

From: "Economic Reform and Stabilization in Latin America."
Michael Connelly and Claudio Gonzalez-Vega, eds.
New York: Praeger, 1984

PN-ARE-518

**Regulated and Non-Regulated Financial and Foreign Exchange Markets
and Income Inequality in the Dominican Republic**

LA 59159

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1. Introduction

During the 1960s and early 1970s, institutional or "regulated" financial and, to a lesser extent, foreign-exchange markets in the Dominican Republic served as important mechanisms for growth. That is, following traditional measures of financial performance -- the number, diversity and growth of financial institutions, the ratio of monetary aggregates to national income, the proportion of private savings captured by the financial system, and the allocation of financial resources to productive investment -- these markets would have been evaluated positively, compared with those in other Latin American countries. Most scholars, of course, would have had little difficulty uncovering areas for improvement, especially with respect to interest-rate flexibility, the level of transactions costs, the lack of a viable secondary market for financial instruments, and a strong urban bias in institutional location, but on balance the performance was good.

The generally favorable climate associated with the regulated financial markets (RFM) has changed considerably since the mid-1970s. In an inflationary environment, rapid growth of balance of payments deficits and considerable public-sector borrowing from both the domestic RFM and abroad,

combined with interest-rate and foreign-exchange restrictions and, more generally, the failure to adopt institutional reform have imposed severe financial repression on the Dominican economy. These restrictions, salient among determinants of disintermediation, have led to a relative decrease in the real volume of resources captured and efficiently allocated by the RFM. Substantially higher effective interest rates in the non-regulated domestic markets (NRFM) have drawn funds out of the regulated system. Indeed, financial and foreign-exchange markets in the Dominican Republic were marked by growth in the number and relative importance of non-regulated institutions. Non-regulated markets, consisting of more than 600 separate institutions, have taken an increasingly large share of financial and foreign-exchange activity.

The development of the non-regulated, primarily urban, institutions raises serious questions about the role and consequences of regulation and about the efficiency with which financial and exchange markets in the Dominican Republic allocate the country's scarce savings and foreign exchange. In addition, despite the presence of extensive controls in the regulated markets, concerning the availability and cost of funds for small and middle-size companies and for individuals, the regulations and the resulting growth of non-regulated markets have had important distributional consequences of overall financial intermediation. This latter theme is considered here. We are particularly concerned with the net impact that the twin swords of financial and foreign-exchange repression have had on income distribution. Specifically, we demonstrate (1) that, consistent with findings of other studies, taken in isolation financial and exchange

repression have effectively squeezed small and medium-size borrowers out of the RFM and, simultaneously, imposed severe restrictions on effective savings opportunities, with a considerable net impact on income inequality, (2) that, development of the NRFM has partially offset negative distributional consequences, in the sense of providing credit opportunities that would not have otherwise existed, but also imposed severe costs on borrowers, and (3) that, while the NRFM provide alternatives for all classes of savers, these markets are highly segmented in terms of both return and risk, thus reinforcing the distributional impact of the RFM. These results have significant implications for the design of policies to confront the non-regulated marketplace, emphasizing the need for a reform of existing controls of RFM. In addition, many of the conclusions with respect to income distribution are not immediately obvious from a cursory review of financial intermediation in the Dominican Republic. Indeed, we find that the effect of NRFM on distribution is mixed, but for the most part favorable. These conclusions raise serious doubts about the desirability of efforts that would "regulate" these institutions in the absence of a more general financial reform.

While the broad outlines of these trends, particularly with respect to the regulated financial and exchange markets are well known, it remains a useful exercise to explore in some detail the evolution of non-regulated markets. Section 2 provides a brief overview of financial development in the Dominican Republic over the past decade, emphasizing those factors that have contributed to financial repression. Section 3 serves both to review available literature and to develop specific relationships between repression, parallel markets, and distribution. Tangible evidence of these

links is analyzed in Section 4. Based, in part, on information obtained in an extensive study of the NRFM conducted jointly by the OSU-Central Bank Rural Savings Mobilization Project, we review differential interest rates, institutional risk, and market segmentation. This information provides several direct clues about the consequences of repression and of parallel markets on income distribution. Finally, income-distribution impacts are summarized in Section 5, leading to a discussion of policy implications.

2. Evolution of the Regulated and Non-Regulated Financial Institutions in the Dominican Republic

Over the past two decades, RFM in the Dominican Republic have experienced considerable growth and development. This is reflected both in the number of institutions and in the growth and diversity of their operations. For example, in 1970 this sector consisted of 21 separate institutions (8 commercial banks, 11 saving and loan institutions and 2 finance companies, now renamed development banks). By the end of 1984, that number had increased to over 65 separate institutions (16 commercial banks, 17 savings and loan companies, 19 development banks and 13 mortgage banks). Similarly, in 1970 total assets of this sector amounted to RD\$428.9 million; by the end of 1983 assets had increased to RD\$1,141.1 million, a nominal rate of increase of 7.8% per year. The ratio of total private-sector funds captured by these institutions to Gross Domestic Product reflects this growth increasing from 17.5% in 1970 to 27.9% by the end of 1983 (See Table 1).

Financial-intermediation growth in the Dominican Republic has not been uniform. Up through 1974, growth of this sector was rapid and consistent; real deposit liabilities, for example, almost doubled, reflected in both the narrow and broader monetary aggregates, despite obvious substitution between non-interest bearing demand deposits and other deposit liabilities (See Tables 2a and 2b). After 1974, however, the ratio of real financial resources captured by the RFM to gross domestic product virtually stagnated at about 25%, at least through 1983, and decreased substantially during 1984. Non-monetary regulated institutions (mortgage and development banks and the savings and loan institutions) fared relatively better than the commercial banks in the latter period, showing growth in real liabilities at least through 1982, but they too experienced considerable disintermediation over the past two years. Total real deposit liabilities grew between 1960 and 1974, but since 1974 have declined almost continuously, with only partial recovery in 1979 and again in 1982; their value by 1984 represented only 74% of the 1974 peak.

