

Consortios and Brazil's Consumer
Credit Innovation

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A THESIS

Presented to the Faculties of the University of Pennsylvania in Partial
Fulfillment of the Requirements for the Degree of Master of Arts

April 2006

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REGINALD JONES THESIS PRIZE AWARDEE

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Chapter I. Introduction and Overview

Brazil's retail financial services sector, despite extreme cyclicity, displays continuing evolution and aggressive innovation. The country's leading financial institutions have enhanced and expanded services and products for their clientele. New financial products for consumers reflect an on-going integration of external economic influences and improved understanding of local consumers' needs.

Consortios are one example of innovation in consumer durables financing. Over two hundred firms offer Consortios and over three million participants finance purchases with them, as of August 2005. A Consortio is a closed pool of retail clients, hereafter "participants," making installment payments over a fixed period of time in order to fund the purchase of an ex-ante designated product, such as a specific model automobile. The Consortio assures each member allocation of a lump sum payout, equal to the inflation-adjusted value of the designated good and funded by the aggregate monthly payments of the participants, sometime during the operating life of the Consortio, typically five years. This one-off payout is to be used for purchase of the designated good. Products with significant market share of purchases financed via Consortio include motorcycles, automobiles, commercial heavy equipment, and residential real estate. This paper principally focuses on the participants and structure of Consortios for purchase of a large-ticket consumer good. Table 1.1 is a simplified illustration of Consortio structure.

The mechanism for allocation of the lump sum payout is usually a combination of lottery and auction. In this, Consortios inherit many features of a microfinance innovation called rotating savings and credit associations (ROSCAs). However, unlike traditional community organized ROSCAs, Consortios are marketed and managed by financial institutions, who receive a fee for their fiduciary and administrative services. This commercialization of the product has

profound effects on the incentives and assumptions on which compliance with the pooling arrangement relies. The Consorcio structure disaggregates credit and operating risk. Whereas a traditional loan places both categories of risk with the lender and ROSCAs place both categories of risk with the participant group, Consorcios transfer operational risk – such as enrollment screening, compliance, and default recovery – to the financial institution and retain credit risk among the participants. The utility gains of specifying and specializing risk represents one of the economic underpinnings of the viability of Consorcios as an innovative solution for consumer finance.

Consorcios are an economically compelling financing alternative for Brazilian consumers. Research of existing academic literature, for background, produced no previous explicit study of Consorcios, so Chapter II instead surveys antecedent academic study on three topics: traditional community ROSCAs, development economics treatment of consumer credit, and the Brazilian banking system. Empirically, the thesis of this paper is supported by raw data gathered from Brazil's central bank, the Banco Central do Brasil, and analyzed in Chapter III. The next step of analysis is the *ad hoc* construction of a model that simulates the features and operation of a Consorcio, which appears as Chapter IV. The analysis facilitated by the model further illuminates the economic rationale motivating both Consorcio participation by individuals and promotion by financial institutions. Thus, Consorcios thrive today not only because of Brazil's historical legacy but also because of the intrinsic economic elegance of the product as a consumer finance innovation. Consorcios are both a legacy of Brazil's financial history and a viable alternative financing solution, one that may soon be exported to welcoming markets throughout the world.

Table 1.1 – Illustrative, simplified Consorcio structure

		Payments by Period					
		1	2	3	4	5	
Participant	1	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	
	2	200	200	200	200	200	
	3	200	200	200	200	200	
	4	200	200	200	200	200	
	5	200	200	200	200	200	
Total Payments		\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	
Unit Cost \$1,000							
Units Purchased		1	1	1	1	1	
		Receipt of Good by Period					
Participant	1	1	0	0	0	0	<i>Net Borrower</i>
	2	0	1	0	0	0	
	3	0	0	1	0	0	<i>Median Participant</i>
	4	0	0	0	1	0	
	5	0	0	0	0	1	<i>Net Saver</i>

Chapter II . Review of the Academic Literature

This chapter serves to lay a foundation for the analysis of Consorcios that follows in Chapters III and IV. The following pages survey three strands of academic literature covering ROSCAs, emerging economy credit markets, and Brazil's financial institution sector. ROSCAs are a microfinance innovation receiving academic attention since the 1970s in both the anthropology and economics literature. ROSCAs are examined because they represent the closest economic predecessor to the Consorcio product analyzed in this paper. The emerging economy credit markets literature reviewed in the pages that follow synthesizes key features of conventional academic wisdom regarding the dynamics of retail banking in macroeconomic conditions like those in which Consorcios evolved. Finally, the Brazil banking industry material contextualizes the credit market facing local consumers, who choose Consorcios given the available alternatives and shared recent history, and financial institutions, which offer and promote Consorcios. Given the paucity of precedent academic literature specifically addressing Consorcios, the articles evaluated and integrated in the review of academic literature that follows represent the closest proxy to existing research and understanding of the environment, evolution, and workings of Consorcios.

Traditional ROSCAs

Anthropological literature examining the prevalence and sustainability of rotating savings and credit associations (ROSCAs) dates to the early-1970s; however, thorough academic economic analysis of the ROSCA instrument began in earnest in the mid-1990s. ROSCAs are described as “one of the most prevalent forms of informal financial institution in developing countries” (Ambec and Treich, p1). These group saving and purchasing structures are found in

Asia, Africa, and Latin America (p2). Economic study of ROSCAs generally models the behavior of participants based on assumed utility functions and rational economic expectations. Reviewing the economic intuition for ROSCAs explored in the antecedent literature provides a useful foundation for later analysis regarding Consorcio stability. Equally, the precedent academic analysis effectively introduces ROSCA mechanics and evaluates the importance of these attributes; these insights will be cited with a view toward drawing parallels to the functioning of Consorcios. Nevertheless, this paper argues that, despite similar economic reasons for being and shared structural features, differences in fundamental underpinnings distinguish the Brazilian Consorcio structure as a distinct financial innovation.

Economic Rationale: Consensus academic explanation for the evolution and sustainability of ROSCAs loosely falls into three categories: intermediation proxy, savings discipline, and insurance substitute. The earliest and most cited economic examination of ROSCAs, by Besley, Coate, and Loury, supports the first rationale that ROSCAs are a viable alternative to traditional loans for individuals either unable to access credit markets or unable to be distinguished from poorer quality credits because of a lack of collateral (Besley, Coate, and Loury, p794 and 805). Besley, Coate, and Loury specify that the principal application of the lump sum allocated to the individual from the ROSCA is generally for a “life cycle” use of capital, wedding expenses offered as an example. The receipt of the allocation represents a one-off recovery of savings for use with “significant, idiosyncratic events rather than the hump [sic] saving required for old age” (p793). Thus in their analysis, ROSCAs substitute traditional intermediation markets for participants disenfranchised from the banking system.

Observing the high participation rate of bank employees in ROSCA schemes in Egypt and Bolivia, Ambec and Treich and Bouman – each of whom champions alternative economic

rationales for the viability of ROSCAs – question why ROSCAs are especially popular among individuals who should have the greatest access to banking services. Coinciding with this empirical observation is further data which suggest that middle class consumers, not the very poor, are overwhelmingly represented in ROSCA operations. Ambec and Treich argue that the discipline of scheduled savings shortens the participant’s purse available for garnishment by family members and systemic leakage (p3-4). Moreover, extended social networks are interpreted as both default protection and a participation incentive. The ROSCA participant, in Ambec and Treich’s model, derives utility from sheltering themselves from wasteful purchases via forced savings. This also supports the empirical finding that ROSCAs often require the specification of a good that will be purchased with the lump sum allocation. Essentially inverting Besley, Coate, and Loury’s framework, ROSCAs serve the economic interests of a net saver rather than the facilitation of consumer finance.

Finally, Bouman separately contends that the ROSCA instead serves as an insurance proxy. With the caveat that this model relies on a modified structure that permits “queue-jumping” by participants based on changing financial need, Bouman has structurally equated the ROSCA with a rainy-day savings fund (Ambec and Treich, p2). For markets with limited insurance penetration or for consumers seeking personalized claims triggers, this conjecture may hold. Still, this economic rationale least accounts for the variety of features that have evolved in the structure of Consorcios and would not account for the continued popularity of the product among middle-class consumers in developing markets with developed consumer insurance provision.

ROSCA Features: Consorcios and ROSCAs share a number of operational features. In order to differentiate these products, the following paragraphs offer an overview of the academic

consensus regarding key characteristics of a ROSCA. Besley, Coate, and Lounie neatly summarize earlier work profiling the duration and size of geographically diverse offerings: “[the] typical length of [Cameroon’s] njangis is two years ... cundina in Mexico last between one and two years.... [T]hese lengths seem to be broadly in line with many other studies of Roscas that we have found.... Most [ROSCAs] seem to range from 10 to 20 members although Osuntogun and Deyemo report ROSCAs as large as 100 members...” (p796). Ambec and Treich further add that ROSCAs, as they modeled, rely on the efficient and random lottery allocation feature, by which each period’s lump sum allocation is assigned by lottery from among members of the group who have not yet received the capital (p9). They further cite another Besley paper, writing, “the typical scenario is a group of individuals who work in the same office block or belong to the same community” (p2). In sum, the ROSCAs profiled by these authors are short-lived and comprised of small groups of relatively homogenous participants, many of whom would be expected to have precursor relationships with each other.

The characteristics listed above directly contribute to two resulting ROSCA characteristics that Besley, Coate, and Lounie; Ambec and Treich, and other academics agree define the ROSCA. First, participants are advantaged versus the benchmark of independent, self administered savings. In evaluating the incentive for saving under a ROSCA, these authors conclude that the time value gain of recovering the allocated sum before having fully saved for the balance represents utility enhancement for all but the last participant, and this participant is no worse off. In Chapter IV, this intuition is more explicitly illustrated in the context of a Consorcio simulation. Second, ROSCAs rely on interpersonal networks to supplement limitations in contractual compliance. Besley, Coate, and Lounie write, “Roscas circumvent such default problems by exploiting individuals’ social connectedness.... Roscas are thus typically

formed among individuals whose circumstances and characteristics are well known to each other” (p794). The intuition behind the “social collateral” mechanism at work is summarized, “Thus individuals are likely to have good information about the reliability of their neighbors and co-workers and can enforce sanctions – social and economic – on those who are delinquent without good reason” (p805). While Consorcios share the first functional feature, that of economic incentive for participation, the crux of the difference between ROSCAs and Consorcios is the loosening of the requirement that participants share “social connectedness.”

Further Fundamental Differences: In Ambec and Treich’s model, homogeneous utility and expectations among participants enable the closed-form proof of economic advantage to participate in a ROSCA (p11). However, their ROSCA model is constrained such that the periodic lump sum allocations are exclusively executed via lottery. Conversely, Besley, Coate, and Loury stress the alternative insight that, under bid-driven allocation systems, ROSCAs are optimal for intermediation between participants with different income profiles and time-adjusted utility functions (p805). Thus, each group of authors identifies benefits for participants of the observed and modeled mechanism – lottery and auction – for allocating the periodic lump sum. Note, throughout the evaluation of various ROSCAs, each mechanism was used exclusive of the other. Yet, with the commercialization of the product and its adaptation to broaden appeal, it is no surprise that the Consorcio employs both mechanisms.

A final difference between Consorcios and ROSCAs is the complementarity versus supplementarity of the financial solutions. Whereas Besley, Coate, and Loury argue that ROSCAs fill a void in the financial services marketplace for specific consumer segments, the Consorcio competes alongside traditional lending (p794). The success and failure of the product reflect evolving underlying, rational consumer preferences. While the academic literature on

ROSCAs surveyed above analyzes the products in a self-enclosed vacuum, the study of Consorcios that follows in Chapters III and IV of this paper both examines the rational expectations of participants vis-à-vis traditional loans and endeavors to define the conditions under which the Consorcio is a superior financial innovation.

Retail Credit Markets and Developing Economies

The following discussion briefly reviews the academic evaluation of distinctive features in the operation of retail credit markets in developing economies, many of which link to the interrelation of Consorcios to Brazil's evolving retail financial system. Using Gurley and Shaw as a point of departure, Studart noted, "Development is associated with debt issue at some points in the economic system and corresponding accretion of financial assets elsewhere. It is accompanied, too, by the *institutionalization of saving and investment* [sic] that diversifies the channels for the flow of loanable funds..." (p17). This links the efficient allocation of capital to the initial accretion of disposable funds to lend. As the system for aggregating surplus becomes better integrated with the system of allocating credit, economic growth should be stimulated (p18). Where local financial institutions fail to provide efficient intermediation, dead weight loss is borne by society in the form of opportunity cost and misallocation of resources. Studart equates bankers, public and private, to the gatekeepers for successful recycling of surplus into the economy (p26-7). Their failure is at the heart of volatile, extreme economic cycles that further distort capital allocation. In creating a self-enclosed financing system, Consorcios shelter participants from the cyclicity of formal, traditional loan markets and vagaries of credit gatekeepers.

Consortcios also reflect a banking system tied to the volatile evolution of national macroeconomic policy. Brazil's inflation control policies, designed to reduce money velocity, also tighten credit markets and force a flight from retail credit risks (Takeda, Rocha, and Nakane, p111). In addition to overnight interest rates set by the finance ministry, deposit reserve requirements act as an alternative liquidity control lever for enacting economic policy via the domestic banking system. In the case of Brazil, the percentage volatility of reserve requirements for deposits led to a one for one percentage reduction in available loans, according to estimates by Takeda, Rocha, and Nakane (p122). By participating in a Consortcio, the consumer – e.g., the median recipient of the lump sum payout in month thirty – reserves future access to the credit markets regardless of future banking market conditions.

Consortcios exemplify tactical credit enfranchisement in emerging economies by institutions that carefully target specific consumer demand and creatively structure new financial products. On the lending side, durable goods financing represents a key naturally occurring source of retail credit demand (Guillen and Tschoegl 2002, p223). Facilitating purchase of a product whose cost represents multiple months or years of income surplus is a primary initial market for lenders – tying into the argument that lump sums are valued “because of indivisibilities in consumption.... However, the argument requires both imperfections in credit markets leading constraints ... that would undermine the discreteness of the consumption good.” (p223). Consortcios, as well as ROSCAs, represent products tailored to the infrequent demand for lump sum capital.

On the funding side, lottery-linked deposits, though absent from Brazil, exemplify innovative product features tailored to penetrate developing markets. Guillen and Tschoegl in 2002 write, “the LLDAs [lottery-linked deposits] enabled them [Spanish banks] to grow in those

Latin American countries where they introduced the accounts by attracting new customers as well as stealing customers from other banks” (p224). The appetite for products with random, skewed returns highlighted by the popularity of lottery-linked deposits underscores the relevance of product structure in financial solution success. Brazilian financial institutions’ development of an intermediation product with the same opportunistic return enhancement of lottery-linked deposits – Consorcios include a stochastic lump-sum allocation feature – indicates continued innovation intended to better penetrate the under-banked consumer. Analyzed further in Chapter IV, the utility enhancement of a random chance at receiving the Consorcio payout anytime before the terminal period is both an option valued by Brazilian participants and a comparative advantage of Consorcios versus traditional lending channels.

Brazilian Banking Landscape

Whereas the previous section sought to place Consorcios in the context of the academic literature on retail banking in emerging economies, this section seeks to anchor the later chapters’ analysis in the context of academic consensus on Brazil’s domestic banking market. Three features emerge from the existing literature: first, Brazil’s credit markets have all the volatility of a prototypical emerging economy domestic banking sector; second, leading institutions enjoy politically conceived incumbent benefits which distort competitive intermediation; and, third, despite collusive advantages versus smaller peers, Brazil’s leading banks are active innovators.

Over the past forty years, Brazil’s credit markets have displayed the characteristic extreme cyclicity of a developing domestic banking market. Brazil’s leading period of economic growth, the 1970s’ “miracle,” illustrates one extreme of the credit cycle experienced

by the current generation of Brazilian consumers. The stimulation of consumption beginning in 1967, Studart claims, originated with “the shifting of the operations of finance companies to consumer credit” (p134). Yet even during this period of runaway growth, the very shortcomings of the Brazilian banking system, “such as the tendency towards the short term, speculation, and foreign indebtedness beyond the real needs for development,” created a system susceptible to a crippling counter-swing of credit tightness (p139). One such counter-swing was observed twenty years later, catalyzed by the shock of Mexico’s Tequila crisis. The exogenous shock from Mexico precipitated system-threatening default rates resulting from easy credit terms offered by financial institutions with limited experience with credit analysis and monitoring (Cardim de Carvalho, p104). The credit tightening that followed the 1995 high water mark led to a reduction of loans ratio to GDP from 35% to barely 20% in 2001 (Takeda, Rocha, and Nakane, p108). The observed extremes in credit market access in Brazil over the past four decades underscores the applicability to Brazil of insights into distortive effects of unstable intermediation markets in developing economies offered in the previous section.

Not only is the overall Brazilian financial services marketplace an unstable one, but the concentration of economic power among the top-tier institutions critically influences the development of Brazil’s economy and frames the landscape in which Consorcios evolved. Cardim de Carvalho’s study of domestic financial institutions suggests that Brazilian borrowers, despite superior alternative financing terms, will choose to bank with one of the country’s leading institutions (defined by the author as the fifteen largest retail banks – public and private) (p112). Also, “to compete in retail banking by introducing new products it is very important to gain market share in significant chunks” (Guillen and Tschoegl 2000, p14). The primacy of

scale for competitiveness in Brazil suggests that efficiency gains remain from product innovations such as the Consorcio.

Incumbent-biased conditions prompt further examination of the origins of such economic distortion in traditional banking. One identified cause is the development of close ties by the leading, nominally independent financial institutions with the government. The result shapes the credit market and blurs the lines between lending policy and political policy. Prior to the liberalization of foreign bank ownership in Brazil, state-owned banks participated in policy implementation by cross-subsidizing uneconomic branches and lines of business, typically rural, with returns from urban and corporate clients (Guillen and Tschoegl 2000, p27). Nor were private banks materially different. Paraphrasing Breton and Wintrobe's model of "moral suasion," Guillen and Tschoegl in 2000 write, "moral suasion is an exchange between the authorities and the commercial banks. The authorities provide information and other services that facilitate collusion. In return, the commercial banks comply with the goals of the authorities" (p28). That this was a customary feature of the Brazilian banking system is best illustrated by the lucrative intermediation margins consistently earned by bank sector leaders – this despite objectively observed operating inefficiency and under-penetration of the marketplace (Guillen and Tschoegl 2000, p19). Given this state and bank interaction, the assertion of credit market inefficiency in Brazil is further tied to economically distortive conditions.

Despite the reasons for concern addressed above, the Brazilian banking market is both dynamic and competitive. Cardim de Carvalho asserts, "*oligopolistic* [sic] competition is very strong, with domestic banks trying continuously to introduce new products and services to increase or defend their market shares" (p115). He offers the example of early implementation and promotion of retail internet banking. The origins of this innovation remain debated. In part,

the 1970s and 1980s experience of Brazilian local banks with fast-paced inflation and the iterative dynamics of treasury and branch integration contributed to a culture of adaptability among the surviving institutions. After 1994, when “banks lost a very important source of gains, represented by their share of the inflation tax,” commercial and consumer credit accelerated, though to disastrous effect, as discussed above (p101). Still, the continued responsiveness to market conditions of the local leaders was again highlighted. Thus, one camp claims Brazil’s continuously innovative financial sector is the result of evolutionary forces.

The alternative argument is that the introduction of foreign competition that followed the 1994/5 crisis catalyzed the domestic banking sector. Guillen and Tschoegl in 2000 offer an array of innovations imported to Latin America by foreign entrants, including mini-branches within retail establishments, renewed roll-out of mortgages, and new financial products (p22). Further evidence is the reenergized rate of acquisitions of regional banks by Brazil’s domestic champions following the liberalization of foreign access to Brazil’s banking sector (de Paula, p75-6). These fit the model of “oligopolistic reaction” cited by Guillen and Tschoegl in 2000 if the two sides are interpreted as local industry leaders and well-capitalized new entrants (p23-4). Though the behavior of the local banks exhibits responsiveness to the exogenous influx of foreign competition, the rebuttal that this only underscores the inherent adaptability of the domestic banks stands.

In sum, academic consensus is pending on the causes of the observed superior inventiveness of Brazil’s leading banks. However, for the purposes of the analysis of Consorcios that follows, the key insight from the previous paragraphs is the propensity for Brazilian banks, including market leaders with considerable entrenched advantage, to aggressively introduce and

popularize products and services that better meet the needs of the Brazilian consumer – such as the Consorcio.

