ECONOMICS June 7, 2019

Brazil: Economic Activity and Credit

Highway to Heaven?

Laiz Carvalho*
laiz.carvalho@santander.com.br
+55-11-3553-0933

- **With the most challenging scenario since 2013 regarding the concession of credit for the infrastructure sector, we have seen a new dynamic in the banking sector in which the dominance of the National Bank for Economic and Social Development (BNDES) has faded, opening room for a greater share of private banks and capital market operations. In order to encourage privatization, concessions and public-private partnerships for investments in infrastructure and industry, in 2016 the government created the Partnerships and Investments Program (PPI), which designates BNDES as a project enabler and no longer as the main financier. This approach gave more space to other players in the market.**
- **In addition, we have already seen success in some concessions made in 2019, mainly in the logistics sector (airports, railways, highways and ports), as well as the proliferation of income-tax-exempted debentures – the so-called 'incentive debentures' – as an important financing tool for the sector. Despite efforts to foster lending to the infrastructure sector, this is a sector that takes time to demonstrate results, especially those that directly impact economic activity.**
- **Within the infrastructure sector, civil construction suffered the most from the crisis in recent years, and would benefit the most from the concession and credit policies aimed at the sector. Based solely on the 2019 Partnership and Investment Program (PPI) pipeline, we would expect to see an impact on economic activity starting in the third quarter of 2020.**
- **Therefore, measures to restrain public spending and reforms promoted by the government (mainly social security) are of paramount importance for re-establishing both consumer and business confidence, bringing new short-term stimuli to the economy, and building stronger pillars for the development of new measures to stimulate the development of Brazilian infrastructure.**

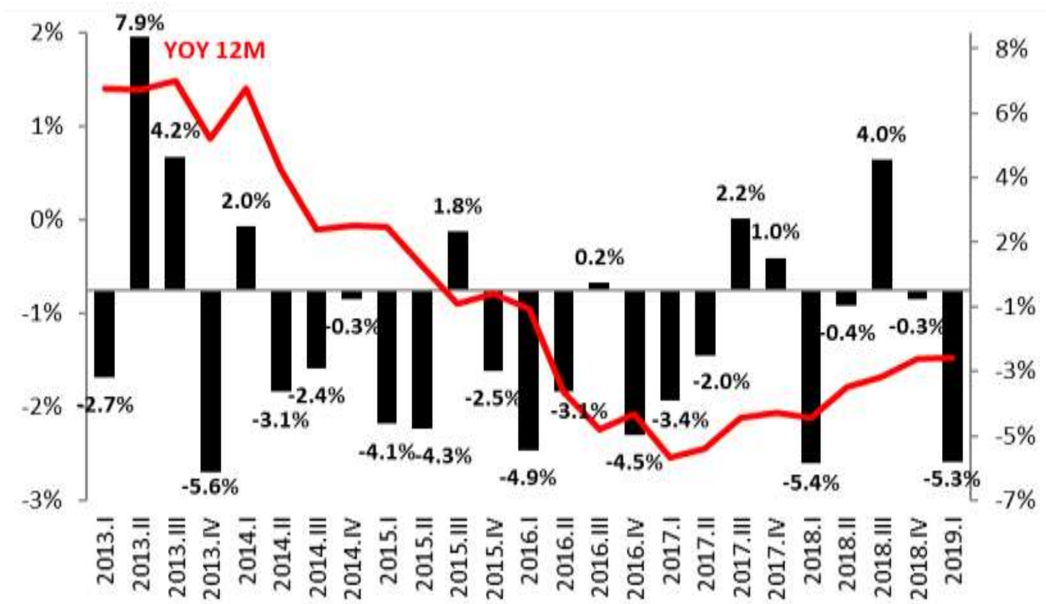
Credit and Investment in Infrastructure

Starting in 2014, we have seen a new model for analysis and concession of credit for infrastructure investments, mainly relying on funding from the private sector. One of the main factors behind this change was the dependence on loans granted by the National Bank for Economic and Social Development (BNDES in Portuguese), which affected all investment sectors such as industry, agriculture, infrastructure, and commerce & services.

