Establishing a Sustainable Guarantee Fund to Support the Expansion of the Housing Finance Market for Low-Income Households in Brazil:

Analysis and Recommendations

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Urban, Water and Disaster Risk Management Unit

Sustainable Development Department

Latin America and the Caribbean Region

The World Bank Group

Abbreviations

ABECIP	Associação Brasileira das Entidades de Crédito Imobiliário e Poupança (Brazilian Association of Savings and Loan Entities)
BACEN	Banco Central do Brasil
BRL	Brazilian Real
CEF	Caixa Econômica Federal
CIBRASEC	Companhia Brasileira de Securitização
CNSeg	Confederação Nacional das Empresas de Seguros Gerais, Previdência Privada e Vida, Saúde Suplementar (National Confederation of General, Providence, Life and Health Insurance Companies)
FGHab	Fundo Garantidor da Habitação Popular
FGTS	Fundo de Garantia por Tempo de Serviçco (National Severance Fund or Provident Fund)
FenSeg	Federação Nacional de Seguros Gerais (National Federation of General Insurance Companies, an arm of CNSeg)
GDP	Gross Domestic Product
IGPM	Indice Geral de Preços do Mercado
INCC	Índice Nacional de Custos da Construção (National Construction Cost Index)
MCMV	Minha Casa Minha Vida
MI	Mortgage Insurance
MW	Minimum wage
NHP	National Housing Plan
LTV	Loan to value
OGU	Orçamento Geral da União (Federal Budget)
PlanHab	National Housing Plan
PPI	Payment Protection Insurance
PSH	Programa Social de Habitação
PTIR	Payment to Incom Ratio
SELIC	Sistema Especial de Liquidação e Custódia (Central Bank’s overnight rate)
TR	Taxa Referential (reference index)

1. SUMMARY OF KEY RECOMMENDATIONS

1. The objective of this note is to advise the Government on strategies for transforming the Government-funded guarantee fund (FGHab) established for the *Minha Casa, Minha Vida* program into a sustainable instrument to support the expansion of the housing finance market for low-income households. It includes recommendations related to both parts of the FGHab – support for defaulting borrowers (Guarantee Fund) and coverage for borrower death, permanent disability and property damage (Insurance Fund).

2. There are four main recommendations for the Guarantee Fund. The key recommendation is to establish an autonomous entity, independent from the users of the Fund, to professionally manage it according to established insurance principles and practices. Such an independent entity could be either a newly formed government-owned corporation or an insurance company, or the Fund could be managed by an existing entity under regulatory oversight of the insurance regulator. This would require giving the Guarantee Fund a regulatory framework that would enable it to continue and expand its credit enhancement mission. The other recommendations include the following:

(a) The maximum benefit periods provided to borrowers experiencing a documented loss of income should be reduced from the currently proposed 24 to 36 months to a limit of six to twelve months. This would serve to align the program with, positive borrower behavior and incentives and international "best practices".

(b) The policy of seeking full recovery of the delinquent loan advances should be eliminated, the primary reason being that the effects of accumulating long-term compound interest at the mortgage contract rate could serve to deepen indebtedness for defaulted borrowers whose incomes and livelihoods are, by definition, among the most vulnerable of the overall population.

(c) An appropriate premium should be applied to assure the Guarantee Fund's sustainability, including under severe adverse circumstances. To address issues related to borrower affordability, the Government could design and allocate a targeted premium subsidy (possibly up to 100 percent) to close the gap between what is affordable for each targeted low-income group and what is necessary to sustain the Fund's claims-paying capacity.

3. In regard to the Insurance Fund, the primary recommendation is that the Government should help low-income families access private insurance rather than serving as the direct provider. Established insurance companies in Brazil already have the skills and experience in providing most of the insurance lines offered under *Minha Casa, Minha Vida*. This includes, directly, the traditional life, disability and property, and casualty lines. To the extent there are affordability issues with lower income mortgage borrowers, further exploration of alternative public-private partnering approaches ought to be preferable to an outright substitution of private insurance with a government-run scheme.

2. INTRODUCTION [1]

4. The *Minha Casa, Minha Vida* (MCMV) Program, launched by the Federal Government in March 2009, provides a large package of subsidies to stimulate the construction of one million new affordable houses within a three year period. This is aimed at reducing by 14 percent the existing housing deficit in Brazil (estimated in 2007 at 6.3 million units) and contributing to employment generation in the context of the economic crisis. In addition to providing immediate stimulus to the economy, the program is targeted at the low-income segment of the population (beneficiaries are households earning up to 10 minimum wages, with 800,000 units intended for those with incomes up to 6MW).[2] Program funds amount to BRL 34 billion, mostly in subsidies from the *Orçamento Geral da União* (OGU—the Federal Government's budget) with support from the *Fundo de Garantia de Tempo de Serviço* (FGTS). The MCMV Program also introduces a Government-funded guarantee fund (*Fundo Garantidor de Habitação Popular*, FGHab) with two components – a Guarantee Fund and an Insurance Fund. The MCMV Program is implemented by Caixa Econômica Federal (CEF), a Government-owned Bank, which is also responsible for administering the FGHab on behalf of the Government.

5. MCMV builds upon several aspects of the National Housing Plan (PlanHab), which was completed in December 2008. With regard to mortgage credit-related insurance, the Guarantee Fund component of FGHab differs significantly in concept and detail from the type of guarantee fund set forth in PlanHab, although both schemes include guarantee fund advances to cover unpaid monthly mortgage obligations due to borrower loss of employment and/or temporary drop of income. MCMV adds a second type of housing credit-related insurance—not previously included in PlanHab—in the form of an insurance fund, which would serve as a low-cost, deeply subsidized government-sponsored alternative provider of mortgage redemption life insurance, mortgage disability insurance covering permanent borrower disability, and insurance against physical damage to the property. Whereas the Guarantee Fund would provide a form of mortgage credit insurance not presently available in Brazil, the Insurance Fund would provide a substitute set of housing related insurance coverages that currently are offered by private domestic insurance firms.

6. MCMV proposes to inject a combined total of BRL2 billion into the FGHab, with an equal allocation of BRL1 billion to the guarantee and insurance components.