Within this general decline, one observes considerable substitution away from the low- and non-interest-bearing deposit liabilities to the relatively higher yield savings and time deposits issued by the non-monetary institutions. In addition, based on available evidence for commercial-bank deposits, the average size of each category of deposit liability has decreased. For example, compared with 1970, in 1984 the average demand deposit had nominally increased by 86% but, in terms of purchasing power, it had fallen by 61%. Average real savings and term deposits showed similar trends, decreasing by 74% and 76%, respectively. Simply, despite the need

to maintain working balances in demand deposits, individuals reduced their liquid, low-interest holdings (See Table 3).

Part of this substitution has been directed toward fixed-income saving instruments: bonds and mortgage-guaranteed securities issued by the development and mortgage banks and by savings and loan institutions.³ The real value of fixed-interest securities outstanding has increased considerably since 1974, reflecting both the relatively attractive yields and special tax provisions, and by July 1984 amounted to approximately 7.0% of gross domestic product and a quarter of all private-sector obligations with the RFM. (See Tables 4a and 4b.) Even so, their sale suffers from the lack of an organized secondary market and from the inflexibility of nominal yields; this growth has not been sufficient to stem the real outflow of financial resources from the RFM.

Lending activities of the RFM reflect the disintermediation process. In real terms, total loans outstanding have decreased by at least 20% since 1977 (See Tables 5a and 5b). In addition, the data suggest considerable shifting away from personal and commercial lending activities. For example, in 1977 personal and commercial loans represented over 26% of commercial-bank loans outstanding. By June 1984 this participation had decreased to just 19%, and the deflated value of these loans had decreased fully 46%. That is, the total volume of RFM lending has been decreasing over the past two years, and, in addition, the fraction of total loans allocated to personal and commercial customers has decreased. This latter group has been forced out of the regulated system.

Non-Regulated Financial Institutions

Despite considerable impediments to financial intermediation -- restrictions on nominal yields in the RFM, substantial increases in public-sector deficits, in large part monetized by the Central Bank, and high rates of inflation -- disintermediation in this exceptionally open economy has not exclusively led to capital flight. One explanation derives from the development of the NRFM. In just a few years these institutions have grown from a relatively modest share of total financial activity, focusing mostly on household finance, to a position of considerable importance. Further, these institutions have drawn funds not only out of the RFM, but also from abroad, alleviating the extent of capital flight that would have otherwise taken place.

It is, of course, difficult to formulate a complete picture of the companies that compose the NRFM in the Dominican Republic; often they border on "grey" areas of financial activities. None the less, due to the research efforts of the Rural Savings Mobilization Project, we have been able to learn a great deal about the roughly 600 separate companies that make up the bulk of the NRFM (See Table 7).

The NRFM may be aggregated into four principle groups: (a) household finance companies (sociedades inmobiliarias), (b) commercial finance (financieras comerciales), (c) small personal loan houses (casas de prestamos de menor cuantia), and (d) other finance companies, including pawn shops, small personal loan offices, and the like. The first three are the most important, and are those for which we have the most information.

Briefly, the characteristics of these companies are:

(a) Household Finance: Accounting for roughly two-thirds of the NRFM companies and almost 20% of total credit in the Dominican Republic, household finance companies specialize in lending associated with housing: loans for new construction, remodelling, furniture, appliances, mortgages, and even mortgage downpayments. In large part their growth coincided with Dominican development efforts in the early 1970s that emphasized new construction. Many of these companies were established as affiliates or subsidiaries of the regulated mortgage banks, all of which have formed relationships with at least one household finance company. This relationship is, of course, far from circumstantial; given the interest and credit restrictions faced by the regulated institutions, they have chosen to channel both internal funds (up to an allowable 30% of total capital and reserves) and potential customers into their non-regulated affiliates.

(b) Commercial Finance: Particularly in the last five years, the commercial finance companies have become increasingly important. For the most part they are well organized and have also formed interlocks with regulated institutions. The sector includes several large companies that have been organized as segments of financial "groups", an association of twenty-four smaller firms (Asociacion Dominicana de Empresas Financieras - ADEFI), and a number of small independent companies. All specialize in loans to business, usually loans that could not be obtained from commercial or development banks. Recently these companies have expanded into co-financing arrangements with regulated firms; non-regulated institutions finance working-capital requirements, complementing fixed-asset loans from

commercial and development banks. ADEFI provides an interesting contrast with other non-regulated institutions. Established in 1983 as a vehicle to offset negative publicity that had accompanied rapid NRFM growth, it has taken on a broader role, including the supervision of a "deposit insurance" program, and a vehicle for interest-rate and minimum-capitalization guidelines. Most owners of these firms have had banking experience, a connection they undoubtedly have retained.

(c) Small Personal Loans: Approximately 100 small loan companies (Casas de Prestamos de Menor Cuantia) have registered and are nominally regulated by the monetary authorities. Officially they are permitted to make personal loans in amounts of up to RD\$500 at an interest rate of no more than 3% per month. Lending activities, however, have spread beyond their original charter and most maintain operations in both the small personal loan and larger commercial loan markets.

Sources of Funds: The non-regulated companies derive the bulk of their resources, 63%, from individual deposits. An additional 31% represents invested capital and 6% was obtained from bank loans.⁴ It is estimated that the three principle groups of non-regulated firms have received approximately RD\$800 million, an amount that represents 36% of the total deposit and fixed-interest liabilities of the regulated institutions. Deposits earn between 1 and 3% per month, depending on term and size.

