

Brazil's Health Insurance

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With a USD 2 trillion Gross Domestic Product (GDP) in 2010 and a population of roughly 200 million, the federative republic of Brazil, the continent-sized (3.3 million sq mile) home of the Amazon, which covers 47% of South America, is the world's 7th largest economy and it's 5th most populous nation¹.

In the past 40 years, Brazil has undergone significant political, economic, and demographic changes, but of particular interest, herein, is the Healthcare system. At 9% of GDP, with spending of USD 990.4 per capita, this system consists of a private sector, accounting for 4.9% of GDP and covering 23% of the population (46mn), and the public sector (4.1% of GDP), which covers everyone else and often plugs gaps in private care².

The private sector insurance is one of Brazil's oldest fully regulated activities, having begun among the Jesuits in the sixteenth century with Father Jose de Anchieta, who funded "means of assistance" without a proper policy by using mutualism. In contrast, the public health care system dates back to 1923, when the Eloi Chaves Law created a social security system for urban workers employed in the private sector. It was modeled based on compulsory contributions by employers and employees, tied health insurance directly to the job market, and left millions of agricultural and informal sector workers (the majority of the

¹ The World Bank: <http://data.worldbank.org/country/brazil>

² The World Bank: <http://data.worldbank.org/country/brazil>

population) uninsured.³ Even today, the healthcare system still has a basic division between the poor -who mainly identify as black or brown - and the private sector urban worker.

In 1988, following the military rule of 1964-85, when the National Congress elaborated the country's new constitution, the health sector presented the most complete proposal in terms of governing principles and organization of the system. The constitution made healthcare a universal right for all Brazilians and a responsibility of the state. The Sistema Unico de Saude (SUS) or Unified Healthcare System was reinforced and became the regionalized and decentralized network of health services, coordinated at the government and community level, and prioritized preventative care.⁴

The private healthcare market is regulated by the Agência Nacional de Saúde (ANS), the National Health Agency, under the Ministry of Health, whose stated mission is to promote public interest in private health insurance, regulate the operators in the industry – including their relations with providers and consumers – and contribute to the development of health in the country⁵. The market itself is comprised of numerous entity types:

- Managed Care Organizations (MCOs) – companies operating private healthcare plans that usually have owned facilities and third party networks, which is also known as group medicine;

³ American Journal of Public Health:
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447689/>

⁴ American Journal of Public Health:
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447689/>

⁵ Agência Nacional de Saúde Suplementar: <http://www.ans.gov.br/index.php/aans/quem-somos>

- Managers – companies that manage private health plans/services for other institutions and so not have facilities and members;
- Medical Cooperatives – Not-for-profit institutions that operate private healthcare plans;
- Philanthropic Institutions – Not-for-profit institutions that operate private healthcare plans and are certified by the Brazilian Council on Social Care;
- Self-insurer – institutions that provide healthcare coverage only to active/former employees and dependents of specific companies, foundations, etc;
- Health Insurance Providers – insurance companies that provide healthcare plans, subject to Private insurance Agency (SUSEP) besides ANS regulations;
- Dental Cooperatives – Not-for-profit institutions that operate private dental care plans;
- Dental MCOs – companies operating private dental care plans.