7. Within the spectrum of households eligible to participate in MCMV, the FGHab's guarantee and insurance components would target households earning up to 10 minimum wages. Households earning up to 6 minimum wages are also eligible for substantial up-front cash subsidies (down payment assistance) for the purchase of a first home. As for households earning up to 3 minimum wages, MCMV optionally provides substantial direct subsidies for home purchase, but without any accompanying mortgage loan (households would contribute up to 10% of their monthly income, with a minimum of BRL50, for a 10-year period). MCMV is entirely targeted toward owner-occupied housing; it does not include support for any rental housing.

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[1] This report was prepared by a team comprised of Sameh Wahba (Sr. Urban Specialist, LCSUW, and Task Team Leader), Loic Chiquier (Manager, Non-Bank Financial Institutions Group, GCMNB), Roger Blood (Mortgage Insurance Consultant) and Cathy Lynch (Young Professional). This report integrated written comments received from the Ministry of Finance's Secretariat of Economic Policy, as well as the outcomes of extensive discussions with Caixa Econômica Federal, private lenders, the Brazilian Association of Savings and Loan Entities ABECIP, private insurance companies and their trade association FenSeg (including a large roundtable discussion held on May 28, 2009, with over 30 insurance executives facilitated by FenSeg and CNSeg).

[2] 1 MW is BRL 465.

8. It is important to note that the FGHab was not designed for sustainability under the MCMV program. However, the Brazilian government wishes to evaluate if and under what conditions it could be evolved it into a more sustainable instrument to achieve housing policy objectives after the MCMV program. The objectives of this report are therefore to: (a) undertake a preliminary assessment of the MCMV FGHab, including the guarantee and insurance components, in light of international experience; and (b) propose recommendations for the future development of FGHab to ensure its sustainability in the medium and long-term after the completion of the MCMV program.

9. The report is subdivided as follows. The first section provides a preliminary assessment of the Guarantee Fund. The following section provides some recommendations to enhance the prospects of the sustainability of the Guarantee Fund after the MCMV program has been concluded. In particular, the report argues for combining the current payment protection scheme of the Guarantee Fund (which is primarily a borrower benefit), albeit for a shorter term, with a traditional mortgage insurance benefit (a lender benefit). The third section provides a preliminary assessment of the Insurance Fund and is followed by recommendations. The report ends with some concluding remarks.

II. PRELIMINARY ASSESSMENT OF THE GUARANTEE FUND

10. The FGHab has been initially authorized by means of Medida Provisória (Executive Order) No. 459 issued on March 25, 2009, and subsequently codified into Law 11.977 of July 7, 2009. The executive regulations organizing the FGHab were issued on April 14, 2009, by the Ministry of Finance.

11. The Guarantee Fund component will advance monthly installments, on behalf of a defaulting borrower:

- up to 36 months for those in the up to 5 minimum wage group;
- up to 24 months for those in the 5 -8 minimum wage group; and
- up to12 months for those in the 8- 10 minimum wage group.

12. These maximums refer to the cumulative months' benefit over the life of the loan, whether in one continuous period of non-payment or multiple shorter events at different times during the loan term. Six months of timely payments following the loan origination are required to establish initial borrower eligibility. This benefit is triggered in situations of unemployment as well as temporary disability and other reasons for loss of income, including for the self-employed and those who earn their incomes in the informal sector. In case of a claim to the Guarantee Fund, the borrower is responsible for paying a minimum of 5 percent of each monthly installment for the duration of the coverage.[3] The Guarantee Fund's temporary coverage is treated as an advance that must be repaid by the borrower at a time that is suited to their circumstances, whether during the course of the loan upon restoring their income-earning ability or at the end through an extension of maturity.

13. Specific goals of the Guarantee Fund include: (1) to induce more lower-income households to seek mortgage financing to buy a home by means of reducing their sense of economic insecurity and

[3] According to the Ministry of Finance, the Fund would advance 100% to the lender on behalf of the borrower. The 5% minimum borrower payment can be discounted from the debt if/when the borrower resumes payment including repayment of Fund advances, whereas they are treated as a penalty and forfeited in case of default and foreclosure. This measure is viewed as an incentive to resume repayment. However, it is unclear whether the same logic applies to borrowers experiencing a drop in income but who pay more than 5% of the monthly installment (e.g. 50%). The idea in this case would be that the Fund would advance the shortfall/difference rather than the full installment.

vulnerability to foreclosure/loss of home in the event of loss of job or other loss of income; and (2) to attract more competing bank participation in the MCMV stimulus program and, in turn, more down-market lending, especially to those in the 6-10 minimum wage group.

14. The larger purpose of the Guarantee Fund, as an integral part of the larger MCMV package, is to help ease Brazil's current economic crisis and to help produce 600,000 of the total one million new low/middle income housing units.

15. Certain features of the Guarantee Fund are helpful to advance its stated goals and sound housing finance policies, including the following:

a. The payment protection insurance ("PPI") feature may reduce lower income households' economic insecurity, thereby increasing their propensity to make a large, long-term financial commitment for homeownership.

b. A government commitment of substantial, dedicated housing assistance funding – BRL1 billion. The entire amount is being committed upfront and, therefore, will not be susceptible to risks of annual budgeting.

16. Conversely, certain features of the Guarantee Fund may need to be strengthened if they are to serve to advance stated goals and sound housing finance policies, including the following:

a. There is no requirement for independent credit risk management or independent program administration. CEF would be, simultaneously a lender-user and the Guarantee Fund administrator. As such, it would be a competitor with other lenders which might also consider using the Fund. This circumstance is likely to discourage banks from using the Guarantee Fund; furthermore, banks express concern about the lack of clarity over rules for documenting and perfecting claims, which would therefore impair their ability to access the Fund when needed.

b. As both manager and beneficiary of the Guarantee Fund, CEF would in theory have the ability to direct marginal credit risks to the Fund, which could in the near term accelerate home sales and loan production while keeping the institution's own balance sheet relatively strong. These incongruent functions could eventually produce adverse outcomes in terms of excessive costs to the government and reputational risk to the Guarantee Fund, most notably in the eyes of those lenders it seeks to attract.

c. Administration and control by a social-purpose lender such as CEF (which is tasked mainly with implementing the Government's housing policy) could in theory cause essential risk management discipline and long-term perspective to be subordinated to more immediate social and political priorities.

d. The PPI terms – especially the 24-36 months' maximum period of Fund advances – are too long and are thus likely engender perverse borrower incentives and moral hazard, and could possibly lead to fraud. A likely result would be to undermine the Fund's financial strength and durability and to waste scarce resources. Such long cumulative advancing periods, furthermore, is inconsistent with PPI "best practices" internationally, where total advances allowed normally would not exceed six to twelve months.