Chapter III. Profile of Consorcios

Private and public banks, specialty finance companies, and manufacturers' finance divisions today offer Consorcios directly to Brazilian consumers and small businesses. The Consorcio is a financial product that serves a broad segment of Brazilian durable goods consumers. In order to transition into the analysis of the Consorcio and its viability as financing solution, this chapter offers a detailed profile of the market and mechanics of the Consorcio in Brazil. It examines the Consorcio market and its participants, both consumers and administrators, and provides a detailed profile of the Consorcio's organization using primary source data transcribed from public records of the Banco Central do Brazil and Consorcio participation contracts from two leading Consorcio administrators. For readers with particular interest in the economic analysis of the robustness of the Consorcio structure, Chapter IV remains the key portion of this paper, though exposure to the terminology and structure of Consorcios provided by the following pages is a valuable precursor.

The second half of this chapter turns from using raw industry data to the contracts that govern Consorcio operation. The primary sources for this evaluation are the Consorcio contracts acquired from both Bradesco Consorcios and HSBC Brasil Consorcio Ltda. This section is arranged into Consorcio feature sub-sections and includes description and analysis of each characteristic on a stand-alone basis. This section serves to familiarize the unfamiliar reader with the mechanism and terminology of the Consorcio product, which will be referenced extensively in Chapter IV analysis.

Industry Evolution

The Consorcio sector retains not only a considerable share of consumer durables sales, but is also among the broadest-reaching in Brazil. Given Brazil's relatively under-banked lending environment – 26% loans to GDP versus 60% in the US and over 100% in other emerging economies such as Thailand (Leroy interview) – roughly one in every 150 hundred and fifty Brazilians participates in a motorcycle or automobile Consorcio.

The Consorcio product entered the Brazilian consumer market in the late 1960s, the first guidelines governing their operation appearing in *Resolucao do Conselho Monetario Nacional #67*, September 21, 1967. Consorcios were among the new innovations resulting from legislation permitting non-bank finance companies to offer solutions for consumer durables purchasing. The introduction of the Consorcio coincided with a period of import substitution policy for Brazil, and its encouragement of consumer finance innovation served political economic interests – principally bolstering domestic market consumption. Reliable industry data prior to the 1990s, a period distorted by monetary crises, are elusive. However, anecdotal evidence provided by industry participants active in Consorcios before 1992 indicate that Consorcios remained almost exclusively the province of automobile manufacturers financing sales (Wulff, Furquim, and Osorio interview). This is corroborated by other interviewees' assertion that consumer finance generally remained limited as the majority of private financial institutions concentrated on generating equity return via treasury activity rather than traditional intermediation (Rossinni interview). With the stability of the Real Plan and Brazil's return to representative democracy, consumer finance appeal increased to both borrowers and lending agents (Cardim de Carvalho, p98). In October 1991, the Banco Central do Brasil initiated oversight and record-keeping of Consorcios and Consorcio administrators.

The core industry data set used for the following analysis was compiled from Banco Central do Brasil (BCB) historical files and covers the December 1992 to December 2004 period annually. This study also used a snapshot of active administrators from December 2005. The information is industry-wide unless otherwise specified.

Examining sector growth reveals several critical features of Consorcios. First, different product segments have followed different growth trajectories – with the most significant contrast between the motorcycle and automobile segments. Figure 3.1 illustrates the growth in number of total participants in Consorcios offering the three principal consumer durables segments as an indexed time series. The figure does not capture that automobile Consorcios reported over 700,000 participants in 1992, nearly 2.5x the starting period participants of the motorcycle segment and over 8x the levels observed for the equipment segment. This supports the assertion above regarding initial uptake of Consorcios as an automobile-financing instrument prior to 1992.

The growth of the Consorcios market in absolute terms is evaluated versus the share of national product sales represented by Consorcios purchases in Figures 3.2 and 3.3, for automobiles and motorcycles, respectively. The graph reveals that despite absolute growth, Consorcios as a financing instrument for motorcycles and automobiles have followed visibly separate paths – though the data suggest that both have achieved near-term market share equilibrium, 60 and 10%, respectively. This interpretation was echoed in the interview with Luiz Simone. With over 60% market share consistently over the past five years, the motorcycle Consorcio is the dominant financing alternative for a product category growing 19% annually. As for automobile Consorcios, over 800,000 Brazilians participate in this financing scheme,

which yields over 180,000 automobile sales annually – an approximately \$3 billion market for automobile manufacturers.

Another trend to emerge from the industry evolution data is the change in demand for Consorcios in the six-year periods before and after the real devaluation in 1998. The compound annual growth of participants over the twelve years of BCB data appears in column one of Figure 3.4. Unbundling the growth rates for each product segment before and after December 1998 reveals the marked reversal in growth trends. With the exception of equipment, which may be more closely tied to international economic cycles, demand for financing responded negatively to the double shock of inflation, which would increase goods prices under the Consorcio agreement, and income uncertainty, which would make any financial obligations more difficult to meet. Demand behavior consistent with the rational change of consumer expectations supports the conclusion that Consorcios are treated by Brazilians as substitutes for loans.

Finally, Figure 3.5 illustrates the indexed number of Consorcios in operation. Comparing the growth in Consorcios to the reported number of Consorcio participants yields average Consorcio member compound annual growth of 5-7%. Between 1992 and 2004, motorcycle Consorcios have, on average, evolved from sixty participants to one hundred and forty. Consorcios are getting larger, now offering on average treble-draws to members, i.e., as many as three members can receive the funds for the product per period. This supports the argument that Consorcios have evolved as a scaleable consumer finance solution distinct from the community-network-reliant ROSCA. Consorcios are institutionalized credit products offered on a regional scale and attracting participants with limited or nonexistent prior social ties. Moreover, with treble-draws, Consorcios can facilitate bids for the product as well as retain the lottery component – a heightened level of administrative sophistication and marketing appeal.

Profile of Consorcio Participants

Consorcios operate throughout Brazil; however, there is a correlation between GDP and Consorcio presence. Consorcios are characteristic of better-developed local economies, rather than concentrated in less-developed regions. Figure 3.6 illustrates the percentage of Consorcios active in a state versus the state's share of Brazilian GDP. Note that in five states in which the percentage of Consorcios exceeds the percentage of GDP – Distrito Federal (Brasilia), Minas Gerais, Parana, Santa Catarina, and Rio Grande do Sul – the per capita GDP is greater and the income distribution of the population tighter. This supports the argument that Consorcios represent a normal alternative financing strategy for Brazilian consumers who already have access to traditional consumer credit.

The paucity of publicly disclosed data on the profile of Consorcio participants poses a difficulty. The available data support Simone's assertion that automobile Consorcio participants are A-B credit quality, while motorcycle and real estate Consorcio participants are C-D quality. His empirical observations support the theoretical conclusion – derived by Ambec and Treich and Besley, Coate, and Loury – for ROSCAs that they would be used by higher-income consumers rather than the very poor. Also, the Banco Central do Brasil (BCB) data set does provide information on Consorcio participant withdrawals and defaults. The data reveal two features of Consorcio participants. First, combined withdrawal and default rates are consistently higher for motorcycle Consorcios than for either equipment or automobile Consorcios. Figure 3.7 illustrates the evolution of combined withdrawal and default rates beginning in 1992 and further supports Simone's observation.

The second participant feature derived from combined withdrawal and default data in Figure 3.7 is the Consorcio member's economic sensitivity. Recent withdrawal and default rates have declined as real GDP growth occurs. The data suggest that the motorcycle and automobile Consorcio withdrawal and default rates are negatively correlated to real GDP growth, with a 40-50% r-squared. Combined withdrawal and default rates for motorcycles and automobiles are nearly 90% correlated, suggesting that these serve segments that are similarly responsive to Brazil's macroeconomic environment. The Consorcio participant is thus a rational actor whose ability to service debt is affected by economic fluctuation and income expectations.

Further disclosure of post-drawing default rates after 1995 reinforces the difference in credit quality between motorcycle Consorcio participants and automobile and equipment Consorcio members. These data appear in Figure 3.8. However, the additional disclosure unbundling withdrawals and defaults allows a more nuanced evaluation of the credit quality of participants in each product segment. For pure defaults, i.e., Consorcio participants who fail to continue payments after receiving the lump-sum distribution, GDP growth has an r-squared of only 10-30% for the automobile and motorcycle categories. Conversely, motorcycle and automobile Consorcio participant withdrawals remain inversely related to GDP growth with an r-squared of roughly 60%. In sum, the disaggregation of combined withdrawal and default rates, though over a slightly shorter period, reveals that prior to receiving the desired good, i.e., winning the draw or securing the good through bidding, Consorcio participants' willingness to remain current with their payments is tied to their future expectations of income, with GDP growth as a proxy. They behave like depositors – free to reallocate their accumulated surplus as outlook for the future changes. However, Consorcios participants, once in possession of the

good, display lower default rates and less economic sensitivity. This is consistent with borrower-like behavior with respect to their outstanding obligation to the Consorcio.

Further anecdotal evidence suggests that the disclosure requirements and credit standards for Consorcio participants are more flexible than for traditional credit. Bradesco Consorcio, Santander Banespa Consorcio, and other Consorcio administrators that are subsidiaries of diversified private financial institutions favor their existing retail banking clients. Banespa, by offering Consorcios only to its existing banking customers, asserts that it has no need of further credit history (Simione interview). In interviews with Rossini and Antunes, these individuals report that the Brazilian banks, in particular, value their proprietary information regarding the cash flow patterns of the Consorcio applicant over publicly available credit reports. Thus, maintaining a threshold saving account level with a particular bank can serve as a sufficient condition for approval to join a Consorcio – a policy reinforced by considerably below-market rates of default with leading retail bank-offered Consorcios, as summarized in Figure 3.9. In contrast, a sample traditional collateralized consumer loan from Unibanco entails completion of a fourteen-step checklist including document submission, inspection, background check, and contract signing (Banco de Atacado).

Consorcio Administrators and Competitive Landscape

Consorcios diverge from microfinance-originated ROSCAs due in large part to the commercial nature of their operation. As discussed in Chapter II, ROSCAs operate successfully on the village or community level by leveraging interpersonal networks. Thus, the ROSCA relies on the personal, local nature of the credit and savings agreement. In contrast, Consorcio structures facilitate collective credit via an independent administrator. The participants cannot

only be total strangers but may also live in disparate regions beyond the range of personal contact. Thus, the interpersonal network mechanism is replaced by a centralizing agent: the Consorcio administrator. Examination of the administrator role and examination of the effect the administrator has on the Consorcio operation will prove particularly relevant as a foundation for analysis of the drivers of Consorcio product success in Chapter IV. The primary sources utilized for this examination are two Consorcio contracts in the original Portuguese, which appear in Appendix A.

The Consorcio administrator role can be parceled into three elements. First, the administrator attracts, evaluates, and allocates applicant participants to their Consorcio. For administrators that are subsidiaries of banking or insurance firms, the marketing of their Consorcio is generally tied in with broader cross-selling efforts to existing clients. Each Consorcio administrator funds marketing from general overhead and does not allocate the cost to the individual Consorcios, except in limited circumstances associated with withdrawals. The administrator is also expected to market the vacancy of notified withdrawals from the Consorcio to outside applicants. Costs associated with this are paid from the Consorcio's contingency fund, which also retains the withdrawing party's cumulative payments.

Allocation to a Consorcio is partially self-selecting by the participant. As a result, the evaluation process of a potential participant can consist of as little as an on-line form followed by an interview session prior to the first monthly Consorcio meeting. The evaluation seeks to satisfy either income or savings criteria, but not necessarily both, in order to qualify the participant. Applications do require identification of which vehicle type or capital claim level, in the case of real estate Consorcios, is desired by the applicant. The applicant is then informed of which stand-alone Consorcio they will be assigned. A critical feature of the Consorcio structure

is the self-contained nature of each group. The organizational structure is similar to that of a mutual fund, which is offered by an investment manager; in much the same way, each participant has an equity share in their Consorcio, and liability is limited to the specific entity for the administrator.

Consorcio administrators also process the flow of funds and originate communication with individual participants. Like a custodian bank, the Consorcio administrator receives directly all funds submitted as payment, reserve fund supplements, and penalties assessed. This allows the Consorcio participant to deal with a single counterparty and obviates the need for interaction among members of the Consorcio. Communication radiates from the Consorcio administrator out to the participants as well, as in a hub and spoke model. The administrator prepares monthly statements of fund balances, defaults, and payments in arrears and announces the winning draws. Once a winner is notified, their claim is submitted to the administrator and the capital is issued directly by the Consorcio to a vendor of the designated good. The efficiency gains of centralized administration, versus *ad hoc* organization by members of the Consorcio itself, are financial as well as operational. At the close of the Consorcio's operation, any surplus remaining in either the Consorcio's contingency fund or its general account is to be reimbursed in equal shares to the participants. For the duration of the Consorcio, however, the administrator controls the float and manages these funds.

Finally, the administrator pursues missed payments, manages withdrawals and expulsions, and coordinates repossession when necessary. Though funded by the Consorcio's own reserves, the prosecution of defaulted participants is supervised by the administrator. The administrator represents to participants that it will execute claims on individual members in the best interests of all the members of the specific Consorcio. The procedural and litigation

expertise that the administrator provides serves as a credible threat to potential willful non-payers.

The Consorcio administrator landscape remains highly fragmented and exhibits heightened product segment concentration. Figure 3.10 profiles the ten leading Consorcio administrators' activities across segments at the close of 2005. Not only does the table illustrate the fragmentation of leadership in each sector, but it also reveals the importance of recent strategic partnerships with automobile manufacturers. Also notable from Figure 3.10, the top ten administrators display dominant market share in automobiles and real estate, but considerably less so in equipment and motorcycles. In the motorcycle segment, independent manufacturers' Consorcios have pushed aside bank-operated Consorcios. In the equipment segment, where specialized product knowledge and pricing trump pre-existing relationships and proprietary client access, the retail banks show limited comparative advantage and market share consolidation.

Consorcio Organization and Operation

Assembleias Gerais Ordinarias (“AGOs”): An ordinary general assembly, or AGO, is an organizational meeting of members of the Consorcio. The primary business of an AGO in a running Consorcio is the allocation, by drawing or bid, of the given month's capital for purchase of the product (see the section on *Contemplacao*). Other general updates, including presentation of the Consorcio's financial statements, are also presented to the participants at the AGO and subsequently distributed by mail and posted on the Consorcio's participant-only website. The event is hosted monthly by the administrator, usually on site at one of the administrator's facilities. The monthly member meeting does not require participant attendance; Consorcio

participants are provided a variety of alternatives, including web access and toll-free service numbers to supplement the AGO. Should any operating decision require participant approval, the administrator votes as proxy for physically absent participants.

The first AGO is further designated the *AGO de Constituicao* – or constituting general meeting. This first meeting is particularly important given the legal and administrative independence of each Consorcio. To initiate the operation of a Consorcio, this initial AGO requires a quorum of 70% of available participant shares in the Consorcio to have been placed by the administrator. This allows some ramp-up leeway for early subscribers who may otherwise feel hamstrung by the build-up of the necessary number of participants in a given Consorcio. At the AGO de Constituicao, several participants – HSBC’s contract suggests three – are elected as representatives of the Group, conditional on not being employees or affiliated with employees of the administrator. These three representatives act as a participant board, are mandated to review the performance of the administrator, and are granted broad access to their Consorcio’s documentation, records, and financial statements kept by the administrator throughout the operation of the Consorcio. The remaining special administrative features of the first AGO are approval of a current account being opened on the Consorcio’s behalf by the administrator (often with the administrator’s retail banking affiliate) and selection of an independent auditor.

Assembleia Geral Extraordinaria (“AGE”): An AGE is an extraordinary event called by either a threshold level of Consorcio participants or the administrator. Two categories of business require an AGE. First, decisions concerning organizational change require 30% of participants to call for an AGE. Three decisions fall under this category: change of administrator, merger of separate Consorcios, and dissolution of the Consorcio prompted by administrative irregularities, suspicion of fraud, or irrecoverable default rate by participants. For

such meetings, costs borne by the administrator are deducted from the Consorcio's reserve balance. Second, decisions requiring operational change require an AGE. These include the substitution of the originally identified product with a comparable item, the declaration of a moratorium on Consorcio operations, and unforeseen circumstances. AGEs called for operational change decisions require only 20% of participants need to request the AGE; however, only participants who have not yet received the *contemplacao* are permitted to vote.

Prestacao: The monthly Consorcio payments made by participants are called *prestacoes*. As with most familiar consumer durable goods financing arrangements (e.g., traditional fixed-rate U.S. mortgages), the Consorcio *prestacoes* are calculated as a flat monthly payment from the outset of the contract based on the current price of the designated good plus applicable fees and insurance. The *prestacao*, however, has a critical feature that enhances the appeal of the Consorcio for even the last participant to receive the *contemplacao*. The *prestacao* for all members of the Consorcio is adjusted for changes in the effects of inflation on the price of the designated good. In the short run, any funding shortfall is covered by the surplus balance available at the time of the AGO from both the common fund and the general reserve. Afterwards, the participants' *prestacoes* are recalculated to account for the changes in the product price. This feature essentially indexes payments to inflation (at least inflation in the price of the designated good) and preserves value of early payments made by the last *contemplados* to receive their good. Each participant is essentially paying monthly an equal share, e.g., one sixtieth, of the current price of the designated good at the time of each AGO – not amortizing a fixed price over a repayment period, as in a traditional loan.

Contemplacao: The capital released to a Consorcio participant for the purchase of a designated good is called the *contemplacao*. The mechanics by which the *contemplacao* is

allocated to a specific participant are examined below. The *contemplacao* occurs at each AGO, provided sufficient funds are available in the Consorcio's current account at the time of the meeting. The selected participant, or *contemplado*, is the beneficiary of a designated, separate account with a ring-fenced nominal cash balance for use in the purchase of the designated product. The participant is responsible for identifying, negotiating, and executing the purchase of the good to be paid for with the *contemplacao*; however, the funds are transferred directly to the selling agent by the administrator without ever passing through the *contemplado*'s hands.

Should the *contemplado* successfully negotiate a lower price than the capital balance, any excess funds remain governed by the contract. The approved uses for this excess include payment of vehicle registration fees and insurance, up to 10% of the original *contemplacao*, and advanced payment of future installments owed by the *contemplado*. Should the participant have excess remaining after the above are satisfied, the remainder can be disbursed as cash. HSBC also offers the alternative that the *contemplado* can receive the full allocation as cash following a 180-day hold period; for Bradesco this hold period is only 60 days. The participants of a specific Consorcio choose, as part of the enrollment procedure, the product category and price range of the designated product, i.e., the make and model of the vehicle, such as a Volkswagen Golf; however, the participants, at the time of their *contemplacao*, retain the right to substitute the designated product, e.g., the Golf, for a similar good, such as a Ford Escort. However, three considerations govern substitution. First, the good must remain in the same product category – i.e., automobile, motorcycle, etc. Second, the good must meet the same availability criteria – i.e., the vehicle must have a publicized price and be available for sale to the general public. Third and most crucial, the good may have a different price than the originally identified good. Yet price differences trigger further conditions on the *contemplado*'s purchase. The new good's

price may be no less than 60% of the price of the original good. Should the price of the product exceed that of the originally designated good, this particular participant will borrow from the surplus in the common fund and reserve funds and repay the Consorcio via recalculated monthly payments; and for any shortfall remaining in the price premium, the participant must personally fund. This *de facto* option to borrow from the Consorcio – in size, conditions, and constraints – is largely undefined in the contracts examined and a subject for further study.

Sorteios: Drawings by the administrator are the first and primary mechanism by which *contemplacoes* are allocated to Consorcio participants. In order to preserve the appeal of random reward and reinforce the perception of equity among participants, the first *contemplacao* of multiple capital allocations at a given AGO is generally conducted via *sorteio*. The winning participant is selected according to proximity to a pre-specified derivation of the number drawn by the National Lottery, a feature introduced to insure impartiality in the drawing process. For further detail regarding the matching of the National Lottery number to the participant's identification number, see Figure 3.12. Each participant, upon enrollment in the Consorcio, receives an identification number; it is this number which is then matched against the National Lottery number to determine the *contemplado*. As expected, participants already *contemplado* are excluded from subsequent drawings. Should the drawing number correspond to an already *contemplado* participant or a participant excluded from participation in the given AGO because of past due payments, the new *contemplado* will be the participant with the next highest identification number. Winners are informed within three business days and receive a telegram confirming their *contemplacao*. A participant may request in advance of an AGO to withdraw their number from the *sorteio*. Information on the frequency with which this option is taken is limited to anecdotal reports that participants may prefer to wait to receive their *contemplacao*

until an adolescent child has reached driving age or endeavor to time participation around the annual introduction of new model products.

