REINSURANCE IN BRAZIL:

THE CHALLENGES AND OPPORTUNITIES OF THE OPENING OF THE MARKET

CLAUDIO R. CONTADOR

report based on the international conference convened by CEBRI

BRAZIL'S RISK EXPOSURE

IN A MORE CHALLENGING GLOBAL ECONOMIC ENVIRONMENT: **TOWARDS SUSTAINABLE AND LONG TERM POLICIES**

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EXECUTIVE SUMMARY

The opening of the reinsurance market in Brazil finally took place in 2007, amidst euphoria and great expectations. The process lasted nearly two decades, with little movement, to the great frustration of the companies, international investors and, especially, the domestic insurance market, which was in need of modernization and less government involvement. The exhaustion of the nationalized reinsurance model created in 1939 was evident by the 1990s and became even more visible in that decade, in the face of opportunities for insurance offered by the large investments in infrastructure, and rural, environmental and disaster insurance, among others.

With the market opening implemented and a more competitive environment created, in just over five years the benefits began to emerge, especially the decline in the average price of policies, the introduction of new products and coverage, the application of new technologies and international management practices and external investments.

Despite the short period for observation, it is possible to note improved technical efficiency of local, domestically capitalized reinsurers. The great fear of the competition coming from more widely experienced international reinsurers is fading as domestic firms have learned and applied international management practices, adjusted to new solvency criteria, improved the skills of their professionals, and enhanced risk management mechanisms.

However, the move to modernize and participate in the global market still faces problems: an interventionist bias; the creation of the state insurer – ABGF; changing rules; the shortage of professionals with technical skills, language skills and international vision. At this stage in the maturation process and the consolidation of the opening of the market, convergence with international practice indicates the adoption of arbitration, a more modern regulatory model, the transformation of SUSEP into an agency with greater autonomy and more integrated oversight activities with other agencies.

REINSURANCE IN BRAZIL: THE CHALLENGES AND OPPORTUNITIES OF THE OPENING OF THE MARKET *

"Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribblers of a few years back."

John Maynard Keynes, The General Theory of Employment, Interest and Money, 1936

1 – INTRODUCTION

The opening of the reinsurance market in 2007 marked the end of the monopoly of the Brazilian Reinsurance Institute (IRB) by the government. Created in 1939 (Law 1186) during the *Estado Novo* (New State) period of the Vargas Government, the IRB was part of the package of reforms and the creation of public and mixed economy agencies, founded on the belief in the higher efficiency and social equity of government as the organizer of society and driver of economic and social development.[1] By his death in 1954, Getúlio Vargas had established companies and reformed institutions: CSN - Cia Siderúrgica Nacional (steelmaking); CVRD - Cia Vale do Rio Doce (mining); FNM – Fábrica Nacional de Motores (vehicles); Cia Nacional de Álcalis (soda and salt); Cia Hidroelétrica de São Francisco (electricity); CNP -

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[1] Getúlio Vargas assumed the presidency in 1934 by indirect election. The Constitution of 1934 marked the beginning of modernization and democratization (subsequently stopped) in Brazil, with innovative and healthy measures, such as the principles of alternating powers; universal and secret vote, voting rights for women; labor union pluralism and the right of free expression. The Constitution of 1934 was strongly interventionist in insurance, including (Art. 111) providing for the nationalization of insurance in all its forms. Decree 5901 of 1940, during the *Estado Novo*, established mandatory insurance for merchants, industrialists and providers of services, individuals or companies against the risk of fire, etc. The 1937 coup interrupted the democratic phase and facilitated the implementation of the *Estado Novo* reforms. Belief in the authoritarian state as organizer of the society was a global phenomenon typical of 1930s-1940s.

Conselho Nacional do Petróleo (National Petroleum Council - the seed for the creation of Petrobras in 1953); DASP – Departamento Administrativo do Serviço Público (public service administration); and modern labor legislation (inspired by Mussolini's Labor Charter), among others. As part of this package, the IRB was an important pillar of the country's modernization process, creating the market for private insurance.[2]

Before the creation of the IRB, reinsurance was contracted directly abroad or through foreign companies operating in Brazil. Four reasons were important for the creation of the IRB: (a) the need to strengthen and expand the risk retention capacity of the few existing domestic insurers; (b) the need to reduce Brazil's outflow of foreign exchange and maintain the technical reserves for fixed capital formation; (c) the need to reduce dependence on foreign capital to avoid the problems suffered during the great depression of 1929; and (d) the world war that halted the flow of foreign capital into Brazil and increased the perception of risk. In an environment with a shortage of private capital, it was expected that the IRB would be a public entity – actually, a mixed economy company, controlled by the government - with operations guaranteed by the National Treasury. At the time of its creation, the IRB was subordinated to the Ministry of Labor, Industry and Commerce.

As further justification, the nationalized reinsurance sector was supposed to favor an expansion of the insurance market (which occurred) and would help trigger the development of the domestic financial market (which did not occur), through the creation of new institutional investors and better risk management. The protection of national insurers was justified as a way to compensate for their lower levels of capitalization vis-à-vis international insurers and reduced technical capacity. The role of the IRB was a typical case of the "infant industry argument" that justified the closing of the economies from the 1940s to the 1970s in Brazil and other Latin American countries. This "non-argument" has recently been revived, although in disguised form.

The evidence shows that the supply of reinsurance causes an increase in the supply of insurance that, in turn, subsequently justifies the expansion of the supply of reinsurance. In this sense, the relationship is bi-causal, with the strongest causality flowing in the direction of reinsurance to insurance. Paradoxically, this was one of the arguments for the opening of the reinsurance market, the way it had previously served to justify the creation of nationalized reinsurance.[3]

Until the 1990s, the IRB monopoly fulfilled its role in consolidating and modernizing the insurance market in Brazil, and especially training professionals

[2] Classic articles on insurance and reinsurance, including by authors unrelated to the topic such as Gilberto Freire, are found in Castro, Roberto L.M. de; and Antonio Salvador Dutra (orgs.), Clássicos do resseguro [Classics of Reinsurance], (Rio de Janeiro, IRB-Brazil RE and the National School of Insurance, 2010). Theoretical aspects are found in Harrison, Connor M., Principles and Practices of Reinsurance, (Rio de Janeiro, AICPCU-IIA and Escola Nacional de Seguros (National School of Insurance), 2007). For the legal view, see Mello, Sergio Ruy Barroso de, Contrato de resseguro [Reinsurance contract] (Rio de Janeiro, Escola Nacional de Seguros (National School of Insurance), 2011)

[3] The causality between insurance and reinsurance deserves specific empirical analysis, but preliminary tests confirm bi-causality. See Faria, Lauro Vieira de, "Opening of the reinsurance market: the demand for reinsurance and impacts on the insurance market," Revista Brasileira de Risco e Seguro International vol.1, no.1, 2007, pp.1-40; and also "Abertura do resseguro: demanda de resseguros e impactos sobre o mercado segurador" ["Opening of reinsurance: reinsurance demand and impacts on the insurance market"], Revista Brasileira de Risco e Seguro, vol.3, no.5, April/September 2007, pp.133-174. A similar argument is suggested for the relationship between financial markets and economic growth, especially in less developed countries. Jung, W.S., "Financial development and economic growth: international evidence," Economic Development and Cultural Change, vol. 34, 1986, pp. 333-346.

who would become responsible for the current insurance sector framework. Unfortunately behind the veil of protection, less efficient insurers managed to survive with the concessions granted by the IRB. The exhaustion of this model began to be seen in the 1990s, but protected markets survived for nearly two more decades.

Finally, the opening of the reinsurance market was included as part of the privatization process of the Collor government, but without success. Constitutional Amendment 13, 1996, broke the monopoly exercised by the IRB, but again with no practical effects. Finally, after several unsuccessful attempts, Complementary Law 126 of January 2007, and Resolution 168 of December of the same year, governed the opening of the reinsurance market in Brazil. It looked like a happy ending and a response to the strategic needs of the Brazilian economy. Unfortunately, however, protectionism and excessive interventionism were not buried.

This report will not be focussing on this period. The aim is to discuss the most important issues. Section 2 summarizes the early history, describes the effects of key events in the insurance and reinsurance markets and summarizes the transition to the opening up of the sector. Section 3 discusses the opening process, the expected effects and some evidence that this occurred, and discusses the benefits and possible harm of the opening of the reinsurance market, analyzes the changes in the sale of premiums, the new institutional design, the structure of the market with new types of reinsurers, and the technical performance of the local reinsurers. Section 4 lists requirements for the effective progress and modernization of the insurance and reinsurance markets. Section 5 presents the conclusions and suggests areas for further research.

2 – EARLY HISTORY AND CONCEPTS

With the startup of the IRB's operations, the protection of national insurers was accomplished in two ways, justified as a way to increase competitiveness and stimulate the creation and expansion of national capital: (1) the establishment of low limits of risk retention, and (2) the creation of the so-called sole surplus. Under these conditions, domestic insurance companies, relatively poorly capitalized and with inferior technical capacity, had automatic reinsurance backing. If necessary, the IRB could count on the financial backing of the National Treasury for larger claims. The system thus provided domestic companies with advantageous, differentiated conditions allowing them to compete with foreign insurers. The rates of the policies were set and regulated, and competition was measured by the quality of service and the image of each insurer.

The IRB fulfilled its mission to consolidate and modernize the insurance market in Brazil up to the 1990s, and principally to train the professionals who would create the framework for the current insurance market. And, of course, the growth of the insurance market provided the justification and made the monopolistic activities of the IRB possible. Despite the good intentions, the protected market had the effect of concentrating risks in Brazil that an open model would have transferred abroad. Moreover, under the veil of protection, less efficient insurers managed to survive through IRB transfers. The protection also discouraged the offer of new products, principally the lines that needed less expensive reinsurance and better pricing of the risks.[4] For nearly 70 years, the IRB made adjustments and occasional

[4] Faria, op.cit

improvements, and survived as a state monopoly until the privatizations of the 1990s.

The exhaustion of the protected market became apparent in the 1990s. The net benefits of protectionism based on the "infant industry" argument were finished and the social costs became excessive. Even so, the closed market would survive for nearly two more decades. By 2007, in Latin America, only Brazil, Costa Rica and Cuba continued to have a government monopoly on reinsurance.

Before the opening up of the reinsurance market, the insurance industry experienced a paradox in Brazil. First, in the insurance market, there were competitive conditions with free prices and tariffs, made up of private companies seeking globalization. Second, trained professionals carried out SUSEP's regulatory and oversight activities and solvency rules that converged with international practice. And third, by contrast, the reinsurance market was a monopoly, controlled by the government and had a protectionist bias. In addition to being monopolistic supplier, the IRB acted as the reinsurance market regulator.[5] After the market was opened, a new paradox emerged, which will be discussed below.

In March 2002, the International Monetary Fund and the World Bank analyzed the financial market in Brazil, identifying problems and suggesting changes in the various segments and types of market agents.[6] On the positive side, the two institutions found that the regulation and supervision of the insurance market already met the principles of the International Association of Insurance Supervisors (IAIS)[7] , regarding solvency and minimum capital requirements, information transparency, risk management, implementation of internal controls and fraud detection. With regard to the governance of SUSEP, the most relevant suggestions were in the direction of greater autonomy for the agency, including financial autonomy (whose budget should be submitted to the Ministry of Finance), the selection of executive officers and oversight board members based on technical criteria and having fixed terms of office. Regarding intermediation, there was a proposal to implement a model of self-regulation[8] (endorsed and implemented by Fenacor in 2013). And with regard to reinsurance, the emphasis of the recommendation was to accelerate the market opening process and the adoption of supervision based on risk capital.

[5] It is important to differentiate the activities of regulation, inspection and supervision. Regulation is the establishment of rules of operation and conduct of institutions; inspection is observing that the rules are obeyed, and supervision corresponds to the verification of the operational behavior of companies and institutions. See Garcia, René, "Os fundamentos econômicos para uma teoria da regulação em mercados de capitais em processo de globalização" ["The economic foundations for a theory of regulation on capital markets in the globalization process"], CVM Magazine, 2001, pp.13-25

[6] A good summary is presented in Wehrhahn, Rodolfo, "Challenges for a credible and competitive Market, insurance and reinsurance regulation and supervision: key issues," CEBRI Conference, Rio de Janeiro, November 2013.

[7] The IAIS, created in 1994, brings together regulators and supervisors from over 140 countries, comprising over 97% of the global insurance market. The IAIS has more than 130 observers (who are not part of the staff of regulatory agencies) from the various member countries. The main goals of the IAIS are to foster the development of regulatory and supervisory, consistent and harmonious frameworks, and contribute to the stability of the financial markets.

[8] Supplemental Law 137 of August 2010 created, among other measures, the self-regulation of the brokerage activity. In 2013, Fenacor set up The Brazilian Self-regulation Institute of the Brokerage, Insurance, Reinsurance, Capitalization and Open Pension Fund Market (IBRACOR).

