due to the Balassa-Samuelson effect, thereby providing stability to the real exchange rate. Panama's monetary system forced the direct transfer to domestic prices of the oil price increases during the 1970s, which otherwise would have caused price distortions as occurred in other countries, including the United States.

The evidence supports the existence of *market-based macroeconomic efficiency*—that is, stability and macroeconomic equilibrium—over decades.<sup>2</sup> The system's low volatility and efficient adjustment works by reducing the likelihood of occurrence and the intensity of negative outcomes, as well as strengthening the response to perturbations, so that the system tends to be resilient to external shocks. For example, stability of export prices tends to preempt terms-of-trade shocks; the unified currency system removes any exchange risk, transfer risk, or currency mismatch associated with devaluation. No financial or banking crises take place because of financial integration with world-connected banking. Domestic inflation or fiscal crises have not occurred because the government cannot monetize its deficits. The different components reinforce each other. For example, financial integration and the CFZ provide a ready-made market for international banks' local operations, and large credit facilities enhance the export capacity of the CFZ. Price stability, from low inflation, supports long-term investment planning and home mortgages, thereby improving the efficiency and stability of the financial market. In addition, Panama's market-determined money supply enhances overall macroeconomic efficiency, based on dollarization and full financial integration.

## Financial Integration and Capital Freedom

In emerging markets, opening the capital account or liberalizing the financial system has been associated with costly currency or banking crises. The macroeconomic research agenda has produced an extensive literature, using cross-country correlation and post-mortem analysis, with each crisis spawning a new generation of macroeconomic models trying to find an adequate solution but without satisfactory results (Eichengreen 2001). Yet, these analyses exclude the case of Panama, the successful experience, which is considered a special case.

<sup>2</sup>However, no system can insure against massive mismanagement or political trauma. During 1987–89, escalating tensions with the U.S. government resulted in a major political crisis in Panama that brought an economic crisis: banks were closed, the government defaulted in its debt, and the economy declined more than 15 percent (Moreno-Villalaz 1999).

In Panama, banking-sector liberalization was designed in the early 1970s as a competitive market model (Barletta 1991) with relatively free entry by international banks (a distinct and essential element), market-determined interest rates, no restriction on capital flows, and almost no government intervention. The results have been outstanding, with an efficient and stable financial system and no systemic banking crises. A dollarized system with financial integration is attractive to foreign investors for direct and financial investment, lifting in part the limitation of local savings to finance investment.

The participation of international banks reduces systemic financial risks because these banks are not threatened by local losses and follow best practices. In addition, international banks provide liquidity to the system when needed, serving as lenders of last resort (Moreno-Villalaz 1999). Furthermore, a competitive banking environment improves risk management for banks and firms recently enhanced by using capital adequacy requirements and Basle standards. Moreover, lower financial risk comes from the stability of interest rates and of the economy, large amounts of commercial lending, and banks' freedom to allocate resources. In addition, interest rates on long-term mortgage loans are flexible upward but rigid downward, which reduces banks' credit risks from a decrease in asset value due to an increase in interest rates. Also, banks' low lending risk in Panama is reinforced from payments retention from wages because this shifts the burden of expenditures-adjustment in case of family financial problems, protecting banks, as was clearly shown during the 1988–89 crisis in Panama.

Full financial integration enhances macroeconomic stability and the adjustment process. Banks will adjust their portfolios to achieve a desired equilibrium in their uses and sources of funds up to the point where they are indifferent between local and external investment (adjusting for risk and return). Banks evaluate alternative projects and, when profitable local projects at acceptable levels of risk are exhausted, they transfer any excess liquidity abroad. This stands in contrast to the experience of other countries where excess liquidity affects the level of domestic expenditure. The presence of international banks in Panama means they have better information to manage local risk, rather than participating at arm's length (as in Asia and Russia), making the system more stable. This arrangement avoids information asymmetries that besiege outside financial investors and increase volatility of financial flows. The stability of Panama's financial markets was not seriously affected by the Asian and Russian crises of 1997–98, and government bonds showed safe-haven characteristics at the time (Allen 2000).