Uses of Funds: Loans made by the NRFM support both consumption and capital formation activities of borrowers that have been closed out of the RFM. Interest rates range from 2 to 3% per month for commercial customers and may reach as high as 20% per month, or more, for individual borrowers.

Terms are generally fairly short, less than a year in most instances, although secured loans may have terms as long as three years. It is estimated that the NRFM has outstanding loan balances of approximately RD\$730 million, about a third of the outstanding loans of their regulated counterparts and one-fourth of total lending in the Dominican Republic.

3. Development of the Non-Regulated Markets

Like many other Latin American countries, over the past decade the Dominican Republic has experienced substantial increases in government expenditures, that have had to be financed by the central bank and foreign creditors. Indeed, central-government expenditures increased by 76% from RD\$585 million in 1976 to RD\$1,029 million by 1982. During the same period, tax revenues increased by just 26%, from RD\$538 million to RD\$676 million. The gap between expenditures and tax revenues was only partially offset by non-tax income (transfers and sales of public services). The remaining difference was monetized -- either direct loans from the Central Bank or international borrowing.

Rapid growth in government expenditures augments the demand for financial resources and, without perfect international capital mobility, would increase domestic interest rates, causing a standard "crowding-out" effect. Monetization of the increased expenditures through Central Bank financing would seek to offset market pressures on interest rates. Similarly, price and exchange controls would seek to insulate the economy from the consequences of the expansionary policies. But, even under conditions of rapid increases of foreign assistance, perfect supply

elasticity is an impossibility; domestic resources, especially land and capital, are not sufficiently flexible, and the supply of foreign goods and services is both price sensitive and conditioned by the availability of foreign exchange. The authorities might seek to temporarily sustain equilibrium by drawing down foreign-exchange reserves; similarly, price controls might temporarily restrain increases in domestic resource prices. Both approaches are at best transitory. Demand pressures remain and the pricing mechanism inevitably will come into play: production costs and the market-clearing price of foreign exchange will increase with demand.

If domestic interest rates are not permitted to fluctuate, increased public spending necessarily generates an excess private demand for goods and services and a parallel excess demand for financial resources. If exchange rates are not permitted to increase, there will remain an excess demand for foreign exchange and imports. Both policies imply the need for some form of non-market rationing or resource allocation, and characterize financial and foreign-exchange policies in the Dominican Republic in the late 1970s and early 1980s.

Consider the specific effect on financial markets. The supply of financial resources from the RFM is a function of domestic credit, monetary policies, especially reserve requirements, and relative interest rates. Supply thus reflects Central Bank credit policies (including monetization of public-sector expenditures, special investment financing, and foreign lending), the ability of the RFM to attract domestic savings into the system (domestic and foreign interest rates, adjusted for exchange risk), and institutional arrangements. The demand for funds is a function of domestic

interest rates, expected inflation, and aggregate demand and reflects planned investment and consumption expenditures. An expansion in government expenditures increases the demand for financial resources and would normally lead to higher domestic interest rates, but interest-rate controls eliminate the opportunity for regulated institutions to attract new resources. Essentially, the Central Bank would face two options: expand Central Bank credit to the private sector, increasing inflationary pressures yet further, or encourage the regulated institutions to adopt more restrictive non-interest credit rationing. Since the Central Bank of the Dominican Republic had been cognizant of the inflationary implications of more rapid monetary growth, until recently it had effectively adopted the latter course.

One consequence, of course, has been the development of the parallel NRFM. Since bank deposits and the securities issued by non-regulated institutions are hardly perfect substitutes, savers necessarily demand a risk premium; its level depends on the confidence that savers have in the new institutions, compared with the safety afforded by the Central Bank supervision and implicit guarantee to depositors in the RFM. The minimum rate at which resources would be forthcoming in the parallel market, therefore, would exceed the regulated rate by such a risk premium. On the demand side, those individuals who are closed out of the RFM by rationing will seek funds from non-regulated institutions. Loan terms and conditions (implicit prices) and the costs associated with finding and learning information about these institutions influence demand. Demand, as was the case with supply, is not simply the difference between supply and demand in the regulated market. Rates paid and charged in the NRFM, therefore, are higher than

those in the RFM, and also higher than the rate that would clear the market in the absence of restrictions. Some individual savers and borrowers who are closed out of the RFM by the rationing process drop out of the market entirely. This is the essence of the "crowding-out" effect, and needs to be emphasized. Although the parallel market serves a function in providing more financial intermediation than would exist in a situation of controlled interest rates and rationing, the levels of private saving and borrowing in the combined regulated and non-regulated markets are necessarily less than what would prevail in an open market.

Supply in the RFM depends on savings propensities and incomes and the interest sensitivity associated with specific categories of financial instruments. Supply in the NRFM also depends on these factors; it is composed of those savers who, at the controlled interest rates, would either consume a larger fraction of their income or save in the form of fixed assets or foreign securities. They are attracted out of these alternatives by higher yields in the NRFM. Default risk and legal uncertainties in the NRFM are higher, necessitating a higher return. Similarly, the presence of a NRFM essentially duplicates transactions costs and, to the extent that loan size is smaller in the non-regulated market, information is more difficult to obtain, and imperfections limit access to individual institutions, then intermediation costs will be considerably higher.