As an addendum to these suggestions, the end of the reinsurance monopoly also was the subject of the international discussion, which may have contributed to a build-up of internal pressures against the opening of the sector. In December 2004, the Trade Policy Review Body of the World Trade Organization (WTO), inspired by the Washington Consensus, urged Brazil to comply with the "Fifth Protocol to the GATS," signed in 1997, whose ratification depended on the opening of the reinsurance market.

Nationalized reinsurance received undeserved praise for the development of the insurance market. Other factors played a key role, because the decline in inflation and rising real incomes in the 1990s and the first decade of the new millennium helped foster the expansion of the insurance market in Brazil. Despite the positive numbers, the environment of lower inflation and better income distribution did not consolidate the healthy and sustainable growth of the insurance sector, due to the anomalies. One such anomaly, as previously discussed, was nationalized reinsurance.

Two other anomalies are older and continue to play a role in the insurance market: (a) fragmented supervision with no single coordinating body, with the coexistence of three supervisory agencies: SUSEP, for the insurance and open pension plan market; the National Health Agency (ANS), for health plans; and the Superintendency of National Complementary Pension Funds (PREVIC), for pension funds, with each government agency reporting to a different ministry (Finance, Health and Welfare, respectively), with different supervisory mechanisms, budgets and missions; and (b) the financial regulation of the Central Bank and the Securities Exchange Commission (CVM) regarding the criteria for the management of technical provisions.

Discussions for opening up reinsurance emerged in the early 1990s with the Collor government's privatization program, and were resurrected at various other times, with more visibility and strength as the new century arrived. Constitutional Amendment 13, of 1996, broke the monopoly exercised by the IRB, but without practical effect. Finally, after several unsuccessful attempts, Complementary Law 126, of January 2007, and Resolution 168 of December of the same year, began to regulate the opening of the reinsurance market in Brazil.

What is reinsurance

To simplify, reinsurance is an insurance plan for insurance companies, and as such behaves as insurance-derived demand. Seen from the demand side, the same factors that determine the performance of the insurance market – macroeconomic, social and regulatory – directly and indirectly influence reinsurance. Therefore, the reinsurance market is pegged to insurance, although this does not mean they experience similar growth patterns. As insurance operations become more complex, guaranteeing higher risks, the reinsurance/risk ratio naturally tends to rise. Or, if the country's reinsurers become internationalized and cover risks in other economies, the behavior of the reinsurance market takes on its own dynamic, going in a different direction than that of the domestic insurance market.[9]

Viewed from the supply side, reinsurance corresponds to additional capital, which increases the solvency margin of insurers and, as such,

[9] Which does not mean that causality flows only from insurance to reinsurance.

increases the risk retention capacity of the insurers, which may well increase the supply of insurance.

Reinsurance represents a contract in which an agent (called the reinsurer) agrees to indemnify an insurance company – named grantor – for damages that may occur as a result of losses suffered by policyholders covered by the contract made with the insurer. It is simply a transfer of insurance risk to reinsurers, and thereby reinsurance allows the insurer to reduce its liability with respect to a risk deemed excessive for its financial capacity.[10] Reinsurance, the same way as coinsurance, serve to spread risk, with the advantage in a global market of transferring part of the risk to the outside, which reduces the country's risk level.. The reinsurer may also use the risk retrocession mechanism when it passes along part of the responsibilities assumed to another insurer or another reinsurer.

Reinsurance contracts are classified according to their technical and contractual characteristics, divided into two types. The first is how the risk is distributed: the risk may be proportional, when the reinsurer is responsible for the claim in proportion to the receipt of the premium; or non-proportional, when this does occur. The second type is how the reinsurance is evaluated and put into effect: when the risks are considered in an isolated manner, the contract is called optional, and whether the risks are aggregated into portfolios of insurance policies, the reinsurance is the contract type. Most reinsurance policies are of the proportional and contract type (i.e, encompasses a portfolio of policies with various risks).[11] In any case, in the reinsurance operations there is no connection or direct link between the original insured and the reinsurer.

What purpose does reinsurance serve

Reinsurance increases market liquidity, stabilizes the claim rate (which reduces the risk of volatility of returns of insurance policy portfolios) and makes it possible to meet catastrophic risks, which are generally sizeable. In Brazil, catastrophic risks are modest, which on one hand is good for the insurance market, but on the other hand reduces the need for this type of reinsurance risk. Even without major natural disasters, insurance and reinsurance are crucial for the coverage of large risks in Brazil. The best example is the Petrobras P-36 platform accident, in March 2001, where Petrobras recovered US$ 490 million with the receipt of the insurance indemnity. Other risks, where reinsurance is essential, are aviation, maritime, environmental and large-scale industrial accidents.

Since reinsurance standardizes the behavior of the direct insurance portfolios from insurers, it mitigates imbalances and keeps the severity of claims from jeopardizing the financial stability of the insurer. Imbalances in an insurance portfolio have two components: the severity and the frequency of claims. The severity represents the magnitude of the loss, and the frequency the number of

[10] For a didactic description, see www.tudosobreseguros.org.br of the Escola Nacional de Seguro (National Insurance School).

[11] KPMG, Opening of the reinsurance market in Brazil: Market perceptions, KPMG and Rating de Seguros, 2011 The most widespread contracts are the automatic, optional, catastrophe, differentiated, in original conditions, surplus of responsibility, excess damage, excess claim, non-proportional, mandatory, percentage, by quota, proportional and stop loss. Each contract has specific characteristics that are beyond the scope of this paper.

occurrences. These two imbalance components are essential for the preparation of reinsurance contracts, and determine the needs of each insurer.

The spreading of the risks from different markets, regions and activities leads to the diversification of reinsurers' policy portfolios, lowering total risk. Imbalances can also be offset by reinsurance through portfolio diversification. Moreover, through reinsurance, the accumulated knowledge from the experience of claims in different regions, environments and activities gives national insurers access to information about the international market, other products, new management practices and risk mitigation, etc. Because reinsurance operating in a competitive environment is essentially a globalized activity, national insurers are encouraged or forced to eventually adopt international practices. This point is discussed below.

Reinsurance in Brazil before the opening up of the market

Even with the reinsurance monopoly, the Brazilian market did not face limits regarding the financial capacity of the insurers. On the other hand, there were difficulties in the supply of insurance for certain types of risk due to limitations imposed by lack of technical knowledge in insurance risk assessment, a lack of commercial interest or simply the impossibility of reconciling the price-risk ratio.

To understand the post-market opening reinsurance environment, a rapid analysis of the evolution of the insurance market in Brazil, and the main factors determining its behavior — in particular, the level of income, the real price of the policies and inflation is important.

Regarding the role of income, the literature indicates the demand for insurance has an income elasticity greater than one; that is, over the long-term the needs of insurance protection grow faster than the growth of the economy. Economic growth and the complexity of the activities tend to increase the need for protection and risk coverage. Empirical evidence in Brazil confirms insurance as a greater good, though not always is it visible over the short-term.

Concerning price, the demand for insurance, like any good and service, responds to the cost of the policies compared to the cost incurred in alternative forms of protection. And here a technical comment applies, based on how our market functions. Though competitive, the Brazilian insurance market is not truly open and internationalized. Only insurers operating in Brazil (Brazilian or foreign subsidiaries) may sell insurance, and legislation prevents the direct purchase of insurance from insurers operating in other countries, which makes the demand for insurance more inelastic than the price. This is not just a purely academic issue, since the price-inelasticity determines what happens to the billing of premiums in response to changes in price. With inelastic demand, a drop in price (other variables remaining constant) reduces total market turnover, and this empirical finding helps to understand why insurance can be expensive in Brazil, incorporating high taxes and excessive selling and administrative expenses.[12]

[12] This issue is discussed by Contador, C.R., Economia do seguro: fundamentos e aplicações ("Insurance economy: fundamentals and applications") (São Paulo, Editora Atlas, 2007), Chapter 5.

The third factor that affects, and in the past strongly impaired, the development of insurance in Brazil was inflation. In the early 1960s, the Brazilian insurance market faced a serious financial crisis not shared by other sectors. The entire insurance system, accounting records, contracts and applications of technical provisions were based on a low-inflation model and the contracts did not contain monetary correction clauses. With the rising inflation in the first half of the 1960s – and even more in the 1980s and the first half of the 1990s – the values of the contracts fell in real terms, which caused dissatisfaction and loss of equity on the part of the insured.[13] The insurance companies faced the combined effects of loss of customers, demonetization, a shrinking financial market and the inability to assess future risks vis-à-vis contracted prices of policies.

Finally, political instability affected the quality of supervision, market regulation and management quality: the IRB had 11 different presidents in the 1960s. Due to lack of control and clear operating rules in an inflationary environment, consumer confidence in the insurance market once again was severely affected. After the pawnbroker scandal of the 1920s, consumers and insurers were viewed each other with suspicion. Both were pawns in the perfect storm of rising inflation, unprotected insurance contracts and the chaos of economic policy. Indexing was not included in insurance policies until 1987, at the stage of runaway inflation and the violence of broken contracts, 23 years after the formal implementation of indexation in contracts in Brazil.

This helps explain the difference in rate of development between banks and insurers in Brazil. While indexation of financial assets served as an underpinning for growth and technological modernization of the banks, the insurance market was deprived of this support. Without contractual indexation, the insurance activity was seen more as timid banking operations, with a component of deferred gains from the spread between the premiums collected and the uncorrected claims[14].

For this reason, empirical evidence in Brazil is categorical in pointing out that especially a high, and principally unstable, rate of inflation strongly depresses the demand for insurance.[15] These factors – GDP growth, falling inflation from the thousand percent levels of the 1980s and 1990s to almost civilized rates after the Real Plan, and respect for contracts – played an important role in expanding the sector after 1994.

Institutional factors contributed to the growth of the insurance market on healthier bases, with the deregulation of tariffs, the modernizing measures

[13] As a curiosity, cumulative inflation from April 1964 until the Real Plan in July 1994 totaled 787.69 trillion percent, with an annual average of 168.3% and monthly inflation averaging 8.6%, as measured by the IGP-DI Fundação Getúlio Vargas. This shows the difficulty in comparing values over time in Brazil. From 1964 until the implementation of indexing in insurance contracts, the accumulated inflation reached 3.05 million percent with a monthly average of almost 60%!

[14] This did not keep insurance operations from being profitable. In a survey with data collected by the Central Bank, the insurance market has had a systematically higher return on net equity than the commercial banks since 1995. The total return of the insurance industry totals the industrial (about the business itself) and financial (return on management reserves) results. Excluding the latter, the industrial return is negative in most years.

[15] See a more detailed discussion and empirical evidence in Contador, op.cit.

the 1992 Master Plan[16], and the preparation for the opening up of the reinsurance market. As a result, from 1995 until the beginning of the millennium, the environment was marked by major qualitative changes in the insurance market and strong growth in the real value of the premiums and assets of the insurers until these measures lost strength. Still, the insurance industry had a small, but growing, role in the financial system. In 2012, the total assets of insurance companies reached R$ 460 billion, compared with R$ 4.9 trillion of the commercial banks, while the total assets of the national financial system (SFN) totaled R$ 5.8 trillion. That is, the insurers' share of the total assets of the SFN is 8% whereas for the commercial banks it is 84%. In the late 1990s, the assets of the insurers were little more than 3.8% of the SFN, which demonstrates the excellent growth of the sector in just over ten years.[17]

The opening of the reinsurance market gave a boost to the insurance market, which needed to be supplemented and reinforced by a regulatory framework committed to the internationalization of the market, with a competitive market, less intervention, setbacks and rule changes, and mainly by transformations within the companies themselves and their representations.

The winds had clearly begun to favor modernization prior to the opening of the market and were based on technical studies. In 2004, measures favorable to the insurance companies were suggested by the CNSeg (called Fenaseg at the time), in the II Sectorial Plan.[18] In 2004 the Escola Nacional de Seguros (National Insurance School) offered a set of proposals for a new Master Plan[19], linked to the macroeconomic goals of the Federal Government covering suggestions of interest to other segments of the market. It is important to stress that simulations showed that even in a favorable macroeconomic environment, growth in the insurance segment would not be sustainable in the long run. Thus the recommendations for qualitative changes became increasingly important.

In terms of values, and including only the markets supervised by SUSEP (insurance, private pensions), savings bonds [capitalization programs], and reinsurance), the payouts reached an estimated R$ 170 billion (2013). Reinsurance premiums are R$ 8 billion, just over 7% of the volume under SUSEP supervision. A broader concept, the premiums from health plans, supervised by the ANS, total R$ 95 billion, and the closed private pension funds add another US$ 50 billion. Therefore under a broader concept, earnings of privately administered insurance plans are almost R$ 350 billion, or about 7% of GDP. Total

[16] Master Plan for the Insurance, Capitalization and Complementary Pension Plan System, (Brasília, Ministry of Economics, Finance and Planning, 1992)

[17] In 2005, the value of total SFN assets was 78% of GDP. In 2012 – therefore, after the international financial crisis - reached 131%. That is, the financial crisis did not depress the value of the SFN assets in Brazil, unlike what occurred in most economies.