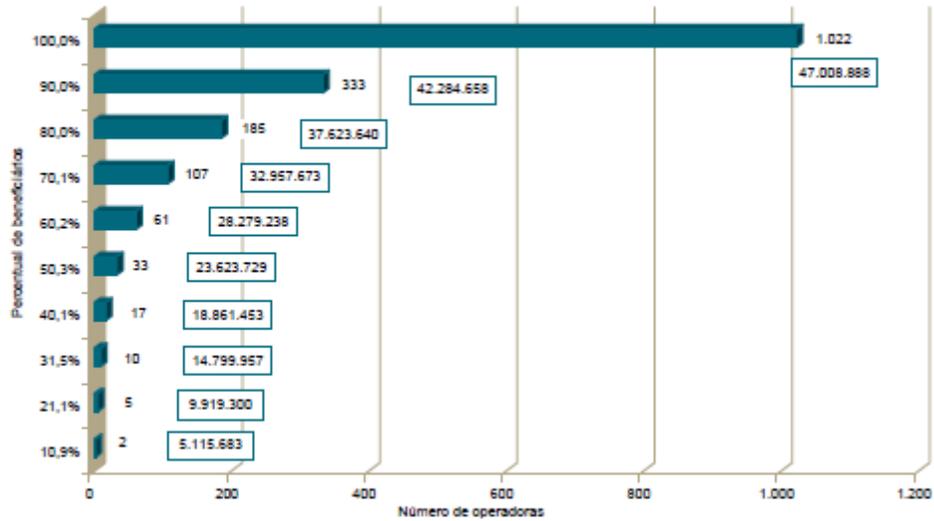
To put some numbers behind the labels, the market has Medical Cooperatives (36%) e.g. Unimed; MCOs (37%) e.g. Amil, Intermedica & Golden Cross; Insurers (12%) e.g. Bradesco Seguros, Sul America, Porto Seguro; and Others (15%) e.g. Petrobras, Citibank; and administering 44.78 million plans; is now driven mainly by corporate demand (75% of total market according to BTG Pactual)^{6,7}. Incidentally, BTG Pactual, is one of the largest independent investment banks located in emerging markets and coordinated approximately 50% of the total IPSs carried out in Brazil between 2004 and 2011.⁸

⁶ Gewehr, D. & Miranda, L. (2008). Initiating Coverage: Redefining Brazilian Healthcare?

⁷ Santos, J. C. & Montenegro, P. (2011). Healthcare Sector – Strong fundamentals. Brazilian macroeconomics and demographics support sector's sound prospects.

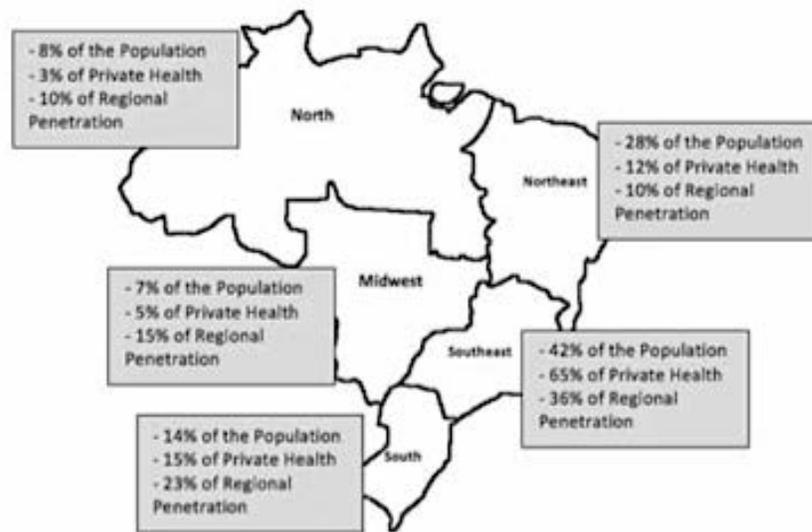
⁸ BTG Pactual: www.btgpactual.com

Gráfico 7 Distribuição dos beneficiários de planos privados de assistência médica entre as operadoras, segundo cobertura assistencial do plano (Brasil - setembro/2011)



Fontes: SIB/ANS/MS - 10/2011 e CADOP/ANS/MS - 10/2011

As rendered in the bar chart above, of the roughly 1000 companies issuing healthcare policies, 333 companies cover 90% of the market, with around 700 covering the remaining 10% (Personal communication on April 17, 2012 with Professor José Antonio Lumertz; Actuary – MIBA 448; Health Commission of the Instituto Brasileiro de Atuaria – Brazil). The figure below illustrates the uneven distribution of private health insurance amongst the five states of Brazil, by providing information on population distribution and penetration of private healthcare.