- Successful public and private PPI programs typically limit advances to six monthly installments. These programs are normally linked with a traditional lender-beneficiary mortgage insurance component to cover losses where the PPI benefit does not succeed in curing the borrower's default.

- In the U.K., where over a dozen private insurers (e.g., Norwich Union, UKI/RBS Insurance, Lloyds, St. Andrews/HBOS, Barclays, Hamilton Insurance/HSBC) offer a freestanding mortgage PPI product, the typical contract benefit is limited to twelve monthly advances.

- In Mexico, the banks offer their home mortgage borrowers PPI coverage with covered advances typically limited to six to twelve months. By contrast, the Sofoles—specialized non-bank housing lenders—offer PPI protection with covered advances typically limited to three to six months.

e. Treating the Guarantee Fund advances as deferred borrower indebtedness, rather than as an outright benefit (indemnity) will reduce the low-income borrowers' ability to catch up and repay so many months of prior unpaid installments, in addition to potentially long periods of accrued interest. Furthermore, the Guarantee Fund advances that eventually must be repaid translate directly into rising loan-to-value (LTV) ratios, especially during periods of economic stress. This is equivalent to "negative amortization" which in some circumstances (high LTV, declining house prices, etc) leads to "negative equity", may lead to borrowers' *unwillingness* to repay, even if they are able to do so. Many such loans will fail to ever be brought current, especially those that fall more than six to twelve months behind, and will result in substantial uninsured losses for lenders. These risks can be further aggravated by the fact that extending the terms of delinquent loans having original 20-25 year terms by an additional 3-5 years can leave many low-income borrowers heavily indebted in their retirement years.

f. Loss exposure for those in the up to 6 minimum wage group will be reduced by substantial upfront public subsidies that reduce initial LTV ratios. However, those in the 6-10 minimum wage group will have higher starting LTVs; if the Guarantee Fund advances are made on their behalf, susceptibility to heavy losses (both frequency and severity) will be much greater. Opportunities for such loans to cure through resale and loan payoff will be much fewer in the 6-10 minimum wage versus the up to 6 minimum wage groups. (See below for several possible mitigating loan modification options.)

g. The contribution to the Fund, at 0.5% of the installment, would not generate a sufficient premium to support the Guarantee Fund. Discussions with CEF suggest that the model did not contain real economic "stress test" component. In particular, there was no built-in linkage between the drivers of the model output and any historical experience/database of key regional or national economic indicators – most notably unemployment (the detailed financial model itself was not received).

h. Required repayment of Guarantee Fund advances would impose a significant added cost and administrative burden on lenders' loan servicing platforms. Guarantee Fund advances and required eventual repayments resemble an irregular, long term second lien. This burdensome feature was incorporated apparently without much consultation with banks, other than CEF. Delinquent loan advances by the Guarantee Fund and accrued interest thereon would require mortgage transactional and accounting system capabilities that most banks in Brazil do not currently appear to possess. The loan servicing requirement inherent in this required-borrower-payback provision is akin to requiring two separate loan repayment streams—one scheduled and one flexible—embedded in a single mortgage loan. This operational challenge would appear to add another deterrent to banks' willingness to participate.

i. The Guarantee Fund would not be subject to any kind of direct or quasi-insurance regulation, any investment rating agency review for rating purposes, or any formal periodic determination of the Fund's actuarial soundness. This, too, will discourage bank participation, as the lack of any such regulation will not only leave uncertain the Fund's reliability and sustainability, it would also preclude the banking regulator from granting lenders any relief with respect either to Risk-Based Capital under Basel II or special provisioning relief.

j. In addition to formal sector salaried households, those from the informal sector will also be eligible for Guarantee Fund benefits should they suffer a loss of income and inability to make their scheduled mortgage payments. The addition of informal sector borrowers as entitled beneficiaries of the Guarantee Fund has the potential for being extremely administratively difficult. Undocumented, uncertain and irregular incomes present the greatest degree of economic insecurity—therefore arguably the most need for outside assistance in meeting regular mortgage payment obligations—but how reliably can a borrower and/or lender document loss of income so as to perfect a claim upon the Guarantee Fund? Furthermore, this element of the program probably is the most susceptible to fraud and abuse, resulting in both excessive claims and lower chances of eventual recovery. An optimal administrative setup for PPI (e.g. Massachusetts State's program) would entail an automated electronic linkup with a government-run unemployment insurance program. A baseline program requirement should be a clear and reliable means of documenting covered loss of income. For example, the self-employed person's benefit should be conditional upon a documented failure/shutdown of the income-producing enterprise, and not just a reduction in business activity or other adverse condition impacting earnings. Though economic insecurity is endemic to the informal sector, the PPI product seems inherently ill-equipped to deal with this type of economic risk.

k. Unlike the PPI programs that are successfully written in the U.S. by both government and private insurance providers, the Guarantee Fund has no link-up to an underlying traditional mortgage default insurance (MI) program which could be provided by the private sector. Under the linked program approach, the borrower who encounters loss of employment income can receive the benefit of monthly (non-repayable) advances for a limited period – typically about six months – while seeking to secure re-employment. Failing that, however, before the loan becomes more hopelessly in arrears, the insured lender would begin legal proceedings or otherwise negotiate to recover the property securing the loan. The lender's MI coverage at that second stage of default provides backup protection against loss in the event that the value of the collateral property is insufficient to make the lender whole. The two types of coverage complement one another because the monthly advances on behalf of the temporarily stressed borrower often will also benefit the lender by enabling a foreclosure to be averted.

l. The attraction of longer-term PPI payments for the borrower, as provided by the Guarantee Fund, offers an uncertain benefit to the lender. By contrast, shorter-term PPI terms linked to traditional MI is a "win-win", with temporary borrower relief and a clearly-defined credit enhancement tool for the lender. Traditional MI can help attract lenders to move towards the lower income market, as with the *Fondo Mi Vivienda* in Peru. PPI alone, as proposed under MCMV, is highly unlikely to draw private banks to extend housing finance to low-income households under the program. In fact, the form contemplated by the Guarantee Fund – whereby the monthly payment "benefit" is defined by debt deferral with full interest accrual, rather than payments by a third party guarantor with no expectation of later recovery – may well act as a deterrent to bank participation.

m. To be most effective and control risk, the unemployment coverage component of a credit guarantee program should be able to establish and maintain an operational and information technology link to a country's underlying insurance system which, in turn should possess robust and accessible participant and claim databases.

n. In addition to coverage for temporary and longer term unemployment, the Guarantee Fund also extends coverage to other unspecified causes of income loss, including temporary physical disability. These measures are understood to be targeted at self-employed and informal sector workers who could face a decrease of income due to various reasons. Short term (i.e., not permanent) disability insurance and coverage against decrease of income presents significant administrative and risk management challenges and is highly susceptible to fraudulent claims.