[18] 2nd Sector Plan of the Insurance Industry, (Rio, Fenaseg, 2004). The previous Plan was developed by McKinsey and Delphos consulting companies, Sectorial Plan of the Insurance Industry, (Rio de Janeiro, Fenaseg, 1994)

[19] Master Plan for the Insurance Market: proposals presented by FUNENSEG, (Rio de Janeiro, Fundação Escola Nacional de Seguros (National School of Insurance), October 2004). This project included the participation of Prof. Roberto Macedo, University of São Paulo as a consultant, who reconciled the proposals and drafted the technical report. Macedo was the coordinator of the 1992 Master Plan, as Secretary of Economic Policy.

reserves for private insurance plans exceed R$ 500 billion, which could be more efficiently used in the formation of private fixed capital.

Adding in the insurance provided by the public sector - FGTS, PIS / PASEP, SUS, INSS, Accident Insurance (SAT), unemployment insurance, etc. – the size of the total insurance market in Brazil is almost US$ 800 billion, or 18% of GDP.[20]

The types of insurance provided by the public sphere compete directly with the insurance offered by the private sector compete directly with the insurance programs provided by the private sector.[21]

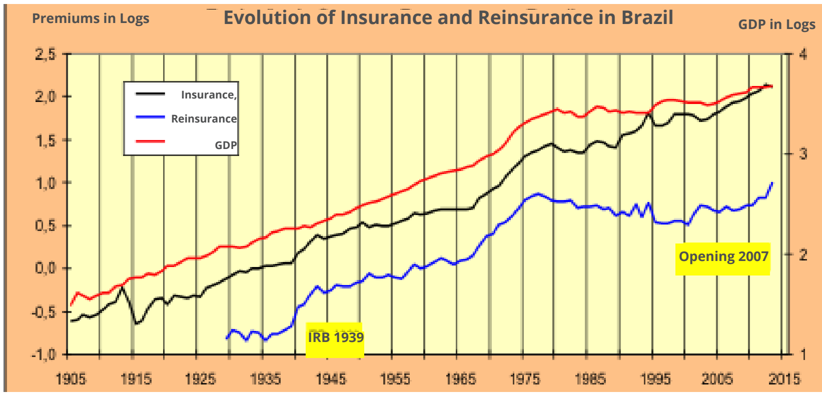

Figure 1

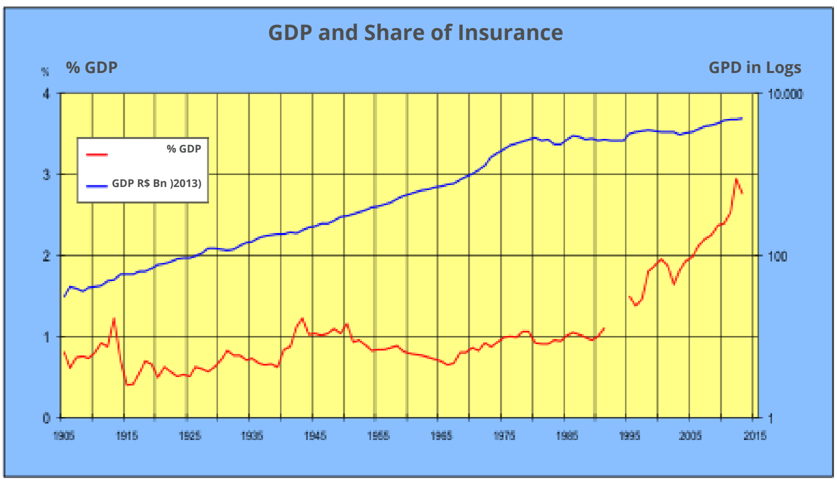

Figure 2

[20] Even so, this figure underestimates the value because it does not address the protection provided to other private institutions, such as funeral insurance, consortia and health plans for health clinics etc.. These segments operating on a commercial basis, but provided illegally operate without supervision, but in general serve society, as part of the large underground economy.

[21] This configuration makes the comparison difficult due to the size of the Brazilian insurance market with other countries that do not have a social safety net similar to that of Brazil.

Evolution of the Insurance and Reinsurance Market

	Premiums, in R$ billion - 2013			Relation reinsurance / insurance, %
	Total Insurance	Branches for reinsurance [b]	Reinsurance	
1995	45,90	22,16	3,47	15,7
1996	45,59	23,43	3,34	14,3
1997	50,01	24,74	3,41	13,8
1998	61,66	22,65	3,62	16,0
1999	62,74	21,22	3,62	17,0
2000	63,64	21,07	3,29	15,6
2001	60,72	22,13	4,20	19,0
2002	52,83	28,26	5,42	19,2
2003	55,27	33,71	5,18	15,4
2004	61,75	39,07	4,69	12,0
2005	66,06	42,09	4,50	10,7
2006	75,66	49,60	5,19	10,5
2007	84,86	57,64	4,68	8,1
2008	88,53	60,18	4,96	8,2
2009	98,25	70,20	5,50	7,8
2010	109,43	78,99	5,42	6,9
2011	117,56	51,30	6,58	12,8
2012	136,61	57,97	6,79	11,7
2013[a]	130,65	59,15	7,81	13,2

Source of data: SUSEP, IRB, IBGE, SILCON. Prepared by: SILCON
a Preliminary projection. b Branches of property risks, financial, oil and gas, rural, people, engineering, transport, maritime, aeronautical, civil liability.

Table 1

Some classes of insurance with higher risk concentration are more suitable for reinsurance operations. Table 1 shows that, considering the classes of property risks, financial, oil and gas, rural, people, engineering, transport, maritime, aeronautical, and civil liability had a prize pool of nearly U.S. $ 60 billion in 2013, slightly less half of the total insurance premiums. Sales of reinsurance were R $ 7.8 billion (still preliminary), which corresponds to 13% of potentially re-insurable premiums.[22]

Figure 1 shows the evolution of insurance and reinsurance premiums in R$ billions in 2013 prices. The scale is in logs and the deflator used was the average annual IGP-DI of the Getulio

[22] Other compositions of branches indicate different values, but in general the insurance-reinsurance ratio is between 10 and 14%.

[23] Historical statistics were prepared by SILCON Economic Studies (www.silcon.ecn.br), and published in "A contribution to the history of insurance in Brazil", RS041 Report , Oct. 1999, "Market capitalization: the rescue the history and future scenarios ", RS042 Report, November 1999, SILCON Economic Studies; Contador, CR and Clarisse Ferraz Bohrer, "Insurance markets and capitalization in Brazil: the redemption of history," Funenseg Studies, no.6, April 2003.

Vargas Foundation.[23] In brief, the history of the growth premiums in the insurance industry (black line) in real terms can be divided into four phases: (1) an increasing trend, from the beginning of the twentieth century to the mid 1960s interrupted during World War II; (2) the faster growth stage, explained by the 1965 reforms and the period of the economic “miracle”; (3) the confused stage with high and volatile inflation of the 1980s and first half of 1990s; and (4) the stage after the Real Plan. In terms of the reinsurance premiums, the growth path (blue line) is similar except for the period after 1990. Creating the IRB in 1939 and the opening of the market in 2007-08 accelerated the real value of the premiums, not only in the reinsurance market, but also in the insurance market. In this sense, reinsurance – of the state or in the private sector - was significant for the creation and development of the primary insurance market, although it occurred with help from other factors.

It is easier to see the evolution of the market in Figure 2, with real GDP and the coefficient of insurance penetration - simply the division of insurance premiums by GDP - since the beginning of the twentieth century. While real GDP (shown by the blue line) shows a growth trend - albeit with variations around the trend line - insurance penetration (shown by the red line) has gone through distinct stages (two world wars, the creation of the IRB and high and volatile inflation, associated with breaking rules), and maintained modest penetration, rarely more than 1% of GDP, until the arrival of the Real Plan in 1994. Starting from the steady decline in inflation, insurance penetration shows unprecedented growth. This is the period that is relevant for the analysis of the opening of the reinsurance market.

3 - THE OPENING OF THE REINSURANCE

3.1 Effects of the opening of the reinsurance market: what should happen

From the macroeconomic point of view, there was no doubt that the opening of the reinsurance market would bring substantial net benefits for the Brazilian economy. For the insurance market as a whole, the net result was also positive, although some companies and market segments could have been expected to encounter problems and suffer losses.

Compared to the conditions prevailing in the period preceding the opening of the market, the end of the monopoly offered the potential for the generation of countless effects, which would become more visible in the long term:

A decline in the domestic price of reinsurance, to levels prevailing in the international market;

An increased capacity for risk retention and potential supply of insurance;

Transfer of risks to abroad through the reinsurers;

An improvement in the technical efficiency of reinsurers, reinsurance brokers, and insurers generally;

An improvement in the general technical skills of the insurance market and the management of risk;

An inflow of foreign investment by institutions with high credit ratings;

An absorption of technical knowledge, technology, and new product lines;

The encouragement of research and the search for knowledge about risk in unexplored areas in Brazil (environmental, rural, catastrophic);

The development and improvement of existing product lines in Brazil;

An increase in the sophistication and complexity of insurance, and

The creation of the foundations to make Brazil a center (hub) of regional reinsurance, as an exporter of knowledge and experience.

3.2 What the market expected

In 2011, three years after the opening of the market, KPMG conducted a survey among executives of insurers and reinsurers to assess their perception about the opening of the market and future prospects[24]. At that time, the expectations for growth in reinsurance were quite favorable, especially given the sporting events, and the resulting investment in infrastructure, the PAC, and the pre-salt. [25] Some of the optimism appears to have diminished, not only because of the deterioration of the macroeconomic environment, but also because of regulatory intervention. But there is no doubt that the opening of the reinsurance market provided an impetus and dynamism to the insurance

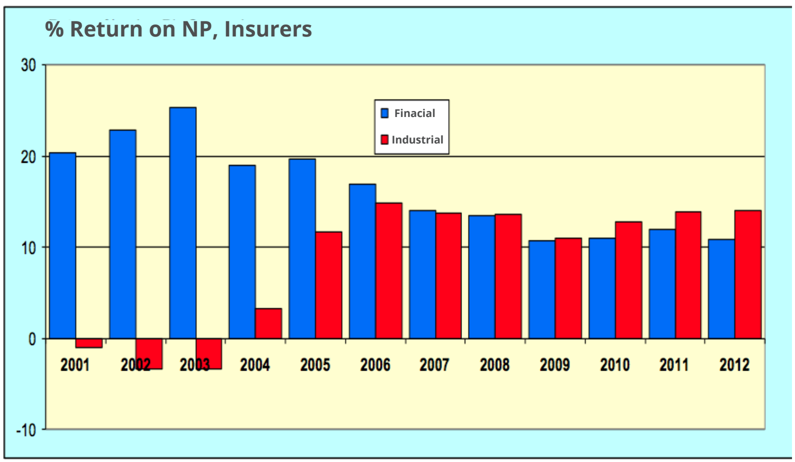

Figure 3

[24] KPMG, opening of the reinsurance market in Brazil: market perceptions, 2011.

[25] Direct investment forecast for the Pre-Salt are estimated to be US$ 50 billion. Petrobras is expected to invest over US$ 220 billion by 2015. PAC infrastructure project investments will total US$ 590 billion in Stage 2. Altogether direct investments planned are over US$ 900 billion. Including indirect investments, in related sectors, total investment could top US$ 1 trillion over the next five years. All of these projects require insurance and reinsurance.

market: risk management of insurers improved and became more technically competent; insurance companies became more profitable and solvent; the cost of reinsurance decreased; and there was greater exchange of information and technology between insurers and reinsurers. These were expected effects with the opening of the market. The reality may be different.

In February 2014, FENACOR and Rating de Seguros consultants developed an aggregate indicator of the perception of the insurance industry on the environment, called Insurance Industry Confidence Index (ICSS), covering three market segments: the insurance companies, through the ICSS; the Confidence Index and Expectations of Reinsurance companies (ICER) (only local companies were consulted), and the Large Brokers Confidence Index (ICGC). Starting in February 2014, the insurance industry will have a monthly indicator that reflects the expectations of its stakeholders. The survey of the three agents in the insurance industry allows comparison with similar indicators for other sectors of activity, which will allow different analysis.

In the month of the release of the ICSS, local reinsurers showed signs of pessimism, especially regarding the prospects of profitability of reinsurance operations in the next six months. In

Expected effects of the opening of the reinsurance market
Prospects for medium- and long-term, % of responses.
Summary of the KPMG survey 2011

Question	Agree	Disagree	Don't know
Creating new distribution channels	87	13	0
Insurance companies are more aware	88	13	0
Growth of insurance greater than GDP	79	8	13
Growth of reinsurance greater than GDP	79	12	8
Increased number of local reinsurers	79	16	4
Increased number of admitted reinsurers	79	21	0
More profitable insurance companies	80	17	4
More solvent insurance companies	83	8	8
Better risk management by insurers	96	0	4
Better risk management by policyholders	92	4	4
More profitable reinsurance companies	71	21	8
Lower costs of reassurance	63	33	4
More products for individual policyholders	79	12	8
More products in basic areas	67	21	13
Better qualified reinsurance brokers	58	38	4
Better qualified insurance brokers	67	29	4
More technically qualified insurers	96	0	4

Source: KPMG, 2011

Table 2

the three items - macroeconomic environment, profitability of operations and billing - the pessimism of reinsurers for the next six months is higher than the insurers, while brokers believe a more generous scenario.