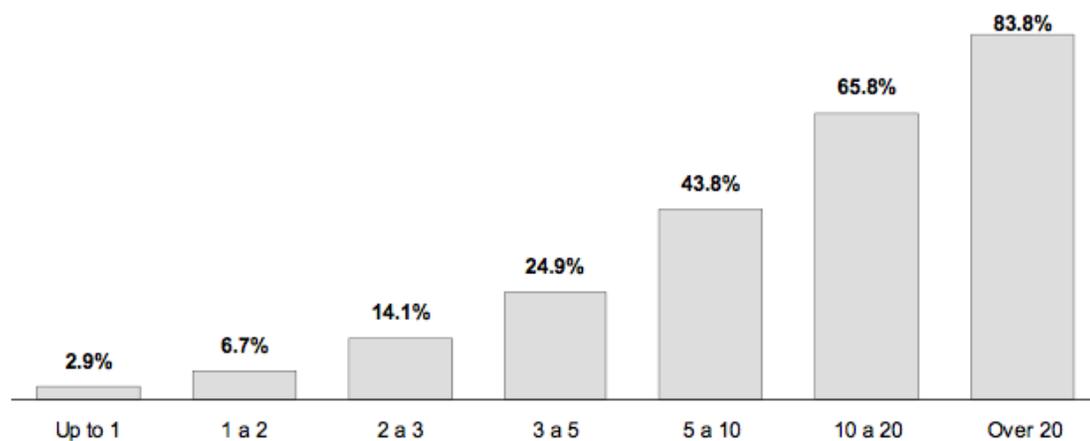
Source: ANS, 2010

The number of small insurers makes sense once you consider the “birth” of many private insurers in Brazil. JC Santos of BTG Pactual (A Brazilian investment bank) has shared with us personally (April 18th, 2012) how a private insurer is set up in Brazil. First, a local physician sets up an office by establishing a clinic; then he expands the clinic to build a hospital. In order to increase capacity he creates a health plan for the local people to use the hospital. Even though he’s going underwater with the selling of these plans (because it’s a working capital business), he doesn’t have this sensation because he makes a lot of money by selling the health plans. As time goes by, the hospital starts to depreciate because he’s not investing in the hospital. Since the health plans are the only coverage they have, he needs to extend coverage, but increasing health plan coverage is going to cause him serious trouble because people may not be able to afford it. Ronald Poon Affat of Tempo Assist (A health plan insurance company in Brazil), in personal communication on April 18th, 2012, clarifies that the majority of the managers of healthcare companies in Brazil are doctors, and they may not be the best administrators; they do not have the technical skills of a CFO because

they are not properly trained to be one.

The Santander Group, the largest bank in the Eurozone and 6th largest company in the world⁹, as determined by Forbes, has republished data by the Brazilian Institute of Geography and Statistics (IBGE), which found an unsurprising result: the poor – those at 3 times minimum wage and below – were not purchasing private healthcare as readily as the upper earning groups (above 3).

Figure 2. Penetration of Private Healthcare Plans per Minimum Wage



Sources: IBGE PNAD 2003

According to Ronald Poor Affat, from 1997 to today, the same 40 million people have private health plans because these plans are extremely expensive because they have no deductible or coinsurance. “What Brazil really needs is to have the porche 911 and the volkswagon beetle”, says Ronald. The current expensive plans kill the hope of microinsurance (insurance that is low premium and low caps or low coverage limits; it is sold as part of atypical risk-pooling and marketing arrangements, and designed to service low income people and businesses not served by typical social or commercial insurance

⁹ http://www.forbes.com/lists/2010/18/global-2000-10_The-Global-2000_Rank.html

schemes). The regulations of Brazil's health plans standardize all private insurance plans, so all private insurance plans are the same price, i.e. very expensive, so the regulation is killing the opportunity for microinsurance and pricing efficiency, and consequentially, it is hampering the penetration into lower income brackets.