Lance: The alternative to *sorteio* available to Consorcio participants in any given month is the *lance*. A *lance*, or bid, is a tender of an excess up-front payment for the designated product in a given month. Assuming sufficient funds remain in the common fund after the allocation by *sorteio* of the first *contemplacao*, subsequent *contemplacoes* are made on the basis of *lance*, if any have been received. Bids are submitted to the Consorcio administrator in writing, by telephone, or electronically via internet by a contractually specified deadline prior to the AGO. For HSBC, the deadline is 6:00 P.M. on the last business day before the scheduled AGO. *Lances* are made blind by participants, and the possibility of ties exists. Ties are broken based on the bidders' proximity to the National Lottery drawing number. Bids are required to exceed minimum threshold levels ranging from 5% of the sum of remaining *prestacoes* for HSBC to 10% or more of the full purchase price of the good for other administrators. The bid amount is treated as an advance payment of future monthly *prestacoes*, reducing the number of outstanding payments starting from the final payment toward the current one. A *contemplacao* under *lance* requires the bid amount be delivered within two business days of the AGO. *Lances* do not represent excess payments; rather, they serve as advances of future payments. The other participants, however, benefit from returns on the resulting float. The *lance* is a commitment of capital, which serves as a deductible that reduces the incentive for early *contemplacao* by *lance* with the intention of subsequently defaulting.

Fundo Comun: The *fundo comun*, or common bit, is a shared feature of all Consorcios. This general account holds the *prestacoes* float, interest accrued, half of all past-due fees and interest, and 100% of penalties assessed. The fund is replenished monthly from part of the

prestacoes cash flow. For Bradesco, as of the first quarter of 2006, the monthly common fund charge is 83 basis points of the nominal value of the designated good. Capital for the *contemplacoes* is drawn exclusively from the common fund; and its balance on the date of the AGO determines the number of *contemplacoes* available at a given meeting. Further uses of the *fundo comun* include rebates of over-payment by a *contemplado* who purchases the designated good at a lower price, refunds of total nominal payments made by a participant ultimately excluded from receiving their *contemplacao*, and disbursement of any remaining balance in the fund, pro-rata to non-defaulted participants, at the end of the Consorcio's operation.

Fundo de Reserva: The *fundo de reserve*, or reserve fund, is seeded at the outset of the Consorcio with an initial payment of up to 5% of the value of the designated good. This rate is capped by the Banco Central do Brasil; however, leading Consorcio administrators, such as Bradesco, apply only a 2% fee for automobile Consorcios and a 3% fee for larger-ticket items, such as homes. As indicated by its name, the *fundo de reserve* exists parallel to the common fund and serves to cover liquidity shortfall in the near term and purchase default insurance on *contemplados* at the administrator's discretion. When winding up the Consorcio, the remaining reserve fund balance is rebated to participants.

Administrator Remuneration: Consorcio administrators receive an administration fee which is contractually fixed at the time a participant enrolls in the Consorcio and is capitalized alongside the value of the designated good. The administration fee is bundled into monthly flat payments and amortized by the participant over the life of the Consorcio. In addition to the ex-ante specified administration fee, the administrator retains half of past due fees and interest as reimbursement for default recovery costs.

Two insights into the Consorcio markets for automobiles and motorcycles emerge from the data on the range of fees charged by Consorcio administrators in Figure 3.12. Figure 3.13 summarizes the analysis driving the following observations. First, the weighted-average fee is significantly higher for motorcycles, at 95% confidence, than for new automobiles, while the range of rates is tighter. This observation supports the expectation that, as the principal financing method for motorcycles, the motorcycle Consorcio administrators are nearer pricing equilibrium. This higher rate also suggests that Consorcios are motorcycle market price setters. In contrast, new automobile Consorcio administrators offer a wider range of rates at generally lower levels.

Second, industry leaders, defined as the top ten administrators by number of participants in each product category, do not appear to be competing on price. At a 90% confidence interval, the rates offered by the leading ten industry players significantly exceed the industry rates. This supports the hypothesis that large institutional players enjoy some sustained comparative advantage versus smaller or less well-known competitors, as per the discussion above regarding the competitive landscape and informational advantages of leading market participants.

Bundled Life Insurance: Consorcio participants subscribe to life insurance covering the remaining balance of summed *prestacoes*, embedded as part of the monthly *prestacoes* payment. The Consorcio is automatically the beneficiary, and any mortality proceeds are directly deposited into the common fund for draw-down at any AGO. This also allows a deceased's estate or beneficiaries to continue participating in the Consorcio and receive a *contemplacao* with no further outlay. For illustrative purposes, the Bradesco initial Consorcio participant premium rate is 5 basis points per month on the nominal value of the designated good, as of the first quarter of 2006.

Default

The procedure for default recovery in the Consorcio structure is particularly critical for successful adoption of the Consorcio as a financing alternative. Year-end 2005 post-*contemplacao* default rates for the top fifty new automobile Consorcio administrators, which appear in Figure 3.14, illustrate the range of participant experience and the relevance of the default and recovery provisions of the Consorcio contract. Consorcio contracts address three distinct states of payment delay, each with separate contractual conditions and repercussions. These three states are past due, excluded from *contemplacao* (“*excluido*”), and default on payment for good received. Throughout this paper, the term withdrawal is used to describe *excluido* status as participants in this state have eventual claim for a rebate of payments made up to the point of exclusion. Thus, only post-*contemplacao* failure to pay is truly a default.

First, the past-due payment is tolerated up to a pre-specified length of time. Banespa’s Simone indicated that the Banespa past-due tolerance is for three months, whereas the HSBC and Bradesco contracts specify tolerance of only two months. Once past due on a monthly payment, the participant is unable to receive the *contemplacao*. Further, the administrator begins to apply both penalty fees and a financing rate on the past-due balance. An immediate 2% fee applies on the outstanding balance as well as a running 1% monthly financing charge. In order to return to eligibility for *contemplacao*, a participant must not only return to making the scheduled monthly payments but must also clear the overdue balance and applicable fees. Neither the number of a participant’s total missed payments nor the length of time taken catching up on overdue balances, assuming subsequent normal monthly payments were made as

scheduled, are triggers for exclusion; the condition for exclusion from the Consorcio is based on exceeding the number of consecutive months of missed payments.

Withdrawal from the Consorcio is distinct from simply past due on *prestacoes*. For this analysis, withdrawn status specifically refers to participants as yet not *contemplado*. Withdrawal represents immediate termination of participation in the on-going Consorcio. Payments made to the Consorcio by the individual up to the period of withdrawal are ring-fenced from the rest of the Consorcio. This balance is first used to deduct the outstanding obligation of the participant for missed payments and applicable fees. Then, a withdrawal fee ranging from 14 to 15% is garnished from the balance. The fund administrator also subtracts a 2% make-whole administration termination fee from the nominal purchase price of the designated good at the time of withdrawal. Finally, the participant's remaining *fundo comun* balance is refunded, along with the participant's contribution to the reserve fund at the conclusion of the Consorcio. Note, this timing is specified in only one of the available, analyzed contracts – that of Bradesco – but is consistent with the administrator's obligation to replace an excluded participant with a new entrant for the remaining payment periods. In other words, we are left to speculate that if another consumer replaces the withdrawing participant by buying into the Consorcio with a payment equal to the total past payments made to the Consorcio by the withdrawing participant, the rebate of the withdrawing participant's accrued balance can occur immediately. Thus, the slot in the Consorcio is the operational unit, regardless of which individual occupies the position. In sum, given the onerous fees and the delay in return of paid-in principal, withdrawing participants penalize themselves more than burden the other members of the Consorcio. It is defaulted *contemplado* participants who pose a distinct risk to the stability of the structure and face the most aggressive default provisions.

Default by a Consorcio participant already *contemplado* most stresses the successful operation of a Consorcio. The recovery of the asset and/or the rescheduling of payments for a *contemplado* participant are extensively detailed in the Consorcio contract. The threshold number of consecutive missed payments defining default is the same as for withdrawal. Default by a *contemplado* immediately triggers a legal filing by the administrator as a signal of commitment and anticipation of the rate of progress in judicial procedure. Past payments made by the participant are automatically forfeited to the Consorcio. Repossession of the good is followed by a required third-party appraisal of the recovered good and subsequent sale by auction or resale concessionaire. Both appraisal value and resale price are reported, as they are received, at the next AGO. Any shortfall between recovery value and the outstanding payment balance of the defaulted participant is treated as a past-due outstanding loan taken by the *contemplado* from the Consorcio. In the case of a wrecked automobile with recovery value of zero on which the *contemplado* decides to stop payment, the full balance outstanding under the Consorcio agreement becomes due in full. The administrator, on behalf of the Consorcio, has the discretion to develop a work-out plan for the defaulted participant. Should the defaulted participant fail to make whole the Consorcio or complete terms of an agreed repayment schedule, the administrator advances the litigation procedure initiated at the time of default. The relative contribution of exclusion and post-*contemplacao* default to total default rates in the automobile and motorcycle categories, summarized in Figure 3.15, illustrates that the combination of administrator's legal expertise and the rate of recovery creates significant disincentive to default post-*contemplacao*, which is generally lower than the withdrawal rate observed over the 1995-2005 time period.

Regulation

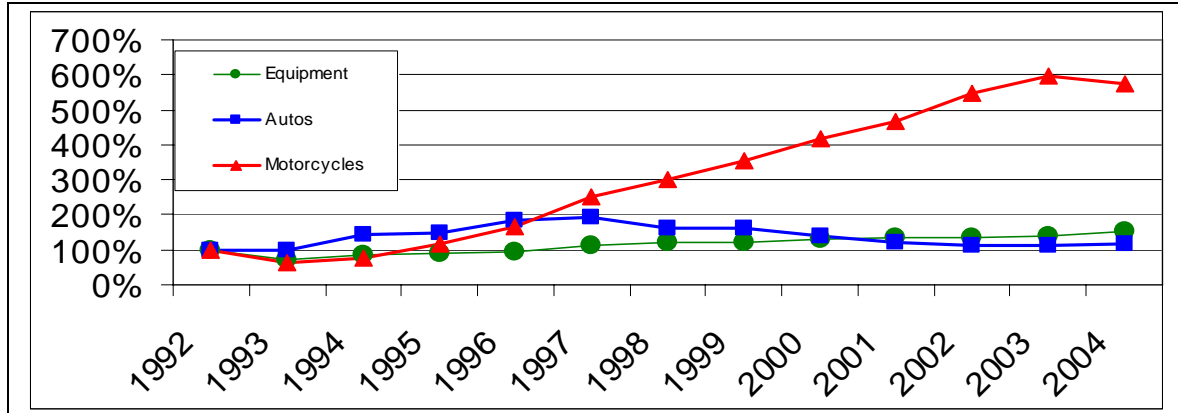
This brief overview of the federal statutes and central bank regulations governing Consorcios also profiles the evolution of the Consorcio as a viable financial solution in Brazil over the past forty years. The summary of the statutes governing the Consorcio sector, on which this overview is based, is available on the Banco Central do Brasil website. The first legal recognition of Consorcios, among other alternative savings and financing instruments appeared in *Resolucao do Conselho Monetario Nacional #67*, as mentioned above. Further specification of the Consorcio structure and the definition of its parameters of operation followed in 1971 and 1972. The two early edicts that set the parameters for the operation and legal definition of a Consorcio, *Lei Federal #5768* and *Directive #70951*, are included as Appendix B. In addition to outlining a third-party-administered group-purchasing mechanism similar in most ways to the current Consorcio form, the regulations appointed oversight of the Consorcio sector to the Ministry of Finance. Little additional regulatory change occurred until the early 1990s, when *Circular #2071* transferred governance of the Consorcio sector to the Banco Central do Brasil in October 1991. The Banco Central do Brasil implemented new monthly disclosure requirements for all licensed Consorcios in 1992. The information reported included an updated number of participants and Consorcios administered, default experience, and administration fees charged. These monthly data were publicly disclosed both at an industry-aggregate level and also for each administrator. In 1999, the Banco Central do Brasil introduced a further category designation for products offered via Consorcio. At this time, consolidated administrator data were divided into information on motorcycle, automobile, equipment, and real estate product categories. The central bank retained the right to enjoin the operation of any Consorcio administrator and unilaterally transfer operation of one or all its Consorcios to licensed, compliant competitors.

The scope for triggering this transfer includes suspicion of fraud, negligent management of funds held under administration, failure to maintain current reports of operations with the Banco Central do Brasil, and other violations of contractual obligations to participants.

Monetary Transaction Tax

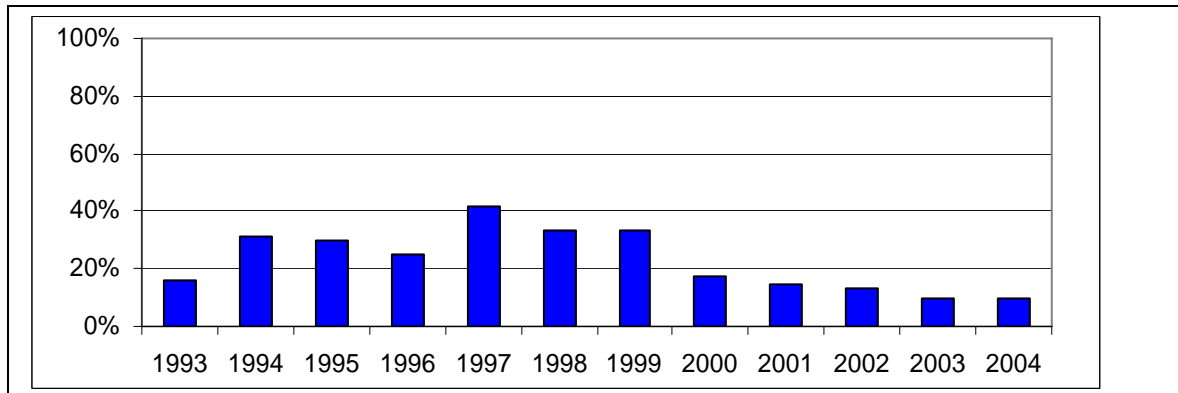
Consortios are tax-favored saving and borrowing instruments for consumers because of regulatory treatment. Consorcio participants avoid the automatically assessed 40 basis-point federal monetary transaction tax applied to all bank account activity – including both the initial deposit of funds and subsequent withdrawal for payment of goods or services. Given the payment procedure options offered by Consorcio administrators, nearly all cash flows associated with the Consorcio are tax-free to the consumer, including the winding-up distribution of common fund and reserve fund balances and the participant's accrued float interest. Circumventing this transaction cost further reinforces the economic appeal of the Consorcio as a financing strategy.

Figure 3.1– Consorcio Participants



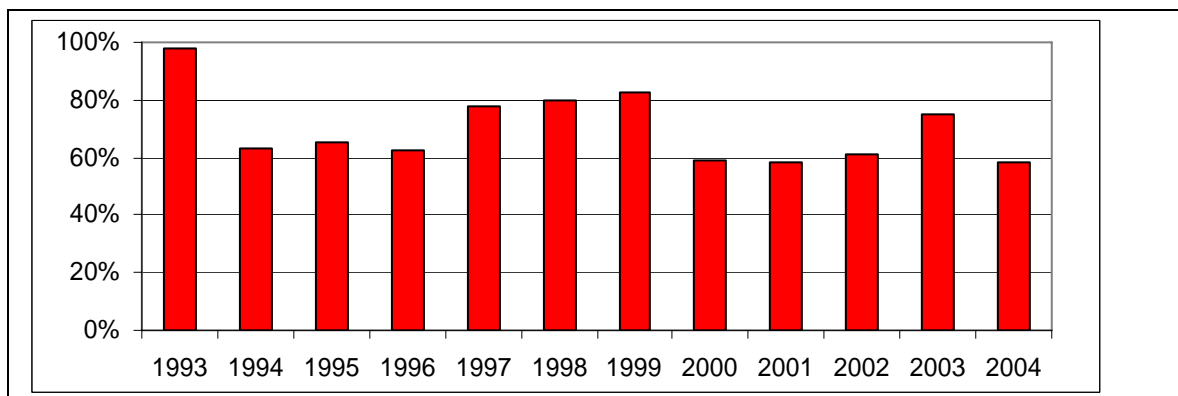
Source: Banco Central do Brasil

Figure 3.2– Consorcios Market Share of Automobile Sales



Source: Banco Central do Brasil

Figure 3.3– Consorcios Market Share of Motorcycle Sales



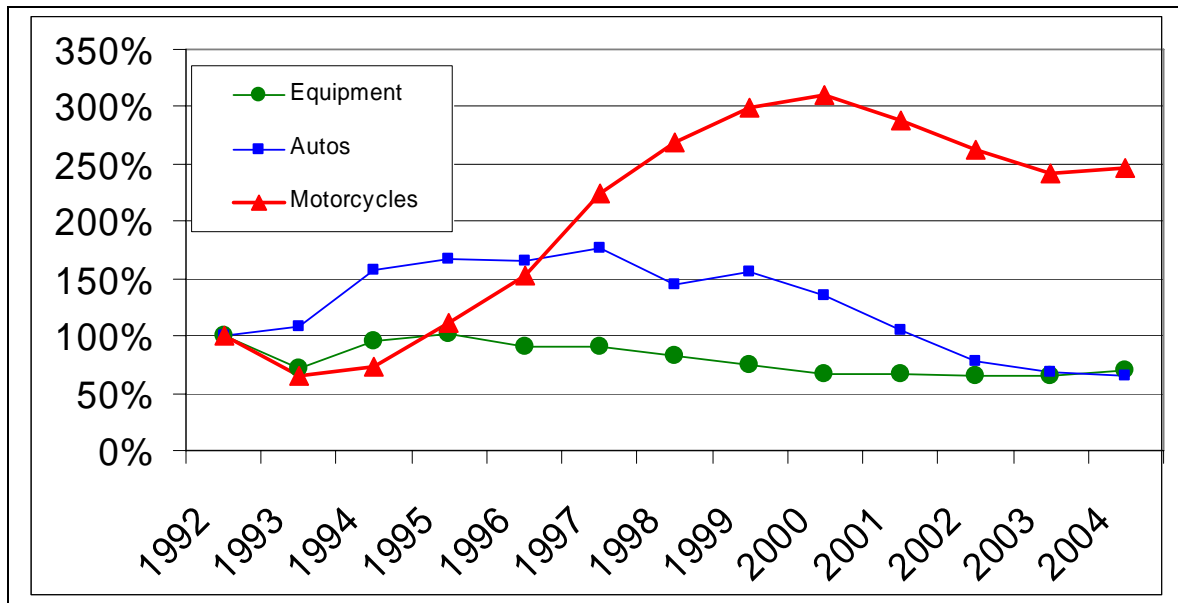
Source: Banco Central do Brasil

Figure 3.4– Compound Annual Growth Rate Trends

	12-Year CAGR	CAGR '92-'98	CAGR '98-'04	Trend Change
Equipment	4%	3%	4%	0%
Autos	1%	8%	-5%	-13%
Motorcycles	16%	20%	11%	-9%