The situation of the infrastructure sector was somewhat aggravated by the deterioration in the performance of large players in the sector due to corruption scandals, combined with the worst economic recession in Brazil that began in mid-2013 to 2014.

Assessing GDP from the supply viewpoint, the industrial sector registered the worst performance from 1Q13 to 1Q19, as it receded 9.5% in the period, with civil construction activity being the main culprit behind this dismal outcome: civil construction plunged 25.9% from 1Q13 to 1Q19.

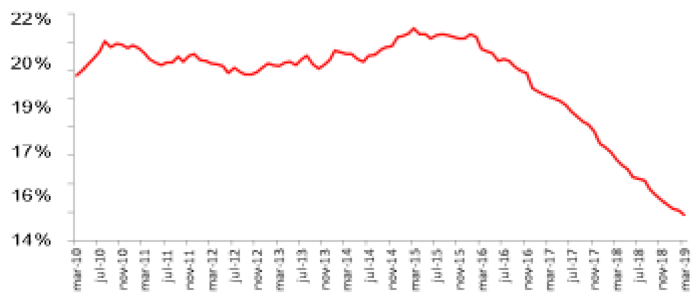
Figure 1. Civil Construction GDP Growth (%QoQ)



Source: IBGE.

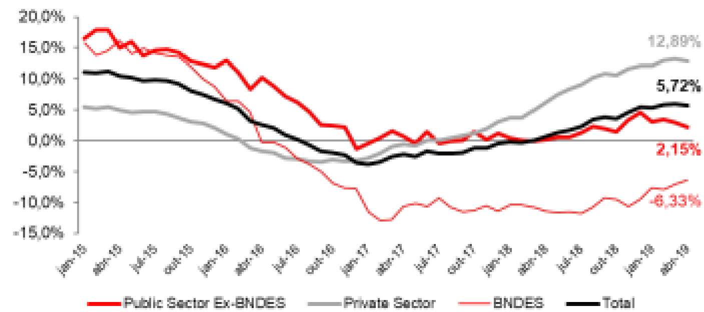
We see Brazil's infrastructure sector as being insufficiently prepared to play a role in the development of the country, especially with respect to the logistics segment specifically. **Even considering the important role that BNDES and other development banks still play in this market, we believe that a key catalyst to increase financial resources for this sector will be private banks' participation.** Not that BNDES will cease to be part of the credit granting and development process, but instead may focus on other activities, not only as a market financier, but also as an intermediary and facilitator.

Figure 2. Proportion of Total Credit - BNDES



Source: Central Bank of Brazil.

Figure 3. Credit Growth



Source: Central Bank of Brazil.

As can be seen in Figures 2 and 3, BNDES played a leading role in the development process (reducing its holdings of total credit to 15% from 21%) and has shown stability in recent months, with the government showing no interest in raising this level (in line with the policy of reducing public expenditures and increasing their efficiency).

As a result, we can see that a series of measures is being created to encourage both infrastructure projects and private and foreign sector participation in the sector, mainly through the continuity and expansion of Partnership and Investment Program (PPI) projects.

Partnership and Investment Program (PPI) and Concessions

The Partnership and Investment Program (PPI) was created in 2016 with the objective of broadening and strengthening the interaction between states and private enterprises, promoting technological and industrial development, maintaining the quality of public infrastructure and ensuring minimal state intervention in business. **From this point on, the BNDES enters into a role as facilitator between the markets and not as the main financier as before.**

Now, the main role of BNDES — backed by some public banks responsible for providing credit lines chiefly for civil construction — is to analyze which projects are going to be included in the program, to offer possible lines of credit for the projects accepted and to manage the National Fund of Privatization (FND), which aims to facilitate the privatization of companies that are approved by the PPI Board. **Thus, with this smaller role in BNDES loan lending and, in general, public banks, the role of lending to large enterprises, especially for the country's infrastructure sector, must come from the private sector.**