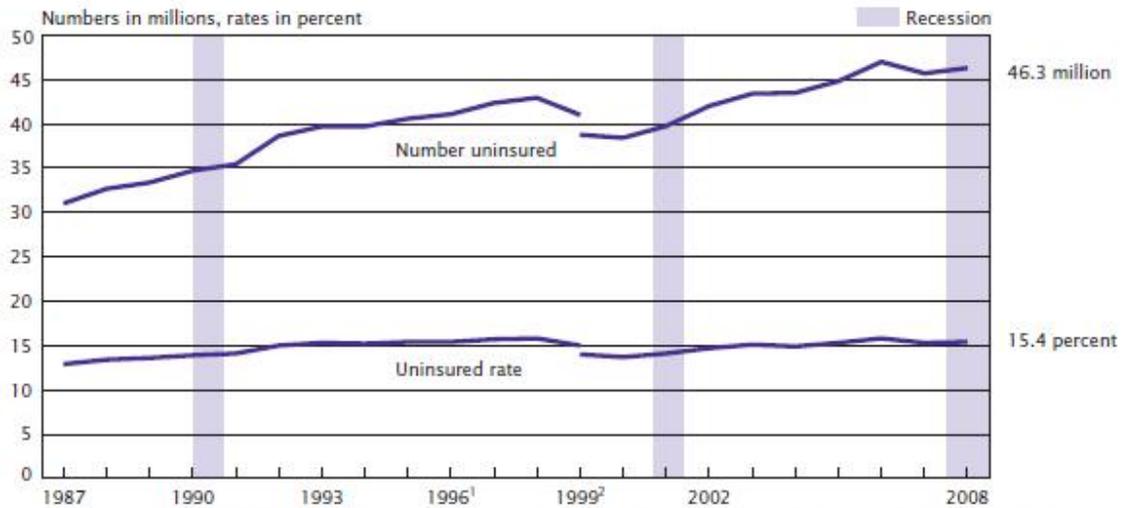
Once someone is in the middle class, however, he or she will want to buy private health insurance. According to JC Santos, "having private healthcare coverage is the second most desirable item in Brazil after having your own house." It has become a signature of the middle class. So if the government can create a boom in the jobs, and help people get into the lower middle class, then, they will be buying health plans.

On the other hand, the public sector, which is now funded by federal resources originating in a pool of value-added, general income, financial operations and taxes (insurance, export and import), is currently 7.1% of Government spending¹⁰.

Healthcare, for both Brazil and the US, is not completely unlike. For one, both countries' healthcare systems are split into public and private sectors. Additionally, their private health insurances are regulated by the government but provided privately and the governments handle public health insurance. The crucial difference between the two systems, however, lies in the uninsured. Brazil technically doesn't have any, but the number of uninsured in the US is increasing steadily (see graph below).

¹⁰ The World Bank: <http://data.worldbank.org/country/brazil>

Figure 6.
Number Uninsured and Uninsured Rate: 1987 to 2008



¹ The data for 1996 through 2003 were revised using an approximation method for consistency with the revision to the 2004 and 2005 estimates.

² Implementation of Census 2000-based population controls occurred for the 2000 ASEC, which collected data for 1999. These estimates also reflect the results of follow-up verification questions, which were asked of people who responded "no" to all questions about specific types of health insurance coverage in order to verify whether they were actually uninsured. This change increased the number and percentage of people covered by health insurance, bringing the CPS more in line with estimates from other national surveys.

Notes: Respondents were not asked detailed health insurance questions before the 1988 CPS. The data points are placed at the midpoints of the respective years.

Source: U.S. Census Bureau, Current Population Survey, 1988 to 2009 Annual Social and Economic Supplements.