III. RECOMMENDATIONS RELATED TO THE GUARANTEE FUND

17. The following recommendations identify possible ways for the Guarantee Fund to reach sustainability in the long-term:

18. The maximum benefit periods provided to borrowers experiencing a documented loss of income should be reduced from the currently proposed 24 to 36 months to a limit of six to twelve months.

a. Such a change would serve to align the program with, positive borrower behavior and incentives and international "best practices". Unless there is evidence that the targeted lower-income segment of the Brazilian housing market behaves substantially different that most mortgage borrowers in developed markets, once a borrower becomes more than one year behind in making scheduled mortgage payments, the likelihood of reinstating such deeply defaulted loans becomes rather remote.

b. Shortening the maximum benefit period should reduce "moral hazard", i.e., the tendency for covered borrowers to act in a manner – because of the presence of credit protection – that increases Fund claims incidence and loss severity.

c. Allowing borrowers to be covered for such long periods can also serve as a disincentive for *lenders* to engage in pro-active collections. Early lender intervention/borrower contact is particularly important for lower-income borrowers who are also typically first-time homeowners.

d. Shortening the maximum benefit period will greatly improve the Fund's financial strength and claims-paying capacity during a period of economic stress.

19. Elimination of the Guarantee Fund's policy of seeking full recovery of the delinquent loan advances, and especially all related financial recovery projections, should be analyzed further with the following considerations in mind:

a. It may be unrealistic to rely upon such recoveries – often long after the actual defaults have occurred – as an underpinning of the Fund's viability.

b. The effects of accumulating long-term compound interest at the mortgage contract rate could serve to deepen indebtedness for defaulted borrowers whose incomes and livelihoods are, by definition, among the most vulnerable of the overall population.

c. The mandated recovery feature causes rising loan-to-value ratios during the period of borrower default (typically during the earlier years of the loan when the LTV ratio is at its highest even when the loan is current). This adverse risk effect will be most notable for the unsubsidized borrower segment, i.e., those whose incomes fall in the 6-10 minimum wage group. Such rising loan balances outstanding are much akin to "negative amortization", a proven high risk situation whereby eroding borrower equity tends to result in borrower unwillingness to repay even when they may have the ability to do so. The end result of negative amortization tends to be both higher loss incidence and greater loss severity.

d. The adverse effect of treating covered advances as a deferred, interest-accruing borrower obligation, rather than as an outright indemnity, is illustrated in Exhibits 1 and 2. Total debt owed rises above the original loan amount, remaining at elevated levels for many years. Likewise, the LTV ratio increases substantially, even exceeding original property value for a significant period of years. The borrower's monthly installment amount would have to be increased substantially following the period of advances in order to reduce appreciably the

elevated LTV and the additional accrued debt level. To enable repayment of the new outstanding debt over the remaining loan term or if the term is extended by the same number of advances received, such monthly repayment increases would lead to significant increase in the Payment-To-Income-Ratio (PTIR), which would constitute a major burden to low-income groups' affordability (See Annex 1).

20. Consistent with good insurance principles and practices, it is critical to apply an appropriate premium rate/charge that will assure the Guarantee Fund's sustainability, including under severe adverse circumstances. Then, to deal with the resulting borrower affordability issue, the Government would design and allocate a targeted premium subsidy (possibly up to 100 percent) to close the gap between what is affordable for each targeted low-income group and what is necessary to sustain the Fund's claims-paying capacity.

21. It is also recommended to design and implement a modest "bonus plan" benefit for borrowers who are able and willing to pay their schedule installments in a timely fashion for some sustained number of months (this was one of the features of the Guarantee Fund proposed in PlanHab). For example, have the program grant well-performing borrowers one "free" installment following each series of twelve successive timely installment payments. To limit the total cost of such a bonus feature, this benefit might be limited to, say, the first five years of the loan (after which time, good payment habits, as well as risk-reducing equity buildup, have been established).

22. In addition, it is critical to identify and/or establish an independent entity that would be capable of professionally managing the Guarantee Fund according to established insurance principles and practices. Such an independent entity could be either a newly formed government-owned corporation or, if the Guarantee Fund might be managed by an existing institution if available – which might or might not be an insurance company. For reasons set forth earlier, the most essential element is underwriting and risk management independence from the Fund's major user-beneficiaries, including CEF.

23. This will require giving the Guarantee Fund a legal/regulatory framework that would enable it to continue and expand its housing finance/credit enhancement mission. This would be critical so as to not fragment Brazil's large-country advantage in being able to manage and disperse via insurance a significant risk exposure, including concentrations by region, market segment and lender base – which risks will eventually encounter severe cyclical swings; and which will enable the free-standing PPI (monthly payment advance) feature to be offered – if not now, then eventually – in combination with a traditional mortgage insurance credit enhancement that could be provided by the private sector.

24. It is strongly recommended that the Government expands the concept and scope of mortgage credit enhancement so as to attract, over time, private market participants, whether domestic or international, including direct underwriting, reinsurance, and government-private partnerships that link direct underwriting and reinsurance. The following considerations would need to be taken into account:

a. Begin to develop a sound insurance regulatory structure to authorize both public and privately sponsored mortgage credit insurance programs. Key features of such a regulatory framework would include:

- Substantial capital reserve requirements with a minimum ratio of required reserves to aggregate risk exposure appropriate to the type of cyclical (catastrophic) economic risk that is inherent to this type of credit risk insurance;

- Segregation of mortgage credit insurance capital reserves from all other non-credit/casualty insurance lines;

- Conflict-of-interest provisions that will assure underwriting/credit risk management independence from lenders, both private and public; and

- Independent actuarial review to assure adequate, but not excessive premium rates and sustainable, adequate capital reserves.

b. In advance of establishing a formal MI regulation, explore with private non-life insurance carriers and the Insurance Regulator the prospect of establishing a pilot MI program within Brazil's existing credit insurance regulatory authority. Such a pilot program would entail regulator supervision and oversight pursuant to an approved Financial and Operating Plan submitted by one or more existing non-life insurers, with such a Plan containing required standards and procedures suited to the unusual long term, cyclical and economic risks being assumed (including provisions noted in subsection (a) above). Such a pilot program, at the outset, could entail either a lender-benefit feature (traditional MI), a borrower-benefit feature (payment protection PPI), or a combination of these two complimentary types of mortgage credit insurance.