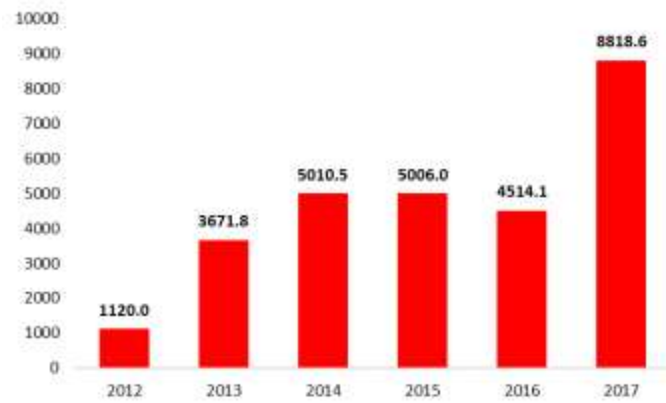
From the perspective of BNDES expenditures in the four-year period from 2018 to 2021 (last report issued in July 2018), there are investments mapped for approximately R$1 trillion, though these are focused mainly on the industrial sector (growth of 5.9% p.a. in the period as can be seen in Figure 4). In the infrastructure sector, we see a reduction, but with a major focus on the logistics sector, which has a large gap in the country.

Figure 4. BNDES Investment Outlook

	Reported in 2017	Forecast 2018 to 2021 Sum	Forecast 2018 to 2021 Annual Average	2018 to 2021 Growth (% annual)
Industry	**116.8**	**539.9**	**135.0**	**5.9**
Oil & Gas	57.9	291.4	72.8	9.4
Food & Beverages	11.2	49,3	12.3	3.9
Pulp & Papel	7.7	21.1	6.3	-14.8
Biofuels	2.7	11.5	2.9	2.7
Chemical and Steel	5.0	29.9	7.5	17.4
Eletronic	4.1	21.0	5.3	10.5
Health	5.0	20.4	5.1	1.1
Automotive	6.8	24.6	6.1	-3.9
Aerospace	2.8	10.2	2.5	-4.2
Infrastructure	**128.8**	**490.1**	**122.5**	**-2.0**
Utilities	61.1	160.3	40.1	-16.2
Telecom	28.0	121	30.2	3.1
Logistic	28.3	156.3	39.1	13.3
Sanitation	11.4	52.5	13.1	5.8

Source: BNDES.

Figure 5. Growth of Incentive Debentures' Issuance



Source: ANBIMA[1].

With the concessions and auctions of energy (generation and transmission) in 2018, the focus for the coming years in the infrastructure sector should be mainly in the logistics area. Continuing with the processes begun in 2016, this year the logistics concessions had much better results than expected by the market: concessions for airports that collected R$4.2 billion in royalties to be paid over the next 30 years (12 airports), a 25-year port concession with a value of R$219 million, and the Southern Integration Highway over a period of 30 years with investments of R$7.8 billion.

So far, 2019 has been a good year for this infrastructure scenario, but it is still a sector with returns that materialize only after a few years of investments. This is why changing the model for incentives, financing and concessions and/or privatizations is so important.

Even with the slow economic recovery and the waiting time of Brazilian and foreign entrepreneurs in relation to long-term investments, we see the development of alternatives and transition to this new model of financing without the leading role of BNDES. **One of the alternatives that has grown most in recent years is the issuance of incentive debentures** (as can be seen in Figure 5).

The incentive debentures come from Law 12.431 / 11, which is a government initiative to expand financing alternatives and promote the capital market as a source of long-term resources, especially for infrastructure projects. Thus, **with the change from the previous model of BNDES protagonism to the current role of intermediary, this type of alternative has become more important than the access to public financing itself.**

Figure 6. BNDES Financing and Incentive Debentures

	2014	2015	2016	2017	2018
Infrastructure - Debentures BNDES	47549	35463	18028	17938	17549
Infrastructure - Debentures 12431	2393	4807	1799	2927	15772
Total	49942	40270	19827	20865	33321

Source: ANBIMA.