Other differences between the RFM and the NRFM are important, as well. For example, evidence suggests that the term structure of funds placed into and thus loaned through the NRFM is considerably shorter than in the RFM. Savers do not place their funds for more than 60 to 90 days. Although

savings certificates often carry one-year maturities, they are, in fact, subject to only modest early withdrawal penalties. Similarly, loans are made for relatively short periods, at most six-months to a year. One suspects considerable differences with respect to downpayment and collateral requirements. Lending operations in the NRFM may require larger downpayments for purchases and insist on more tangible collateral. The fact that interest rates exceed legal ceilings calls into question the ability of individual lenders to prevail in legal proceedings against borrowers who may be in default.

Differences on the demand side also follow from our analysis. One source of these differences derives from the allocation process under conditions of non-market-clearing interest rates. Briefly, a market mechanism would tend to allocate financial resources based on expected return. This generally would not be the case under non-market rationing at the controlled interest rate. Rather, criteria such as net worth of the prospective borrower (income or assets) are used to distinguish between clients, and these factors may have little to do with social welfare. Further, they dictate that borrowers in the NRFM will tend to have lower incomes, own smaller businesses, and participate in newer, as opposed to the more traditional, lines of economic activity. Borrowers in the NRFM may also have higher rates of time preference, suggesting that the price elasticities of demand in the two markets are likely to differ, elasticity in the NRFM being substantially lower.

Financial Markets and Income Distribution

Previous studies of financial and foreign-exchange policies in low income countries have focused on allocation and stability, but little emphasis has been placed on their income-distribution implications. Through their impact on the terms and conditions of access to financial services and to foreign exchange, however, these policies influence the distribution of wealth. In particular, ceilings, restrictions, and other distortions resulting from such policies result in income redistributions, favoring some groups at the expense of others. The magnitude of this impact depends on the extent of the distortions, i.e., on the extent to which controlled prices deviate from their equilibrium values (the degree of the implicit tax-cum-subsidy), and on the relative importance of the controlled markets in the economy.

Financial markets influence income distribution through the access they provide to savings options and to loans. Access to deposit facilities increases portfolio opportunities for wealth-holders, improving their risk-return combinations, while access to loans makes it possible for them to take advantage of unexploited investment opportunities. Both deposits and loans increase rates of growth of wealth. Moreover, differential access provides differential opportunities for income growth and thus influences distribution. Transaction costs and market imperfections usually bias these distributional consequences against the smaller, poorer, riskier agents in the economy. The instruments of financial repression (interest-rate ceilings, reserve requirements, minimum deposit size, etc.) further accentuate the negative income distribution implications of non-perfect

markets. In addition, financial repression may considerably reduce and bias economic growth, leading to further income redistributions.

For savers, interest rate and/or minimum deposit restrictions may lead to low, even substantially negative real rates of return. This is especially true to the extent that lower-to middle-income savers are constrained to low (negative real) interest bearing savings accounts in the RFM. In contrast, more affluent savers not only have access to insured higher yield deposits in the RFM, but also to foreign securities. While one might anticipate some differential between the yields earned by each group, because of transactions costs and differing elasticities of supply [Wai(1957)], several authors have suggested that these differentials will be much greater than could reasonably be justified by cost. In the aggregate restrictive interest rate policies are expected to reduce financial savings [Vogel (1984)]; they encourage lower income savers, if possible, to substitute purchases of leveraged housing and durables for financial saving. Substitution by higher income savers may be mitigated by the creation of special savings instruments, but this is only partial and they too will seek alternative savings mechanisms. In both cases, repression has increased portfolio risk, lowered the overall rate of financial saving, and prompted a redistribution of wealth.

For borrowers, financial restrictions have both price and differential access, or quantity, effects. In the first place, as suggested above, below market interest rates convey a direct subsidy to successful borrowers, and the size of that subsidy depends directly on the size of individual loans. Nominal lending rates in Dominican Republic RFMs are fixed at 12% per year.

This rate is complemented by a series of charges and fees that can increase the effective cost, but are not sufficient to always yield a positive real interest rate. At the prevailing, non-equilibrium interest rates, the excess demand requires use of some non-interest allocation process. Further, although financial policy may provide special incentives that favor lower and medium income borrowers, effectively all but the largest or higher-income borrowers are likely to be foreclosed from the RFM. In general, financial repression tends to separate borrowers into three classes: nonrationed borrowers, usually large and well known, who receive the amount of credit they demand at the going interest rate; rationed borrowers, usually smaller producers, who receive loans of a smaller size than they demand at the low interest rate; and excluded borrowers, who are willing to borrow but are not accepted [Gonzalez-Vega (1983)]. Consequently, repressive financial systems tend to redistribute available credit toward higher as opposed to lower- and middle-income borrowers, toward the larger as opposed to smaller firms, and toward traditional as opposed to non-traditional producers. Indeed, our surveys showed increased RFM borrowing by the larger companies, who increased their lines of credit well beyond immediate needs not only as an inflation hedge, but also to maintain their share of the financial market in anticipation of increased repression! It is clear that, good intentions notwithstanding, financial restrictions in the Dominican Republic have exacerbated the distributional consequences of initial factor endowments.

Finally, financial repression reduces the overall volume of financial resources that can be allocated by the financial markets [See, for example,

the excellent survey by Fry(1982)]. This necessarily retards economic growth and biases the growth process [McKinnon (1973), Shaw(1973)]. In both cases, the consequences for income distribution are perverse. Increases in overall income are the prime source for alleviation of poverty in LDCs and to the extent that financial resources are a constraint on economic growth, then the bias is substantial. Similarly, financial repression biases factor payments from labor to capital. The low (subsidized) interest signal encourages a capital intensive technology even though the financial resources are not in fact available.

Foreign Exchange Markets

A similar analysis may be developed for the foreign-exchange market. Fixed, non-market-clearing exchange rates, like fixed interest rates, have generated an excess demand, rationing in the official market, and the creation of parallel non-regulated institutions. Although both processes have been present, to some extent, since the mid-1970s, the latter course has dominated foreign-exchange activities in the Dominican Republic during the 1980s. The rapid growth of the Exchange Houses and, more recently, the Exchange Banks exemplify that development.