25. In the intermediate term, the Government may want to explore potential MI schemes whereby government and private providers may partner to expand down market access to affordable housing finance, including:

a. Private insurer (domestic or international) providing direct underwriting/risk assumption, with government reinsuring excess/catastrophic risks.

b. Private insurer providing direct underwriting with actuarially sound (regulated) insurance premium rates, with government subsidizing such premium rates for creditworthy borrowers earning 4-10 minimum wages.

IV. PRELIMINARY ASSESSMENT OF THE INSURANCE FUND

26. In addition to the BRL1 billion Guarantee Fund covering borrower loss of income, MCMV also envisions a BRL1 billion Insurance Fund covering borrower death, permanent disability and property damage – all of which are products traditionally covered in Brazil by private insurance carriers. Unlike the Guarantee Fund, which would create a new form of credit protection for Brazil, the Insurance Fund would provide low-income borrowers with access to some standard credit-related insurance at a cost substantially below prevailing private market premium rates. According to information provided by the government, the cost of this type of insurance is very high in Brazil. The table below presents the cost of insurance in terms of share of total monthly installment by income and age.

Cost of insurance as a share of total monthly installment by age group and income level

Age (years)	Monthly income BRL 800	Monthly income BRL 4,000
20	2.59%	1.91%
26	2.94%	2.17%
31	3.50%	2.58%
36	4.41%	3.25%
41	6.51%	4.81%
46	10.00%	7.39%
51	18.35%	13.47%
56	27.19%	18.02%
61	37.59%	28.11%

Note: Only mandatory death and disability insurance

Source: Ministry of Finance's Secretariat of Economic Policy based on CEF simulator

27. Within the Insurance Fund, the cost of this combined life, disability and property insurance would be zero for those whose incomes are under 5 minimum wages. The deepest subsidies would go to borrowers over 50 years of age.

28. The premise of the proposed Insurance Fund is that lower-income aspiring homeowners cannot afford the prevailing market costs for insurances that one would normally have to carry when buying a home with a mortgage loan. Unlike the credit guarantee component of FGHab, the insurance component does not appear to have gone through several stages of development over a period of time, and appears to have taken both insurance providers and bankers somewhat by surprise. The stated rationale for creating the Insurance Fund to provide life, disability and property insurance products was:

- These three forms of private insurance are too costly for lower-income homebuyers and, therefore, a substantial deterrent to their potential for becoming homeowners in larger numbers;
- The high price of private coverage was not justified by its underlying costs, but rather arose from the lack of competition in an essentially captive market;
- A recent regulation requiring that mortgage lenders provide their borrower-applicants a choice of insurance providers beyond just the lender's affiliated insurance carrier (an excellent measure to improve competition) would not suffice in bringing premium costs down;
- Government-imposed insurance price controls for the lower-income market segment was not a realistic option; and
- Only a direct government program could work quickly enough to fulfill the perceived needs of the larger stimulus package in meeting the 600,000 unit production goal.

29. Mortgage-related life and property damage insurance are both formal requirements in Brazil. Whereas property insurance is required in nearly all countries for homes financed with a mortgage loan, mortgage-related life insurance is often a formal requirement for borrowers in less-developed markets. As countries' housing markets develop, however, a statutory mandate for this type of life insurance may be terminated, thereby allowing mortgage borrowers a free choice whether or not to purchase it. (If deregulated, however, international experience also shows that mortgage life insurance requires strict borrower/consumer protections.)

30. The broad goals of the Insurance Fund resemble those of the Guarantee Fund, and include: (1) to make housing and homeownership more affordable for Brazilian households in the 3-10 minimum wage group; and (2) to reduce the feeling of economic insecurity of household in these lower income ranges so that they will be less reluctant to assume a large, long term debt burden, thereby expanding effective housing demand in support of the substantial increases in new low-income housing production projected by MCMV.

31. The main concerns related to the Insurance Fund are the following:

a. The Fund is not self-sustaining. Deeply discounted premium rates, not actuarially based and without ongoing subsidies, appear to fall far short of what would be needed to cover projected claims. The Fund itself, however, may be sufficient to cover claims losses for the discrete number of mortgage loans projected to be covered.

b. The Fund will apparently not be subject to any independent regulatory rules or supervision. As a banking-oriented entity, CEF may not have the expertise to operate what is to be an insurance entity.

c. The Insurance Fund combines life and nonlife (property) risks into a single reserve fund when, as insurance, they normally would be separated.

d. By excluding established private insurance providers from this entire market segment, property and life risks for the lower-income market segment will not be pooled with comparable risks in the higher end of the market.

e. Though the Insurance and Guarantee Funds involve separate reserve accounts, the proposed regulation is not clear that, in the event one or the other Fund were to be depleted, it could then call upon the remaining reserves in the other account. There should be an absolute, permanent separation between the two Funds and the respective categories of risks that they can be called upon to cover.

V. RECOMMENDATIONS RELATED TO THE INSURANCE FUND

32. The following recommendations identify possible ways for the Insurance Fund to better meet its stated goals and/or to mitigate adverse effects of operating the program as presently structured.

a. In regard to premiums, a more sustainable approach might be to determine what premium rates for each risk and age group are actuarially sound; then, to the extent a determination is made that necessary rate levels are unaffordable for a particular income group, transparent premium rate subsidies could be allocated without compromising the continuing viability of the program.

b. An alternative to having CEF operate the Insurance Fund is to seek out an experienced private insurance provider (or more than one) to administer by negotiated contract a program for providing the desired coverages, with premium rates subsidized to affordable levels.

c. In order to make the required life insurance component affordable for lower-income borrowers, an alternative to simply repealing the current legal mandate to buy such coverage might be to offer a more limited, lower-cost death benefit, i.e., to provide a survivors' benefit in the form of an extended PPI-type coverage, rather than a full, unconditional loan payoff. This more affordable approach would make, say, 2-3 years of monthly mortgage installments, thereby providing an extended transition/adjustment period following the death of the covered party.

d. Established insurance companies in Brazil already have the skills and experience in providing most of the insurance lines now to be taken over by the Guarantee and Insurance Funds operated by CEF. This includes, directly, the traditional life, disability and property, and casualty lines. Less directly, and to a more limited degree, the existing insurance industry writes a PPI-type of consumer credit insurance, e.g., for consumer durable "white" goods purchases which is comparable, if not identical to the proposed PPI for home mortgages albeit for a much shorter coverage period. To the extent there are insurance affordability issues with lower income mortgage borrowers, further exploration of alternative public-private partnering approaches ought to be preferable to a blanket replacement of private insurance with a government-run quasi-insurance scheme.