Brazil's healthcare system was ranked 125th by the World Health Organization (WHO). The WHO qualifies that "Brazil, a middle income nation, ranks low in the table because its people make high out-of-pocket payments for health care. This means a substantial number of households pay a large fraction of their income (after paying for food) on healthcare." This expense (which results not from ex ante choice, as with insurance, but rather from ex post need) represented 6.8% of family income in the lowest decile, and its share was inversely proportional to income; it accounted for only 3.1 percent of income in the highest decile. If out-of-pocket spending is subtracted from income, the proportion of indigent increases by 1.4 percentage points. This change, though it may seem small, illustrates the effect of out-of-pocket health payments on population income. This is notable

because it shows that to some degree, Brazilian health policy increases poverty, as a result of the inequity of out-of-pocket spending¹¹.

Other than Santander, the US Society of Actuaries, global consulting firms such as Towers Watson, and global banking and financial services companies such as Deutsche Bank are all analyzing Brazil's healthcare. Additionally, these corporations are also keeping track of Brazil's medical trend. A Towers Watson report indicates increased medical trend net of inflation of 0.5% from 5.0% in 2006 to 5.5% in 2009. This trend is in line with the rest of Latin America and the developing nations, but it is much less than the trend found in the more developed nations.

The increased medical trend signals a greater need for risk distribution channels and the Brazilian Reinsurance market is developing in tandem. The Brazilian insurance market had been operating under a monopolistic reinsurer since 1939, when the government-sponsored Instituto Brasileiro de Resseguros (IRB) was created to reinsure the local market participants and to regulate the reinsurance market. On December 17th, 2007, the Private Insurance Superintendent (SUSEP) issued Resolution CNSP 168 and the Brazilian reinsurance market was formally opened for the international players. This regulation allows for three types of reinsurers: local, admitted and occasional. Local reinsurers are companies that operate in the local reinsurance market through a local incorporated and capitalized company; admitted reinsurers are foreign reinsurers that choose to operate directly in Brazil through a local representative office; and occasional reinsurers are foreign reinsurers not

¹¹ Health Affairs: an analysis of equity in Brazilian health system financing:
<http://content.healthaffairs.org/content/26/4/1017.full>

having a local representative office (but with a local proxy or power of attorney) that wish to do reinsurance business in Brazil.

A key regulatory constraint, used as a way to prevent substantial capital outflow from Brazil, is that neither insurance companies nor reinsurance companies are allowed to cede more than 50% of total written premiums – except for credit, surety and agriculture/rural insurance. This requirement reduces the possibility of large inter-company cessions/pool arrangements and induces companies to maintain sound underwriting policies and controls at the local level.

With changes in the healthcare system and the desire to minimize risks, actuaries become more and more crucial in formulating policies, especially for insurance and reinsurance companies. The Brazilian Institute of Actuaries (IBA), founded in 1944, is the national association for actuaries and the only entity representing the profession in the country, and there are about 700 active MIBA (members of the IBA). Only 60-70 actuaries work in the healthcare sector (personal communication from Ronald Poon Affat).

The Brazilian Institute of Actuaries (Instituto Brasileiro de Atuaria), founded in 1944 and established in Brazil's second largest, but most visited city, Rio de Janeiro, is the national association for actuaries and the only entity representing the profession in the country. A member of the International Actuarial Association (IAA), the IBA, consequently, has a defined minimum standard syllabus for each Actuarial Science course and an IBA member admissions exam available to anyone graduated from or enrolled in an undergraduate actuarial science program recognized by the appropriate authority.

Before the liberalization of premiums in 1992 and the obligation for calculation of IBNR (Incurred But Not Reported) reserves in 1998, actuaries' activities were mainly related to complying with legislation (e.g., describing new products to the regulator, but they rarely calculated the premium). But currently, actuaries can be found controlling companies, something that would have been difficult to imagine in the past. They are also responsible for conducting annual valuations of pension companies and valuations twice a year for insurance companies and health insurance providers. Actuaries are in high demand for the operation of companies because a company can only register its insurance products or make any changes to them if actuaries “agree”, and it must be an actuary who is responsible for any changes to company reserve levels.