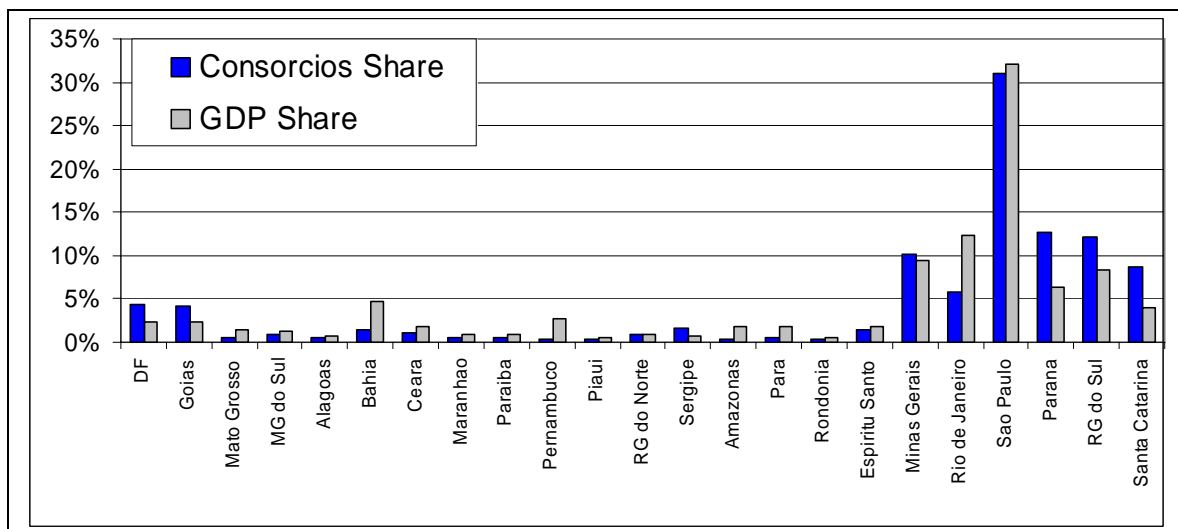
Source: Banco Central do Brasil

Figure 3.5– Consorcios in Operation



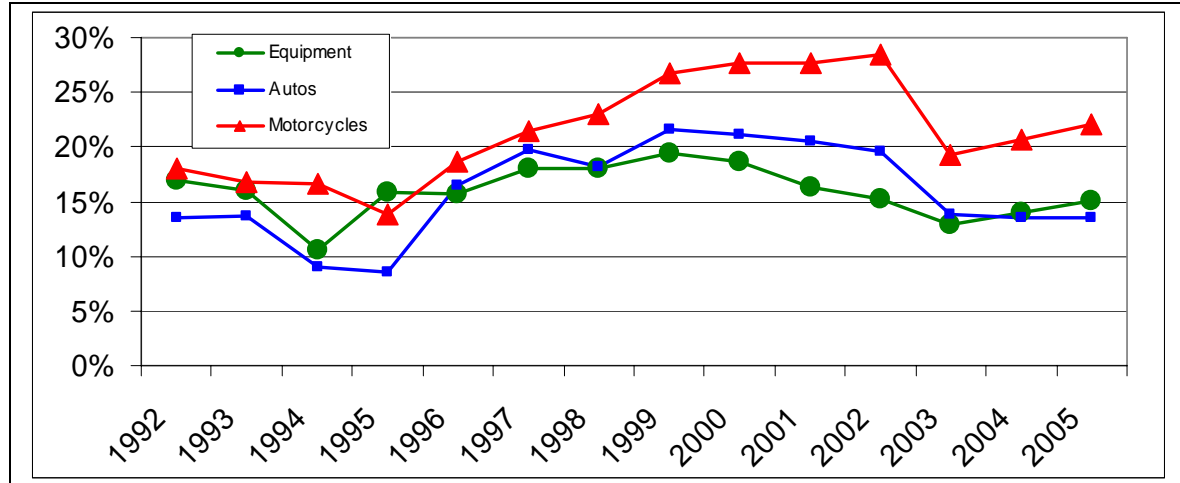
Source: Banco Central do Brasil

Figure 3.6– GDP versus Consorcio Concentration by Brazilian State



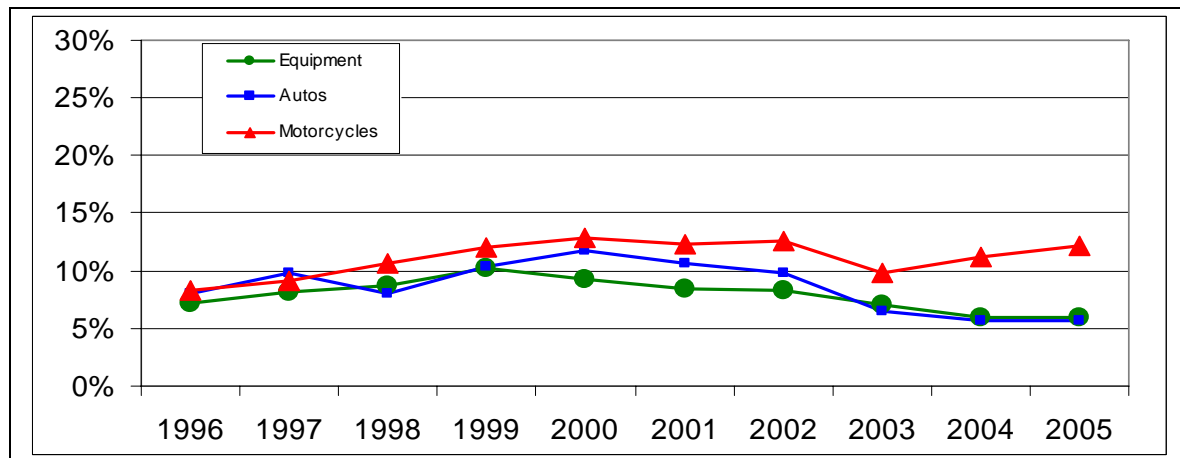
Source: Banco Central do Brasil and Ministerio da Fazenda

Figure 3.7– Combined Withdrawal and Default Rate by Product Category



Source: Banco Central do Brasil

Figure 3.8– Post-Contemplacao Default Rate across Product Category



Source: Banco Central do Brasil

Figure 3.9– Post-Contemplacao Default on New Automobiles by Administrator

Consortio Administrator	Default Rates - 2005 (%)
Bradesco Consórcio Ltda	2.0
Unibanco Rodobens Adm. de Consórcios LTDA.	2.1
Itaú Adm. de Consórcios Ltda	1.8
HSBC (BRASIL) CONSÓRCIO LTDA	4.2
ABN Amro Real Administradora de Consórcio Ltda.	4.6
Retail Bank Average	2.9
Consórcio Nacional Volkswagen LTDA.	6.9
Fiat Administradora de Consórcios LTDA.	8.9
Consórcio Nacional GM LTDA.	2.5
Daimlerchrysler Administradora de Consórcios S/C LTDA	3.6
Manufacturer Average	5.5
Industry Average (unweighted median)	6.6

Source: Banco Central do Brasil

Figure 3.10– Leading Consorcio Administrators by Participants and Market Share

Consorcio Administrator	Real Estate	Equipment	Autos	Motorcycles	Share - Dec-05			
	Seg-I	Seg-II	Seg-III	Seg-IV	Real Estate	Equipment	Autos	Motorcycles
Bradesco	76,520	4,271	131,861	-	24%	3%	16%	0%
Itau + Fiat	4,916	-	91,632	13,813	2%	0%	11%	1%
Banco do Brasil	-	1,284	41,586	26,489	0%	1%	5%	2%
Unibanco + Ford	-	4,456	61,277	-	0%	3%	8%	0%
Caixa Eco Federal	61,212	-	117	-	19%	0%	0%	0%
HSBC	670	676	11,330	20,021	0%	1%	1%	1%
PanAmericano	8,611	-	5,135	4,121	3%	0%	1%	0%
ABNReal	8,611	-	3,930	1,650	3%	0%	0%	0%
Banrisul	1,019	438	2,506	2,830	0%	0%	0%	0%
Santander Banespa	717	-	171	275	0%	0%	0%	0%
<i>Top-10 Total</i>	<i>162,276</i>	<i>11,125</i>	<i>349,545</i>	<i>69,199</i>	<i>Share Held by Top-10 Administrators</i>			
Industry Total	317,199	134,492	809,115	1,730,346	51%	8%	43%	4%

Source: Banco Central do Brasil & Simione interview

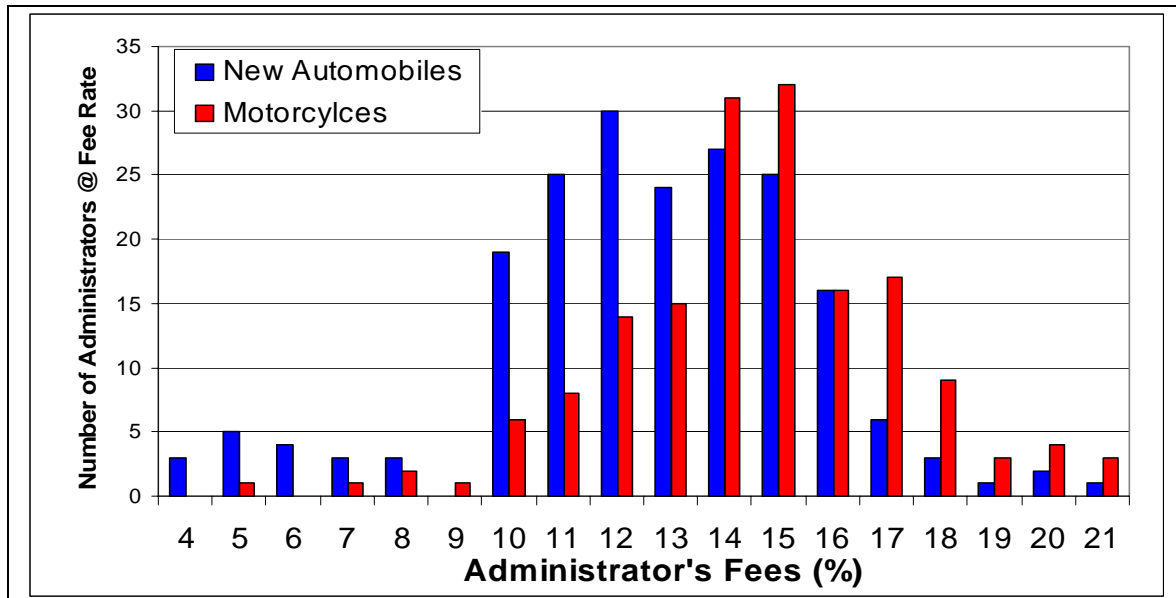
Figure 3.11– National Lottery Based Sorteio Matching Illustration

Consorcio Participants	National Lottery Number Digits	Payment Periods	Identification Number	Example Winning Number(s)
<= 100	2	N/M	1	XX-01
			99	XX-99
200	3	50	1	X-001, X-201, etc.
			150	X-150, X-350, etc.
			200	X-200, X-400, etc.
240	3	60	1	X-001, X-241, etc.
			150	X-150, X-390, etc.
			240	X-240, X-480, etc.

Note: in last example, lottery draws X-961 to X-999 and X-000 result in draw, triggers use of alternative lottery drawing number

Source: HSBC Brasil Consociado Ltd. Contract, Article XV

Figure 3.12– Administrator Fees – Automobiles and Motorcycles, December 2005



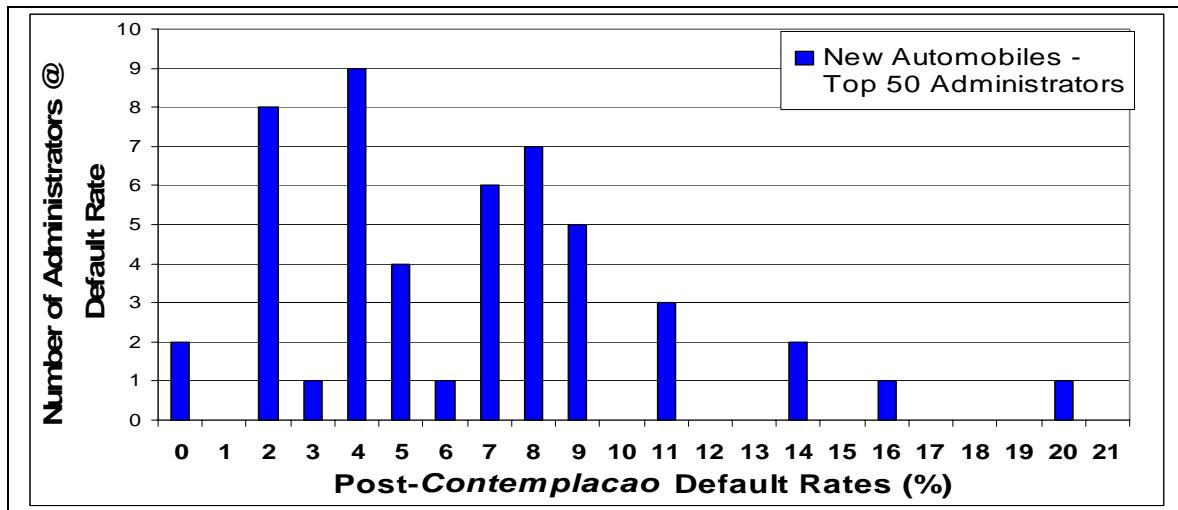
Source: Banco Central do Brasil

Figure 3.13– Analysis of Average Administrator Fee Rates

	New Autos	Motorcycles	Difference
Top 10	14.0%	16.0%	2% **
Industry	12.6%	14.5%	1.9% **
Difference	1.4% *	1.5% **	
Std Dev	10.9%	10.0%	
Sample	197	163	

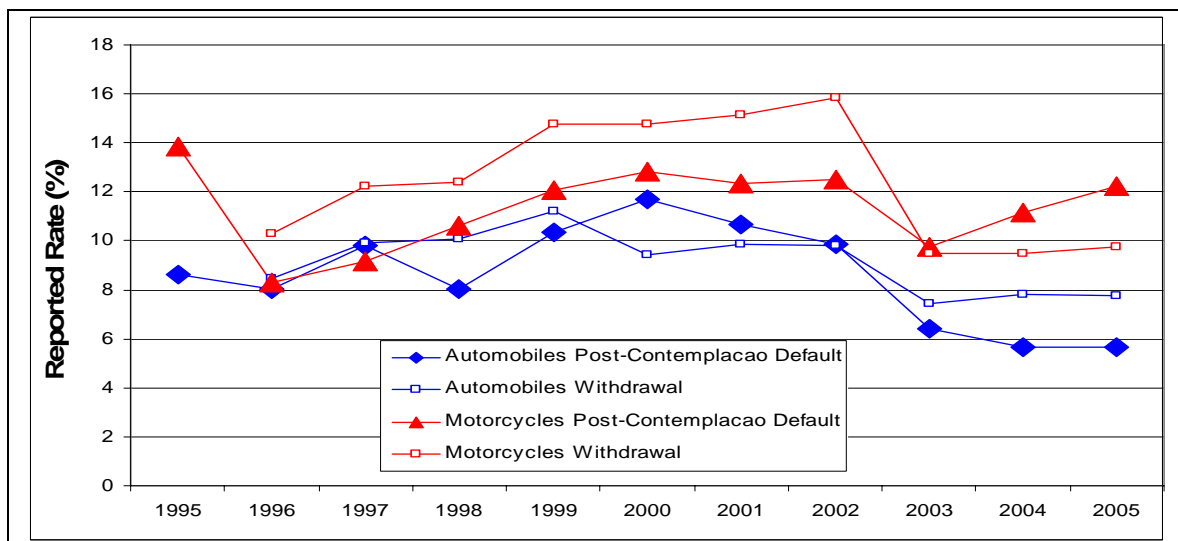
Source: Banco Central do Brasil. Note: ** and * indicate 95% and 90% confidence level

Figure 3.14– Post-Contemplacao Default in New Automobile Category, Dec-2005



Source: Banco Central do Brasil

Figure 3.15– Unbundled Withdrawal & Default Rates – Automobiles & Motorcycles



Source: Banco Central do Brasil

Chapter IV. Analysis of Consorcios

This chapter examines the when, where, and why of Consorcios. An examination of the economic incentives and antecedents embedded in the Consorcio structure is vital in understanding the implications of the Consorcio as a financial innovation that has contributed to broadening consumer access to credit in Brazil as a valuable financing solution for underserved segments of developed markets, including the United States.

The analysis in this chapter makes use of available raw market data on Consorcios and the Brazilian financial industry to construct an *ad hoc* model developed for this study. The Consorcio simulation uses actual inputs from published market fee schedules and rates. The model enables scenario-testing hypotheses regarding incentive alignment, economic symmetry, and financial savings. The data tables in the endnotes are extracts from variations of a BASE Case Consorcio. The BASE Case and scenario variations appear as Appendix C. The model represents a 60-payment Consorcio with 180 participants. The fee rates, penalty mechanisms, and inflation adjustments follow the framework profiled in Chapter III above. The rate schedule employed in the BASE Case corresponds to that offered by Bradesco Consorcios for a new automobile Consorcio on the administrator's website in March 2006. The model's estimate of the initial *prestacao* was checked against the output of the payment calculator offered by Bradesco, which appears in Figure 4.1, and corresponds to a difference of approximately 1% – a difference largely accounted for by changes in estimated and industry practice periods for compounding fees and interest.

When and Where Consorcios Work: Macroeconomic & Regulatory Conditions

This first section of the analysis examines the Brazilian economic and regulatory conditions that have given rise to the current Consorcio structure in Brazil. The discussion of environmental features that shape the industry and product – the proverbial when and where – links the mechanics of Consorcios reviewed in Chapter III with the rational incentives for participating Brazilian consumers and Consorcio administrators. The combination of economic factors and regulatory influence contributes to the development of specific Consorcio features and provides impetus for innovation in the provision of consumer financial services. The characteristics of Consorcios available today allows us to consider their suitability in other markets as well.

Macroeconomic Conditions: Brazil's historical experience with run-away inflation contributed significantly to the current form of the Consorcio structure. Brazilian savers, especially individuals insufficiently skilled or diligent in managing cash holdings, experienced capital erosion repeatedly over several multi-year periods during the last thirty years. By the end of the 1980s, the Brazilian economy faced stagflation. Annual real GDP growth decelerated at roughly 1% annually, versus 7% during the 1970s (Stuart, Appendix Table A.2 and A.2). Both the federal government's fiscal crisis and inefficiency of the ISI sheltered industry contributed to weakened economic growth. Concurrently, driven by a desperate central bank printing *cruzeiros*, hyperinflationary rates peaked November 1989 to March 1990 (Leroy interview). Experience with these consistently high levels of inflation served to underscore the importance of inflation protection for personal savings. The Consorcio's indexation to the nominal price of the designated good at each AGO reflects the evolution of a financial product feature tailored to the experience and demands of the consumer.

The flip side of the inflation capital erosion concern of savers is the reticence of financial intermediaries to lend at fixed rates and/or for long terms. The experience of time-value erosion of principal and difficulty forecasting forward inflation combine to discourage lenders from extending credit on terms other than onerous short-horizon repayment and floating rates. The residential mortgage market illustrates the shortage of financing supply for large-principal, long-duration consumer credit. Given the negligible size of secondary capital markets for residential debt, mortgage originators must hold the credit to term. Thus, Brazil's federally chartered retail banks' – Banco Brasil and Caixa Economica Federal – dominance of long-term mortgage market share supports the contention that private banks are unable or unwilling to provide such inflation-exposed credit (Kumar, p278). Credit cards also illustrate financial intermediaries' response to inflation exposure. The average Brazilian consumer credit card rates are 8% per month, considerably above the Banco Central do Brasil target rate and double the spread charged for traditional consumer credit with specified duration; thus, these cards have aggressive financing charges to discourage extended borrowing periods (Wulff, Furquim, and Osorio interview). Just as inflation discourages the Brazilian depositor, lenders require considerable premia to underwrite inflation-sensitive financial products such as mortgages and rolling credit card balances, which have long or unspecified repayment periods and fixed rates.

The efficient allocation of capital via a transparent and liquid market for provision of financial services is predicated on a competitive credit supply-side. As discussed in Chapter II, the traditional credit market share and the concentration of financial sector capital in Brazil's largest financial institutions distorts the market for consumer durable goods loans. As discussed below, Brazil's leading financial services conglomerates specialize in taking retail deposits and lending to the federal and state governments. The result of this specialization is the restriction of

overall system consumer credit capacity and reduction in the liquidity of the market which drives up the cost of financing and allows qualitative distortions to develop (Cardim de Carvalho, p104). Further, Antunes asserted in our interview that loan approvals were incomplete without background and ongoing information stemming from the credit agent's personal relationship with the applicant. In sum, lending is more than a strictly price-based market. Requisite close personal contact with gatekeeper individuals and scarce available credit contribute to premiums for consumer credit through traditional bank-lending channels, suggestive of the crony capitalism in lending markets in East Asia which contributed to the 1998 financial crisis.