[1] Associação Brasileira das Entidades dos Mercados Financeiro e de Capitais

In 2018 we already had a scenario where the capital markets, using incentive debentures, reached almost the same amounts of BNDES investment in infrastructure. However, this instrument is mainly used when the project is already under construction or fully constructed (during the long concession period). Therefore, the market will need more effective and assertive actions at the beginning of the project and/or before the start of construction, which is where the large supply of private banks' credit market will be.

The Impact of Credit and Growth on Economic Activity

Despite this strong incentive for infrastructure financing, mainly through the actions of the Ministry of Infrastructure and the replacement of public banks by private banks as providers of credit for individuals and companies, we expect this new structure will take a number of quarters to impact the growth of economic activity.

In credit dynamics, this is already observed, as can be seen in Figure 7. **When comparing the growth of the credit portfolios of public and private banks in 2018 we see a significant drop in BNDES and public banks as a whole in the participation of the market. And, according to our projections, we also see a clear consolidation of the participation of private banks in the credit market with a continuous decline in insolvency.**

The impact of this credit increase can be seen more quickly when investments enter the more lagged markets, such as construction. When we look at gross fixed capital formation as an indicator of the Investment component of GDP, we see that **civil construction has suffered the most in recent years and would benefit the most with greater concessions in the infrastructure arena.**

In order to estimate the impact of the main investments and concession on GDP in the coming years, we have to evaluate the pessimistic, optimistic and baseline scenarios for concession growth. In our current GDP forecast for 2019 and 2020 (1.3% and 2.5%) we are considering a baseline scenario for this growth and its impact on the gross fixed capital formation component. Our exercise now is to evaluate what might happen in the optimistic and pessimistic scenarios.

To evaluate the impact of the main investments and concessions on GDP in the coming years, we estimate an OLS (ordinary least squares) model using the following variables: (i) gross fixed capital formation (as a component of GDP); (ii) installed capacity utilization level (NUCI in Portuguese); (iii) the level of investments through concessions between 1996 and 2019 (annual series in which it was transformed quarterly by the BNDES series of disbursements in infrastructure); and (iv) the ex-ante real interest rate – DI-Pre 1-year swap rate discounted by forward 12-month inflation expectations. We used YoY changes of the data series (without seasonal adjustment) on a quarterly basis.

Figure 7. Credit Forecast

	2018	**2019F**	**2020F**
Portfolio Growth			
Public Banks	-0.1%	2.1%	6.5%
BNDES	-9.6%	-2.1%	2.4%
Public Ex BNDES	4.5%	3.8%	8.1%
Private Banks	12.0%	12.4%	12.0%
Insolvency			
Public Banks	2.5%	2.3%	2.3%
Private Banks	3.3%	3.0%	2.9%

Source: Central Bank of Brazil and Santander.

Figure 8. Simulations – Brazil GDP Growth (%)

Source: IBGE and Santander Estimates.

Before looking at the results, we assumed the maintenance of the Selic rate at 6.5% (until the end of 2020) and inflation projections of 4.0% and 4.5% (2019 and 2020, respectively). In the case of NUCI, we believe in the progressive recovery of the indicator, reaching its 2018 level by the end of this year and returning to positive levels (in the annual comparison) in 2020. In the case of infrastructure concessions, which according to our hypothesis may be a driver of economic activity recovery in the short term, we analyze all the bidding and calendars of the Ministry of Infrastructure with investment prospects for 2019 – both the amounts that have already been spent through 1Q19 and what will be spent through December.

For the construction of the scenarios, the idea is to work with the maintenance (or not) of these concessions for 2019 and 2020 and their impact on the investment component and, consequently, on GDP. It is important to remember that we are only taking into account the impact of an improvement or worsening of these concessions on activity. Other measures could further benefit the resumption of economic activity growth.

1) **Baseline Scenario:** Our baseline scenario is the one we discussed in *No News Is Bad News* (April 22, 2019) **where we see economic activity growth of 1.3% for 2019 and 2.5% for 2020.** It is important to highlight that our projections already take into account the concessions disclosed and their impacts in the infrastructure and investments sector.

2) **Pessimistic Scenario**: In this case, **we are assuming that we will only have the concessions made in 1Q19, with no disbursements for the rest of the year and 2020.** That is, we would have the next 1.5 years without infrastructure activities in the markets.