Even with these changes, there still aren't very many American or British actuaries in Brazil. Ronald Poon Affat contends that because there is not much data to work with, what you need to be successful as an actuary in Brazil is 75% understanding the business, the environment, the products, and 25% of strong technical background – understanding good and bad business, pricing, loss ratio considerations, etc. It has been his experience that the actuarial skills developed in England and America, which required large amounts of data for decision development, did not translate well to Brazil. Personally, Ronald makes assumptions, prices and then executes and checks the parameters against experience. For instance, if he makes a loss ratio assumption, he keeps testing it every month or every three months.

Though much has improved in the past three decades for Brazil's healthcare system, the SUS is still struggling to enable universal and equal coverage for everyone. The uneven distribution of out-of-pocket costs as a percentage of total income, where the lower income groups pay disproportionately much more for medicines prescribed as part of the public healthcare system and for private healthcare, is a serious problem. The healthcare system is, in this way, an unfortunately impoverishing force. Moreover, Brazil's government needs to revise its financial structure to give its citizens (low-income citizens especially) more reasons to buy healthcare insurance. To this effect, change must be made in the legislation to allow the creation of more diverse plans, allowing for microinsurance, and ensuring the poor can afford coverage.

Also, there are difficulties with the private insurer consolidation process. In Brazil there are too many insurance companies (including a lot of medical cooperatives) that lack professional management and underwriting; are not profitable; but which, for some regions, are the sole players/ provider network because they have hospitals. The quality and standards of the services are quite low by consequence. Furthermore, we don't expect to see expedited growth in these areas because of regional boundaries (Personal communication with Ronald Poon Affat).

Insurance companies are buying out other companies, but when they do, they don't have the money to continue the reserves. And they don't have the money to continue the reserves for the provider networks that you have on the outskirts of Brazil. So how can you force someone to go out of business that would, eventually, lead to the bankruptcy of the

hospitals you have in that specific region? It's a very complicated matter. Even to force their consolidation by local companies like Temporal, Amil, Intermedica is somewhat treacherous.

On the issue of hospitals, on average, the hospitals in Brazil are quite small. This is not ideal. There is a strong dominance of non-profit organizations and they are definitely not growing at the same pace as private healthcare coverage. Crucially, a law in the constitution prohibits foreign capital investment in hospitals; and though the National Private Hospitals Association is currently investing a lot in hospitals and hospital beds, and though there has been a positive trend in private players and a negative trend in not-for-profit institutions, a change in the regulatory environment, allowing foreign investment, would definitely accelerate the process.

Some companies are investing in the verticalization of healthcare – that is, the integration, under one company umbrella, of various aspects of the healthcare system, like hospitals, doctors, ambulances etc. – the result should be cheaper healthcare.

One of the main proponents of verticalization is Intermedica, the largest player that is focused on those with lower income. At 50%, they have a level of vertical integration that is much higher than anyone else in the market. Similarly, Amil, which is the largest player in the region, has 25% vertical integration. With this level of integration, you can control costs and have lower average premiums being charged.

In terms of verticalization the market is starkly divided. Tempo Assist, the company for which Ronald Poon Affat works, in contrast to Intermedica and Amil, doesn't own anything. Naturally, due to non-ownership, they rent everything in their network, having

contracts with hospitals, contracts with dentists, with ambulances; they have nothing on their balance sheet, which leaves them completely flexible.

Ronald is not convinced that the process of verticalization will work, but he says the Brazilians are giving it a run for their money; and if they do it, they will invent cheap healthcare.