Although an increasing proportion of the country's foreign-exchange activity has passed through the parallel markets, the two-tiered system has many of the implications found for the parallel financial markets: in particular, foreign-exchange rates have been higher than those that would have prevailed in a free market, the amount of foreign exchange that enters the markets -- reflecting both exports and capital flows -- may have been reduced, and many exports have been priced out of the market.

Exchange repression mimics the distributional effects of financial repression. That is, the official over-valued foreign exchange market, with attendant exchange controls, has created biases in the Dominican economy that adversely redistribute income. The consequences of overvalued exchange rates on development have been extensively discussed in the literature [Pfeffermann(1985)] and it is necessary here only to stress three distributional aspects. Overvalued exchange rates clearly discriminate against traditional exporters, especially agricultural exporters. This directly penalizes rural incomes. Further, in the Dominican Republic, traditional exports have had to pass through official markets, and even the moderate "subsidies" that slightly raise effective prices do not come close to full compensation. Overvalued exchange rates also create an urban bias via the substitution of imported commodities for domestic production: this is especially true, given that the import content of consumption for urban consumers is much higher than for rural consumers. While the development of the parallel markets partially offsets these effects, the benefit is asymmetrical, affecting imports and import prices far more than rural incomes.

4. Financial Repression and Inequality in the Dominican Republic

Three characteristics of the regulated and non-regulated markets can be contrasted, to derive conclusions with respect to the distribution of income: interest rates, institutional risk, and market segmentation.

Interest Rates

The structure of interest rates, both rates paid on funds attracted into the institutions and charged on their lending activities, provides valuable information about the Dominican financial markets. Here we are interested in the relative structure of interest rates in the regulated and non-regulated markets, and their impact on distribution.

Interest Rates on Savings Instruments

Within the RFM in the Dominican Republic nominal interest rates paid on funds attracted from the public range from zero, on demand deposits issued by the commercial banks (CB) to 15%, for three-year certificates of deposit issued by development banks. There are, of course, considerable institutional differences, in terms of both the ability to utilize savings instruments and average cost of securing funds. For example, only CBs can issue demand deposits, and only the CBs and savings and loan associations (S&L) may receive savings deposits. As of early 1984, demand deposits represented almost 40% of the deposit liabilities carried by CBs; an additional 22% was in the form of savings deposits that pay just 5% interest.

Only 2% of the CB liabilities were in the form of high-interest-bearing savings certificates. Thus the average interest cost to these institutions was just 4.2 to 4.5%.⁵ In contrast, mortgage bank (MB) deposit liabilities represent just 5% of total liabilities and development banks (DBs) may issue only fixed-interest savings instruments; both thus have an average interest cost of between 11.5% and 12.0%, depending on the term structure of their liabilities. The S&L have intermediate interest costs, roughly 10%, based on a 60%-40% distribution between deposits and fixed-interest savings instruments.⁶

For savers, interest rate offerings in the RFM are not particularly attractive, especially when these rates are expressed in real terms. To illustrate, for 1984 it was estimated that consumer prices rose by at least 35%. Thus savings accounts earned roughly -20% and the longest term certificate of deposit, with a minimum deposit of RD\$50,000 and a nominal interest yield of 15%, earned a real return of -10.5%. In 1983, with a more moderate inflation rate (15.4%), the best that real return could be earned in the RFM was -0.35%.

In the case of the fixed interest non-deposit liabilities, low yields are compounded by the lack of a viable secondary market. The bonds, mortgages and mortgage-guaranteed savings instruments (cedulas hipotecarias and contratos de participacion hipotecario) pay from 9.0% to 12.0% depending on the term (one to more than five years). These instruments primarily are purchased by financial and non-financial companies under terms of tax legislation that permits a corresponding reduction in tax liabilities. Without this incentive, however, it is unlikely that the

instruments could attract sufficient demand. While some of these instruments carry repurchase agreements, this provision results from special conditions and private arrangements between the institution and purchaser.

In contrast, the interest rates paid to attract private savings in the NRFM are much higher, earning positive returns even after adjustment for inflation. Based on the survey of these institutions conducted by the Central Bank, interest payments on one-year certificates vary between 1.5% and 2.5% per month, between 19.6% and 34.5% at annual rates. Differences between these yields derive from the size and, to a lesser extent, the term of the individual placement. To illustrate, one commercial finance company interviewed by the project, held approximately 60 accounts. The minimum deposit was RD\$100 (one account for the son of a client), but the average size was RD\$10,300 and one account totaled RD\$100,000. Further, although the minimum interest payment was 1.5% per month, or 19.6% per year, the average account earned 2% per month, 26.8% per year. The largest accounts earned 3% per month. Finally, all certificates were issued for one year; informally, however, it was acknowledged that funds placed on deposit could be withdrawn at any time, subject to an interest penalty of 1% per month.

There are several obvious implications of these comparisons. First, it is clear that the NRFM has substantial opportunities to attract funds, both from the RFM and from abroad. Institutions in the NRFM pay more than twice as much for funds than their regulated counterparts, for comparable terms. Second, given these differentials and the fact that full-scale

transfers have not yet taken place, it is clear that many potential savers still have reservations about safety or face important transactions costs.