Recognizing the deficiency in traditional financial intermediaries, the Brazilian federal government introduced regulation permitting alternative finance structures. Included among these were Consorcios, as discussed in Chapter III, and traditional rotating savings and credit associations. The key objective of legislation dating to the late 1960s and early 1970s was facilitating financing for consumers. Legislation transferring oversight to the Banco Central do Brasil in 1991 emphasized the protection of consumers' right to credit. The Banco Central do Brasil continues to provide the public with operational information regarding suppliers of financial services and to facilitate comparison shopping by consumers. Thus, the quasi-oligopolistic financial services market in Brazil directly contributed to the introduction and uptake of the Consorcio as a financial solution.

Driven by the Real Plan's restriction on issuing new currency, Brazil's federal budget deficit has grown over the period studied. The effect of these deficits is a glut of government debt offered on the market. Given foreign lender unwillingness to take currency risk, this Real-denominated paper has been absorbed by in-country lenders (Takeda, Rocha, and Nakane, p119). Since local institutions offer depositors almost exclusively local currency accounts, the financial

services firms have no foreign exchange exposure, unlike Argentina's banks prior to the 2001 crisis. In sum, Brazil's banks have a desperate borrower whose credit is foreign exchange- and credit-risk-free. Real bonds are paying over 8% in real terms to lenders whose inflation adjusted cost of funding (i.e., deposit pay-out) is flat to negative – the government is subsidizing its banks with an abnormal net interest margin.

Federal credit – lending to the cash-starved government – is a compelling alternative to traditional consumer intermediation. As a result, government bonds represent the dominant share of leading local banks' lending. Interviewed former and current local bank managers, echoing foreign equity research analysts, concur that even adjusted for a non-zero probability of a multi-month federal moratorium on debt repayment and rescheduling of principal, Brazilian banks' investment in government bonds outperformed their lending alternatives (Antunes and Rossinni interviews, discussing early 1990s to 1998 and 2002 to mid-year 2004, respectively). Bradesco, at mid-year 2004, reported holding twice as many government bonds as all other loans combined (Leroy interview). The case is similar to both Itau and Unibanco. Consumers are thus starved of credit by the federal government's competing appetite for the available financing.

Regulatory Conditions: Interview subjects explicitly cited two regulatory conditions that contribute to the viability of the Consorcio as a successful alternative financing solution to traditional credit. One characteristic of Brazil's consumer finance marketplace, the limitations on centralized credit history for individuals, disadvantages traditional lending. Brazil does not have individual, personal FICO-like reported credit history. The Brazilian credit reporting system is limited to tracking current default status. In other words, a lender can evaluate only an applicant's current payment status. For individuals with superior credit performance, access to

consumer finance is as limited as credit is to lower-quality borrowers who currently have no past-due payments because the applicants are indistinguishable from the institution's perspective.

As a result, Brazil exhibits two parallel adaptations. The first, discussed above, is the reliance on informal channels for information regarding a borrower. The value of the lending agent's personal network is perceived to significantly influence the performance of the loans issued to individuals. The second is proprietary credit history developed, at risk, by the lender. This information, gathered by traditional financial institutions as well as retail chains willing to offer vendor financing, remains proprietary and a source of asymmetric advantage in evaluating borrowers. Consorcio participants de facto rent what information they can from the administrator via the enrollment screening process; still, the participants ultimately bear pro-rata risk for the whole group's credit performance, which in a homogeneous pool is equivalent to simply bearing risk in themselves. The symmetry of risk exposure favors the Consorcio as a product for potential borrowers with more limited history to disclose as a signal of creditworthiness to a bank. Moreover, the Consorcio becomes a useful first significant borrowing experience for Brazilians looking to build credibility with a particular institution. Given lower standards for admittance to a Consorcio, the compliant participant can invest in their long-term credit rating with the administrator and any of the administrator's traditional finance affiliates. On the ladder from depositor to fully integrated consumer of financial products, the Consorcio is a favored point of transition given the limited portability of reliable credit signals in Brazil.

The second identified characteristic, the evolution of fast-track repossession laws for durable goods, has also played an important role in the sustainability of the Consorcio product. Whereas the discussion above illustrates the Consorcio circumventing a structural hurdle to

enfranchisement of consumer credit in Brazil, the implementation of fast-track repossession for consumer goods lenders was an antecedent regulatory reform that was necessary for the successful implementation of Consorcios. Without facilitating asset recovery, the Consorcio members face the incentive of early *contemplados* to default on future payments. The duration for processing and pursuing to recovery a claim against a defaulted consumer, prior to the implementation of this reform, averaged two to three years. This delay, combined with historical inflation rates and the accelerated depreciation in used consumer durables, yielded considerable erosion of recovery value for the lender. Recovery under Consorcios is now measured in weeks to months (Wulff, Furquim, and Osorio interview). Enhanced protection of the lender, the Consorcio itself, facilitates participant comfort with the default exposure of strangers built into the structure. While traditional microfinance ROSCAs rely extensively on interpersonal influence to dissuade default, Consorcio participants, who lack such authority with each other, substitute reliance on the administrator as a screening agent and claims advocate for the Consorcio and the favorable predisposition of judicial guidelines for asset repossession.

Why Consorcios Work: Advantages to Consumers

Consumers are the lynchpin of the Consorcio product. Their economically rational behavior, explored in the following pages, reinforces the viability of the Consorcio as an innovative, robust financial product. This section first addresses the general advantages of the Consorcio structure for all participants and formalizes observations offered in Chapter III. The subsequent analysis examines the economic incentive of both the first and last Consorcio participant. This examination of the extremes builds upon the observation that the first participant to receive a *contemplacao* is borrowing from the Consorcio (a “Net Borrower”),

while the final participant *contemplado* is a depositor (a “Net Saver”). The key objective is to illustrate that Consorcios economically appeal to each end-point category, Net Borrowers and Net Savers, as well as ex-ante to rational potential participants.

Shared Benefits of the Consorcio: Given the intrinsic balance of borrowing and saving that is the foundation of a Consorcio, an immediate area for reduction in economic cost for participants is the elimination of financial intermediation margin. Based on a Banco Central do Brasil report on financial spreads for consumer credit from 1994 to 1999, summarized in Figure 4.2, the intermediation spread applied to personal consumer loans declined considerably after 1994 but subsequently stabilized at approximately 4%. However, as Consorcio participants are essentially lending to and borrowing from themselves, over the duration of the Consorcio, it is entirely reasonable that the 400 basis-point credit spread is eliminated from their assessed cost of capital via the Consorcio.

The Consorcio is inherently duration matched in assets and liabilities, which reduces cost to the participants by the rate at which a financial intermediary would provide its capital. This is best illustrated in terms of the net sources and uses of cash flow in each period of operation. Since these sources and uses balance in the BASE Case of no participant default and inflation of designated good matching broader consumer price inflation, leaving a modest excess in the *fundo comun* and reserve fund, no external financing is needed. By not borrowing equity capital from the administrator, the Consorcio participants save the capital charge equal to the cost of equity times the firm’s capital ratio. Using Bradesco data from 2000 to 2004, as per Figure 4.3, the bank reported return on average equity of 20% based on a capital ratio averaging 17%; the equity charge savings are roughly 340 basis points – the product of return requirement on equity and equity ratio of assets.

Savings from favorable regulatory treatment also benefits Consorcio participants. As mentioned in Chapter III, federal monetary transaction taxes do not apply to Consorcio *prestacoes* or *contemplacoes*. Removing this distortion is predicted to have a direct beneficial impact on the availability of consumer credit (Suescun, p23). Given a fixed 40 basis-point charge on transactions, the savings from both direct payment of a *prestacao* versus a savings deposit and applying a *contemplacao* directly to the purchase of a designated good versus withdrawing funds from savings yields an 80 basis-point cost reduction for Consorcio participants on the nominal value of the designated good.

These shared economic savings explain a majority of Consorcios' reduction of real financing cost versus standard Brazilian consumer finance. Starting from Banco Central do Brasil's reports on short-term lending rates by Bradesco and HSBC, which average 4% monthly, and adjusting for forward monthly inflation assuming a rate of 2.5% monthly yields an annual real interest of 19% annually for consumer loans. Deducting the current implied 7% annual percentage rate of a Consorcio, again using Bradesco data for new automobile Consorcios from March 2006, included in Figure 4.1, leaves a maximum 12% real interest rate saving enjoyed by participants versus borrowing the funds for purchase of the designated good under a traditional loan. The factors discussed in the three paragraphs above accounts for nearly 70% of this rate differential. The remaining savings observed between Consorcios and traditional loans can be ascribed to less observable benefits of Consorcio participation, such as elimination of option premiums charged for forward inflation rate risk borne by traditional lenders, sharing of administrative savings of a lender from reduced credit application screening costs, and a rebate by the administrator's retail banking affiliate for zero cost float on both the *fundo comun* and the reserve fund.

Advantage for the Net Borrower: Borrowers under the Consorcio structure enjoy considerable economic advantages compared to traditional borrowing in Brazil. These consist of economic advantages and option values. In the simplest model, summarized in Figure 4.4, the maximum net reduction in real interest rate is enjoyed by the Net Borrower. Given the high nominal rate of risk-free interest (the Banco Central do Brasil's SELIC rate) and the above-mentioned consumer credit risk spread, the net nominal and economic savings are considerable. The BASE Case Consorcio model illustrates that the Net Borrower enjoys an economic savings equal to nearly 85% of the nominal initial value of the designated good. This is equal to an imputed 13% annual real interest rate differential over five years and is consistent with the analysis above. Simulating compressed credit spreads and other inputs *ceteris paribus*, the Net Borrower is breakeven vis-à-vis a traditional loan when consumer finance spreads compress to 70 basis points, as illustrated in Figure 4.5.

The savings enjoyed by the Net Borrower are further enhanced by the reduction in up-front liquidity required by the Consorcio structure. Whereas a Consorcio participant faces equal (in real terms) installment payments for the full value of principal, including all bundled agency fees, insurance, and reserves, the Brazilian consumer borrowing under a traditional loan must post a minimum 20% down payment. Instead, the Consorcio Net Borrower retains a right to a pro-rata distribution of float returns on *fundo comun* excess and the reserve fund balance. The Net Borrower owns an option on a share of Consorcio returns on *lance* excess payments, past due fees and interest, and withdrawal penalties of pre-*contemplado*-excluded participants.

In addition to the economically beneficial option mentioned above, the Net Borrower is negatively exposed to the inflation in the nominal price of the designated good. The obligation to step up *prestacoes* to continue contributing proportionally to later participants' *contemplacoes*

implies that the Net Borrower retains risk of inflation-driven opportunity cost throughout the duration of the Consorcio's operation. In simulation, however, the inflation in the price of the designated good would have to exceed SELIC by 21% per annum to set the Net Borrower breakeven with taking a traditional loan for the designated good in period one, as summarized in Figure 4.6. Under these circumstances, the Net Saver is considerably economically better off.

Advantage for the Net Saver: The final participant to be *contemplado* in the Consorcio faces fundamentally different economics versus the Net Borrower. Rather than comparing to the economic advantages enjoyed by the Net Borrower, the Net Saver must compare their economic present value with a plain-vanilla flat-rate savings plan reinvested at risk-free, nominal SELIC. The BASE Case simulation in Figure 4.4 shows that the Net Saver is economically (i.e., in present value terms) disadvantaged by approximately 3% annually compared with a straight flat-contribution savings plan. The Net Saver is the single-most disadvantaged participant economically versus the available alternative replicating traditional financing strategy. The difference arises from the compound rate of return on initial deposits over the life of the savings program. Where the Consorcio Net Saver is accruing compound interest only on unused *fundo comun* and reserve fund balances, traditional investments compound on both principal and accrued interest. However, the deposit plan economic savings versus the Net Saver position in the Consorcio is decidedly back-end-loaded. In other words, in the first twelve months of the comparison, the Consorcio Net Saver is actually advantaged in present value of monthly payments versus the plain-vanilla depositor, and the cumulative net savings do not disappear until month twenty-seven. Further, depositing with such diligence in anticipation of cumulative inflation over the upcoming five years appears to be a daunting exercise in comparison to the

simplicity of Consorcio participation, which offers (in the BASE Case simulation) the same economic exposure at a predictable 3% annual option premium cost.

In addition, the Net Saver enjoys specific inflation protection and the neutralization of all other real return proxies. In other words, the Net Saver's payments are indexed to a claim on the future nominal value of the designated good regardless of nominal interest spreads to inflation. This protects the real value of the Net Saver's previous payments. While in theory the SELIC rate should offer a rate of return equal to inflation, the historical experience of Brazilian consumers has been otherwise.

Returning to the model results discussed above, the inflation rate in the nominal price of the designated good would have to outpace SELIC by only 6% per annum to erase any economic benefit for the straight deposit program, as summarized in Figure 4.7. To better understand the potential for this considerable outpacing of goods prices versus SELIC, we need only examine the annual inflation report by the Banco do Brasil. It forecasts cumulative annual inflation outpacing the reference interest rate by 3% in the near term and notes that the rate of recent inflation for transport and durable goods has outpaced the general consumer inflation index (Banco Central do Brasil *Relatorio de Inflacao*, p32). Faced with these conditions, the prospect of tying personal savings to long-term nominal appreciation of a real product should appeal to Consorcio participants. Indexation to a specified product does entail some inflation-basis risk for the Net Saver. Inflation rates for either general consumer prices or wages may outpace increases in the nominal price of the Consorcio good. This gap would be expected most in circumstances where microeconomic imbalances in the product market counterweigh the macroeconomic inflationary pressures. Conjectured scenarios include volume-based competition among product manufacturers driving advertised product pricing or household reallocation of proportional

discretionary spending away from consumer durables in times of heightened economic pessimism depressing demand. Though the rate of inflation for the Consorcio good may diverge from general consumer price inflation, this divergence should be an acceptable risk to an economically rational participant interested in the specific utility, in real terms, of the designated product.

Just as the Net Borrower retains option value, so does the Net Saver. The Net Saver's basket of options includes both puts, in the form of default insurance, and calls, in the form of return enhancement. For example, each participant pays, via *fundo comun* assessment, an economically fair cost of default. The Banco Central do Brasil study on consumer credit spreads reported that roughly 1.5% of the running monthly 4% observed credit spread could be earmarked for default costs over the total bank consumer credit portfolio. Assuming Consorcios are sufficiently large to replicate diversification benefits, the Banco Central do Brasil's study's default cost can be equated to the 1.5-2% excess contribution to the *fundo comun*.

This implied default protection is matched by the discrete protection in the form of stapled-on life insurance in the amount of the participant's outstanding payment balance. Thus, each participant is committing to insure their pro-rata default risk from death, which leaves the Net Saver protected against loss of principal. This solves the credibility dilemma visible in the simple illustrative example of a traffic-collision death of a participant in which the car, purchased via Consorcio, is also destroyed and the participant's estate has no other assets. The participant is able to assure his or her family that they are not burdened to repay a commitment made by the deceased nor are other participants, or the Consorcio structure, put at risk from such unfortunate circumstances.

Not only is principal protected in the Consorcio, but the Net Saver enjoys their pro-rata share of float returns and excess distributions at the conclusion of the Consorcio. Though not a driving incentive to participate in a Consorcio, this advantage is enhanced by the accumulated interest, and subsequent pro-rata redistribution, on any *lance* premiums submitted over the course of the Consorcio. Thus, the Net Saver enjoys a dividend for patience. Historical data on either *lance* frequency and size or rebate amounts for wound-up Consorcios are limited, so only an estimate is offered based on a modeled scenario with two participants bidding in the second month 10% of the nominal value of the designated good in order to secure the *contemplacao*. In this scenario, the Net Saver's rebate would be enhanced by 2% based purely on the returns from the *lance* float.

The Perspective of an Enrolling Participant: Having explored above the endpoint conditions of a Consorcio participant – Net Borrower and Net Saver, the concluding analysis focuses on the rational expectations of a potential Consorcio participant, one who neither anticipates default nor expects bids for *contemplacao* via *lance* (by either the participant or another member of the Consorcio). This assumption yields a uniform distribution of probabilities of being *contemplado*. Given this distribution, a rational participant can expect to receive the thirtieth *contemplacao*. For this median position, the net economic benefits are over 6% of annual cost of capital savings versus saving at a flat rate for thirty periods and subsequently borrowing the balance of the nominal product price. This saving provides the net-net economic advantage of Consorcio participation for a rational Brazilian consumer. Note, a more realistic assumption that some portion of participants intend to submit *lances* would erode the expected financing savings of the new participant, conditional on other participants submitting *lances*, while the newly enrolled participant does not. If the probability of a *lance* is

assumed uniform among all new participants, then the expectation of median *contemplacao* holds.

Why Consorcios Work: Advantages to Administrators

As already highlighted in the discussion of economic advantages to participants above, Consorcios require no capital from the administrator. Pure fee businesses are compelling growth drivers for financial institutions, especially as their growth is unconstrained by regulatory capital requirements. This combination of conditions aptly describes Brazil's financial services market over the period of Consorcio growth. The Consorcio structure enables Brazilian financial institutions offering the product to facilitate financial intermediation without bearing, and subsequently charging for, capital risk. Moreover, consumption financed through Consorcios is unconstrained by financial institutions' opportunity cost for marginal capital. This enables the Consorcio market to grow at the rate of consumer demand, avoiding the supply-side distortion of consumer credit provision that Brazil has historically experienced, as discussed in Chapter II. Consorcio administrators enjoy the neutralized capital risk exposure of the structure while still collecting attractive fee income, as already illustrated in Chapter III.

The administrator's fees are economically justifiable and the administration component of *prestacoes* is consistent with the risk sharing embedded in the Consorcio structure. Consorcio participants hold each other's credit risk and funding cost, while the administrator is paid for bearing operational risk. The administration fee can be further divided into two categories: expense reimbursement and economic transfer. The expense reimbursement category is payment for the clerical functions provided by the administrator. At inception, this principally represents legal organization of the Consorcio as an independent entity. On a running basis, the

administrator provides audited, updated financial reporting and hosts AGOs for participants, as discussed in Chapter III. The administrator also provides the communication infrastructure for the successful operation of the Consorcio – especially valuable given the limited or non-existent interpersonal connection of participants. The tangible manifestations of this include secure Consorcio-specific websites, toll-free help lines, and monthly mailings. In addition to set-up costs and ongoing monitoring, the administrator also lends its expertise to the participants – in exchange for which the administrator should be compensated.

The intangible economic value provided by the administrator represents the second component of the administration fee. The administrator provides the Consorcio participants with enrollment screening of fellow participants, a centralization of credit review that not only leverages the administrator’s expectedly superior credit evaluation expertise but also taps into proprietary, asymmetric information on participant credit worthiness held by the administrator’s traditional finance affiliates. This is the economic value lent to the participants by the administrator. According to Simione, in the case of Banespa Consorcios, the participants are aware that the administrator has historical banking information on all approved enrollees. According to the HSBC contract, for participants who utilize direct debit facilities from the administrator’s retail banking affiliate, the administrator has access to their retail banking accounts in the case of default.

The case of default prompts another example of the economic value provided the Consorcio by the administrator: superior expertise in default recovery. Given the ability to amortize the cost of legal staff and recovery agency retainers, administrators with operational scale can effectively pursue post-*contemplacao* default and yield the low default rates already analyzed in Chapter III. In addition to sharing the burden of recovery fixed costs between other

participants and among Consorcios managed by the same administrator, the marginal Consorcio is also hiring the procedural expertise of the administrator. This means that the tacit knowledge – e.g., of court agents, process timing, resale channels, etc. – accumulated by Consorcio operators over time accretes in value, as recovery experience potentially differentiates competing administrators. Though no evidence was available of enhanced recovery skill marketed to potential Consorcio participants *per se*, the economic intuition remains that there is value in default recovery expertise – the product of both financial institution size and history with Consorcios – participants are choosing to rent from the administrator.

In addition to fees paid to the administrators, Consorcios are a source of captive float for full-service financial institutions, of which most leading Consorcio providers are subsidiaries. Though the *fundo comun* assessment and the reserve fund deposit seem relatively modest on an individual level, aggregated over the simulation Consorcio, as illustrated in Figure 4.8, the significance of the Consorcio as a funding source for a Brazilian bank is evident. The *fundo comun* balance resembles a series of one-month time deposits held by the administrator's retail banking affiliate. The reserve fund is more attractive still. The periodic, fixed contribution to the reserve fund and the relatively predictable triggers (over a portfolio of participants) for drawing on the balance, combined with scale from aggregating the reserve rate over all the Consorcio participants, generate considerable available funding for on-lending by the retail bank that holds the Consorcio's account. The visibility of the draw-downs of the *fundo comun* and predictability of the ramp-up of the reserve fund make both sources of float compelling funding for a traditional bank.