Panama's economy normally presents conditions of internal and external macroeconomic balance or equilibrium, as "the nontradable goods market clears, and current account balances are . . . sustainable" (Edwards 1989). Panama's system replicates the assumptions and tenets of the monetary approach to the balance of payments, automatically adjusting deficits or surplus via capital flows without changes in relative prices or the level of economic activity, which are of secondary importance (Frenkel and Johnson 1976). Macroeconomic equilibrium is evident by the absence of endogenous crises, no overt misalignment of Panama's real exchange rate, and the prevalence of very low and stable inflation. The market-determined money supply, with no price distortions affecting the macroeconomy, avoids disequilibrium caused by an excessive or inadequate stock of money. As Mundell (2003) indicates, with specific reference to Panama, a "fixed" monetary system is based on a monetary rule for which variation in external flows are not sterilized or offset by a central bank, so that there is a self-adjusting mechanism via the balance of payments. Panama's unique system has shown efficient adjustment toward equilibrium under different kinds of shocks (Moreno-Villalaz 1999), with sufficient flexibility of prices and capital freedom. For example, during 1998–99, the current account deficit rose above 10 percent of GDP but fell to 1 percent in two years without a crisis—only a deceleration of economic growth. Panama's dollarized system with financial integration gives rise to a stable macroeconomic framework, an arrangement likely to be optimal (Moreno-Villalaz 1992).

Adjustment of financial flows, via banks' intermediation by *in situ* banks, is smoother than adjustment of equity investment or external nonbanking finance. Outside investors, receiving new information indicating higher risks, will adjust their portfolios by withdrawing their funds, and the market will adjust via declines in asset prices if the instruments are traded.

In the last decade, emerging market crises were actually financial crises, causing in turn exchange rate or balance-of-payment crises. Panama's banking system, with full financial integration (not just dollarization), has been the reason for stability in the capital market. As a result, Panama has not shown any of the problems of other Latin America financial markets, such as financial contagion, sudden stops of financial inflows, overborrowing, capital flight, or systemic banking crises.

### Macroeconomic Stability: Panama versus Chile

Consistent arrangements and the lack of price distortions affecting the economy as a whole are important components of Panama's



macroeconomic stability. However, to understand the implications for macroeconomic stability in emerging markets, it is necessary to contrast Panama's experience with countries that have inconsistent institutions and price distortions, as in the case of Chile during the late 1970s. Even though Chile underwent a successful structural reform, a financial and economic crisis followed.

In June 1979, Chile pegged the peso to the U.S. dollar. Afterward the peso's real exchange rate with the dollar appreciated sharply. The real interest rate was high and moved up further in 1981. Both events were a puzzle in the context of a fixed exchange rate and an open capital account. The standard explanation assigns a central role for the real exchange rate misalignment to the surge of capital inflows that resulted from opening the capital account (Edwards and Cox-Edwards 1987; Corbo 1985; Bosworth, Dornbusch, and Laban 1994). The capital inflows presumably generated an excess demand for nontradables that "required a real appreciation of the peso" (Edwards and Cox-Edwards 1987: 74). The conventional wisdom attributes the banking crisis to a lack of proper supervision and moral hazard stemming from implicit government guarantees that encouraged "related loans" to conglomerates (*grupos*) and inefficient risk management.

Panama's experience raises questions as to the validity of these explanations. Panama liberated its banking sector in 1970 and experienced large capital inflows, but with no disequilibrium or crisis (Moreno-Villalaz 1999). In addition, excess demand in Chile is by no means certain. Part of the capital inflows increased central bank reserves, financed higher interest payments abroad, or were used for investment in existing assets or to pay the higher cost of oil imports. In addition, due to the appreciation of the dollar, the REER index fluctuated within a small range from late 1978 to mid-1980 (Edwards 1987: 75), a period of high capital inflows. Changes in average salaries closely followed the indexation rule in months during which adjustments were mandated, but were negligible in other months (Cortázar 1983)—a situation not feasible in the case of excess demand.