Interest Rates Charged by Financial Intermediaries

Interest rates charged in the RfM and, nominally, by all institutions that make loans in the Dominican Republic, are limited to a maximum of 12% per year.⁷ In addition, institutions are legally permitted to charge commissions and closing costs of up to 6% of the value of the loan. Thus in the case of one-year loans, the nominal effective rate of interest would be 18%. For longer-term loans, the allowable rate of interest is somewhat less than 18%; that is, if the 6% commission can be charged only once over the term of a loan, then the nominal interest cost of the loan will decrease with its term to maturity. Indeed, the interest structure carries a strong internal incentive for short-term maturities. In practice, of course, the effective interest rate could be somewhat higher, depending on the method employed by these institutions to calculate interest charges and amortize their loan portfolios. Simply, the customer pays closing costs first, and thus on net receives an amount equal to 94% of the face value of the loan, for an effective interest cost of 18.8%. If the one-year loans are in fact made for short periods of time, say 90 or 180 days, commissions could be levied several times per year, substantially raising the true interest cost. Depending on the class of customer, regulated institutions may impose additional costs on their borrowers; it has been suggested, for example, that compensatory balances may run 10 to 15% of the loan size and that clients may be expected to purchase compulsory financial services from the financial group.

Interest costs in the NRFM are considerably higher than those charged by regulated institutions, even after adjustment for commissions. There is, moreover, substantial market segmentation of the NRFM, reflected in the spread between commercial and personal loans. Finance company loans to preferred commercial customers appear to be fairly competitive with CBs and other regulated institutions. Interest rates charged to commercial customers by, for example, members of ADEFI are roughly 3% per month. Officially the nominal interest rate is 12% per year, but commissions range from 12% to 15%. Thus if interest is calculated on the outstanding balance, the minimum effective cost to a borrower for a one-year loan is roughly 34% to 39%.⁹ Still, many customers turn to the NRFM because funding was not available to them in the RFM, and costs reflect this difference. Many commercial customers pay effective interest costs of 5% per month, or more.

A survey of small companies in Santiago yielded similar comparisons. The average interest cost of loans obtained in the RFM was approximately 1.8% per month or 22-26%, on an annual basis. In contrast, the average monthly interest rate paid in the NRFM was 5.34%, or on the order of 65-70% per year (See Table 8).¹⁰

Rates charged on personal loans by inmobiliarias or personal loan companies may be substantially higher. In Santo Domingo, automobile loans, for example, carry a nominal interest charge of from 2.0% to 6% per month and effective costs of from 3.6% to 10.5% per month. These loans generally use the automobile as guarantee and may nominally circumvent the interest rate restrictions by officially "renting" the vehicle to the borrower. Under this arrangement the lending institution retains title. Borrowers pay

a monthly rent equal to the monthly interest cost plus loan amortization, and at the end of the repayment period receive the ownership papers. Similar arrangements exist for other forms of personal loans. Interest rates range from 3.0% to 4.5% per month, with an effective cost of 5.0% to 8.0% per month.

Based on our survey of these institutions, it is difficult to establish a precise relationship between term and interest. Virtually all loans made by the MNR extend for a period less than one year, and the interest rate difference between, say, a 6-month loan and one for a full year does not on the surface appear to be substantial.

Extreme examples of interest costs abound in this market:

Pawn shops (negocios de compra y venta) receive real assets such as furniture, clothing, and other household goods, as security for short term loans. In addition, they discount the appraised value of these assets at very high rates of interest, estimated to be between 15% and 20% per month.

One lender is reported to charge 1% each day. A borrower is obliged to deposit a signed but undated check in the amount of the loan with the borrower; in addition, each day, the borrower must pay the 1% interest cost (2% on Saturday). If the borrower fails to meet a single payment, the check would be cashed. The compounded annual interest cost is 378%.

Lenders (restaurants or nightclubs) near the major waterfronts are reported to discount expected pay checks at the rate of 20% per day. That is, a sailor, for example, expecting to be paid his salary in a day or two, is able to present proof of future payment and discount the expected earnings at a rate of 20% per day. The compounded annual interest cost is 791%.

The extreme cases, reflecting interest costs to those who are excluded from both the RFM and the largest segment of the NRFM are the lowest income borrowers, both small companies and poorer families.

Differentials in loan rates and conditions between the RFM and NRFM are striking. On the one hand, the NRFM is primarily a short-term market, with loans of from 180-days to one year. Interest rates in this market are high, reflecting the costs of securing funds (domestically and internationally), the clientele that is forced into this market by the non-pricing rationing process in the RFM, and the inefficiencies associated with relatively small scale lending operations. On the other hand, the RFM nominally services a full spectrum of lending terms, but the structure of interest rates penalizes institutions that lend for longer periods of time, the development and mortgage banks, as well as savings and loan associations. Further, access to this market is severely limited.

Interest rate differentials between the two markets are quite large, far more than what one observes on the deposit side. While the RFM lends at an interest rate of up to 18%, non-regulated institutions are able to charge in excess of 30%, in the case of the commercial lenders, and more than 100% for on personal and housing loans.

Interest Rate Spreads

The spread between RFM saving and loan rates is established by actions of the monetary authorities. Spreads range from approximately 14% in the case of the CBs (interest payments of approximately 4% and loan rate of up to 18%), to approximately 6% for the MBs and DBs. This spread must be

further adjusted for provisions of the encaje legal to determine the net interest spread for these institutions, leading to an adjusted spread of approximately 8% for CBs and 4-5% for the MBs and DBs.

But the spreads in regulated markets pale in comparison with the non-regulated institutions. Differentials in the NRFM are at least 1% per month (12% per year), for a number of the commercial finance companies, and may be considerably higher, as much as 60-70 percentage points for several of the personal and household finance companies. At the extreme, the spread could reach as much as 100 percentage points.