Consorcio-bundled life insurance is a boon to the insurance affiliates of many administrators. The life insurance added on to the Consorcio program is more valuable than just

an incremental, marginal-exposure product. Through these low-denomination policies, Consorcio participants become a captive client base for cross-selling further insurance products. This tying of additional, separate financial products is consistent with the commonly repeated objective of the bankers interviewed: capture and retention of 100% of a given consumer's financial services business. Once a Brazilian consumer enters the formal banking market, capturing all of their current business and heavily marketing previously unconsidered additional financial solutions have proven a strategy for continued, profitable growth for Brazil's leading financial players. The Consorcio participant represents an ideal target for this capture and cross-sell strategy; and administrator-mandated life insurance is a clear example of its implementation.

Finally, Consorcios are scaleable financial offerings. This characteristic allows economies of scale for the administrator without sacrificing the inherent economic stability of the structure or the transfer of credit risk to the participants. Fewer AGOs and individual Consorcio financial statements need to be prepared for participants stacked into multi-*contemplacao* groups. Referring to data already examined in Chapter III, the average number of participants in a Consorcio has steadily grown over the 1992-2004 period. For the average motorcycle Consorcio, the number of *contemplacoes* per AGO has reached nearly three. In addition, as shown in the BASE Case simulation, the *fundo comun* float for a treble allocation Consorcio creates a sufficient balance to enhance the number of *contemplacoes* still further. In the BASE Case, the model suggests that a fourth *contemplacao* is available every seventh AGO. This both shortens the life of the Consorcio and allows more than half of the participants to receive their *contemplacao* before month thirty. Thus, this multiple *contemplacao* model benefits not only the administrator, which needs to oversee fewer independent legal entities and

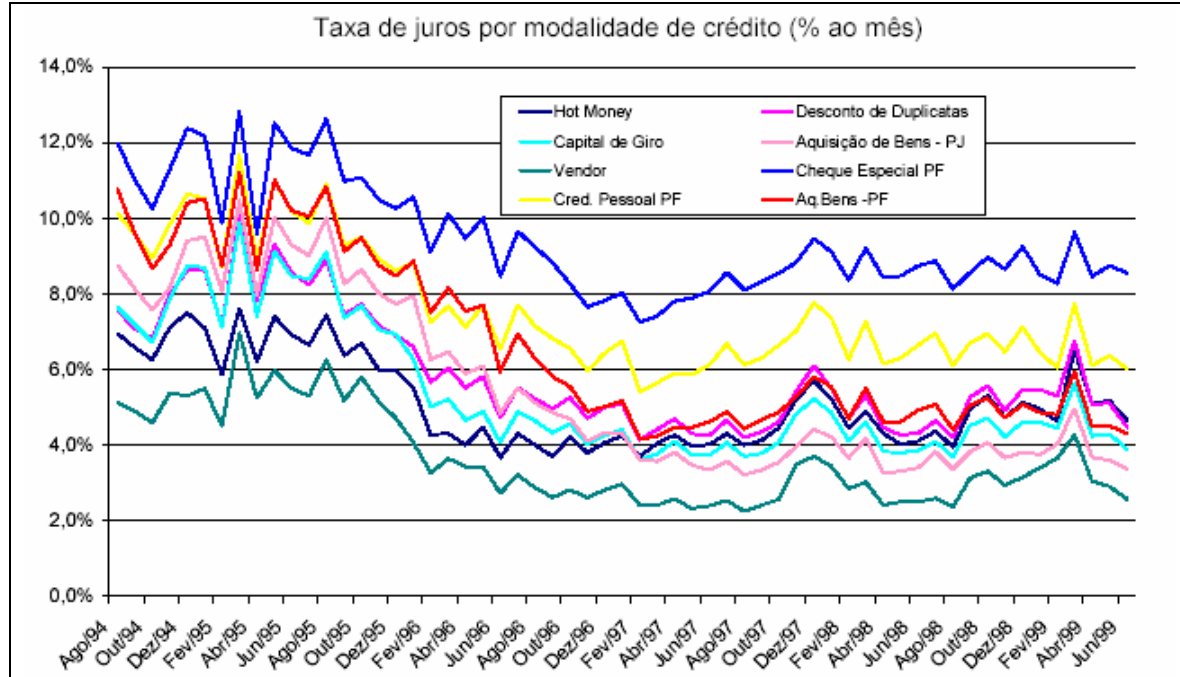
do paperwork for separate accounts, but also the participants by allowing a variety of combinations of *lance* and allocation by *sorteio*.

Figure 4.1– New Automobile Consorcio Pricing Guide from Bradesco, 31-March-06

Bradesco Consorcios - "Simule Ja" Output <i>31-Mar-06</i>	Crédito (Value)	Parcela (Payment)	Prazo (#months)	Imputed APR
MITSUBISHI L200 GL 2.5 4X4-CD	76,521.0	1506.34	60	7.0%
AUDI A3 1.8 5P MEC-	73,200.0	1440.97	60	7.0%
RENAULT MASTER 2.8 DTI 16-L	72,807.0	1433.27	60	7.0%
HONDA CIVIC EX - AT-	71,190.0	1401.44	60	7.0%
CITROEN XSARA EXCLUSIVE 2 -	67,535.0	1329.45	60	7.0%
KIA MOTORS BONGO DLX 4X4 CD-A/C	66,090.0	1301.01	60	7.0%
S10 CACAMBA DIESEL 4-	63,928.0	1258.48	60	7.0%
XSARA PICASSO GLX 2-	60,870.0	1198.25	60	7.0%
STILO 1.8 16V 4p-	58,100.0	1143.75	60	7.0%
TOYOTA COROLLA XLI 1.6 16V-	56,021.0	1102.82	60	7.0%
CIVIC LX - MT-	54,660.0	1076.03	60	7.0%
MAREA ELX 1.8 -	53,500.0	1053.17	60	7.0%
GENERAL MOTORS ASTRA SEDAN 2 8V-	51,373.0	1011.33	60	7.0%
FOCUS GLX 5P HATCH-1	49,820.0	980.72	60	7.0%
STILO 1.8 8V 4P-	48,500.0	954.76	60	7.0%
FORD ECOSPORT 1.6 XL -	46,510.0	915.56	60	7.0%
PEUGEOT 206 FELINE 1.6 16V-5	43,800.0	862.22	60	7.0%
FIAT DOBLO EX FIRE 1.3-16	43,220.0	850.82	60	7.0%
POLO 1.6 -	39,396.0	775.54	60	7.0%
PARATI 1.8 -	36,828.0	724.99	60	7.0%
CORSA 1.8 SEDAN -	36,678.0	722.04	60	7.0%
CORSA 1.8 HATCH 5P-	34,395.0	677.08	60	7.0%
CORSA 1 SEDAN 4P-	32,901.0	647.68	60	7.0%
MONTANA 1.8 8V FLEX-	32,382.0	637.47	60	7.0%
CORSA 1 HATCHBACK. -	30,631.0	602.99	60	7.0%
SAVEIRO 1.6 -	30,440.0	599.23	60	7.0%
CORSA SEDAN CLASSIC -	29,946.0	589.51	60	7.0%
VOLKSWAGEN FOX 1 8V CITY-TOTA	29,904.0	588.69	60	7.0%
NOVO FIESTA 1 -	28,900.0	568.91	60	7.0%
GOL 1.6 8V CITY-	28,699.0	564.97	60	7.0%
NOVO PALIO ELX 1-4	28,080.0	552.78	60	7.0%
CORSA SEDAN CLASSIC -	27,659.0	544.49	60	7.0%
CELTA HATCHBACK 5P -	26,720.0	525.99	60	7.0%
NOVO PALIO EX 1-2P	26,560.0	522.85	60	7.0%
CELTA HATCHBACK 3P -	25,147.0	495.02	60	7.0%
PALIO FIRE 1 4P-	25,130.0	494.69	60	7.0%
KA GL 1.0L -	24,950.0	491.15	60	7.0%
PALIO FIRE 1 2P-	23,620.0	465.17	60	7.0%
UNO MILLE FR 1-4P	22,460.0	442.13	60	7.0%
UNO MILLE FR 1-2P	20,910.0	411.59	60	7.0%

Source: Bradesco Online Resource

Figure 4.2– Monthly Loan Rates in Brazil – August 1994 to June 1999



Source: Banco Central do Brasil. *Note: Red line refers to personal consumer good loan.*

Figure 4.3– Bradesco Returns and Capital Ratio – 2000 to 2004

	2000	2001	2002	2003	2004	Average
ROE	22%	22%	19%	17%	20%	20%
Capital Ratio	13%	15%	18%	20%	19%	17%
Capital Charge (bps)	286	342	335	338	378	336

Source: Bradesco 2004 Annual Report

Figure 4.4– Consorcio Simulation – BASE Case

Participant	Nominal Savings	Economic Savings	Imputed Fin Rate	Change in APR (bps)
1	\$ 64,088	\$ 50,845	5.9%	1,306
90	24,524	20,904	12.1%	492
180	(15,041)	(9,037)	18.2%	(321)

Source: ad hoc Consorcio model – Appendix C-1. *Note: Participant 1- Net Borrower; Participant 180- Net Saver; Participant 90- Median Participant*

Figure 4.5 – Consorcio Simulation – Loan Spread Compressed to 70bps

Participant	Nominal Savings	Economic Savings	Imputed Fin Rate	Change in APR (bps)
1	\$ (6,873)	\$ 82	15.6%	3
90	(10,957)	(4,477)	16.9%	(159)
180	(15,041)	(9,037)	18.2%	(321)

Source: ad hoc Consorcio model – Appendix C-2.

Figure 4.6– Consorcio Simulation – Good Price Inflation Breakeven for N.Borrower

Participant	Nominal Savings	Economic Savings	Imputed Fin Rate	Change in APR (bps)
1	\$ (19,557)	\$ (100)	19.0%	(3)
90	16,549	24,091	10.8%	625
180	52,655	48,281	2.5%	1,253

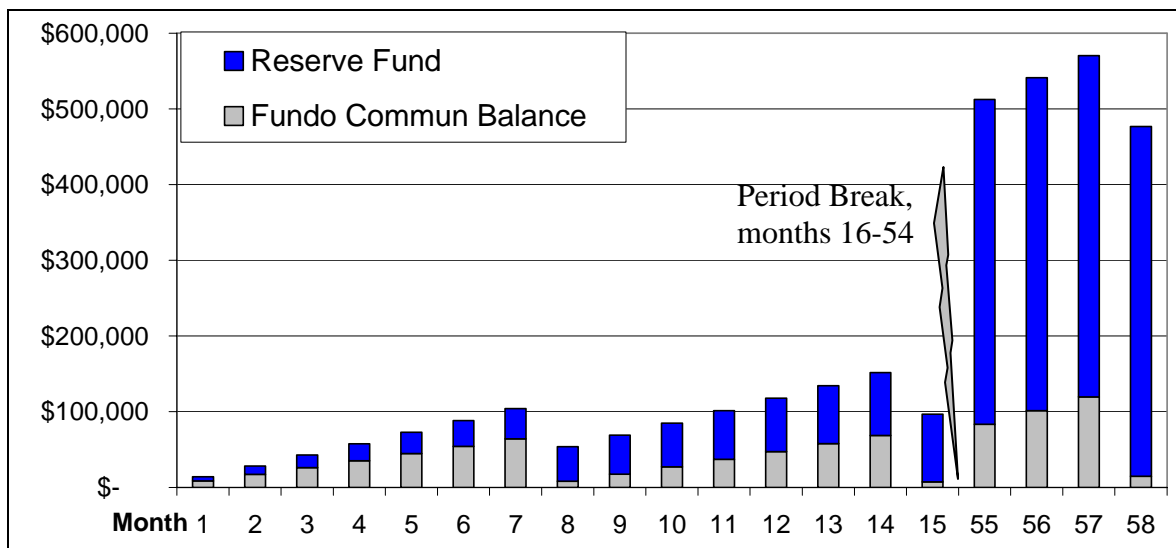
Source: ad hoc Consorcio model – Appendix C-3. *Note: Breakeven at SELIC + Spread*

Figure 4.7– Consorcio Simulation – Good Price Inflation Breakeven for Net Saver

Participant	Nominal Savings	Economic Savings	Imputed Fin Rate	Change in APR (bps)
1	\$ 46,156	\$ 39,765	8.3%	1,070
90	20,952	20,097	11.6%	542
180	(4,252)	429	14.9%	14

Source: ad hoc Consorcio model – Appendix C-4. *Note: Breakeven vs. deposit at SELIC*

Figure 4.8– Float Accumulation from BASE Case Scenario – Months 1-15 & 55-58



Source: ad hoc Consorcio model – Appendix C-1

Chapter V. Conclusion

The analysis of Consorcios invites reflection on avenues of potential future research. Access to the complete data store of a leading administrator will be critical for developing further insight. With information from the Consorcio level, modeled behavior in Chapter IV could be checked against empirical results and consumer decision rules could evolve. Behavioral patterns, such as seasonality and increased likelihood of *lances* around the annual introduction of new models of the designated good, warrant closer examination given more granular data. Finally, superior demographic data would enable detailed study of the profile of excluded or defaulted participants. Demographic data would also permit study of the interaction between economic conditions and types of consumers selecting Consorcios. Nonetheless, the analysis conducted in this paper yields an improved understanding of the significance of the Consorcio product to Brazil's financial services market as well as identification of the key features and conditions for the product's observed success in Brazil and Consorcios' potential in new markets.

Though the nuances of the impact of Consorcios on Brazil's financial services marketplace is difficult to isolate using the available data, the breadth and depth of this innovative product is clear. Consorcios are broadly accepted in Brazil in terms of geographic presence, product adaptability, and number of administrators offering the product. Consorcios have also deeply penetrated, in terms of market share, the financing market for consumer durables – especially in the motorcycle segment. Moreover, the Consorcio retains market share reflective of continued attractiveness to certain retail participants while displaying the fluctuation in market share of a product with conditional appeal. Consorcios emerge from the analysis

above as a viable substitute financial solution for Brazil's consumers, parallel to traditional credit and savings channels.

The question of how much Consorcio acceptance stems from the intrinsic appeal of the structure versus the external economic conditions remains open. Chapter IV's analysis indicates that a balance of macroeconomic conditions, which shape the contemporary landscape and the rational expectations of market participants, and structural features of Consorcios combine to reinforce the viability of the product.

Brazil's financial services sector reflects the accumulated experience of volatile growth, distortive sector inefficiencies, and a top tier of financial institutions bred for adaptability. These historical features feed the genesis of the Consorcio as a financing alternative. Two characteristics of Consorcios reflect this evolutionary macroeconomic path-dependency: the self-contained structure and the circumvention of traditional credit gatekeepers. The self-contained structure of the Consorcio differentiates the product from savings and loans, credit unions, traditional intermediation, etc. As each Consorcio is a stand-alone entity, once initiated, the structure provides the participants with the *contemplacao* regardless of changing macroeconomic circumstances. This insulation from credit market cyclicity is a feature derived from the experience of lenders, savers and borrowers in Brazil over the past forty years. Similarly, the current crowd-out of consumer lending by local currency sovereign debt is side-stepped via the Consorcio structure. Participants are implicitly directing the use of the funding they provide as savers; they are directing the funds back to themselves as borrowers. Thus, the Consorcio removes from lending agents within a bank the opportunity to divert retail deposits into building a portfolio of treasury notes. This is especially valuable if, as suggested in Chapter II, the rationale for concentrating bank assets in government debt blurs economic and political motives.

Three characteristics emerge as essential conditions for the retail acceptance of Consorcios. The first, and most obvious, is economic savings for the participant versus bank credit. The Consorcio participant faces the expectations of being the median *contemplado*. The expected savings of this position represent the primary economic inducement of the consumer to finance via Consorcio; though as lender's capital charges, intermediation spread, and transaction costs decline, the Consorcio's relative appeal versus a traditional loan erodes. In addition, Consorcios provide inflation protection. The indexation of the *contemplacao* to the nominal price of the designated good structurally hedges the savings of the participant. Under conditions where either overall inflation is negligible to negative or the price of the designated good will lag behind general inflation, the Consorcio is disadvantaged versus saving from income surplus over time. Finally, the condition of regulatory support for the viability of the structure also matters. Looking back to Chapter IV, the enhancement of Consorcio repossession rights and simplification of recovery procedure discourages participant default post-*contemplacao* such that reported defaults are rare. Similarly, the exclusion provision heavily taxes withdrawal from the Consorcio. Given the conditions above, participants embrace the economic appeal and operational risk protection of the Consorcio.

Just as the analysis of Chapter IV provided economic conditions under which Consorcios appeal to consumers, administrators' offer of the product is based on clear economic incentives. First, the administrator is remunerated despite having zero economic capital exposed to the Consorcio. The Consorcio also offers full limited liability to the administrator. This risk reduction is passed on as part of the economic savings enjoyed by participants; but the administrator also benefits via the scalability of the line of business, the second-order funding accumulated, and the opportunity to cross-sell additional financial products and capture a higher

share of each participant's banking activity. Further, the administrator's access to credit information regarding each applicant is likely inferior to the participant's. Consorcios thus benefit from banks' lending-risk aversion.

A plausible argument for the conditional introduction of Consorcios to the U.S. market can be made from the economic conditions outlined in the previous pages. The United States already has a tradition of community-level intermediation. Ethnic and professional communities dating back to nineteenth century farmers' cooperatives display a history of collective lending and borrowing. In the United States, the attempts to formalize local cooperative finance evolved into savings and loans rather than Consorcios. Unfortunately, in the 1980s these institutions displayed the same agency distortion as Brazilian retail banks by channeling deposits into junk bond and commercial real estate holdings perceived by the managers as superior to consumer credit. Nonetheless, stand-alone structures managed for the participants' interest without ongoing intervention or capital exposure by the administrator already widely exist in the form of investment mutual funds. Structurally, mutual funds most resemble Consorcios in terms of the interaction between funding sources and uses and the specification of the administrator's role. The United States also has creditor-favorable repossession regulations as well as a developed for-hire recovery infrastructure for consumer durable goods. The framework for implementing the Consorcio structure and the underlying cultural familiarity with the pooling of funding provide a practicable foundation for the introduction to the United States of Consorcio products.

There are, however, issues with the implementation of Consorcios today. FICO scores provide an abundance of reliable, uniform credit history which is centrally maintained and accessible to potential lenders in the United States. This significantly reduces the value of proprietary experience of a financial institution with an individual enjoyed by Brazilian banks.

Still, several consumer markets, most notably the sizable U.S. immigrant population, have limited credit access because the existing U.S. system is configured around the information contained in individuals' FICO scores. Consorcios tailored to immigrant communities otherwise disenfranchised from the U.S. consumer credit markets would offer the double benefit of financing current product demand and providing an entry point for the participant to develop reportable credit history. Separately, benchmark inflation rates and financing costs are simply less onerous in the United States today – especially with automobile manufacturers willing to finance at 0% in order to subsidize capacity utilization by stoking consumer demand. However, the macroeconomic conditions that favor Consorcios – high inflation expectations and saver uncertainty about the ability of deposits to keep real value – are within the realm of reason. The stagflation of the 1970s exhibited such conditions. This suggests that Consorcios are not only capable of succeeding now in selective markets, such as immigrants, but also fully viable for widespread adoption in the United States given the right macroeconomic conditions.