The higher inflation that Chile experienced relative to the United States between mid-1979 and the second quarter of 1981 was an indirect result of indexation. At the time, wages, financial instruments, and nontradables were indexed to the CPI, which induced higher inflation by validating previous inflation. The indexation rule thus created inflation inertia and delayed the convergence of Chile's inflation to U.S. inflation. In 1980, Chile's inflation was more than 30 percent, but was only 13.5 percent in the United States.

Inflation inertia, however, does not fully explain the extra inflation in Chile. More important was the doubling of world oil prices, a price

impulse that was magnified in Chile by the indexation rule. In this case, compensating wages and nontradables increased inflation and distorted relative prices. For indexation to be unbiased, thus maintaining the relative prices between imported and local goods, initial inflation must be low with a neutral inflation afterward. That was not the case in Chile.

During this period, in Panama and United States—without indexation—average real wages and the relative price of nontradables decreased, which dampened inflation. In Chile, instead, average real wages rose. The literature on Chile does not discuss the transmission mechanism from an excess demand for goods to an excess demand for factors, nor the persistence of high unemployment, in spite of a significant government emergency-employment program, and the presumed higher demand.

With respect to interest rates, during 1979–80 the indexation of peso instruments, and high inflation in Chile (more than 30 percent) with a fixed exchange rate, resulted in high dollar-equivalent returns, over 55 percent, when LIBOR rates were 20 percent. In 1981, the loss of reserves by the central bank decreased the monetary base and curtailed bank lending. These events, together with an increase in world interest rates and a decline in inflation, explain the increase in the real interest rate from 15 to 40 percent in 1981.

The tightening of monetary policy by the Federal Reserve, and other international events, imposed a severe external shock on Chile in 1981–82. The concurrent increase in oil prices and the decline in copper prices reduced Chile's terms-of-trade index from 72 in 1979 to 56 in 1981, equivalent to a 20 percent loss in export income. Average LIBOR rates increased 4 percentage points from 1980, the dollar appreciated, and Mexican's debt default restricted funding to emerging markets. These events were major factors in the economy's collapse in 1982 (Wisecarver 1983, Sjaastad, 1984, Harberger 1985).

A better explanation of Chile's crisis starts with the external shock, but adds the critical role played by problems with the macroeconomic framework and price distortions—instead of explanations based on excess demand and regulatory failure.

In Chile, the policy mix resulted in the distortion of real wages, the real exchange rate, real interest rates, and asset prices. These price distortions created an edifice of false incentives to market participants—domestic and foreign—that impacted decisions. Because they affected net external borrowing, they had a macroeconomic effect. False price signals induce wrong decisions. This was clear in Chile's financial markets where the interest rate differential between peso and dollar transactions and high capital gains created incorrect

incentives for a range of financial investments. In response to those signals, investors tended to use high leverage and take on risky investments, actions that were nevertheless validated for a time by the large increase in the value of assets. In effect, asset prices more than doubled in real terms, a financial bubble that could not be sustained. The distorted prices led to inefficient risk management, overborrowing, financial fragility of banks' and firms' balance sheets, and increasing vulnerability. The situation became worse when interest rates shot up in 1981. Rather than emphasizing regulatory issues to explain the problems in the banking sector, emphasis should be put on the negative effects from distorted incentives and the lack of financial integration.

Another factor that made Chile vulnerable in 1981 was the existence of inconsistent arrangements—in particular, the indexation scheme and the fixed exchange rate—“two mutually inconsistent *numeraires*, or two anchors on the price level” (Sjaastad 1984). The rigidity introduced by the indexation scheme at the macro level invalidated the flexibility of relative prices at the micro level.