There are reasons for this pessimism of reinsurers, with the setback of Resolutions 2010 and 2012, the creation of ABGF in 2013, and especially the possibility of new rule changes. These factors create an environment of cut-throat competition that is not conducive to self-sustained and healthy development of the sector in the long term.

ICSS - Insurance Industry Confidence Index Poll
FENACOR, net balance of positive expectationsa , %

	Economy	Profitability	Billing
Insurers, ICES	-35	18	26
Reinsurers, ICER	-43	-43	0
Brokerage, ICGC	-6	13	60
Overall, ICSS	-28	-4	29

Source: FENACOR. Prepared by SILCON.
[a] Sum of percentages: Much better + Better - Worse - Much worse

Table 3

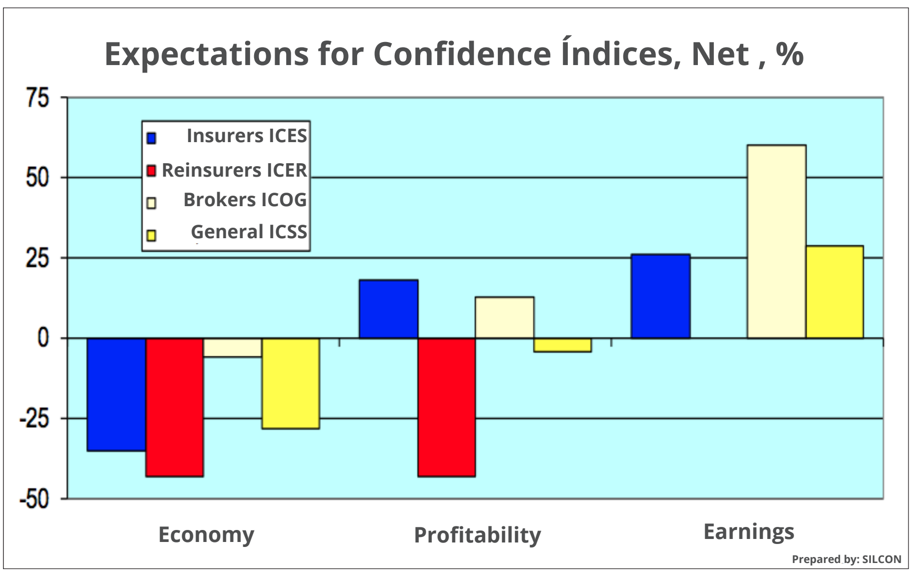

Figure 4

3.3 Effects already observed

3.3.1 Fall of the average price of reinsurance

In a competitive market, the price charged for reinsurance is an essential variable for evaluating the performance of reinsurers operating in a region and the intensity of the impact of the market opening. In the extreme case of identical prices to those on the international market - under equal conditions of risk and taxation, of course - the opening of the market, though not necessarily perfect, generates similar effects to those of a competitive market. Where there is a difference in prices, with domestic prices above international - as in the case of heavily regulated and protected markets - the impact of the opening of the market is partial or non-existent.

The comparison between the prices charged by the IRB and international prices was a question that elicited sporadic debates during the last two decades, but has not received the attention it deserved, especially with regard to the discussion of the opening of the reinsurance market. A survey by Faria[26] in 2006 examined this question and found that reinsurance premiums declined, as expected, and this had a statistically significant impact on reinsurance: as reinsurance fell, the demand for reinsurance increased, and vice versa. Other variables were included in the model that was then used to simulate the effects of the opening of the market.

Faria estimates that the average price of reinsurance in Brazil in the 1999-2004 pre-opening period was 62% higher than the average price charged by a sample of international reinsurance companies. Adopting the hypothesis that the opening of the market would lead to a gradual convergence to international prices, real revenues of reinsurance would increase by nearly 150% via direct effects, and if the migration of coinsurance operations is included the indirect increase would exceed 200%. Therefore, considering the direct and indirect effects, the demand for reinsurance has a high response to price changes. The positive effects also extend to the insurance market itself, which could expect a 36% increase in risk retention capacity.

3.3.2 The ability to compete with international reinsurers

At the end of 2013, 14 local reinsurers were operating in Brazil[27], four with local capital, including the IRB. According to the adopted opening model - which will be discussed in more detail - there are three types of reinsurers: local, admitted and occasional. Most of the conclusions of the analysis are geared to local reinsurers, which concentrate 64% of assigned premiums.

In the group of local reinsurers, the presence of foreign companies with greater experience and integrated internationally suggests in principle that national reinsurers, excluding the IRB, find themselves in an unequal competitive environment,

[26] Faria, op.cit.

[27] The fourteen local companies licensed in addition to the IRB, the reinsurer ACE, AIG (Chartis ex), Allianz, Alterra, Southern, BTG, J. Malucelli, Mapfre, Munich Re, Swiss Re, Earth Brazils, and XL Reinsurance Zurich.

where survival and expansion will have to be based on efficient use specific factors. Despite the still short period of experience and statistics, the preliminary results of an ongoing research provide positive signals for the technical efficiency and competitiveness of the few local reinsurers operating in Brazil.

In summary, the survey found that some locally capitalized reinsurers, created after the opening of the market, gained technical efficiency and may have the ability to compete with more experienced foreign reinsurers. Of the 14 local reinsurers, three were excluded from the analysis due to the quality of accounting or lack of data information. Obviously, for ethical reasons, the corporate names are not disclosed. The analysis uses operations research methods with the Data Envelopment Analysis (DEA), to evaluate the technical efficiency of production units, comparing the level of output (in this case the reinsurance premiums) with the use of factors of production (administrative and personnel expenses,

Reinsurers licensed in Brazil
Premiums earned in 2013

	Authorization	Premiums, ir R$ million
1 – Places:		**4.734,6**
IRB Brasil Resseguros S.A	Abril 1939	2.664,0
J. Malucelli	Maio 2008	152,4
Munich Re do Brasil	Maio 2008	370,6
Mapfre Re do Brasil	Novembro 200	271,8
XL Resseguros Brasil	Dezembro 200	81,5
ACE Resseguradora	Novembro 200	240,8
Austral Resseguradora	Janeiro 2011	234,1
AIG Resseguros (ex-Chartis Resseguro	Abril 2011	45,8
Zurich Resseguradora	Janeiro 2012	312,0
Markel Resseguradora (ex-Alterra)	Janeiro 2012	34,0
Swiss Re Brasil	Junho 2012	82,7
Terra Brasis	Outubro 2012	15,2
Alianz Global Corporate	Dezembro 201	195,3
BTG Pactual Resseguradora	Fevereiro 2013	34,4
2 – Any and admitted	-	**2.854,0**
Total market	-	**7.888,6**

Source : SUSEP

Table 4

spending on outsourced services, facilities and operations, and investments in advertising).

Using the accounting information available on the SUSEP site for the DREs of local reinsurers the years 2008, 2010 and 2012, an empirical analysis shows[28] that:

1 - only two of the seven foreign reinsurers show persistent maximum technical efficiency (100%) in the three periods.

2 – of the other five foreign reinsurers, one suffered a decline in technical efficiency, and another showed an increase in efficiency. In the remaining three reinsurers, the analysis is inconclusive, or shows a poorly defined trend in efficiency, or lack sufficient accounting information.

3 - the four domestic reinsurers have technical efficiency of less than 100%. Two reinsurers became more efficient; one declined; and one newly established reinsurer does not show a defined trend, with information available for only the most recent period.[29]

4 – over the period 2008-2012 there was a significant increase in the real value of reinsurance premiums, which means that the measurement of technical efficiency should take into account the upward dislocation of efficiency potential. That is, maximum efficiency of 100% in one year is different from the level of maximum efficiency at a different point in time, since the gradation in efficiency between the companies is relative.

Therefore, the advantage of foreign reinsurers is indeed observed but can not be generalized, because the level of 100% is found in only two

Technical efficiency of local reinsurers
Simple average of the coefficients of DEA efficiency, %

	2008	2010	2012
Foreign:			
All	61.0	66.2	53.1
Excluding the most efficient	22.1	43.6	34.4
Domestic:			
All	46.2	31.1	37.9
Excluding the IRB	12.0	18.0	33.7

Source: SILCON, ongoing research, preliminary results.

Table 5

[28] The estimation of technical efficiency assumed production functions with constant returns to scale. Some studies with the DEA technique applied in the Brazilian insurance market are available. See eg Accountant, Claudio; Carlos Alberto Nunes Cosenza; Estellita Marcos Lins; Armando Goncalves and C. Neto, "Evaluation of the Brazilian insurance market performance by DEA method (Data Envelopment Analysis) in the first half of 1999", XXXII Brazilian Symposium of Operational Research, Annals, Viçosa, 18-20, Oct. 2000 UBRO pp.890-903; Magalhães da Silva, Antonio Carlos, "Tests of efficiency in the area of insurance, private pension and capitalization in the Brazilian market for the period 2000-2003: an approach using non-parametric tests and models of fuzzy logic", Brazilian Journal of Risk and Insurance, vol.1, no.2, October / May 2006, pp.89-119.

[29] DEA methodology indicates which factors and cost items less efficient firms should focus attention on and make cuts and operational improvements, and what the intensity of the adjustments should be. For a case study based on a real case see SILCON Economic Studies, "Efficiency, productivity and technology: assessing the performance of companies," RS045 Report, March 2000.

cases. In contrast, two foreign reinsurers suffered a reduction in technical efficiency. Hence, there is hope for national reinsurers competing in the Brazilian reinsurance market, provided they adopt modern management practices.

It is important to note that the observation that two foreign reinsurers have technical performance of 100% in comparison with other local reinsurers, does not mean they are 100% efficient in comparison to their parent companies or their counterparts installed in other countries.[30]

As an important result, note that two domestic private companies demonstrate increasing technical performance, either because they are learning and training their professional employees; absorbing and using international practices; or because they have or have access to differential factors. It is therefore possible for domestic reinsurers to compete with foreign companies operating in Brazil if they adopt similar practices, and an improvement in professional skills and adopt the new technology.

3.4 Problems with opening the market

In the heat of discussion on the likely effects of the opening of the market, the fear that it would cause the outflow of foreign exchange, with the transfer of reinsurance premiums to international companies, causing a decrease in the size of the domestic market and the loss in the formation of technical provisions to other markets.[31] This was not an unreasonable assumption, because if there are no minimum requirements for the generation of reinsurance internally, the complete opening of the market - that is a market with no barriers to entry - can in fact transfer operations to other countries.

What would be the limiting conditions for causing the transfer of reinsurance operations abroad? We can cite four. The first is the scarcity of qualified professionals, which is being remedied, but it is still a cause for concern. Here, a critique of the market and its institutions is worth noting. The various attempts to open the reinsurance market since 1992, at least gave enough time to provide better professional training. This did not happen, however. The opening in 2007 was no surprise, and found the insurance and reinsurance market with a lack of professionals able to operate in a global environment. Certainly, this behavior should not be generalized as some reinsurers and reinsurance brokers are investing heavily in professional training. Unfortunately, the language barrier in the globalized reinsurance market is strong in Brazil.

The lack of attention to training of the technical staff can not be justified on the grounds of lack of supply of training programs. Some educational institutions offer good quality graduate and undergraduate courses in insurance and reinsurance. The most

[30] This kind of analysis requires more effort, with access to the statistics and accounting information of foreign reinsurers operating in other countries, but this is necessary for the strategic positioning of domestic and foreign reinsurers, as a guide for supervision by SUSEP. The DEA technique applied to the accounting information available in SUSEP allows the development of a survey to monitor the evolution of the relative performance of local reinsurers over time.

[31] These arguments are explored and criticized by Bopp, Jutta, “Impact of the potential opening of the Brazilian reinsurance market”, Swiss Re Economic Research & Consulting, 2005

traditional of these, the Escola Nacional de Seguros (National School of Insurance) offers an undergraduate degree in business administration with an ENADE Grade 5[32] in São Paulo and Grade 4 in Rio de Janeiro, in addition to MBA and Extension programs, international programs with scholarships at Cass University (London), and other training programs abroad. Still, the demand for their programs is not high enough in relation to with the average level of knowledge and professional training programs in other markets.

The second potential difficulty is access to technology, which fortunately is proceeding at a faster than expected pace. Local reinsurers, including IRB-Brazil Re understand that they operate in a competitive and globalized market and are absorbing modern practices and technology.

The third is a regulatory environment that is impeditive and disadvantageous to foreign companies. Despite this protectionist bias, the regulatory framework did not limit the freedom of reinsurance operations, nor did it create excessive capital[33], requirements and did not restrict the movement of resources and the contracting of risk, and did not include bizarre clauses in contracts.

The fourth difficulty would be to establish loose rules and regulations, allowing the conditions to create the so-called "fronting market", in which reinsurance operations are contracted by representations and offices and transferred abroad.