What accounts for the large differences in interest spreads between the regulated and non-regulated markets and for their absolute size? Five factors dominate these conditions: (a) forced investments and reserve requirements in the regulated markets, (b) imperfections generated by the rationing mechanism through which regulated institutions must allocate available credit, (c) inefficiencies in the operations of non-regulated institutions, (d) imperfect competition and market segmentation among the non-regulated institutions, and (e) investor expectations with respect to domestic prices, interest rates, and exchange rates.

Solvency and Liquidity

Managers of individual financial institutions seek to maximize profits; this is their long-run objective. Intermediate goals, however, are necessary to achieve that result, including safety or solvency and liquidity. According to one observer, institutions "...must remain solvent

(the realizable value of its assets must be equal to its legal liabilities plus the value of the 'capital stock' account) in the long run and be able to ensure convertibility of deposits into currency in the very short run, if the expectation of profit is to be realized." [Henning (1984)] If there were neither risks nor uncertainties, then these goals would present no problems to financial managers; the behavior of assets would be known and manageable, and withdrawals of funds deposited with the institution would be predictable. Control over the long run solvency of commercial and development banks generally is maintained through regulations imposed by the monetary authorities. There are prohibitions against investments in certain assets, limits to the amount of exposure, and extensive reserve requirements. But to what extent do institutions in the RFM and NRFM in fact manage their portfolios according to acceptable standards?

Four interrelated measures of institutional solvency indicate the extent to which firms have leveraged their invested capital, attracting private savings for their lending operations: the debt/equity ratio (liabilities/paid-in capital), the ratio of total liabilities to total assets, the ratio of assets to paid-in capital and the ratio of assets to paid-in capital (See Table 9).

In the RFM, mortgage and development banks have debt/equity ratios of 2.1 to 2.2: they have received deposit or other liabilities at the rate of RD\$2.0 for each RD\$1.0 of accumulated capital. The debt/equity ratios for the commercial banks are much higher, reflecting their ability to attract demand deposits as well as other short-term deposit liabilities. Other indicators yield consistent results. For example, commercial banks have

asset/capital ratios of 9.01, compared with ratios of 3.3 to 4.0 for the other institutions.

The non-regulated financial institutions exhibited a similar diversity. That is, as a group the 65 financieras had debt/equity ratios of 2.32 (1.7 for the smallest firms and 3.2 for the largest) that were roughly consistent with the MB and DB. This ratio was slightly larger for companies specializing in housing, with a value of 3.8. The average asset/equity ratio was 3.32 and liabilities financed approximately 70% of total assets. Only in the latter instance were these institutions outside the limits found for their regulated counterparts. In contrast members of ADEFI exhibit a financial structure that is close to that of the CBs, probably reflecting the background of ADEFI management.

Of course the average values for these ratios mask the variation between institutions. For example, among the largest financieras, liabilities financed approximately 76% of total assets, but values range from 13.5% to over 92%. Similarly, for the smaller financieras, the proportion of assets financed by deposit liabilities varied between 1% and almost 100%, suggesting virtually no invested capital. It is at best an irregular pattern. Simply, based on the sample of 65 financieras, the data do not show that the average company is significantly undercapitalized, despite a relatively small size. However there is considerable variation and for many firms, the proportion of total assets financed by short term debt is very large. This simultaneously limits the exposure of ownership, and increases the default risk for those who have deposited funds with the companies.

One further issue with respect to solvency and the safety of deposits: In addition to the exposure that depositors face due to a lack of capitalization and the proportion of total assets financed by deposit liabilities, one necessarily must question the quality of the assets themselves. Again, for the RFM there are limits and prohibitions that enhance the underlying value of individual assets in the institution's portfolio. These restrictions do not apply in the NRFM. The process that has led to the creation of a non-regulated market has increased average risks; institutions closed out of the RFM by the rationing process have higher credit risks. Similarly, a large proportion of the customers handled by the NRFM are individuals rather than corporate borrowers, again with relatively higher default risks. The combination seriously calls into question the overall safety afforded the typical investor!

Adequate liquidity, necessary to meet short term variations in deposit liabilities and to meet long term fluctuations in the overall debt structure, is a precondition for successful financial management. At the extreme, failure to meet a single customer's withdrawal request could be sufficient to destroy the credibility of the institution. All institutions strive to meet that objective. But how close to the margin do they come? How liquid are the assets maintained by these firms? What secondary sources of liquidity are available to the individual concern?

In the regulated market, liquidity needs are partially satisfied by legal reserves (the encaje legal); individual institutions are obliged to maintain between 10% and 100% of certain liabilities on reserve, depending

on the category of liability and institution. The NRFM, of course, faces no comparable system. Any provision for liquidity rests solely with the individual institution or association. Thus it is interesting to evaluate the extent to which these firms do meet minimum expectations.

Several performance ratios can be used to evaluate these institutions, including the ratio of currency and bank deposits to short term liabilities, and the ratio of short term assets to short term liabilities, and total liabilities, respectively (See Table 10).

One of the most telling comparisons is indicated by the ratio of cash and bank deposits to short term obligations. For the regulated institutions this ratio averages from 114% for the CB to 136% for the MB and DB. Short term obligations are here defined to include all deposit liabilities. For the non-regulated institutions, this ratio is much smaller: 5.3% for the full sample and 6.8% for the ADEFI membership. Indeed the larger finance companies averaged just 1.9%, the housing companies just 1.4%! Now part of this difference derives from a problem of definition. The financieras cannot legally receive deposits. Thus their short term obligations may be more generally defined. But even if one were to adjust these figures by a factor of three or four, there would remain a significant differential: the non-regulated institutions have a degree of liquidity that is significantly less than their regulated counterparts.

The majority of the non-regulated companies do have considerable capacity in their current assets to cover their short term liabilities, and on the average the ratio of current assets to current liabilities is on the order of 1.17:1. There is not fixed standard here, but a more satisfactory

ratio would approach 2:1.