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Appendix A: Consorcio Contracts



Bradesco
Consórcios

**Regulamento para
Grupo de Consórcio**

Bens Móveis

CONTRATO DE ADESÃO A GRUPO DE CONSÓRCIO

I - DEFINIÇÕES

Artigo 1 - Para os fins do presente Contrato de Adesão, serão adotadas as seguintes denominações:

- a) "Administradora", é a HSBC (Brasil) Consórcio Ltda., empresa regularmente autorizada pelo Banco Central do Brasil a administrar Grupos de Consórcio, com sede na Cidade de São Paulo, Estado de São Paulo, na Rua Dr. Seidel, n.º 425, 3.º andar, inscrita no CNPJ/MF sob o no. 00.241.809/0001-37;
- b) "Assembleia de Constituição", como sendo a primeira reunião do Grupo, com vistas à definição das responsabilidades dos Consorciados;
- c) "Assembleia Geral Extraordinária" ou "AGE", como sendo a reunião realizada em caráter extraordinário especialmente convocada pela Administradora, para discussão de assuntos previstos ou não neste Contrato e de interesse geral dos Consorciados;
- d) "Assembleia Geral Ordinária" ou "AGO", como sendo a reunião realizada mensalmente pelo Grupo com propósito de Contemplação e prestação de informações gerais aos Consorciados;
- e) "Consortado", como sendo a pessoa física ou jurídica que integra um Grupo, na condição de titular de uma ou mais Cotas numericamente identificadas, e que assume, nos termos deste Contrato, a obrigação de contribuir para o alcance integral dos objetivos do Grupo do qual participa;
- f) "Consórcio", como sendo a reunião de pessoas físicas e/ou jurídicas, em Grupo fechado, promovida pela Administradora, com a finalidade de propiciar-lhes a aquisição de bem ou de bens por meio de autofinanciamento;
- g) "Bem Objeto do Plano", como sendo o modelo de veículo, escolhido pelo Consortado no ato da contratação do Consórcio, que será o referencial para a atualização do Crédito e das parcelas do Plano;
- h) "Contemplação", como sendo o ato pelo qual é atribuído a um Consortado, por Lance ou por Sorteio, um crédito referente ao Bem Objeto do Plano na data da AGO;
- i) "Contrato de Adesão a Grupo de Consórcio" é o presente instrumento que, firmado pelo Consortado e pela Administradora, diretamente ou pela via da Proposta de Adesão, cria vínculo jurídico e obrigacional entre as partes e pelo qual o Consortado formaliza seu ingresso em um Grupo, estando nele expressas as condições da operação de Consórcio, bem como os direitos e deveres das partes contratantes;
- j) "Cota", como sendo a parte ideal do Fundo de recursos do Grupo, cujo valor é igual à divisão de seu patrimônio líquido pelo número existente de Cotas. A Cota será identificada por um número fornecido pela Administradora, aleatoriamente, até a data da Assembleia de Constituição;
- k) "Fundo Comum", é a soma das frações pagas mensalmente por todos os Consortados, que totalizados correspondem ao valor que possibilita a aquisição de um ou mais Bens;
- l) "Fundo de Reserva", é o percentual pago pelo Consortado, com o objetivo de constituir um fundo auxiliar, que será utilizado sempre que se fizer necessário o incremento de recursos, visando o bom andamento de Grupo, ou com uma reserva auxiliar às despesas de Grupo e/ou Consortados;
- m) "Grupo", é uma sociedade de fato, constituída na data da realização da primeira Assembleia Geral Ordinária por Consortados reunidos pela Administradora, para fins estabelecidos na letra "f" deste Artigo, com prazo de duração previamente estabelecido. O Grupo é representado pela Administradora, ativa ou passivamente, em juízo ou fora dele, em defesa dos direitos e interesses coletivamente considerados e para a execução do Contrato de Consórcio. Cada Grupo é

Appendix B: Brazilian Federal Statutes

LEI Nº 5.768, DE 20 DE DEZEMBRO DE 1971.

O PRESIDENTE DA REPÚBLICA, faço saber que o CONGRESSO NACIONAL decreta e eu sanciono a seguinte Lei:

CAPÍTULO I

Da Distribuição Gratuita de Prêmios

Art 1º A distribuição gratuita de prêmios a título de propaganda quando efetuada mediante sorteio, vale-brinde, concurso ou operação assemelhada, dependerá de prévia autorização do Ministério da Fazenda, nos termos desta lei e de seu regulamento.

§ 1º A autorização somente poderá ser concedida a pessoas jurídicas que exerçam atividade comercial, industrial ou de compra e venda de bens imóveis comprovadamente quites com os impostos federais, estaduais e municipais, bem como com as contribuições da Previdência Social, a título precário e por prazo determinado, fixado em regulamento, renovável a critério da autoridade.

§ 2º O valor máximo dos prêmios será fixado em razão da receita operacional da empresa ou da natureza de sua atividade econômica, de forma a não desvirtuar a operação de compra e venda.

§ 3º É proibida a distribuição ou conversão dos prêmios em dinheiro.

§ 4º Obedecerão aos resultados da extração da Loteria Federal, os sorteios previstos neste artigo.

§ 5º O Ministério da Fazenda, no caso de distribuição de prêmios a título de propaganda, mediante sorteio, poderá autorizar que até o limite de 30% (trinta por cento) dos prêmios a distribuir por essa modalidade seja excluído da obrigatoriedade prevista no parágrafo anterior, desde que o sorteio se processe exclusivamente em programas públicos nos auditórios das estações de rádio ou de televisão.

§ 6º Quando não for renovada a autorização de que trata este artigo, a empresa que, na forma desta lei, venha distribuindo, gratuitamente, prêmios vinculados à pontualidade de seus prestamistas nas operações a que se referem os itens II e IV do art. 7º continuará a distribuí-los exclusivamente com relação aos contratos celebrados até a data do despacho denegatório.

Art 2º Além da empresa autorizada, nenhuma outra pessoa natural ou jurídica poderá participar do resultado financeiro da promoção publicitária de que trata o artigo anterior, ainda que a título de recebimento de *royalties*, aluguéis de marcas, de nomes ou assemelhados.

Art 3º Independe de autorização, não se lhes aplicando o disposto nos artigos anteriores:

I - a distribuição gratuita de prêmios mediante sorteio realizado diretamente por pessoa jurídica de direito público, nos limites de sua jurisdição, como meio auxiliar de fiscalização ou arrecadação de tributos de sua competência;

II - a distribuição gratuita de prêmios em razão do resultado de concurso exclusivamente cultural artístico, desportivo ou recreativo, não subordinado a qualquer modalidade de álea ou pagamento pelos concorrentes, nem vinculação destes ou dos contemplados à aquisição ou uso de qualquer bem, direito ou serviço.

Parágrafo único. O Ministério da Fazenda poderá autorizar a realização de propaganda comercial, com distribuição gratuita de prêmios vinculada a sorteio realizado nos termos do tem I deste artigo, atendido, no que couber, o disposto no art. 1º e observada a exigência do art. 5º.

Art. 4º Nenhuma pessoa física ou jurídica poderá distribuir ou prometer distribuir prêmios mediante sorteios, vale-brinde, concursos ou operações assemelhadas, fora dos casos e condições previstos nesta lei, exceto quando tais operações tiverem origem em sorteios organizados por instituições declaradas de utilidade pública em virtude de lei e que se dediquem exclusivamente a atividades filantrópicas, com fim de obter recursos adicionais necessários à manutenção ou custeio de obra social a que se dedicam. ([Redação da pela Lei nº 5.864, de 12.12.72](#))

§ 1º Compete ao Ministério da Fazenda promover a regulamentação, a fiscalização e controle, das autorizações dadas em caráter excepcional nos termos deste artigo, que ficarão basicamente sujeitas às seguintes exigências: ([Parágrafo incluído pela Lei nº 5.864, de 12.12.72](#))

a) comprovação de que a requerente satisfaz as condições especificadas nesta lei, no que couber, inclusive quanto à perfeita regularidade de sua situação como pessoa jurídica de direito civil; ([Alínea incluído pela Lei nº 5.864, de 12.12.72](#))

b) indicação precisa da destinação dos recursos a obter através da mencionada autorização; ([Alínea incluído pela Lei nº 5.864, de 12.12.72](#))

c) prova de que a propriedade dos bens a sortear se tenha originado de doação de terceiros, devidamente formalizada; ([Alínea incluído pela Lei nº 5.864, de 12.12.72](#))

d) realização de um único sorteio por ano, exclusivamente com base nos resultados das extrações da Loteria Federal somente admitida uma única transferência de data, por autorização do Ministério da Fazenda e por motivo de força maior. (Alínea incluído pela Lei nº 5.864, de 12.12.72)

§ 2º Sempre que for comprovado o desvirtuamento da aplicação dos recursos oriundos dos sorteios excepcionalmente autorizados neste artigo, bem como o descumprimento das normas baixadas para sua execução, será cassada a declaração de utilidade pública da infratora, sem prejuízo das penalidades do art. 13 desta lei. (Parágrafo incluído pela Lei nº 5.864, de 12.12.72)

§ 3º Será também considerada desvirtuamento da aplicação dos recursos obtidos pela forma excepcional prevista neste artigo a interveniência de terceiros, pessoas físicas ou jurídicas, que de qualquer forma venham a participar dos resultados da promoção. (Parágrafo incluído pela Lei nº 5.864, de 12.12.72)

Art 5º A concessão da autorização prevista no art. 1º sujeita as empresas autorizadas ao pagamento, a partir de 1º de janeiro de 1972, da "Taxa de Distribuição de Prêmios" de 10% (dez por cento), incidente sobre o valor da promoção autorizada, assim compreendida a soma dos valores dos prêmios prometidos. (Taxa de Distribuição extinta pela Lei nº 8.522, de 11.12.92)

§ 1º A taxa a que se refere este artigo será paga em tantas parcelas mensais, iguais e sucessivas, quantos forem os meses de duração do plano promocional, vencendo-se a primeira no 10º (décimo) dia do mês subsequente ao do início da execução do plano.

§ 2º Até 31 de dezembro de 1971, será exigida a Taxa de Distribuição de Prêmios de que trata o § 3º do art. 14 do Decreto-lei nº 34, de 18 de novembro de 1966, incidente sobre o valor previsto no art. 8º, alínea a, do Decreto-lei nº 7.930, de 3 de setembro de 1945.

Art 6º Quando o prêmio sorteado, ou ganho em concurso, não for reclamado no prazo de 180 (cento e oitenta) dias, caducará o direito do respectivo titular e o valor correspondente será recolhido ao Tesouro Nacional no prazo de 10 (dez) dias pelo distribuidor autorizado.

CAPÍTULO II

De Outras Operações Sujeitas a Autorização

Art 7º Dependerão, igualmente, de prévia autorização do Ministério da Fazenda, na forma desta lei, e nos termos e condições gerais que forem fixados em regulamento, quando não sujeitas à de outra autoridade ou órgãos públicos federais: (Vide Lei nº 8.177, de 1991)

I - as operações conhecidas como Consórcio, Fundo Mútuo e outras formas associativas assemelhadas, que objetivem a aquisição de bens de qualquer natureza;

II - a venda ou promessa de venda de mercadorias a varejo, mediante oferta pública e com recebimento antecipado, parcial ou total, do respectivo preço;

III - a venda ou promessa de venda de direitos, inclusive cotas de propriedade de entidades civis, tais como hospital, motel, clube, hotel, centro de recreação ou alojamento e organização de serviços de qualquer natureza com ou sem rateio de despesas de manutenção, mediante oferta pública e com pagamento antecipado do preço;

IV - a venda ou promessa de venda de terrenos loteados a prestações mediante sorteio;

V - qualquer outra modalidade de captação antecipada de poupança popular, mediante promessa de contraprestação em bens, direitos ou serviços de qualquer natureza.

§ 1º Na operação referida no item II deste artigo, a mercadoria deverá:

a) ser de preço corrente de venda a vista no mercado varejista da praça indicada e aprovada com o plano, à data da liquidação do contrato, e, não o havendo, ou sendo a mercadoria de venda exclusiva, ou de mercadoria similar na mesma praça, vedado qualquer acréscimo até sua efetiva entrega;

b) ser de produção nacional e considerada de primeira necessidade ou de uso geral;

c) ser discriminada no contrato referente à operação, podendo, entretanto, o prestamista, a seu critério exclusivo, escolher outra não constante da discriminação, desde que o existente no estoque do vendedor, atendidas as alíneas a e b, pagando o prestamista a diferença de preço se houver.

§ 2º A empresa que realizar a operação a que se refere o parágrafo anterior aplicará o mínimo de 20% (vinte por cento) de sua arrecadação mensal na formação de estoque de mercadoria que se propõe a vender, podendo o Ministério da Fazenda, a seu exclusivo critério, permitir que parte dessa percentagem seja aplicada no mercado de valores mobiliários, nas condições que vierem a ser fixadas em regulamento; nos casos do item IV, manterá, livre de quaisquer ônus reais ou convencionais, quantidade de imóveis de sua propriedade, na mesma proporção acima mencionada.

§ 3º Na operação referida no item II deste artigo, quando houver desistência ou inadimplemento do prestamista, a partir da 4ª (quarta) prestação, inclusive, este receberá, no ato, em mercadorias nacionais,

do estoque do vendedor, e pelo preço corrente de venda à vista no mercado varejista da praça indicada no plano, à data em que se verificar a desistência ou inadimplemento, o valor da tabela de resgate das prestações pagas, fixada pelo Ministro da Fazenda.

§ 4º O valor de resgate a que se refere o parágrafo anterior será fixado proporcional e progressivamente às prestações pagas pelo prestamista, não podendo ser inferior a 50% (cinquenta por cento) das importâncias pagas, e, se não reclamado até 60 (sessenta) dias do término do contrato de venda, será recolhido ao Tesouro Nacional, dentro do prazo de 30 (trinta) dias.

§ 5º Paga a totalidade das prestações previstas nos contratos a que se refere o item II deste artigo, o prestamista receberá mercadorias de valor correspondente à soma das prestações corrigidas monetariamente segundo índices que o regulamento indicar, e, se não reclamado no prazo de 1 (um) ano do término do contrato de venda, será recolhido ao Tesouro Nacional dentro de 30 (trinta) dias.

§ 6º Nas operações previstas no item V deste artigo, quando a contraprestação fôr em mercadorias, aplicar-se-á o disposto nos parágrafos anteriores.

§ 7º Para autorização das operações a que se refere este artigo, quando a contraprestação fôr em imóveis, serão exigidas:

a) prova de propriedade dos imóveis objeto das vendas, promessas de venda ou contraprestações prometidas, e da existência de ônus reais que recaiam sobre os mesmos;

b) prova de que os mesmos imóveis satisfazem a, pelo menos, duas das condições previstas do art. 32 do Código Tributário Nacional, preferencialmente a existência de escola a menos de 2 (dois) quilômetros de distância;

c) a manifestação do Banco Nacional da Habitação de que os imóveis se prestam a consecução de plano habitacional, quando se tratar de terrenos, ou quanto à viabilidade técnica e financeira, quando se tratar de edificações residenciais;

d) a compatibilidade do plano de vendas com o Plano de Integração Nacional, quando fôr o caso.

§ 8º É vedado à empresa autorizada a realizar as operações a que se refere este artigo cobrar do prestamista qualquer outra quantia ou valor, além do preço do bem, direito ou serviço, ainda que a título de ressarcimento de tributos, ressalvado, quando fôr o caso, o disposto no item III do art. 8º.

CAPÍTULO III

Das Disposições Gerais e Penalidades

Art 8º O Ministério da Fazenda, nas operações previstas no artigo 7º, exigirá prova de capacidade financeira, econômica e gerencial da empresa, além dos estudos de viabilidade econômica do plano e das formas e condições de emprego das importâncias a receber, podendo: [\(Vide Lei nº 8.177, de 1991\)](#)

I - fixar limites de prazos e de participantes, normas e modalidades contratuais;

II - fixar limites mínimos de capital social;

III - estabelecer percentagens máximas permitidas, a título de despesas de administração;

IV - exigir que as respectivas receitas e despesas sejam contabilizadas destacadamente das demais.

Art 9º O Conselho Monetário Nacional, tendo em vista os critérios e objetivos compreendidos em sua competência legal, poderá intervir nas operações referidas no artigo 7º, para:

I - restringir seus limites e modalidades, bem como disciplinar as operações ou proibir novos lançamentos;

II - exigir garantias ou formação de reservas técnicas, fundos especiais e provisões, sem prejuízos das reservas e fundos determinados em leis especiais;

III - alterar o valor de resgate previsto no § 4º do artigo 7º, bem como estendê-lo a alguma ou a todas daquelas operações.

§ 1º Os bens e valores que representem as reservas e garantias técnicas para atender ao disposto neste artigo não poderão ser alienados prometidos alienar ou de qualquer forma gravados sem autorização expressa do Ministério da Fazenda, sendo nula, de pleno direito, a alienação realizada ou o gravame constituído com a violação deste artigo.

§ 2º Quando a garantia ou reserva técnica fôr representada por bem imóvel, a cláusula de inalienabilidade e impenhorabilidade será obrigatoriamente registrada no competente Cartório do Registro Geral de Imóveis.

Art 10. O Banco Central do Brasil poderá intervir nas empresas autorizadas a realizar as operações a que se refere o artigo 7º, e decretar sua liquidação extrajudicial na forma e condições previstas na legislação especial aplicável às entidades financeiras.

Art 11. Os diretores, gerentes, sócios e prepostos com função de gestão na empresa que realizar operações referidas no artigo 7º:

I - serão considerados depositários, para todos os efeitos, das quantias que a empresa receber dos prestamistas na sua gestão, até o cumprimento da obrigação assumida;

II - responderão solidariamente pelas obrigações da empresa com o prestamista, contraídas na sua gestão.

Parágrafo único. O disposto neste artigo aplica-se também aos administradores da operação mencionada no item I do artigo 7º.

Art. 12. A realização de operações regidas por esta Lei, sem prévia autorização, sujeita os infratores às seguintes sanções, aplicáveis separada ou cumulativamente: (Redação da pela Lei nº 7.691, de 15.12.88)

I - no caso de que trata o art. 1º: (Redação da pela Lei nº 7.691, de 15.12.88)

a) multa de até cem por cento da soma dos valores dos bens prometidos como prêmios; (Redação da pela Lei nº 7.691, de 15.12.88)

b) proibição de realizar tais operações durante o prazo de até dois anos; (Redação da pela Lei nº 7.691, de 15.12.88)

II - nos casos a que se refere o art. 7º: (Redação da pela Lei nº 7.691, de 15.12.88)

a) multa de até cem por cento das importâncias previstas em contrato, recebidas ou a receber, a título de taxa ou despesa de administração; (Redação da pela Lei nº 7.691, de 15.12.88)

b) proibição de realizar tais operações durante o prazo de até dois anos. (Redação da pela Lei nº 7.691, de 15.12.88)

Parágrafo único. Incorre, também, nas sanções previstas neste artigo quem, em desacordo com as normas aplicáveis, prometer publicamente realizar operações regidas por esta Lei. (Redação da pela Lei nº 7.691, de 15.12.88)

Art 13. A empresa autorizada a realizar operações previstas no art. 1º, que não cumprir o plano de distribuição de prêmios ou desvirtuar a finalidade da operação, fica sujeita, separada ou cumulativamente, às seguintes sanções: (Redação da pela Lei nº 7.691, de 15.12.88)

I - cassação da autorização; (Redação da pela Lei nº 7.691, de 15.12.88)

II - proibição de realizar tais operações durante o prazo de até dois anos; (Redação da pela Lei nº 7.691, de 15.12.88)

III - multa de até cem por cento da soma dos valores dos bens prometidos como prêmio. (Redação da pela Lei nº 7.691, de 15.12.88)

Parágrafo único. Incorrem nas mesmas sanções as instituições declaradas de utilidade pública que realizarem as operações referidas neste artigo, sem autorização ou em desacordo com ela. (Parágrafo único incluído pela Lei nº 7.691, de 15.12.88)

Art. 14. A empresa autorizada, na forma desta Lei, a realizar operações referidas no art. 7º, que descumprir os termos da autorização concedida ou normas que disciplinam a matéria, ficará sujeita, separada ou cumulativamente, às seguintes sanções: (Redação da pela Lei nº 7.691, de 15.12.88)

I - cassação da autorização; (Redação da pela Lei nº 7.691, de 15.12.88)

II - proibição de realizar nova operação durante o prazo de até dois anos; (Redação da pela Lei nº 7.691, de 15.12.88)

III - sujeição a regime especial de fiscalização; e (Redação da pela Lei nº 7.691, de 15.12.88)

IV - multa de até cem por cento das importâncias, recebidas ou a receber, previstas em contrato, a título de despesa ou taxa de administração. (Inciso incluído pela Lei nº 7.691, de 15.12.88)

Art 15. A falta de recolhimento da Taxa de Distribuição de Prêmios, dentro dos prazos previstos nesta lei, sujeita o contribuinte à multa igual a 50% (cinquenta por cento) da importância que deixou de ser recolhida.

Parágrafo único. Se o recolhimento fôr feito após o prazo legal, antes de qualquer procedimento fiscal, a multa será de 10% (dez por cento).