3.5 The transition

3.5.1 A chronology of missteps and setbacks

The opening of the reinsurance market took place after a long and intermittent process. Although it had been suggested in 1992 in discussions about the Master Plan, the first real step occurred in August 1996, when the Congress approved Amendment 13 of the Federal Constitution. Article 192, Section II, dealt with the regulation of the financial system, of which the insurance market is part. With this Amendment, the "... IRB ceased to be the official reinsurance agency...", revoking a position that had been guaranteed in the 1988 Constitution. But the Amendment was not regulated, which rendered the measure innocuous. Still, it broke the legal barrier and prepared the way for the opening of the reinsurance market.

In June 1997, the IRB's General Shareholders Meeting would change the name of the IRB to IRB-Brasil Re, and the new name was confirmed by Article 59 of Provisional Measure 1549-36 November 1997. On May 27, 1998, Law 9649 confirmed the proposed measures, and it was published in the Official Gazette the following day.

Decree 2423 of December 1997 included reinsurers in the National Privatization Program of the Fernando

[32] ENADE – National Student Performance Examination is an examination conducted by MEC with the graduating students of the HEI - Higher Education Institutions throughout Brazil. The maximum score is five. In São Paulo, the course took second place in Business Administration programs, and in Rio de Janeiro, students placed in the top six undergraduate courses in management.

[33] Although it would be preferable to use risk models, integrated with the characteristics of the portfolios of reinsurers.

Henrique Cardoso administration and the BNDES announced the IRB-Brasil Re privatization schedule in January 1999, with the auction scheduled for October 1999. But the auction was postponed because of the failure to approve the regulatory structure for the end of the monopoly.

In 1998, the federal government assumed a commitment under GATS (General Agreement on Trade in Services, WTO) to allow free competition of foreign insurers in Brazil. This agreement would be another source of pressure for the opening of the market, which did not take place until almost ten years later.

In September 1999, the government sent to Congress an ordinary draft bill that transferred the responsibilities for regulation and supervision to SUSEP. And on December 20, 1999, Law 9932 was passed transferring the supervision and regulation of the reinsurance industry to SUSEP. In June 2000, the Workers' Party (PT) filed a suit alleging the unconstitutionality of the law (ADIN 2223) claiming that changing the responsibility for the IRB could not be done by an ordinary law and would require a supplementary law. Although published in the Official Gazette, the Supreme Court deemed the law unconstitutional. The National Council of Privatization then halted the process of privatization of IRB-Brazil. Only in October 2001, was the suit brought before the Court, but the trial was suspended. In June 2002, discussion began on ADIN 2223, but it was not tried for lack of a quorum. A second meeting was scheduled, and again there was no quorum. In October, the Supreme Court resumed the trial of ADIN 2223 and upheld the injunction granted in July 2000. This meant that the IRB-Brasil Re recovered the functions of regulating and supervising the insurance market, and to grant permits for operating companies.

In January 2000 the National Private Insurance Council (CNSP) published new rules for the operation of the open market, but normative acts passed after Law 9932 remained without legal status as long as the Supreme Court decision was upheld.

In March 2000, the National Privatization Council published a new notice and scheduled the auction for July 2000. In April, the auction was postponed to prepare a revaluation of the price of the company. Activities were suspended for three years, until in May 2003, Constitutional Amendment 40 was approved, allowing regulation by Article 192 of the Federal Constitution, providing that each sector of the financial system would be regulated by a specific supplementary law.

In June 2003, the Presidency – now under the administration of the PT Government - introduced a companion bill transferring the regulatory and supervisory functions for reinsurance IRB-Brazil to SUSEP, which had been suspended since the ADIN 2223 Decision, submitted by the same PT Party in 2000. In June 2004, the General Prosecutor of the Republic and the Federal Attorney's Office issued opinions obviating the requirement of additional object of the law ADIN 2223.

Finally in January 2007 via Complementary Law 126, the Federal Government promoted the opening of the reinsurance market, which would not be completed until April 2008 by the entry of new firms. Consolidating the process, in February 2013, the Government authorized a capital increase of the IRB-Brasil Re, through the issue of stock, and ultimately renounced the exercise of subscription rights for new shares. The IRB-Brazil was then definitely privatized, after nearly 20 years of back and forth progress. Still, the opening of the reinsurance market had bias towards protecting reinsurers established in Brazil. Two amendments to the Federal Constitution, a Complementary Act and various adjustments in the regulatory framework were necessary. Despite the improvement, however, the market cannot be regarded as globalized and completely competitive.

3.5.2 Successes and threats

Parallel to the legal arguments of the opening, the IRB-Brazil went through internal changes that facilitated the process of privatization. The best evidence of these adjustments is the fact that privatization occurred in an orderly manner without manifestations to the contrary; a different environment than was evident in previous privatizations.

In the late 1990s and early 2000s, the monopoly position of IRB-Re became increasingly untenable. Allegations of corruption and political use of the company tarnished the credibility and the history of the institution. Delays in compensation payments - more than six months, according to testimony from insurers - and unnecessary bureaucracy completed the IRB-Re situation.

The internal preparation for the opening of the reinsurance began in 2005, with a new president who established management practices common in financial institutions. New products were developed, an ombudsman was put in place to answer questions within 24 hours, the average time for claims dropped from 400 to 100 days and large contracts were established with international reinsurers. The President of the IRB-Re himself put aside any doubts about the inevitability of the opening by stating that "... (IRB-Re) ... no longer exerts monopoly power." This was an important step in breaking down the internal resistance in IRB-Re against opening the market and a signal that a new market model was close to implementation. Finally, in 2008 the opening of the market was put into practice.

The consolidation of the competitive model for reinsurance was in progress, when in late 2010 the National Private Insurance Council (CNSP) passed two resolutions that were seen as steps backward. Resolution 224 prohibited the transfer of reinsurance contracts between companies linked to or owned by the same financial group, and Resolution 225 required that 40% of the surpluses of insurance be placed in local reinsurers. In March 2011, relaxed the CNSP Resolution 224, allowing the insurer or reinsurer could transfer up to 20% of the premiums to companies linked to or belonging to the same financial conglomerate headquartered abroad, except for some areas.

Another intervention - and a new setback - was the creation by Decree 7976 of the Brazilian Agency Management of Funds Guarantors and Guarantees (ABGF) under the Ministry of Finance in August 2013, with the ability to operate in any type of insurance, with the spurious argument that insurers and reinsurers showed no interest or were unable to guarantee the risks of major infrastructure projects. The argument is flawed for several reasons. First, because the technical capacity for large insurance and reinsurance risks does exist. And second, in an open market, the price mechanism is able to determine the appropriate premium for the risk. This measure is a holdover from the protectionist philosophy and a return to interventionist thinking and creating a new element of uncertainty in the market and generating pessimism. However, depending on the behavior of ABGF, the reinsurance market could prove to be more attractive to new entrants.[34]

[34] Pereira, Marcela Semeghini, "System Brazilian and American reinsurance: needed of convergence", Revista da Faculdade de Direito da UERJ, Rio de Janeiro, vol.1, no.23, 2013

With these interventions, the insurance industry in Brazil experienced a new paradox. Before the opening, and through 2013, insurers were all private, and the reinsurance market was nationalized and closed. In the current environment, the reinsurance market is open, including to the participation of foreign companies, but private insurers coexist with a state-owned enterprise (ABGF)!

3.6 Market structure and institutions

The model of reinsurance before the opening was very simple: the IRB received the policies of the insurers and processed them directly or re-passed them overseas. The companies involved were the reinsurer, the IRB and the grantor. The IRB fixed the technical limits for lines of insurance, the operating limits, the solvency margins and the minimum capital requirements established by CNSP and SUSEP. The risk in excess of the technical limit of the insurer was transferred to another insurer, through coinsurance operations, and/or the IRB, through reinsurance. Coinsurance was always more expensive than reinsurance. With reinsurance accepted, the IRB could retain the risk (since the value was within its technical limits), redistribute value to other Brazilian insurers (if the value exceeded its technical limit, but was less than the retention capacity of insurers), or pass through to the international reinsurers, if the value of the risk exceeded the capacity of the domestic market to retain. Until 2000, the surrender of national insurance was automatic, with payment of a proportional commission by the IRB. Insurers were required to accept a minimum of 50% of the value of the reinsurance and the IRB retained 50% of the pass-through. In this pre-opening format, the price of reinsurance was essentially determined by the IRB.

The opening of the reinsurance market radically changed the *modus operandi*. From the point of view of the domestic market, the model gave freedom in choosing the reinsurer to insurers, who were able assess the risk and charge an appropriate premium. Second, the price of reinsurance came to be determined by the market. Third, the operations became more agile and had less bureaucracy. And fourth, the market structure became more flexible with three types of reinsurers: domestic, foreign (admitted) and occasional.

A <u>domestic reinsurer</u> is headquartered in Brazil, and constituted as a corporation with a minimum capital of US$ 60 million.

A <u>foreign (admitted) reinsurer</u> is authorized to operate in accordance with their business needs in Brazil. It must have over five years of operation in the international market; a minimum net worth of US$ 150 million; meet the minimum requirements of economic and financial capacity; pass a solvency assessment by a rating agency, be registered with SUSEP; and operate as a representative office. It must have a bank account in foreign currency linked to SUSEP as a guarantee of operations and provide guarantees through the allocation of resources in Brazil.

An <u>occasional reinsurer</u> is a foreign reinsurer operating in its country of origin for more than five years, with net assets of more than US$ 100 million. It does not need to have office or representative office in Brazil, but it must have a positive solvency assessment by a recognized rating agency and must appoint an attorney residing in Brazil with extensive administrative and judicial powers, as required by Brazilian law.

At the end of 2013, 113 reinsurers worked in Brazil, in 14 locations (including IRB-Brazil Re); 67 possible, 32 admitted and 26 brokerages. In terms of values, the total reinsurance market closed 2013 with premiums of nearly U.S. $ 8 billion (or $ 3.6 billion), with 65% of yielded reinsurance in the local market. The amount of premiums yielded to IRB-Brazil Re reached R $ 2.8 billion ($ 1.3 billion) in 29th place in the rank of international reinsurers. Tables 1 and 2 reproduce the new configuration of flows, with the evolution of the values in Tables 7 and 8 respectively in U.S. $ million, 2013 prices and current U.S. $ billion. The deflator used was the IGP-DI, the Getulio Vargas Foundation, and the conversion to dollars in the average annual commercial rate. The phase of mega-inflation of the'80s and early '90s, the currency changes, the imposition of *tablitas* and correctness criteria of values greatly hindered the accounting records at the time. As far as was possible to adjust the information, the data of Tables 7 and 8 corrected the discrepancies.

Number of firms operating in the reinsurance market

	2011	2012	2013
Reinsurance:	96	106	113
Domestic	8	13	14
Occasional	59	59	67
Foreign	29	34	32
Reinsurance brokers	33	32	26

Source: SUSEP

Table 6

The model adopted by post-opening reinsurance brings clear advantages: flexibility of forms of companies (local, admitted and possible), total openness to foreign companies and is less restrictive than that observed in other countries, including the leaders of the insurance market.[35]

At the end of 2013, 113 reinsurers were working in Brazil, 14 domestic firms (including IRB-Brazil Re); 67 occasional firms, 32 foreign (admitted) firms and 26 brokerage firms. In terms of values, the total reinsurance market closed 2013 with premiums of nearly R$ 8 billion (or US$ 3.6 billion), with 65% of reinsurance placed in the local market. The amount of the premium ceded to IRB-Brazil Re was R$ 2.8 billion (US$ 1.3 billion), ranked 29th among international reinsurers.[36] Tables 1 and 2 show the new configuration of flows, with the evolution of the values in Tables 6 and 7 respectively in US$ million in 2013 prices and current US$ billion. The deflator used was the Getulio Vargas Foundation IGP-DI, and the conversion to dollars, at the average annual commercial rate. The phase of mega-inflation in the 1980s and early 1990s, the currency changes, the imposition of tablitas and criteria for the monetary correction of values made the accounting records at the time exceedingly difficult. As far as was possible to adjust the information, the data of Tables 6 and 7 corrected these discrepancies.

[35] For example, the U.S. legislation restricts the transfer of premiums to other countries. This practice, with less rigor, is adopted in other countries. In emerging - China, India, Russia - reinsurance operations virtually exclude foreign reinsurers.

[36] Compared with the Munich Reinsurance, with over US$ 37 billion of premiums; Swiss Re, with US$ 32 billion; Hannover Rueckversicherung AG, US$ 18 billion; and Lloyd's, with US$ 16 billion, citing the four largest reinsurers.