VI. CONCLUDING OBSERVATIONS

33. Stakeholders interviewed including banks and insurers expressed concerns about various aspects of the Guarantee and Insurance Funds. In particular, bank and insurance companies, and their respective trade organizations, underscored the lack of advance outreach or consultation with them by the designers

of the Guarantee and Insurance Funds prior to their announcement. This appeared to reinforce the aversion toward direct involvement or reliance upon these Funds.

34. The main specific concerns expressed by the banks included: (1) anticipated problems with having CEF as the Funds' manager, including perceived conflict of interest, competitive disadvantage; (2) the payback vs. indemnity feature, including expected operational issues; (3) the absence of any lender-benefit feature in the Guarantee Fund (currently a borrower-benefit); (4) questions as to the long-term reliability of the Funds and claims-paying entities.

35. Insurance companies' specific concerns included: (1) prospects for a non-insuring entity to operate a sustainable insuring entity; (2) no underlying actuarial method--irrational pricing of the life, disability and property insurance package component; (3) unwise to extend already-long maturities for repayment of earlier defaults; (4) apparent usurpation of a significant segment of the overall market for several traditional lines of insurance.

36. Finally, other concerns expressed included: (1) no clear legal/institutional framework for the Guarantee Fund; (2) likely impediments to expanding the Funds' reach beyond CEF to competing banks; (3) proposed multi-year benefit periods seem too long.

37. Regarding both the Guarantee and Insurance Funds, there appears to be an inherent time frame mismatch between: (a) the short three-year horizon to create, sell and occupy 600,000 new low-income dwelling units; and (b) the far longer time frame—up to 30 years—during which these two Funds will be obliged to sustain (though not build) capital reserves to meet continuing claims obligations. The proposed Funds are highly oriented to the three-year stimulus goal, whereas many of the issues identified herein relate to a lesser attention to insurance fundamental needed to ensure sustainability over the ensuing decades, including pricing and reserving. A built-in capability both for ongoing socially-oriented housing insurance and for public-private partnerships along the way is critical to ensure that the future Guarantee Fund would be sustainable and could effectively support the achievement of Brazil's housing policy objectives.

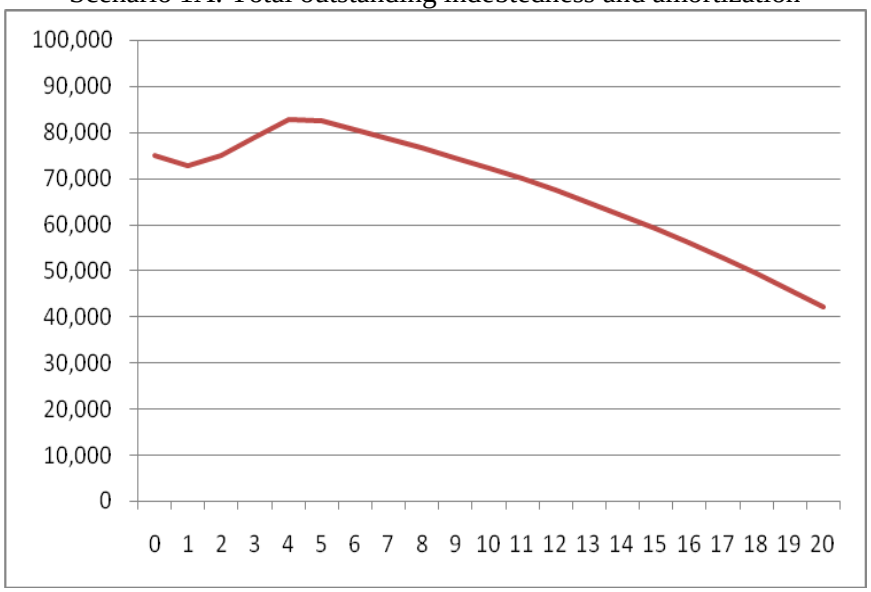
Annex 1. Effect upon Total Outstanding Indebtedness when Guarantee Fund Advances and Accrued Interest Are Added to the Borrower's Total Outstanding Debt

A. Borrowers with Monthly Incomes of 3-5 minimum wages

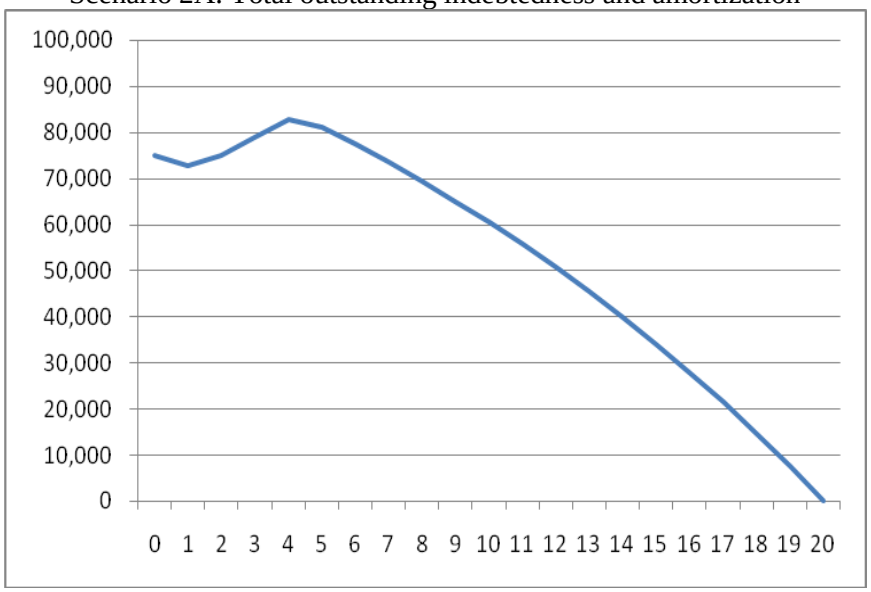
Assumptions: Property value = BRL100,000; Original LTV=75%; Interest rate = 5.0%; Original loan term = 20 years; Number of borrower installments paid before default = 15; Number of covered advances following default = 36

Scenarios: (1A) Borrower monthly payment fixed at BRL 495 leading to partial amortization over remaining term; (2A) Borrower monthly payment increased to BRL642 to fully repay loan balance over remaining 189-month term; (3A) Borrower monthly payment increased to BRL575 to fully amortize loan balance over a term extended by 36 months (225 months).