Contrasting the experiences of Panama and Chile makes clear the interrelationship between price distortions, inconsistent arrangements, and disequilibrium. None of these characteristics were observed in Panama and there was no crisis. The micro-price distortions existing in Panama affect growth and efficiency, but do not generate macroeconomic disequilibrium because they do not change the level of expenditures or net borrowing. Distorted prices appeared in Mexico in 1994 where the policy mix led to overvaluation and high dollar-equivalent returns on portfolio investments, inducing a surge of financial inflows and overborrowing, with the higher risks being covered by the extra returns. In Argentina, inconsistent arrangements existed between the fixed exchange rate with the dollar and a common market outside the dollar area.

In many other cases in Latin America, analysis of the period immediately before a crisis overlooks the underlying weaknesses in the economic arrangements. This oversight comes from an emphasis on macroeconomic flows—and the neglect of price distortions (except the real exchange rate) and their effects on incentives and decisions at the micro level.<sup>3</sup> However, it is clear that these price distortions can induce decisions that make the economy vulnerable, even though

<sup>3</sup>Some authors treated Chile's problem as a market failure, and proposed policies like controls on financial capital that restrict market operations. However, their inferences were conditioned on the existing distortions.

these distortions might not be the immediate cause of a crisis. The lack of such distortions precludes financial crises in Panama.

## Conclusion

The dollarization and the financial architecture debates have been cast as debates over exchange rate regimes (fixed versus flexible) and over the policy choice framework—strengthening international institutions and improving macroeconomic management. The Panamanian case has not been fully studied in spite of its relevance.<sup>4</sup> This omission shows a bias by the International Monetary Fund and by many macroeconomists due to a preference for a monetary system based on a central bank. In addition, for some countries, especially small countries, dollarization is a necessary condition to achieve financial integration; so the issue is more about the capital market than the exchange regime. For many developing countries, even though a flexible exchange regime may be optimal in theory, in practice—due to the government’s or central bank’s mismanagement of the exchange rate or monetary policy—they will be better off with dollarization, given the inherent stability of the arrangement.

Two polar approaches prevail when considering the organization of an economy or its policies. One is *laissez faire*, which presumes that individuals can make the best choices, and collective “spontaneous actions” will find the optimal institutional arrangements. This approach seems to work well at the micro level. A second approach is to support policy measures—macro-management or government action—on the assumption that these can enhance the operation of markets. This position is supported by international institutions and by most macroeconomists. In Panama, we observe a different approach—namely, arrangements that enable the market to work *and also enhance macroeconomic efficiency*. These arrangements have created a systemic solution via a framework of consistent, market-based institutions, which evolved or were designed, including dollarization, financial integration, loan discount from wages, and specialization in service exports. Examples in other countries are free-trade agreements, and the privatization of the retirement scheme in Chile.

Modern monetary policy and government macro-management leads to policy-determined, rather than market-determined, interest or exchange rates. This approach can result in price distortions, which

<sup>4</sup>Discussion about Panama has been biased, even using mistaken information or discussing seigniorage without addressing the opportunity cost of the alternative monetary system.

interfere with the “freedom to choose,” not by changing the choice-set directly, but by interfering with the tradeoff between alternatives.

At the core of Panama’s efficient macroeconomy is a set of institutional arrangements that reduce financial and banking risk, tend to preempt disequilibria, and enhance adjustment toward restoring macroeconomic equilibrium. These arrangements include Panama’s market-based organization in essential sectors (service exports, commerce, and labor markets), dollarization, full financial integration, the lack of price distortions, and the discounting of loans from wages. It is clear that these features of Panama’s institutional arrangements, in particular full financial integration and the discount of loan payments from wages, should be part of emerging economies’ financial architecture, even for large countries with flexible exchange rate regimes (like Russia).

Finally, Panama’s market-based approach to macroeconomic stability should be part of the toolkit for evaluating risks in emerging markets—an analytical framework that emphasizes the effect of incentives and price distortions in evaluating behavior, risk management, and macroeconomic outcomes. Such an approach would complement the conventional models of development.

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