3) **Optimistic Scenario:** Here we **assume the expected investments for 2019, with an increase of 5% this year and 15% in 2020.** In other words, following the agenda of concessions and objectives of the PIP, this scenario expects to see more significant disbursements in the coming years and more investments in the sector.

Looking at the results (Figure 9), we highlight the positive impact of an investment agenda on the recovery of economic activity. One of the main topics of recent studies in Brazil is the question of what sort of impulse the economy needs to recover. We believe one of the channels could be this investment agenda. **By analyzing a counterfactual scenario, we would expect to see an improvement in the investment component of GDP (demand side) to 6.7% from 5.9%, resulting in an increase for our 2020 GDP projection to 2.8% (also in 2020) from 2.5%.**

Figure 9. Scenarios for 2019 and 2020

Scenarios	Average Change % (YoY)	
	2019	2020
Baseline	1.3	2.5
Pessimist	1.1	2.3
Optimistic	1.4	2.8

Source: Santander estimates.

Therefore, with the possible approval of a robust social security reform, the progress of the other reforms and adjustments, the return to the levels of confidence and financial conditions from the beginning of 2019 and the continuity of the commitment of the Ministry of Infrastructure to the efficiency agenda of industry and infrastructure, we could see a greater impact on economic activity in 2020 and 2021.

The good news in the short term for this sector is that the current administration has made pronouncements aimed at changes in credit policies, both for the civil construction sector and for the rural sector.

In recent weeks, the government has advanced the reformulation of the *Minha Casa Minha Vida* program and the change in incentives for rural credit. Currently the former provides subsidies to the final consumer — that is, to families seeking home loans, depending on the family's income level and the value of the property. The government's innovation with a new program would be to donate unused land from the federal government so that entrepreneurs can build residential, commercial and mixed-use buildings in which families with different income levels (from the different tracks of *Minha Casa Minha Vida*) can all live.

What makes this public-private partnership different from the current program is that the financing would be both from the developer (with subsidies for construction), who would also be the project's manager (i.e., granting the administration of the complex), and from the homeowners/tenants that could acquire the units through subsidies or leasing. A version of this bill is still expected to work its way through Congress[2].

With regard to rural credit, the Ministry of Economy aims to increase the competitiveness of banks in relation to interest rate subsidies, mainly for small and medium-sized rural producers. Currently, through Law 8427/1992, there is a competitive advantage for public banks that can offer loans at lower (subsidized) rates – in 2018 these rates were 7.5% p.a., on average, in comparison with the market, between 9% and 11%. The government's proposal is for an equalization of these incentives, mainly through auctions in which banks can compete by offering interest rates for the resources made available by the government. The idea of the government is not to lower the interest rates for the final producer but to distribute the benefit in a more egalitarian way among banks[3].

Thus, with the return of confidence, we could see more positive signs for credit markets and, in the future, for investment and, consequently, economic activity.