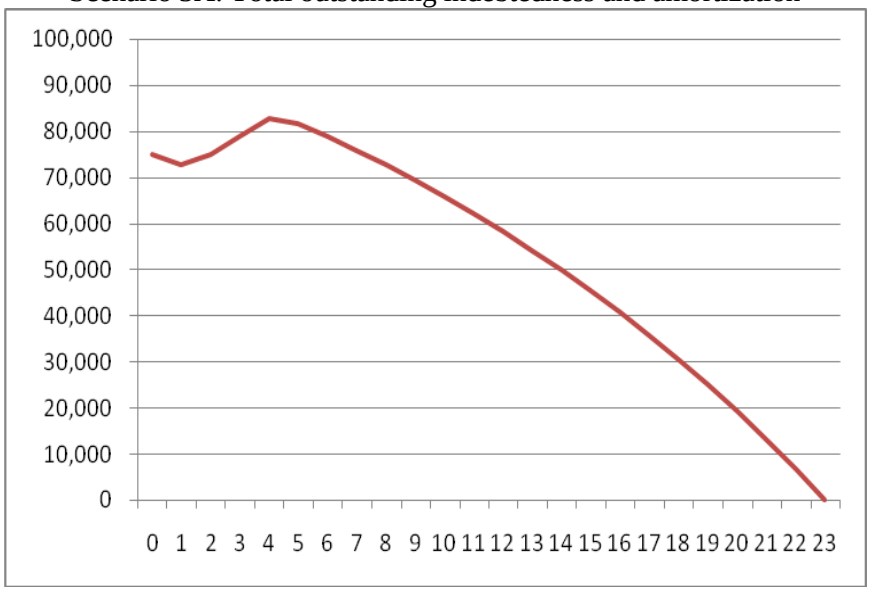
Scenario 1A: Total outstanding indebtedness and amortization



Scenario 2A: Total outstanding indebtedness and amortization



Scenario 3A: Total outstanding indebtedness and amortization



Note: Maximum loan balance reaches BRL83,848 at the end of the 36-month period of Guarantee Fund advances, thus increasing LTV from the initial 75% to 83.8%.

Table 1: Monthly Loan Repayment (BRL) and Payment-To-Income-Ratio (PTIR) by Household Income Level

Monthly Household Income (multiple of minimum wages)	Scenario 1		Scenario 2		Scenario 3	
	Monthly payment (BRL)	PTIR	Monthly payment (BRL)	PTIR	Monthly payment (BRL)	PTIR
3	495	35%	642	46%	575	41%
4	495	27%	642	35%	575	31%
5	495	21%	642	28%	575	25%
6	495	18%	642	23%	575	21%

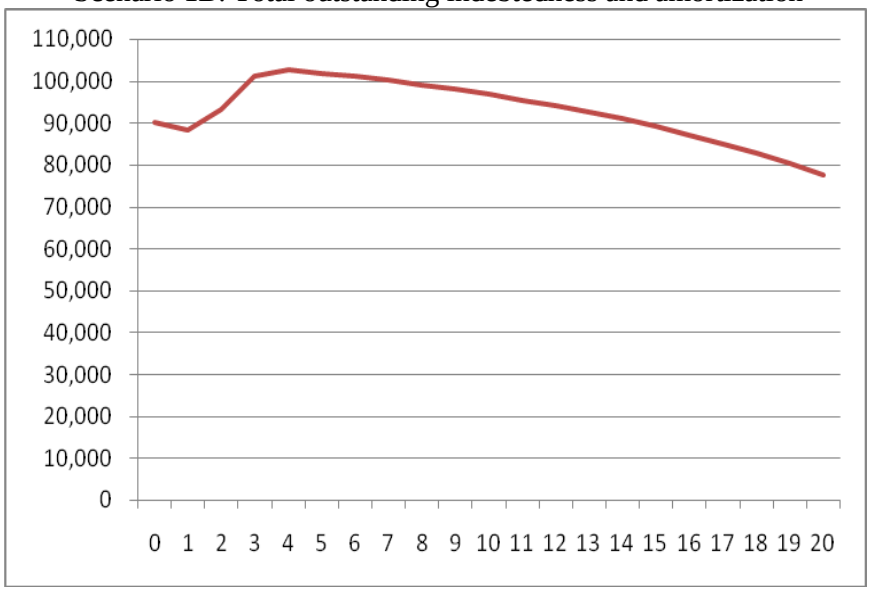
Note: Monthly loan repayment would increase by 29.7% to be able to repay the outstanding debt over the remaining term (Scenario 2), while it would increase by 16.2% to be able to repay the outstanding debt over the remainder of term, extended by the same duration as the advances received (Scenario 3).

B. Borrowers with Monthly Incomes of 6-8 minimum wages

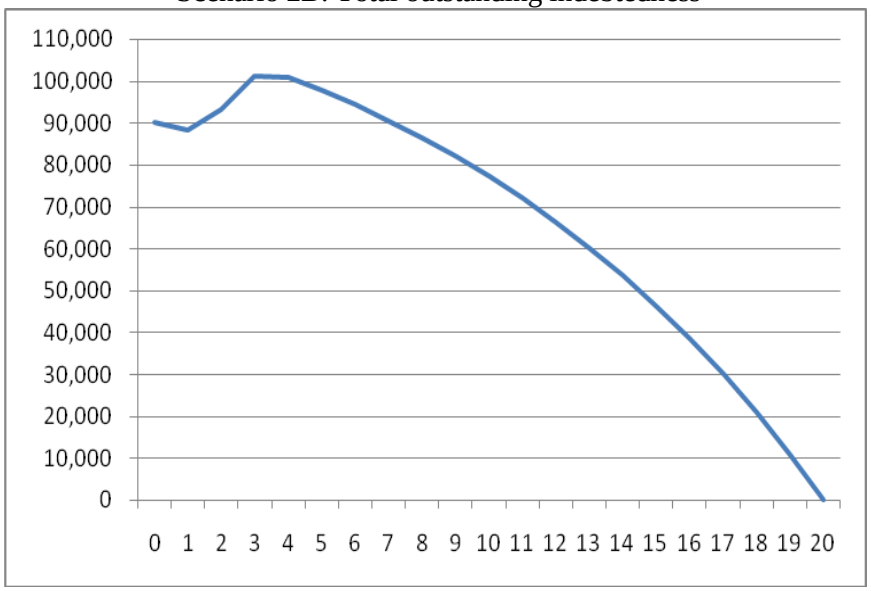
Assumptions: Property value = BRL100,000; Original LTV=90%; Interest rate = 8.16%; Original loan term = 20 years; Number of borrower installments paid before default = 15; Number of covered advances following default = 24