The configuration of the new reinsurance market
Reinsurance premium ceded by Brazilian originators
Flow values shown in Tables 6 and 7

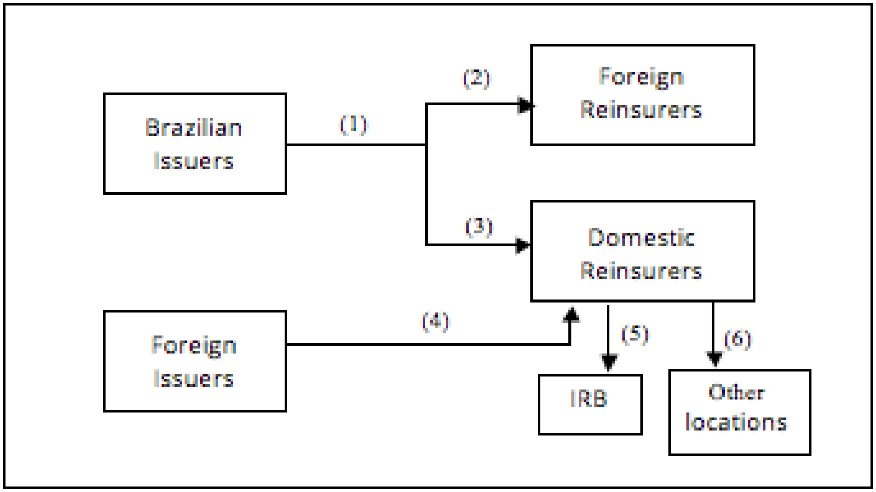

Chart 1

The configuration of the new reinsurance market
Reinsurance premium accepted by local reinsurers
Flow values shown in Tables 6 and 7

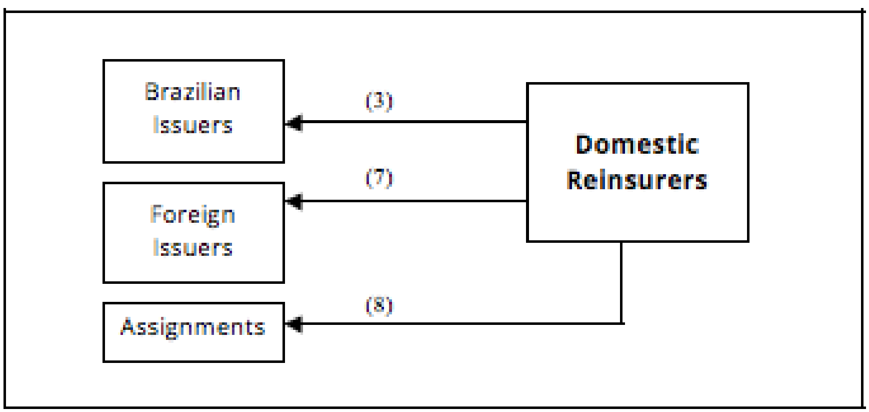

Chart 2

The reinsurance market, in US$ million at 2013 prices

	Ceded by Brazilian originators				
	Total market (1)	IRB (5)	The other sites (6)	The local market [to] (3)	Foreign (admitted) (4)
1970	**2204.5**	**2204.5**	**...**	**2204.5**	**...**
1971	2579.8	2579.8	...	2579.8	...
1972	3096.7	3096.7	...	3096.7	...
1973	4070, 1	4070, 1	...	4070, 1	...
1974	5145.0	5145.0	...	5145.0	...
1975	6,254.9	6,254.9	...	6,254.9	...
1976	6923.4	6923.4	...	6923.4	...
1977	7294, 8	7294, 8	...	7294, 8	...
1978	6980.4	6980.4	...	6980.4	...
1979	6297, 7	6297, 7	...	6297, 7	...
1980	**6088.2**	**6088.2**	**...**	**6088.2**	**...**
1981	6081.3	6081.3	...	6081.3	...
1982	6217, 7	6217, 7	...	6217, 7	...
1983	5139, 8	5139, 8	...	5139, 8	...
1984	5261.6	5261.6	...	5261, 7	...
1985	5293.9	5293.9	...	5293.9	...
1986	5487, 1	5487, 1	...	5487, 1	...
1987	4911.6	4911.6	...	4911.6	...
1988	5087.2	5087.2	...	5087.2	...
1989	4147.7	4147.7	...	4147.7	...
1990	**4560.6**	**4560.6**	**...**	**4560.6**	**...**
1991	4068.3	4068.3	...	4068.3	...

Table 7

The reinsurance market, in US$ million at 2013 prices

	Accepted by local reinsurers				
	From Brazilian Originators (3)	From Foreign Originators (7)	Gross Reinsurance Premium	Net Transfers (8)	Retained Premiums
1970	**...**	**...**	**2204.5**	**1,952.7**	**251.8**
1971	...	...	2579.8	2327.4	252.4
1972	...	...	3096.7	2699.6	397.1
1973	...	...	4070.0	2629.8	1,440.2
1974	...	...	5145.0	2663.7	2481.3
1975	...	...	6,254.9	3316.3	2938.6
1976	...	...	6923.4	3973.0	2950.5
1977	...	...	7294.8	4204.1	3090.7
1978	...	...	6980.4	3448.1	3532.3
1979	...	...	6297.7	2923.1	3374.6
1980	**...**	**...**	**6088.2**	**3030.1**	**3058.1**
1981	...	...	6081.3	3249.5	2831.9
1982	...	...	6217.7	3490.6	2727.1
1983	...	...	5139.8	2934.0	2205.8
1984	...	...	5261.6	3,135.6	2126.1
1985	...	...	5293.9	3063.0	2231.0
1986	...	...	5487.0	2994.6	2492.4
1987	...	...	4911.6	2636.5	2275.2
1988	...	...	5087.2	2560.2	2,527.0
1989	...	...	4147.7	2062.2	2085.6
1990	**...**	**...**	**4560.6**	**1824.2**	**2736.3**
1991	4068.3	...	4068.3	1784.9	2283.4

Table 7

The reinsurance market, in US$ million at 2013 prices

	Ceded by Brazilian originators				
	Total market (1)	IRB (5)	The other sites (6)	The local market to (3)	Foreign (admitted) (4)
1992	5607.0	5607.0	...	5607.0	...
1993	4018.8	4018.8	...	4018.8	...
1994 [d]	5841.5	5841.5	...	5841.5	...
1995	3470.9	3470.9	...	3470.9	...
1996	3344.3	3344.3	...	3344.3	...
1997	3408, 7	3408, 7	...	3408, 7	...
1998	3,621, 2	3,621, 2	...	3,621, 2	...
1999	3,618, 3	3,618, 3	...	3,618, 3	...
2000	**3291.0**	**3291.0**	**...**	**3291.0**	**...**
2001	4200.9	4200.9	...	4200.9	...
2002	5,422, 4	5,422, 4	...	5,422, 4	...
2003	5176, 9	5176, 9	...	5176, 9	...
2004	4,692, 5	4,692, 5	...	4,692, 5	...
2005	4499.7	4499.7	...	4499.7	...
2006	5188.3	5188.3	...	5188.3	...
2007 [b]	**4681.4**	**4681.4**	**0.0**	**4681.4**	**0.0**
2008	4963, 3	4,202, 2	429, 5	4631, 7	331, 6
2009	5496.6	3,738, 4	1033, 7	4772.0	724, 6
2010	**5415.2**	**1434.6**	**1,174.6**	**2609.2**	**2806.0**
2011	6578.2	2,867.7	1487, 6	4,355, 3	3.0 2:22
2012	6794.4	2554.9	1.0 1:54	4095, 9	2698.5
2013 [c]	7808.0	2,792.0	2325.3	5117.3	2690.7

Table 7

The reinsurance market, in US$ million at 2013 prices

	Accepted by local reinsurers				
	From Brazilian Originators (3)	From Foreign Originators (7)	Gross Reinsurance Premium	Net Transfers (8)	Retained Premiums
1992	5607.0	...	5607.0	2301.5	3305.6
1993	4018.8	...	4018.8	1792.8	2226.0
1994 [d]	5841.5	...	5841.5	2610.1	3,231.5
1995	3470.9	...	3470.9	1,012.9	2458.0
1996	3344.3	...	3344.3	1,316.5	2027.8
1997	3408.7	...	3408.7	1220.0	2188.7
1998	3621.2	...	3621.2	1272.5	2348.7
1999	3618.3	...	3618.3	1,536.7	2081.5
2000	**3291.0**	**...**	**3291.0**	**1464.2**	**1826.8**
2001	4200.9	...	4200.9	2194.5	2006.4
2002	5422.4	...	5422.4	3,022.7	2,399.6
2003	5176.9	...	5176.9	2897.0	2279.8
2004	4692.5	...	4692.5	2342.1	2350.4
2005	4499.7	...	4499.7	2387.9	2111.8
2006	5188.3	...	5188.3	2522.0	2666.3
2007 [b]	**4681.4**	**30.5**	**4711.9**	**2382.8**	**2,330.5**
2008	4631.7	40.5	4672.1	2528.6	2143.5
2009	4772.0	107.7	4879.8	2366.1	2513.6
2010	**2609.2**	**144.6**	**2,753.7**	**1,112.7**	**1641.1**
2011	4,355, 4	56.0	4411.2	2409.9	2,001.3
2012	4095, 9	157.4	4253.2	1,914.9	2338.4
2013 [c]	5117.3	213.3	5330.7	2208.0	3122.7

Sources: IRB and SUSEP. Adaptation of diagrams developed by Terra Brasis. Data and Calculations: SILCON corrected by the IGP-DI, annual average. a IRB and other local b Opening of reinsurance c preliminary estimate d Real Plan

Table 7

The reinsurance market in current US$ million

	Ceded by Brazilian originators				
	Total market (1)	IRB (5)	The other sites (6)	The local market [to] (3)	Foreign (admitted) (4)
1970	**93.4**	**93.4**	**...**	**93.4**	**...**
1971	114.0	114.0	...	114.0	...
1972	143.2	143.2	...	143.2	...
1973	209.4	209.4	...	209.4	...
1974	307.5	307.5	...	307.5	...
1975	399.4	399.4	...	399.4	...
1976	476.4	476.4	...	476.4	...
1977	539.2	539.2	...	539.2	...
1978	558.9	558.9	...	558.9	...
1979	523.7	523.7	...	523.7	...
1980	**515.4**	**515.4**	**...**	**515.4**	**...**
1981	611.2	611.2	...	611.2	...
1982	632.0	632.0	...	632.0	...
1983	413.7	413.7	...	413.7	...
1984	427.1	427.1	...	427.1	...
1985	414.2	414.2	...	414.2	...
1986	476.1	476.1	...	476.1	...
1987	476.4	476.4	...	476.4	...
1988	576.1	576.1	...	576.1	...
1989	625.4	625.4	...	625.4	...
1990	**815.5**	**815.5**	**...**	**815.5**	**...**
1991	618.2	618.2	...	618.2	...

Table 8

The reinsurance market in current US$ million

	Accepted by local reinsurers				
	From Brazilian Originators (3)	From Foreign Originators (7)	Gross Reinsurance Premium	Net Transfers (8)	Retained Premiums
1970	**...**	**...**	**93.4**	**82.7**	**10.7**
1971	...	...	114.0	102.9	11.2
1972	...	...	143.2	124.9	18.4
1973	...	...	209.4	135.3	74.1
1974	...	...	307.5	159.2	148.3
1975	...	...	399.4	211.8	187.6
1976	...	...	476.4	273.4	203.0
1977	...	...	539.2	310.7	228.4
1978	...	...	558.9	276.1	282.8
1979	...	...	523.7	243.1	280.6
1980	**...**	**...**	**515.4**	**256.5**	**258.9**
1981	...	...	611.2	326.6	284.6
1982	...	...	632.0	354.8	277.2
1983	...	...	413.7	236.1	177.5
1984	...	...	427.1	254.5	172.6
1985	...	...	414.2	239.6	174.5
1986	...	...	476.1	259.8	216.3
1987	...	...	476.4	255.7	220.7
1988	...	...	576.1	289.9	286.2
1989	...	...	625.4	311.0	314.5
1990	**...**	**...**	**815.5**	**326.2**	**489.3**

Table 8

The reinsurance market in current US$ million

	Ceded by Brazilian originators				
	Total market (1)	IRB (5)	The other sites (6)	The local market [to] (3)	Foreign (admitted) (4)
1992	838.8	838.8	...	838.8	...
1993	668.3	668.3	...	668.3	...
1994 [d]	1,249.8	1,249.8	...	1,249.8	...
1995	866.4	866.4	...	866.4	...
1996	846.7	846.7	...	846.7	...
1997	868.3	868.3	...	868.3	...
1998	890.1	890.1	...	890.1	...
1999	633.2	633.2	...	633.2	...
2000	**649.7**	**649.7**	**...**	**649.7**	**...**
2001	712.6	712.6	...	712.6	...
2002	840.1	840.1	...	840.1	...
2003	934.6	934.6	...	934.6	...
2004	975.1	975.1	...	975.1	...
2005	1,190.4	1,190.4	...	1,190.4	...
2006	1562.6	1562.6	...	1562.6	...
2007 [b]	**1652.9**	**1652.9**	...	**1652.9**	...
2008	2072.4	1,754.6	179.3	1934.0	138.5
2009	2145.6	1,459.3	403.5	1862.8	282.8
2010	**2532.6**	**670.9**	**549.4**	**1,220.3**	**1312.3**
2011	3508.7	1529.6	793.4	2323.0	1,185.7
2012	3291.0	1,237.5	746.4	1983.9	1,307.1
2013 [c]	3,618.9	1,294.0	1077.8	2371.8	1247.1