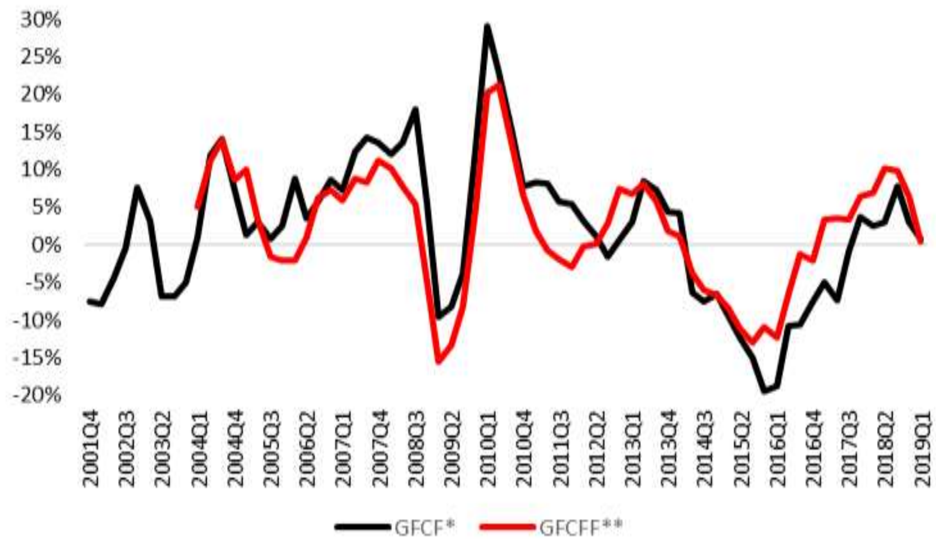
---

[2] Source: *Valor Econômico*

[3] Source: *Valor Econômico*

APPENDIX

Econometric Model - Comparison between real and forecast investment variables



Source: Santander Estimates.
*GFCG: Gross Fixed Capital Formation.

Figure 7. Estimated Model

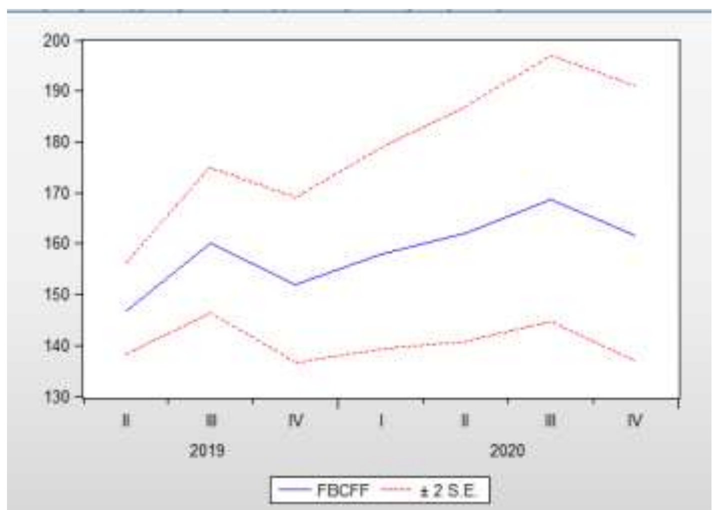
Dependent Variable: DLOG(FBCF)
Method: Least Squares
Date: 06/06/19 Time: 17:35
Sample (adjusted): 2003Q1 2019Q1
Included observations: 65 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLOG(CONCESSAO_BNDES)	0.024436	0.013288	1.838907	0.0710
DLOG(NUCI)	1.826309	0.264391	6.907595	0.0000
DLOG(JUROR(-2))	-0.041981	0.025953	-1.617546	0.1112
@SEAS(1)	0.006826	0.018535	0.368258	0.7140
@SEAS(2)	-0.013978	0.011218	-1.245997	0.2178
@SEAS(4)	-0.101068	0.011314	-8.933030	0.0000
C	0.031889	0.007886	4.043871	0.0002

R-squared	0.753378	Mean dependent var	0.003916
Adjusted R-squared	0.727866	S.D. dependent var	0.056400
S.E. of regression	0.029422	Akaike info criterion	-4.112710
Sum squared resid	0.050208	Schwarz criterion	-3.878545
Log likelihood	140.6631	Hannan-Quinn criter.	-4.020317
F-statistic	29.52967	Durbin-Watson stat	1.819149
Prob(F-statistic)	0.000000		

Source: Santander estimates.

Figure 8. Gross Fixed Capital Formation Forecast



Source: Santander estimates.