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REFERENCES

- 2011 Global medical trends (2011). *Tower Watson*. Available at <http://www.towerswatson.com/united-states/research/3585>
- Agarwal, S., d'Almeida, J., & Francis, T. (2012). Capturing the Brazilian pharma opportunities. *McKinsey Quarterly*. Available at http://www.mckinseyquarterly.com/Health_Care/Pharmaceuticals/Capturing_the_Brazilian_pharma_opportunity_2944
- Agência Nacional de Saúde Suplementar: <http://www.ans.gov.br/index.php/aans/quem-somos>
- Brazil (2012). Brazil statistical data. Available at <http://data.worldbank.org/country/brazil>
- Brazilian reinsurance market: open at last (n.d.) *Latin lawyer* 7(4), 1-2. Retrieved from <http://www.veirano.com.br/veirano/Portals/0/Reinsurance.pdf>
- Casualty Actuarial Society Latin America Regional Committee (2012). *Information on Brazil*. Retrieved from www.casact.org/global/latinamerica/index.cfm?fa=brazilinfo
- Elias, Paulo E. M., and Amelia Cohn. "Health Reform in Brazil: Lessons to Consider." *American Journal of Public Health*. Jan. 2003. Web. 16 Apr. 2012. <<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447689/>>.
- FACTBOX: Healthcare costs in U.S. vs. rest of world (2009). *Reuters*. Available at www.reuters.com/article/2009/06/01/us-healthcare-costs-sb-idUSTRE5504Z320090601
- Gill, K. (2008). *Health Care In The U.S. - Issue Overview, The Health Care System*. Available at uspolitics.about.com/od/healthcare/tp/health_care_overview.htm
- Gribble, J.D. (2006). *Actuarial Supply and Demand*. Retrieved from http://www.actuaries.org/PRESIDENTS/Documents/Paris/Actuarial_Supply_Demand.pdf
- Health care in Brazil: An injection of reality (2012). *The Economist*. Available at www.economist.com/node/21524879
- Health, doctors, hospitals and the medical system in Brazil (2012). *AngloINFO*. Available at www.saopaulo.angloinfo.com/information/68/healthcare.asp#healthsystem

- Levy, A. & Pereira, F.C. (n.d.). *Recent developments in Brazilian insurance market*, 743-787. Retrieved from <http://www.mellatinsurance.com/insurance-market/15.pdf>
- Mercedes, L.S & Ixer, S. (2011). Brazilian Reinsurance: A Swinging Door. *Latin America Law & Business Report* 19(6), 1-2. Retrieved from <http://www.edwardswildman.com/files/upload/BrazilianReinsuranceArticle.pdf>
- New rules for Brazilian reinsurance (2011). *International Alert* (46). Available at www.willis.com
- Opening of the Brazilian reinsurance market – a new beginning (2008). *Moody's Global Insurance*. Retrieved from http://www.moody.com.br/brasil/pdf/2008_04_Opening_of_Braz_Reinsurance_Mkt.pdf
- Poon, R.A (2012). Brazilian Reinsurance Regulation Changes Again. *Reinsurance News* (72), 24-27. Retrieved from <http://www.soa.org/library/newsletters/reinsurance-section-news/2012/march/rsn-2012-iss72-affat.aspx>
- Poon, R.A. & Noguti, H.H. (2011). Brazilian Reinsurance Market Update. *Reinsurance News* (70), 16-19. Retrieved from <http://www.soa.org/library/newsletters/reinsurance-section-news/2011/july/rsn-2011-iss70.aspx>
- Poon, R.H (2012). Brazilian private health care market—ready for liftoff. *International News* (55), 12-18. Retrieved from <http://www.soa.org/library/newsletters/international-section-news/2012/january/isn-2012-iss55.pdf>
- Santos, J. C. & Montenegro, P. (2011). *No rush to play the secular theme in 2011*. Available at www.btgpactual.com
- Santos, J. C. & Montenegro, P. (2011). *Healthcare - initiating coverage*. Available at www.btgpactual.com
- U.S. Health Care's Competitive Disadvantage. (2012). *Bloomberg Businessweek*. Available at www.businessweek.com/bwdaily/dnflash/content/mar2009/db20090312_554568.htm
- Wheatley, J. (2008). Focus on Brazil. *Risk Specialist*, 18-21. Retrieved from http://www.jltgroup.com/content/UK/risk_and_insurance/Risk_Specialist_Articles/Focus_on_Brazil090408.pdf