Scenarios: (1B) Borrower monthly payment fixed at BRL 762 leading to partial amortization over remaining term; (2B) Borrower monthly payment increased to BRL943 to fully repay loan balance over remaining 201-month term; (3B) Borrower monthly payment increased to BRL897 to fully amortize loan balance over a term extended by 24 months (225 months).

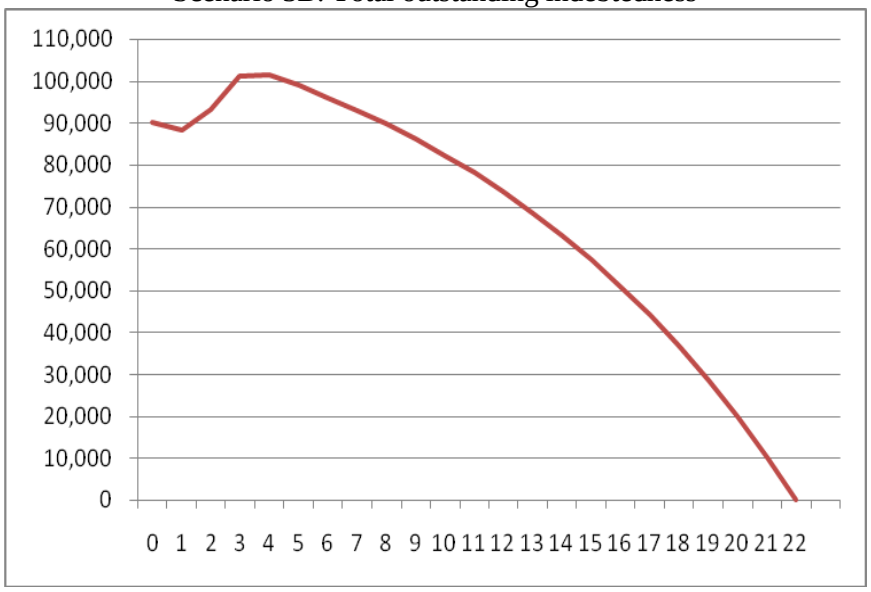
Scenario 1B: Total outstanding indebtedness and amortization



Scenario 2B: Total outstanding indebtedness



Scenario 3B: Total outstanding indebtedness



Note: Maximum loan balance reaches BRL103,173 at the end of the 24-month period of Guarantee Fund advances, thus increasing LTV from the initial 90% to 103.2%.

Table 2: Monthly Loan Repayment (BRL) and Payment-To-Income-Ratio (PTIR) by Household Income Level

Monthly Household Income (multiple of minimum wages)	Scenario 1		Scenario 2		Scenario 3	
	Monthly payment (BRL)	PTIR	Monthly payment (BRL)	PTIR	Monthly payment (BRL)	PTIR
7	762	23%	943	29%	897	28%
8	762	20%	943	25%	897	24%

Note: Monthly loan repayment would increase by 23.8% to be able to repay the outstanding debt over the remaining term (Scenario 2), while it would increase by 17.8% to be able to repay the outstanding debt over the remainder of term, extended by the same duration as the advances received (Scenario 3).

Annex 2. List of Persons Met

Name	Title and Affiliation
Brasilia	
Inês Magalhães	Secretary, National Housing Secretariat (SNH), Ministry of Cities
Jorge Hereda	Vice President, VIGOV, Caixa Economica Federal (CEF)
Dyogo Henrique de Oliveira	Adjunct Secretary, Secretariat of Economic Policy (SPE), Ministry of Finance
Júnia Santa Rosa	Director, Institutional Development and Technical Cooperation Dept, SNH, Ministry of Cities
Esteves Pedro Colnago, Jr.	Coordinator, SPE, Ministry of Finance
Bernadete Maria Pinheiro Coury	National Superintendent, Housing,CEF
Teotonio Costa Rezende	Technical Consultant, VIGOV, CEF
Jefferson Luís Coutinho	Planning Manager, VIGOV, CEF
Joaquim Lima de Oliveira	National Superintendent, FGTS, CEF
Vera Vianna	Consultant, Ministry of Cities
Silvia Marques de Brito e Silva	Deputy Head, Department of Financial System Norms, Banco Central (BACEN)
Julio Carneiro	Sr. advisor, Department of Financial System Norms, BACEN
Felipe Pinheiro	Advisor, Department of Financial System Norms, BACEN
Rodrigo Pereira Porto	Advisor, Department of Financial System Norms, BACEN
Romulo de Magalhães	Advisor, Department of Financial System Norms, BACEN
Sao Paulo	
Nylton Velloso	Vice-President, ABECIP, President, Economisa
Fernando Baumeier	Head of Funding, Real Estate Lending Department, Grupo Sandander Brasil
Fernando C. Brasileiro	Director, Cibrasec
Hus Morgan Daroque	Housing Finance Dept, Banco Itau/BBA
Natalino Gazonato	Director, ABECIP
José Pereira Gonçalves	Superintendent, ABECIP
Fabio Leme	Head of the Housing Finance Dept, Unibanco/Banco Itau
Adriana Henry Meirelles	CFO, Odebrecht/Bairro Novo Developers
Osmar Roncolato Pinho	Director, Banco Bradesco, S.A.
Rio de Janeiro	
Jayme Garfinkel	President, National Federation for General Insurance (FenSeg), President, Porto Seguro
Maria Elena Bidino	Director, Institutions and Reinsurance, National Confederation for Insurance Companies (CNSeg)
Neival Rogriques Freitas	Director, FenSeg
Armando Petrillo Grasso	Superintendent of Production, Bradesco Insurance
Antonio Carlos Gonçalves Silva	Director, Delphos Insurance Consultancy
Roundtable discussion May 28, 2009	FenSeg, CNSeg