CONTACTS / IMPORTANT DISCLOSURES

Macro Research			
Maciej Reluga*	Head Macro, Rates & FX Strategy – CEE	maciej.reluga@santander.pl	48-22-534-1888
Sergio Galván*	Economist – Argentina	sgalvan@santanderrio.com.ar	54-11-4341-1728
Maurício Molan*	Economist – Brazil	mmolan@santander.com.br	5511-3012-5724
Juan Pablo Cabrera*	Economist – Chile	jcabrera@santander.cl	562-2320-3778
Diana Ayala	Economist – Colombia, Peru	diana.ayala@santander.us	212-407-0979
Guillermo Aboumrad*	Economist – Mexico	gjaboumrad@santander.com.mx	5255-5257-8170
Piotr Bielski*	Economist – Poland	piotr.bielski@santander.pl	48-22-534-1888
Marcela Bensión*	Economist – Uruguay	mbension@santander.com.uy	598-1747-6805
Fixed Income Research			
Diana Ayala	Macro, Rates & FX Strategy – Latin America	diana.ayala@santander.us	212-407-0979
Juan Arranz*	Chief Rates & FX Strategist – Argentina	jarranz@santanderrio.com.ar	5411-4341-1065
Juan Pablo Cabrera*	Chief Rates & FX Strategist – Chile	jcabrera@santander.cl	562-2320-3778
Aaron Holsberg	Head of Credit Research	aholsberg@santander.us	212-407-0978
Equity Research			
Christian Audi	Head LatAm Equity Research	caudi@santander.us	212-350-3991
Andres Soto	Head, Andean	asoto@santander.us	212-407-0976
Walter Chiarvesio*	Head, Argentina	wchiarvesio@santanderrio.com.ar	5411-4341-1564
Nicolas Schild*	Head, Chile	nschild@santander.cl	5622-336-3361
Valder Nogueira*	Head, Brazil	jvalder@santander.com.br	5511-3012-5747
Cecilia Jimenez*	Head, Mexico	mcjimenez@santander.com.mx	5255-5269-2228

Electronic Media	
Bloomberg	SIEQ <GO>
Reuters	Pages SISEMA through SISEMZ

This report has been prepared by Santander Investment Securities Inc. ("SIS"; SIS is a subsidiary of Santander Holdings USA, Inc. which is wholly owned by Banco Santander, S.A. "Santander"), on behalf of itself and its affiliates (collectively, Grupo Santander) and is provided for information purposes only. This document must not be considered as an offer to sell or a solicitation of an offer to buy any relevant securities (i.e., securities mentioned herein or of the same issuer and/or options, warrants, or rights with respect to or interests in any such securities). Any decision by the recipient to buy or to sell should be based on publicly available information on the related security and, where appropriate, should take into account the content of the related prospectus filed with and available from the entity governing the related market and the company issuing the security. This report is issued in Spain by Santander Investment Bolsa, Sociedad de Valores, S.A. ("Santander Investment Bolsa"), and in the United Kingdom by Banco Santander, S.A., London Branch. Santander London is authorized by the Bank of Spain. This report is not being issued to private customers. SIS, Santander London and Santander Investment Bolsa are members of Grupo Santander.

ANALYST CERTIFICATION: The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed, that their recommendations reflect solely and exclusively their personal opinions, and that such opinions were prepared in an independent and autonomous manner, including as regards the institution to which they are linked, and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report, since their compensation and the compensation system applying to Grupo Santander and any of its affiliates is not pegged to the pricing of any of the securities issued by the companies evaluated in the report, or to the income arising from the businesses and financial transactions carried out by Grupo Santander and any of its affiliates: Laiz Carvalho*

*Employed by a non-US affiliate of Santander Investment Securities Inc. and not registered/qualified as a research analyst under FINRA rules, and is not an associated person of the member firm, and, therefore, may not be subject to the FINRA Rule 2242 and Incorporated NYSE Rule 472 restrictions on communications with a subject company, public appearances, and trading securities held by a research analyst account.

The information contained herein has been compiled from sources believed to be reliable, but, although all reasonable care has been taken to ensure that the information contained herein is not untrue or misleading, we make no representation that it is accurate or complete and it should not be relied upon as such. All opinions and estimates included herein constitute our judgment as at the date of this report and are subject to change without notice.

Any U.S. recipient of this report (other than a registered broker-dealer or a bank acting in a broker-dealer capacity) that would like to effect any transaction in any security discussed herein should contact and place orders in the United States with SIS, which, without in any way limiting the foregoing, accepts responsibility (solely for purposes of and within the meaning of Rule 15a-6 under the U.S. Securities Exchange Act of 1934) for this report and its dissemination in the United States.

Santander
Corporate & Investment Banking