In summary, balance sheet information for the NRFM strongly suggests a relative increase in depositor risk, both with respect to what we broadly refer to as institutional solvency and liquidity.

Market Segmentation

The survey of regulated and non-regulated financial and exchange institutions in the Dominican Republic clearly revealed significant market segmentation. That is, operations of these companies appear to be geared toward distinct groups of customers. In our mind the taxonomy suggests four such groups: In the RFM members of financial groups and other prime customers readily gain access to subsidized credit. The fixed, low-interest deposit liabilities of the regulated market serve as a limited source of low-cost funds to these customers. Over the past two to three years, loans have been made to these borrowers at rates of interest that are roughly 10 to 12 points below a reasonable market-clearing interest rate (a real rate of interest of, say 5%). Further, interviews with these borrowers suggested considerable "loan hoarding", an increase in the demand for borrowed funds.

A less favored group, non-preferred customers have access to funds in the RFM, but at much higher implicit prices. The combination of compensating balances, prepayment of interest costs, and compulsory financial services substantially increase true interest rates above the 18% ceiling imposed by the monetary authorities. Here interest costs may

actually approach the free market rate and undoubtedly are competitive with rates charged at the commercial end of the NRFM.

A third group consists of preferred borrowers in the NRFM, itself. These appear to be clients who cannot gain access to subsidized RFM credit because of the excess demand for funds, but who qualify for loans from, for example, the members of ADEFI and the larger commercial credit companies. Interest rates are high, reflecting both the cost of funds and market inefficiencies, but funds are made available. There is undoubtedly a dead-weight loss due to the imperfections in this market, but the net effect on welfare, based on a subjective evaluation, appears to be positive.

Finally, the fourth group consists of the "other customers", those who borrow from finance companies that specialize in housing, automotive and personal credit needs and loans to small businesses. Interest rates in this segment of the market are very high, well above any expected equilibrium rate. The costs to these borrowers is high and suggests a considerable redistribution of income.

Although less pronounced, market segmentation also exists for savers. Simply, the quantitative restrictions on access to higher-yield instruments in the RFM carry over to non-regulated institutions as well. At the extreme it appears as if the smaller savers provide funds for favored customers. Higher income savers, in turn provide funds for the lower income borrowers. Both patterns redistribute income from the bottom to the top.

5. The Overall Pattern of Income Distribution and Financial Repression in the Dominican Republic

Several distinct patterns emerge from our review of the financial intermediation and exchange market performance of the Dominican Republic. This section reviews our findings and suggests a direction for reform.

First, it is clear that, in the absence of the NRFM, financial repression imposes a severe cost in terms of the overall distribution of income. This cost occurs on both sides of the intermediation process. Financial repression entails a bias against the small saver who is unable to transfer financial holdings into alternative, higher-yield deposits. For loans, the "iron law" of interest rate restrictions provides a subsidy to favored customers, members of industrial groups and traditional borrowers. Access is afforded to those at the higher end of the income spectrum. This effect is complemented by "loan hoarding". Other borrowers are either penalized by hidden financial costs or denied access to the regulated market entirely; in both cases the penalty can be severe. Similarly, in the absence of a non-regulated exchange market, repression in the exchange market imposes an income distribution cost. Here the bias is against exporters, labor, and, especially, the rural sector.

Second, development of the non-regulated institutions partially alleviates the distributional impact, both in terms of the real return to savers and the access to borrowed funds. Non-regulated institutions do offer substantially higher returns for savings and indeed evidence suggests increases in the overall rate of financial savings and a reversal of capital

flight, in addition to a transfer of funds out of the regulated system. They open up the domestic savings options. But these benefits are not obtained without cost. Minimum-deposit requirements remain in place at the "safer end" of the NRFM, suggesting that access to these higher yield financial instruments may not be possible; in addition, deposit risks and costs increase substantially along the spectrum that runs from the larger commercial finance to personal finance companies. Access to loans in the NRFM clearly benefits lower-income families and smaller companies, but here too the cost is considerable. As we showed in Section 4, some customers have obtained loans and relatively modest cost through the availability either of a greater volume of funds than would otherwise exist or "financial packages" that include both RFM and NRFM participation. Less favored customers pay substantially higher rates of interest, reflecting increased transactions costs and greater risk. Simply, the non-regulated financial and exchange markets positively affect income distribution relative to financial repression alone, but they are not perfect substitutes for a fully integrated market.

Third, these findings contradict the popular belief that financial reform would hurt distribution. Although it probably is true that financial liberalization will lead to an increase in the RFM interest-rate structure, this would be more than offset by a reduction in NRFM rates. Indeed, these results suggest that liberalization would lower average loan costs, increase the availability of funds to smaller firms and lower income borrowers, and reduce the overall financial risk. Trends such as these are usually ignored in cost/benefit analyses of alternative reforms.

Finally, our review of the non-regulated markets suggests guidelines for financial reform, emphasizing the desirability of policies that would eliminate the pricing and allocation constraints that currently exist in the RFM and improve access to the NRFM. Specific reforms in the RFM and the NRFM would focus on: (a) reserve requirements, substituting a simple, uniform legal reserve requirements that would be applied to all financial institutions, for the current complex reserve structure; (b) interest rates, eliminating most of the ceilings that currently exist; (c) minimum deposit restrictions, easing or reducing the restrictions that were placed on, for example, the certificates of deposit and other savings instruments; (d) secondary markets, providing an open market for resale of longer term instruments; (e) publicity, making information about the operations, prices, and costs of all financial institutions available to the public; and, (f) risk, seeking to provide minimum operating guidelines for institutions in both markets.d