Art 16. As infrações a esta lei, a seu regulamento ou a atos normativos destinados a complementá-los, quando não compreendidas nos artigos anteriores, sujeitam o infrator à multa de 10 (dez) a 40 (quarenta) vezes o maior salário-mínimo vigente no País, elevada ao dôbro no caso de reincidência.

Art 17. A aplicação das penalidades previstas nesta lei não exclui a responsabilidade e as sanções de natureza civil e penal, nos termos das respectivas legislações.

Art 18. O processo e o julgamento das infrações a esta lei serão estabelecidos em regulamento.

Art 19. A fiscalização das operações mencionadas nesta lei será exercida privativamente pela Secretaria da Receita Federal do Ministério da Fazenda.

CAPÍTULO IV

Das Disposições Transitórias

Art 20. As operações de que trata o artigo 1º, autorizadas pelo Ministério da Fazenda e em curso na data do início da vigência desta Lei, serão adaptadas às suas disposições e às de seu regulamento, no prazo de 90 (noventa) dias, após o qual as respectivas autorizações serão consideradas canceladas de pleno direito, sujeitando-se quem as praticar, sem permissão legal às penalidades previstas nos itens II e III, do artigo 13.

Art 21. As operações de que trata o artigo 7º, em curso na data em que entrar em vigor esta lei, deverão, no prazo de 90 (noventa) dias, contados a partir da vigência do regulamento, prorrogável a critério da administração ser adaptadas ao regime ora estabelecido sob pena de os responsáveis ficarem sujeitos às sanções estipuladas no artigo 14, cabendo ao Ministério da Fazenda fixar normas especiais aplicáveis à liquidação dos planos não suscetíveis de adaptação, respeitados os contratos já celebrados na vigência dos mesmos planos, e de forma a não prejudicar os direitos dos participantes.

§ 1º Consideram-se não suscetíveis de adaptação as operações previstas no inciso I do artigo 7º, já contratadas segundo as normas vigentes expedidas pelo Ministério da Fazenda ou pelo Banco Central do Brasil.

§ 2º Nas operações de que trata o artigo 7º, em curso, e que antes desta Lei não dependiam de autorização, os que as praticarem requererão, no mesmo prazo fixado no *caput* deste artigo, as respectivas autorizações e, caso negada esta, terá aplicação o disposto no *caput* deste artigo.

Art 22. O Poder Executivo baixará regulamento desta Lei no prazo de 90 (noventa) dias.

Art 23. Esta Lei entrará em vigor na data de sua publicação, revogados os Decretos-lei números 7.930, de 3 de setembro de 1945, e 418, de 10 de janeiro de 1969, e demais disposições em contrário. Brasília, 20 de dezembro de 1971; 150º da Independência e 83º da República.

EMÍLIO G. MÉDICI

Antônio Delfim Netto

DECRETO Nº 70.951, DE 9 DE AGOSTO DE 1972.

O PRESIDENTE DA REPÚBLICA , usando da atribuição que lhe confere o artigo 81, item III, da Constituição, e tendo em vista o disposto no artigo 22 da Lei nº 5.768, de 20 de dezembro de 1971,

DECRETA:

[excerpt]

CAPÍTULO II

Dos Consórcios, Fundos Mútuos e Outras Formas Associativas Assemelhadas

SEÇÃO I

Dos Consórcios ou Fundos Mútuos para Aquisição de Bens Móveis Duráveis.

Art 40. A Secretaria da Receita Federal do Ministério da Fazenda poderá autorizar, na forma deste Regulamento e dos atos que o complementarem, a constituição e o funcionamento de consórcios, fundos mútuos ou formas associativas assemelhadas, que objetivem a coleta de poupanças destinadas a propiciar a aquisição de bens móveis duráveis, por meio de auto-financiamento.

Art 41. A autorização para organização e funcionamento será dada:

I – A sociedade de fins exclusivamente civis, ainda que revestidas de forma mercantil, de capital não inferior a duzentas (200) vezes o salário-mínimo local, totalmente integralizado;

II – A sociedade ou associações civis, de fins não lucrativos, com patrimônio líquido igual ou superior a duzentas (200) vezes o salário-mínimo local, limitada aos integrantes de seu quadro social a participação nas operações;

III – As sociedades mercantis de capital não inferior a mil (1.000) vezes o salário-mínimo local, totalmente integralizado, deste que o objeto do consórcio seja mercadoria de seu comércio ou fabrico.

§ 1º A pessoa jurídica autorizada providenciará, no prazo de sessenta (60) dias, a contar da data em que entrarem em vigor novos níveis de salário-mínimo, o aumento de seu capital ou patrimônio, se for o caso, para ajustamento aos limites previstos neste artigo.

§ 2º As obrigações passivas da sociedade autorizada, representadas pelas contribuições recebidas dos consorciados e ainda não aplicadas na aquisição dos bens, não poderão ultrapassar, em valor, a quinze (15) vezes a soma do capital realizado e reservas, ou, em se tratando de entidade que não possua capital, a soma do patrimônio líquido.

Art 42. As despesas de administração cobradas pela sociedade de fins exclusivamente civis não poderão ser superiores a doze por cento (12%) do valor do bem, quando este for de preço até cinquenta (50) vezes o salário-mínimo local, e a dez por cento (10%) quando de preço superior a esse limite.

§ 1º As associações civis de fins não lucrativos e as sociedades mercantis, que organizarem consórcio para aquisição de bens de seu comércio ou fabrico, somente poderão cobrar as despesas de

administração efetiva e comprovadamente realizadas com a gestão do consórcio, no máximo até à metade das taxas estabelecidas neste artigo.

§ 2º Será permitida a cobrança, no ato de inscrição do consorciado, de quantia até um por cento (1%) do preço do bem, que será devolvida, se não completado o grupo, ou compensada na taxa de administração, se constituída o consórcio.

Art 43. Constarão do Regulamento do consórcio as seguintes condições básicas:

I – Fixação da contribuição mensal mínima de valor não inferior a um inteiro seiscentos e sessenta e sete milésimos por cento (1,667%) do preço do bem a adquirir;

II – Aplicação obrigatória de, no mínimo, cinquenta por cento (50%) das contribuições mensais na aquisição de bens destinados a consorciado contemplado por preferência mediante sorteio, independentemente do oferecimento de lance;

III – Duração do plano limitado ao máximo de sessenta (60) meses;

IV – Número de participantes de cada grupo de consorciados não superior a cem (100);

V – Depósito em conta própria obrigatória, em bancos comerciais ou caixas econômicas, dos recursos a aplicar, coletados dos consorciados, cujo levantamento somente poderá ser feito para atendimento dos objetivos do plano, mediante declaração escrita da administradora com especificação do documento de compra, ou emissão de cheque na forma prevista no artigo 52, parágrafo único, da Lei nº 4.728, de 14 de julho de 1965;

VI – Prazo máximo de trinta (30) dias para entrega do bem, salvo se o consorciado escolher outro, não disponível, ou não oferecer, no mesmo prazo, a garantia prevista em contrato;

VII – Proibição de distribuição de prêmios, mesmo sob a forma de dispensa de prestações vencidas ou vincendas, assim como de conversão do valor do bem em dinheiro.

Parágrafo único. A pessoa jurídica autorizada poderá participar de consórcio por ela administrado, desde que:

a) não participe do sistema de distribuição;

b) os bens correspondentes à sua participação somente lhe sejam entregues após contemplados todos os demais consorciados.

Art 44. Poderão ser cobrados dos consorciados as despesas com o registro de seus contratos e instrumentos de garantia, inclusive nos casos cessão, venda vedada a cobrança de qualquer outra taxa além das estabelecidas neste Regulamento e nos atos normativos complementares.

Parágrafo único. A proibição deste artigo não alcança a mora e as despesas de cobrança previstas em contrato para os casos de inadimplemento, se, creditado aos consorciados o saldo resultante.

Art 45. O regulamento do plano poderá prever a cobrança de uma parcela da contribuição mensal, para a constituição de um fundo destinado a cobrir eventual insuficiência da receita por impontualidade no pagamento.

Parágrafo único. Os limites e condições do fundo previsto neste artigo serão estabelecidos pela Secretaria da Receita Federal do Ministério da Fazenda.

Art 46. Não poderão ser objeto de consórcio bens de preço inferior a cinco (5) vezes o maior salário-mínimo vigente no País.

SEÇÃO II

Dos Consórcios e Fundos Mútuos para Aquisição de Bens Imóveis

Art 47. Fica o Ministro da Fazenda autorizado a estabelecer normas para a organização e funcionamento de consórcios destinados a coletar poupança para a aquisição de bens imóveis que constituam unidades residenciais, observadas as seguintes condições básicas:

I – Manifestação do Banco Nacional de Habitação quanto à viabilidade técnica e financeira do plano;

II – Prazo máximo de cem (100) meses para pagamento;

III – Contribuição mensal mínima de um por cento (1%) do preço do imóvel;

IV – Reajustamento das prestações vincendas, se o preço do imóvel, com as características previstas no contrato, for alterado;

V – número máximo de cem (100) participantes para cada grupo de consorciados.

Brasília, 9 de agosto de 1972; 151º da Independência e 84º da República.

EMÍLIO G. MÉDICI
Antônio Delfim Netto

Appendix C: Consorcio Simulation Output

Appendix C-1: BASE Case

Designated Good Details										Participant										Other										Nominal Economic Impaired Fin. Change in APR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Base Price	60,000	60,755	61,519	62,293	63,076	63,870	64,673	65,497	66,340	67,144	67,989	68,844	69,710	70,587	71,475	72,374	73,284	74,204	75,134	76,074	77,024	77,984	78,954	79,934	80,924	81,924	82,934	83,954	84,984	86,024	87,074	88,134	89,204	90,284	91,374	92,474	93,584	94,704	95,834	96,974	98,124	99,284	100,454	101,634	102,824	104,024	105,234	106,454	107,684	108,924	110,174	111,434	112,704	113,984	115,274	116,574	117,884	119,204	120,534	121,874	123,224	124,584	125,954	127,334	128,724	130,124	131,534	132,954	134,384	135,824	137,274	138,734	140,204	141,684	143,174	144,674	146,184	147,704	149,234	150,774	152,324	153,884	155,454	157,034	158,624	160,224	161,834	163,454	165,084	166,724	168,374	170,034	171,704	173,384	175,074	176,774	178,484	180,204	181,934	183,674	185,424	187,184	188,954	190,734	192,524	194,324	196,134	197,954	199,784	201,624	203,474	205,334	207,204	209,084	210,974	212,874	214,784	216,704	218,634	220,574	222,524	224,484	226,454	228,434	230,424	232,424	234,434	236,454	238,484	240,524	242,574	244,634	246,704	248,784	250,874	252,974	255,084	257,204	259,334	261,474	263,624	265,784	267,954	270,134	272,324	274,524	276,734	278,954	281,184	283,424	285,674	287,934	290,204	292,484	294,774	297,074	299,384	301,704	304,034	306,374	308,724	311,084	313,454	315,834	318,224	320,624	323,034	325,454	327,884	330,324	332,774	335,234	337,704	340,184	342,674	345,174	347,684	350,204	352,734	355,274	357,824	360,384	362,954	365,534	368,124	370,724	373,334	375,954	378,584	381,224	383,874	386,534	389,204	391,884	394,574	397,274	399,984	402,704	405,434	408,174	410,924	413,684	416,454	419,234	422,024	424,824	427,634	430,454	433,284	436,124	438,974	441,834	444,704	447,584	450,474	453,374	456,284	459,204	462,134	465,074	468,024	470,984	473,954	476,934	479,924	482,924	485,934	488,954	491,984	495,024	498,074	501,134	504,204	507,284	510,374	513,474	516,584	519,704	522,834	525,974	529,124	532,284	535,454	538,634	541,824	545,024	548,234	551,454	554,684	557,924	561,174	564,434	567,704	570,984	574,274	577,574	580,884	584,204	587,534	590,874	594,224	597,584	600,954	604,334	607,724	611,124	614,534	617,954	621,384	624,824	628,274	631,734	635,204	638,684	642,174	645,674	649,184	652,704	656,234	659,774	663,324	666,884	670,454	674,034	677,624	681,224	684,834	688,454	692,084	695,724	699,374	703,034	706,704	710,384	714,074	717,774	721,484	725,204	728,934	732,674	736,424	740,184	743,954	747,734	751,524	755,324	759,134	762,954	766,784	770,624	774,474	778,334	782,204	786,084	789,974	793,874	797,784	801,704	805,634	809,574	813,524	817,484	821,454	825,434	829,424	833,424	837,434	841,454	845,484	849,524	853,574	857,634	861,704	865,784	869,874	873,974	878,084	882,204	886,334	890,474	894,624	898,784	902,954	907,134	911,324	915,524	919,734	923,954	928,184	932,424	936,674	940,934	945,204	949,484	953,774	958,074	962,384	966,704	971,034	975,374	979,724	984,084	988,454	992,834	997,224	1,001,624	1,006,034	1,010,454	1,014,884	1,019,324	1,023,774	1,028,234	1,032,704	1,037,184	1,041,674	1,046,174	1,050,684	1,055,204	1,059,734	1,064,274	1,068,824	1,073,384	1,077,954	1,082,534	1,087,124	1,091,724	1,096,334	1,100,954	1,105,584	1,110,224	1,114,874	1,119,534	1,124,204	1,128,884	1,133,574	1,138,274	1,142,984	1,147,704	1,152,434	1,157,174	1,161,924	1,166,684	1,171,454	1,176,234	1,181,024	1,185,824	1,190,634	1,195,454	1,200,284	1,205,124	1,209,974	1,214,834	1,219,704	1,224,584	1,229,474	1,234,374	1,239,284	1,244,204	1,249,134	1,254,074	1,259,024	1,263,984	1,268,954	1,273,934	1,278,924	1,283,924	1,288,934	1,293,954	1,298,984	1,304,024	1,309,074	1,314,134	1,319,204	1,324,284	1,329,374	1,334,474	1,339,584	1,344,704	1,349,834	1,354,974	1,360,124	1,365,284	1,370,454	1,375,634	1,380,824	1,386,024	1,391,234	1,396,454	1,401,684	1,406,924	1,412,174	1,417,434	1,422,704	1,427,984	1,433,274	1,438,574	1,443,884	1,449,204	1,454,534	1,459,874	1,465,224	1,470,584	1,475,954	1,481,334	1,486,724	1,492,124	1,497,534	1,502,954	1,508,384	1,513,824	1,519,274	1,524,734	1,530,204	1,535,684	1,541,174	1,546,674	1,552,184	1,557,704	1,563,234	1,568,774	1,574,324	1,579,884	1,585,454	1,591,034	1,596,624	1,602,224	1,607,834	1,613,454	1,619,084	1,624,724	1,630,374	1,636,034	1,641,704	1,647,384	1,653,074	1,658,774	1,664,484	1,670,204	1,675,934	1,681,674	1,687,424	1,693,184	1,698,954	1,704,734	1,710,524	1,716,324	1,722,134	1,727,954	1,733,784	1,739,624	1,745,474	1,751,324	1,757,184	1,763,054	1,768,934	1,774,824	1,780,724	1,786,634	1,792,544	1,798,464	1,804,394	1,810,334	1,816,284	1,822,244	1,828,214	1,834,194	1,840,184	1,846,184	1,852,194	1,858,214	1,864,244	1,870,284	1,876,334	1,882,394	1,888,464	1,894,544	1,900,634	1,906,734	1,912,844	1,918,964	1,925,094	1,931,234	1,937,384	1,943,544	1,949,714	1,955,894	1,962,084	1,968,284	1,974,494	1,980,714	1,986,944	1,993,184	1,999,434	2,005,694	2,011,964	2,018,244	2,024,534	2,030,834	2,037,144	2,043,464	2,049,794	2,056,134	2,062,484	2,068,844	2,075,214	2,081,594	2,087,984	2,094,384	2,100,794	2,107,214	2,113,644	2,120,084	2,126,534	2,132,994	2,139,464	2,145,944	2,152,434	2,158,934	2,165,444	2,171,964	2,178,494	2,185,034	2,191,584	2,198,144	2,204,714	2,211,294	2,217,884	2,224,484	2,231,094	2,237,714	2,244,344	2,250,984	2,257,634	2,264,294	2,270,964	2,277,644	2,284,334	2,291,034	2,297,744	2,304,464	2,311,194	2,317,934	2,324,684	2,331,444	2,338,214	2,345,094	2,351,984	2,358,884	2,365,794	2,372,714	2,379,644	2,386,584	2,393,534	2,400,494	2,407,464	2,414,444	2,421,434	2,428,434	2,435,444	2,442,464	2,449,494	2,456,534	2,463,584	2,470,644	2,477,714	2,484,794	2,491,884	2,498,984	2,506,094	2,513,214	2,520,344	2,527,484	2,534,634	2,541,794	2,548,964	2,556,144	2,563,334	2,570,534	2,577,744	2,584,964	2,592,194	2,599,434	2,606,684	2,613,944	2,621,214	2,628,494	2,635,784	2,643,084	2,650,394	2,657,714	2,665,044	2,672,384	2,679,734	2,687,094	2,694,464	2,701,844	2,709,234	2,716,634	2,724,044	2,731,464	2,738,894	2,746,334	2,753,784	2,761,244	2,768,714	2,776,194	2,783,684	2,791,184	2,798,694	2,806,214	2,813,744	2,821,284	2,828,834	2,836,394	2,843,964	2,851,544	2,859,134	2,866,734	2,874,344	2,881,964	2,889,594	2,897,234	2,904,884	2,912,544	2,920,214	2,927,894	2,935,584	2,943,284	2,950,994	2,958,714	2,966,444	2,974,184	2,981,934	2,989,694	2,997,464	3,005,244	3,013,034	3,020,834	3,028,644	3,036,464	3,044,294	3,052,134	3,059,984	3,067,844	3,075,714	3,083,594	3,091,484	3,099,384	3,107,294	3,115,214	3,123,144	3,131,084	3,139,034	3,146,994	3,154,964	3,162,944	3,170,934	3,178,934	3,186,944	3,194,964	3,202,994	3,211,034	3,219,084	3,227,144	3,235,214	3,243,294	3,251,384	3,259,484	3,267,594	3,275,714	3,283,844	3,291,984	3,300,134	3,308,294	3,316,464	3,324,644	3,332,834	3,341,034	3,349,244	3,357,464	3,365,694	3,373,934	3,382,184	3,390,444	3,398,714	3,406,994	3,415,284	3,423,584	3,431,894	3,440,214	3,448,544	3,456,884	3,465,234	3,473,594	3,481,964	3,490,344	3,498,734	3,507,134	3,515,544	3,523,964	3,532,394	3,540,834	3,549,284	3,557,744	3,566,214	3,574,684	3,583,164	3,591,654	3,600,154	3,608,664	3,617,184	3,625,714	3,634,254	3,642,804	3,651,364	3,659,934	3,668,514	3,677,104	3,685,704	3,694,314	3,702,934	3,711,564	3,720,204	3,728,854	3,737,514	3,746,184	3,754,864	3,763,554	3,772,254	3,780,964	3,789,684	3,798,414	3,807,154	3,815,904	3,824,664	3,833,434	3,842,214	3,851,004	3,859,804	3,868,614	3,877,434	3,886,264	3,895,104	3,903,954	3,912,814	3,921,684	3,930,564	3,939,454	3,948,354	3,957,264	3,966,184	3,975,114	3,984,054	3,993,004	4,001,964	4,010,934	4,019,914	4,028,904	4,037,904	4,046,914	4,055,934	4,064,964	4,074,004	4,083,054	4,092,114	4,101,184	4,110,264	4,119,354	4,128,454	4,137,564	4,146,684	4,155,814	4,164,954	4,174,104	4,183,264	4,192,434	4,201,614	4,210,804	4,219,994	4,229,194	4,238,404	4,247,624	4,256,854	4,266,094	4,275,344	4,284,604	4,293,874	4,303,154	4,312,444	4,321,744	4,331,054	4,340,364	4,349,684	4,359,014	4,368,354	4,377,704	4,387,064	4,396,434	4,405,814	4,415,204	4,424,604	4,434,014	4,443,434	4,452,864	4,462,304	4,471,754	4,481,214	4,490,684	4,500,164	4,509,654	4,519,154	4,528,664	4,538,184	4,547,714	4,557,254	4,566,804	4,576,364	4,585,934	4,595,514	4,605,104	4,614,704	4,624,314	4,633,934	4,643,564	4,653,204	4,662,854	4,672,514	4,682,184	4,691,864	4,701,554	4,711,254	4,7