Table 8

The reinsurance market in current US$ million

	Accepted by local reinsurers				
	From Brazilian Originators (3)	From Foreign Originators (7)	Gross Reinsurance Premium	Net Transfers (8)	Retained Premiums
1992	838.8	...	838.8	344.3	494.5
1993	668.3	...	668.3	298.1	370.2
1994 [d]	1,249.8	...	1,249.8	558.4	691.4
1995	866.4	...	866.4	252.8	613.6
1996	846.7	...	846.7	333.3	513.4
1997	868.3	...	868.3	310.8	557.5
1998	890.1	...	890.1	312.8	577.3
1999	633.2	...	633.2	268.9	364.2
2000	**649.7**	**...**	**649.7**	**289.0**	**360.6**
2001	712.6	...	712.6	372.3	340.4
2002	840.1	...	840.1	468.3	371.8
2003	934.6	...	934.6	523.0	411.6
2004	975.1	...	975.1	486.7	488.4
2005	1,190.4	...	1,190.4	631.7	558.7
2006	1562.6	...	1562.6	759.6	803.0
2007 [b]	**1652.9**	**10.8**	**1663.6**	**841.3**	**822.8**
2008	1934.0	16.9	1,950.9	1,055.8	895.0
2009	1862.8	42.1	1904.8	923.6	981.2
2010	**1,220.3**	**67.6**	**1287.9**	**520.4**	**767.5**
2011	2323.0	29.9	2352.9	1285.4	1,067.5
2012	1983.9	76.2	2060.2	927.5	1,132.7
2013 [c]	2371.8	98.9	2470.7	1,023.4	1447.3

Sources: IRB and SUSEP. . Adaptation of diagrams developed by Terra Brasis. Data and Calculations: SILCON. Conversion to US$ at the average annual exchange rate. a IRB and other local b Opening of reinsurance c preliminary estimate d Real Plan

Table 8

With the values expressed in 2013 prices, that is: excluding inflation, the value of the reinsurance premiums in 2013 are only 7% higher than 1977, as shown in Figure 5, with the evolution of the reinsurance market since 1970.[37] However, the post-opening environment is healthier, more likely to reward efficiency and has better prospects than in the era of monopoly.

Figure 5 also shows the explosive growth of total reinsurance premiums in real terms. From the opening in 2007 through 2010, there was a drop in reinsurance for local companies - basically the loss of the IRB-Brazil - offset by the expansion of the premiums from foreign reinsurers (occasional and permitted). Beginning in 2011 local reinsurers began to experience continued strong growth, and this trend should remain in the coming years.

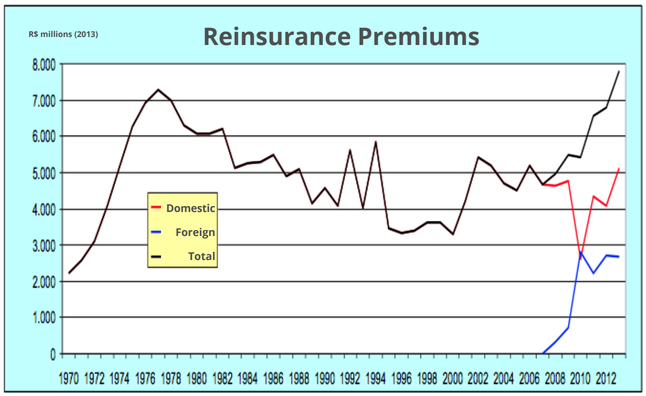

Figure 5

Figure 6 shows reinsurance ceded by local companies since 2000, where the losses IRB-Brazil space (in red line) in visible and the uninterrupted growth of the value of the real premiums of other reinsurers (in blue) is visible. It is evidence of the salutary effects of the opening of the market.

The breakdown of the premiums accepted by local reinsurers, Figure 7 shows the importance of reinsurance ceded by Brazilian firms (blue line), followed by reassignments (black line), and with smaller significance, the assignments to foreign companies (red line).

And with regard to the breakdown of gross reinsurance premiums, reassignments and retained premiums have similar fluctuations in most periods, and is visible during the expansion phase from 2011 of the retention of premiums. This is a trend that should continue in the coming years.

[37] Despite inflation, the comparison to 1977 is nevertheless valid since inflation in 1977 - 42%, although high compared to current levels – did not significantly distort accounting records which used monetary correction (restatement).

Figure 9 uses the information in Table 1 and illustrates the evolution of penetration of insurance and reinsurance-insurance relations, in the operations branches most amenable to the reinsurance market.[38] Despite the strong growth in the value of reinsurance premiums, there was a decline in the relationship between insurance and reinsurance premiums (right scale, blue line in Figure 9).

This does not mean, however, that the opening of the market did not raise the intensity of reinsurance. Since the opening allowed greater risk retention by insurers, insurance premiums could grow even faster than reinsurance, reducing the reinsurance/ insurance ratio.

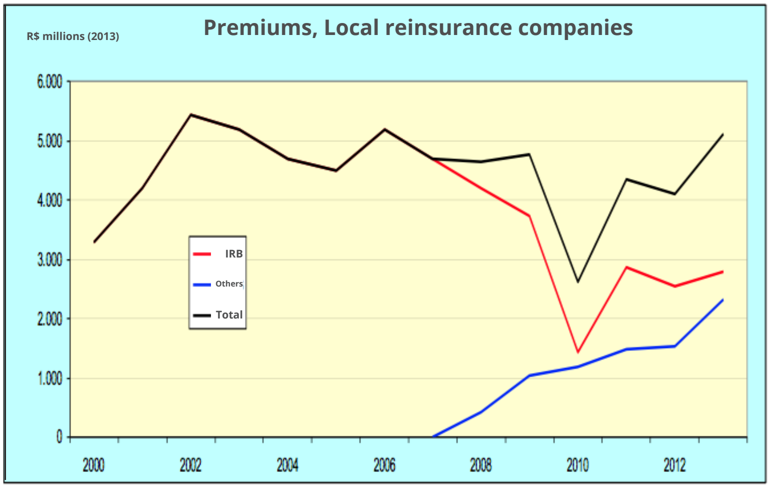

Figure 6

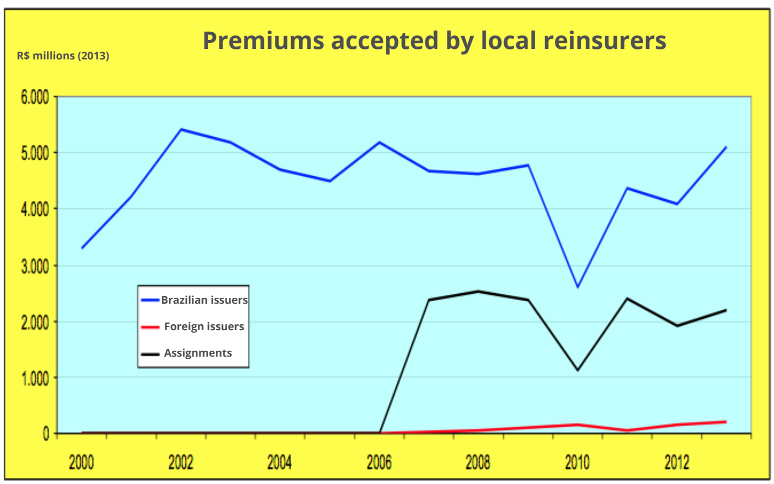

Figure 7

[38] Branches of property risks, financial, oil and gas, rural, people, engineering, transport, maritime, aeronautical, responsibility.

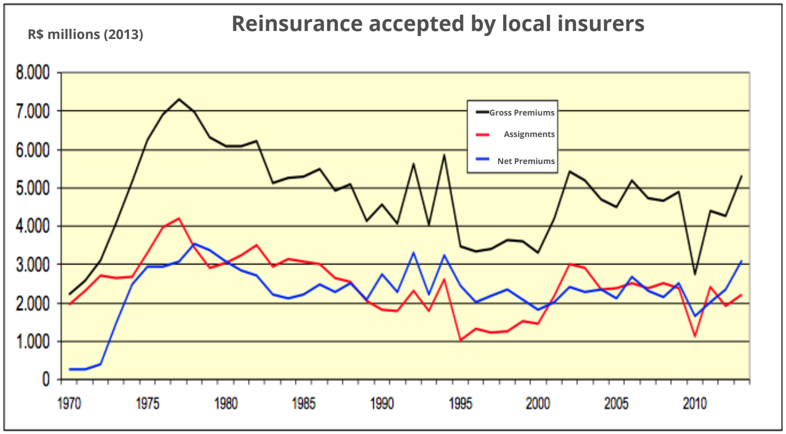

Figure 8

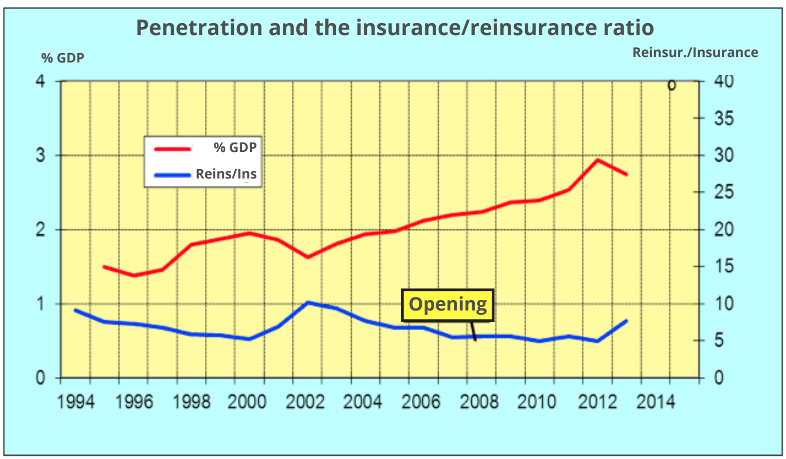

Figure 9

4 - THE STEPS FOR MODERNIZATION

4.1 Where we want to go?

A candid portrait of Brazilian society reveals huge contrasts with the past and between social classes and sectors of activity in the present. Of the most glaring realities, the demographic structure offers us the so-called demographic dividend, with over 60% of the population of working age, and a life expectancy of more than 74 years versus 63 years in the 1980s. The infant mortality rate fell from 69% in 1980 to 16% in 2011, according to IBGE statistics. Population growth is approaching the replacement rate, and in 2040, the Brazilian population will have stabilized at 220 million people. In 2011, the C class exceeded 54% of the population, up from 34% five years before. It is a social class characterized by the avid consumption of durable goods, better housing and more sophisticated services.

These demographic and economic changes have direct and significant impacts on the insurance markets in numerous ways. First, the growing class C tends to be conservative, desirous of protecting its assets and maintaining its standard of living. It is a social segment that is still poorly served by private insurance, but it is an important niche. The low-cost and micro-insurance, administered by the private sector, could free up the public sector of several activities that are embedded into social policy and provide them with greater efficiency at lower cost. Second, a larger proportion of the elderly population demands differentiated products, principally supplementary pension plans and health insurance. The opportunities for the insurance market are also broad in other sectors. Brazilian agribusiness is now one of the high-tech sectors, generating annual export revenues of more than US$ 90 billion and a domestic supply of food never before observed. It is another sector that needs insurance protection and few insurers offer policies for this sector. Less than 5% of the cultivated area in Brazil is protected by insurance. Infrastructure projects, not just those in the PAC, but also small and medium sized projects, require insurance guarantees, a mechanism required by domestic and international lending institutions to reduce risk and interest rates on loans for investment. The environment is still not protected by insurance, and faces the methodological difficulties in risk assessment and valuation of natural resources. Natural or anthropogenic disasters, thought to be non-existent in Brazil until recently are already a reality in some regions, and we know little about the distribution of risks and the mitigation of risk through insurance. The labor accident insurance administered by the government can be returned the private sector. In 2011, Social Security provided assistance in the cases of 700,000 job-related accidents (not counting those occurring among informal workers, civil servants and un-reported), with a direct cost of US$ 10 billion. In the hands of the private sector, this insurance can be more efficient, with better prevention and risk assessment, less fraud and lower social cost.

As an institutional investor, the private sector insurance and pension have a stock of reserves of over R$ 1.05 trillion, of which R$ 550 billion is in pension funds (closed pensions). Over 60% of these funds are invested in government bonds, and the remainder distributed among other financial assets, real estate and small portion in equity investments in productive activities. Two problems emerge from this situation. First, the role of institutional investors in the fixed capital formation is distorted, and second, the industry is captive and is sensitive to interest rate policy. This second theme is discussed below.

The internationalization of the Brazilian economy, with the establishment of our insurance subsidiaries abroad, higher risk exposure in other countries and the benefits of diversification, have not yet fully reached the insurance industry. Except for a few generally unsatisfactory experiments in the past, the Brazilian insurance companies have a barely perceptible share in other countries, in contrast to banks with strong international experience and expertise. The most noticeable exception is the IRB-Brasil Re that is taking a more active isolated position in Africa and other countries in South America, outside of the traditional London and New York markets, but considered a reckless assumption of risk. And note that this expansion only occurred after the passage of Complementary Law 126, of January 2007, and SUSEP Resolution 168.

In summary, there is a wide range of opportunities and challenges in Brazil that allow the private insurance industry to increase revenues from 6-6.5% of GDP to 8-9% in a decade and play an important role in productive capital formation. But for this to happen, several actions are required from both the public sector and the private sector. The public sector must establish and consistently implement policies ensuring the stability of rules and legal certainty. The private sector, must recognize its shortcomings and the impact on the consumer and understand that either they actively respond in a timely manner or the government will intervene with greater state controls.

4.2 What is the best way to proceed?

An agenda committed to the effective modernization of the insurance and reinsurance markets in Brazil includes at least six major points.

4.2.1 Definition of long-term goals

Over two decades have passed since the 1992 Master Plan, which outlined the overall strategy for the insurance market that is still in place today. But many changes undertaken by successive governments have been added to the document. After 1992, there were proposals from private institutions in the market (Fenaseg and the National School of Insurance), that for various reasons did not take hold. With all the major changes in the Brazilian economy (social inclusion, consolidation of monetary policy based on inflation targets, fiscal responsibility, demographic dividends, aging population, etc.) and the insurance industry itself (the opening of the reinsurance market, life and health insurance plans, micro-insurance and low-cost insurance), there is clearly a need to establish a new long-term strategy for the sector. The main actors in the market - regulators and supervisors of the insurance, health and welfare segments, insurance companies and other producing entities; and intermediaries - will have to formulate proposals.

4.2.2 Regulatory stability and less intervention

An environment of uncertainty, with the expectation of rule changes and/or changes in the new regulatory and tax framework, delays or discourages private investment. It happened with the reinsurance segment after the initial euphoria after the opening of the market. Insurance and reinsurance activities, by their very nature, involve long-term decisions that cannot be at the mercy of sudden changes.

This does not mean that changes in the regulatory and supervisory criteria should not occur, but it is necessary to differentiate the changes that are intended to correct the anomalies of short-term decisions and those that affect the long-term. Self-regulation promoted by the participants themselves, is effective and allows regulatory agencies to remain dedicated to establishing long-term rules. Fenacor offers a good example with the creation of self-regulating mechanism to monitor and punish brokers and brokerage firms, based on the fact that it is impossible for SUSEP to monitor all 70,000 brokers and brokerage-houses.

4.2.3 The transformation of SUSEP into an agency

Despite the improvements in its technical staff, SUSEP acts as an autarchy without its own resources, with supervision and executives that are not always nominated on technical criteria. There are already some positive signs that this institutional transformation is in the government's agenda.

Still on the question of institutional change, the insurance industry – including basic insurance, health and pension plans - a more integrated supervisory model needs to be adopted with the gradual merger of the regulatory and supervisory activities of the three agencies. At a later stage, the model can also integrate the banking sector, which would merge the regulatory frameworks.

The main challenge is internal to the sector: to recognize that the specialized regulation model - comfortable in theory – and isolated in different agencies, is obsolete and needs to be replaced by a modern model of semi-integrated regulation, that has been adopted in many countries. It is recognized that the size and dynamism of the Brazilian economy requires a more modern vision of the insurance industry more consistent with international practice.

Similarly, the discussion of the operation and size of the insurance industry should consider its various segments, and Brazil should move towards an integrated regulation model based on a single regulatory framework, with specific rules for each agency, respecting the individual characteristics of each.[39] In the current situation, the SUSEP, ANS and PREVIC agencies are part of different ministries (Finance, Health, and Labor and Social Security respectively) with different budgets and schedules, without regard to a single coordination. As a result, there is dispersion of resources, there is room for legal interpretation, changes in a undesirable manner the behavior of firms and consumers faced with the conditions of risk, and does not favor the symmetry

[39] It is important to differentiate between the activities of regulation, inspection and supervision. Regulation is the establishment of the rules of operation and conduct of institutions; surveillance is monitoring to see that the rules are obeyed and supervision is the verification of the operational behavior of companies and institutions. See Garcia, René, "The economic foundation for a theory of regulation on capital markets in the globalization process", Journal of CVM , 2001, pp.13-25

of information between the participants - producers and consumers - of markets. Proper regulation (together with the control and supervision) generates confidence in the rules and contracts, inhibits fraud, attracts financial and human capital, and reduces asymmetry in information, with consequent stimulus to the growth of markets.

It would be premature to apply only the integrated regulation model in Brazil, but a model of partial semi-integrated regulation, integrating the three areas of insurance markets is fully feasible.[40]

As part of the semi-integrated regulation, the functioning rules of national institutions should converge with the international regulatory framework. In the Brazilian case, SUSEP adopts the solvency criteria based on the prudential model of risk-based capital, in line with the directives of the IAIS and the approach of the European Union - Solvency II, with more stringent capital requirements criteria. It is true that this model prevented the Brazilian market from being contaminated by the international crisis of 2007-2009, but should be flexible and adaptable to changes in market conditions. A strict regulatory framework characterized by risk aversion limits the effects of contagion from international financial crises, but then reduces the potential for market growth in post-crisis periods. Overall, the regulatory framework adopted in most countries allowed insurers except for isolated cases (AIG, for example), to experience lower losses than other financial institutions. The exceptions are explained by deficiencies in controls and internal fraud.

The main challenge is internal to the sector: to recognize that the existing model of specialized regulation, applied to different agencies, is obsolete and should be replaced by the modern semi-integrated regulation model, used in many countries. It should be noted that the size and dynamism of the Brazilian economy requires a more modern approach to the regulation of the insurance industry in line with international practice.

Making the transition to a more modern model is not an isolated task for a segment or an institution in the industry. It will require coordinated action and recognition of the other problems of the sector.

4.2.4 - Convergence with international standards

Reinsurance is a global activity by nature. There is no turning back from the opening of the reinsurance market and the search for a competitive market trends. In this field, there is much to do to catch up with the items mentioned above or throughout the text.

The main obstacle is the average level of professional training in the industry. Fortunately a change in the employee profiles - mostly local reinsurers - is visible. But this is still insufficient, because it is easier and cheaper to hire more qualified business

[40] Currently more than 50 countries have adopedt integrated regulation with a single oversight agency for the entire financial sector or combined the power to oversee financial intermediaries in one agency. In 1986, Norway became the first country to establish a single agency for the regulation of banking, insurance and stock. In 1988 and 1991, Denmark and Sweden respectively adopted single regulatory bodies. The creation in 1997 of the Financial Supervisory Authority (FSA) in the UK spread this model across different countries, both developing and developed, given the central role that London plays an important financial center. See Martinez, Jose Luna and Thomas Rose, "International Survey of Integrated Financial Sector Supervision " , World Bank Policy Research Working Paper, 3096, July 2003; Benston, GJ, "Regulating financial markets: a critique and some Proposals", Institute of Economic Affairs, Hobart Paper 135, 1998; Group of Thirty, The structure of financial supervision, Washington, DC, 2008.

professionals who have already incurred the costs of training. There are international certification programs with few Brazilian professionals on the list. Unfortunately, language is still a formidable barrier – hopefully soon to be overcome - to market globalization. There is considerable demand from insurers, reinsurers, brokers, and analysts in general, for better-qualified professionals. In this field we are a long way from international standards for better-trained professionals and this limits the internationalization of our companies and professionals. The situation of the insurance sector is a reflection of the neglect of education and that has limited productivity growth. The occasional difficulties in the technical dialogue with SUSEP in the creating of long-term plans for the sector and the defense against lawsuits are a direct consequence of the deficiencies in professional training.

The use of arbitration in insurance and reinsurance contracts is standard practice in other countries, but still faces mistrust in Brazil. There are already several arbitration chambers in Brazil, some with very well trained arbitrators, resolving disputes in other markets. The insurance and reinsurance markets represent an excellent opportunity for the adoption of arbitration.

It is interesting to note that in the initial period after the opening of the market, almost all reinsurance contracts had an arbitration clause.[41] Unfortunately, there was an undesirable response to the strong resistance from insurers regarding the use of the arbitration clause. One reason given was the fear of litigation caused, directly or indirectly, by the reinsurer and the desire not be involved in this process. This fear, however, is not justified, because the inclusion of the arbitration clause by definition is flexible and can deal with all the parties involved[42]. In the end, the issue should be clarified so that arbitration can be effectively used in reinsurance contracts, which will reduce the time and the costs in resolving disputes.

This topic is of interest also for the eventual transformation of Brazil into a reinsurance hub for Latin America and Africa. This should be an integral part of the proposed measures, together with the equally important issues of the language barrier, inhibitive tax legislation, and the need for convergence to a single core regulatory framework.

[41] Resolution 168, April 2008, clearly established that the reinsurance contracts should include a clause that Brazilian laws and jurisdiction apply in the case of risks covered in Brazil, *except in cases of arbitration who apply the specific legislation*. (Emphasis added), Gomm-Santos, Mauricio, "Arbitration in the light of the opening of the Brazilian reinsurance market", Miami, USA, August 2008 See also Mello, Sergio Barroso for. "Reinsurance in Brazil: complex topic" Reinsurance Online, Pellon & Associados Law, Issue 36, January 2014, and the same author, Arbitration in insurance and reinsurance, (Rio de Janeiro, National School of Insurance, 2007). Barroso de, "Resseguro no Brasil : tema complexo", Resseguro Online, Pellon & Associados Advocacia, Edição 36, janeiro de 2014, e do mesmo autor, Arbitragem no seguro e resseguro, (Rio de Janeiro, Escola Nacional de Seguros, 2007).

[42] The question is whether Brazil has jurisdiction for arbitration in international reinsurance contracts. If so, Law 9307 of September 1996 is applicable. Gomm-Santos, op.cit.

5 - CONCLUSIONS AND SUGGESTED AGENDA

This report is based on presentations and discussions held in Rio de Janeiro at the conference on reinsurance sponsored by CEBRI in November 2013, enriched by statistical information and the results of research carried out by consultants.

The opening of reinsurance in 2007-2008 unquestionably represented a radical change in the insurance market in Brazil, with long-term positive impacts that are just beginning to be felt. It is impossible to have an active insurance market without access to reinsurance. As the state reinsurance monopoly model had exhausted its potential, the opening of a competitive market was the proper solution, injecting enthusiasm, capital and technology in the industry. The opening of the market was a lengthy process, lasting over the course of several governments, proceeding in fits and starts, but allowed the outlines of the project to mature. The reform process met the desires of the market broadly and could not be delalyed, at risk of stopping the growth of the insurance market with harmful effects on the functioning of the Brazilian economy. The shortcomings in the protection of infrastructure projects; rural insurance; disasters and environmental damage; and micro-insurance represent great opportunities for the insurance market in general and the reinsurance market in particular.

The open structure of the reinsurance market in Brazil is based on three categories of reinsurers: local, foreign and occasional, with their own legal structures and procedures for each specific operation. By the end of 2013, there were 113 reinsurance companies, 14 local, 67 occasional operators and 32 foreign insurers, plus 26 reinsurance brokers. In terms of billing, reinsurance in Brazil has total premiums of US$ 7.8 billion, small when compared with other markets abroad.

Despite this progress, the opening of the market is not complete and suffers from the mutual distrust of the supervisory board, reinsurers and insurers, and foreign companies interested in investing in Brazil. Changes in the rules, the creation of new state-owned enterprise and a clear bias and pro-protectionist state are some of the issues that prevent a more optimistic outlook in the short term.

Other obstacles to sustained growth of the sector – also seen in other activities - are the lack of trained professionals - and as a result - better risk management. On the institutional side, the report recommends the transformation of SUSEP, currently an agency subordinate to the Ministry of Finance, into an agency with greater autonomy; an acceleration of the convergence of domestic regulations and international practices; the beginning of a discussion for the implementation of the integrated supervisory model; the adoption of an arbitration clause in reinsurance contracts; and the retrieval and incorporation of the Workplace Accident Insurance (SAT) by the private sector, nationalized in 1971.

Despite the problems, the final conclusion is optimistic. Partial results of a survey show that some locally capitalized reinsurers, created after the opening of the market, are gaining technical efficiency and eventually will have the ability to compete with more experienced foreign reinsurers. The expected advantage of foreign reinsurers exists in fact but can not be generalized, since two of these show declining technical efficiency vis-à-vis improving domestic capability. It is important to emphasize that it is a healthy sign that there is room for national reinsurers compete in the Brazilian reinsurance market, provided that they adopt modern management practices.

From the macroeconomic point of view, this result by itself compensates for the problems faced in the short term. It demonstrates that in the long run, the opening of the reinsurance market and a competitive environment in a healthy format generates benefits, and will be the agents responsible for a major transformation in the insurance market. And most important, it shows that interventionist protection is not necessary and can be replaced by better supervision and regulation.

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