BRAZIL

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## Brazil: back to high-yield

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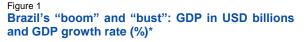
- Due to a sharp slowdown of economic activity, the deterioration of fiscal indicators and heightened political turbulence, S&P downgraded Brazil's sovereign rating below investment grade (to BB+, the highest level in the high-yield range). Even though the decision was widely anticipated to happen at some point, it was announced much earlier than expected.
- According to our models and coherent with recent market dynamics, at least one of the other two main agencies (Moody's and Fitch) should also withdraw Brazil's investment grade by mid-2016. This would mean that the average rating for Brazil (what is used by main bond index providers) would fall below investment grade by then.
- Even though most of the negative impact of losing an investment grade is usually anticipated by financial markets, the actual downgrade to high yield status generates pernicious effects to the country, among other reasons, due to its exclusion of investment grade indices. The second downgrade expected in mid-2016 would trigger such exclusion, spurring index-related outflows and extending the negative impact on financial markets.
- Brazil's downgrade could have some negative spillovers on other Latin American markets. According to our estimations, an upsurge of Brazilian sovereign spreads would drive up the spreads of its neighbours, especially those of Argentina.
- The worse economic outlook in Brazil was to some extent due to external factors, which have also been hitting other Latin American countries (China, commodities). Nevertheless, there were also some important idiosyncratic factors leading to the current juncture, such as the decision to use fiscal policy to lean against a slowdown that was more structural than cyclical in nature. This means that other economies in the region will not necessarily share Brazil's fate. In our view, the other main economies holding an investment grade in the region (Chile, Colombia, Peru, Mexico and Uruguay) will not lose it in the forthcoming years absent any change in their policies, which is extremely unlikely.

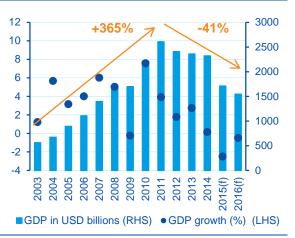
1: With the collaboration of Alejandro Faci, Sumedh Deorukhkar, Rodolfo Mendez and Gonzalo de Cadenas.

### 1. S&P downgraded Brazil to high-yield following economic deterioration and political instability<sup>2</sup>

After growing 365% from 2003 to 2011, the Brazilian GDP measured in dollars is set to decline 41% until 2016 due to both lower growth rates and a significant depreciation of the exchange rate (Figure 1). This deterioration is to a large extent due to a less favorable external environment, mainly due to a contraction in Brazil's terms of trade stemming from lower growth in China and the corrections in commodity prices (Figure 2). However, domestic issues also played an important role, mainly the government's inability to implement supply-side reforms to increase investment and productivity while exaggeratedly focusing on supporting domestic demand<sup>3</sup>. Sustaining the weak supply - strong demand equilibrium, while facing external headwinds, was possible for some time, at the expense of increasingly stressing fiscal accounts, especially in the electoral year of 2014 (Figure 3).

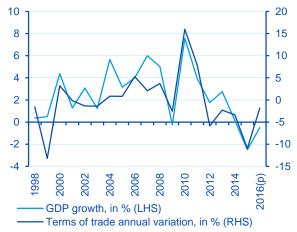
Even though the worsening of the economic environment was to some extent due to external factors, which have also been hitting other Latin American countries, the decision to lean against the wind was clearly idiosyncratic, which means that a fiscal deterioration such as the one recorded by Brazil will not necessarily be seen in other economies in the region<sup>4</sup>.





\* The GDP growth rate is calculated from the GDP series in domestic currency. Source: BCB and BBVA Research

Figure 2 GDP growth and change in terms of trade\*



\* Forecasts for 2015 and 2016 Source: IBCB, Datastream and BBVA Research

To try to prevent a sharper fiscal deterioration and to recover some credibility to fiscal policy, the government introduced some fiscal targets to increase the primary result from -0.6% of GDP in 2014, to 1.1% in 2015 and 2.0% from 2016 onwards. However, due to the impact on public revenues of a sharper-than-expected slowdown of domestic demand and the hurdles to have some fiscal measures approved by Congress (to some extent due to the political turbulences generated by the Petrobras bribery scandal), the government revised primary surplus targets to only 0.15% in 2015, 0.7% in 2016, 1.3% in 2017 and 2.0% in 2018. Even if the new targets are fulfilled -something we do not regard as likely (see more below)- public debt will

<sup>2:</sup> For more on our view on Brazil, including macroeconomic forecasts, see our 3Q15 Brazil Economic Outlook.

<sup>3:</sup> As a way to gauge the degree of importance of external factors for the Brazilian economy, we estimated their impact on exchange rate and CDS markets in the last three months. Our estimations suggest that 36% and 48% of the FX movements in the last three months and three years, respectively, are due to global factors.

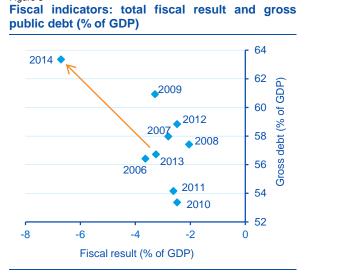
<sup>4:</sup> For an analysis of the comparative performance of Brazil and other emerging countries see our 2Q15 Country Risk Report, our 2Q15 Latin America Economic Outlook.

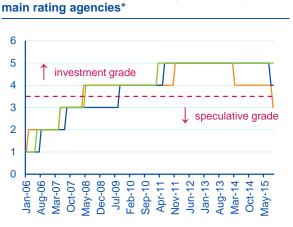
continue to increase significantly for some time: it would probably only stabilize from 2018 onwards, at around 75% of GDP.

Figure 4

Figure 3

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Brazil's sovereign debt rating according to the

\* 0 = B+, 1 = BB-, 2 = BB, 3 0 BB+, 4 = BBB-, 5 = BBB, 6 = BBB+ Source: Bloomberg and BBVA Research

MOODY's

FITCH

S&P

The credit rating agencies have been reflecting the negative evolution of the Brazilian economy in its recent decisions (Figure 4). S&P cut Brazil's sovereign rating from BBB to BBB-, just one notch above speculative grades, in March 2014. More recently, in July 2015, it revised Brazil's rating outlook to "negative" from "stable", and then less than two months after that, the risk agency downgraded Brazil to BB+, within the highyield range. Even though this last move was already expected, its timing was surprising. We and many other analysts expected it to happen next year. The overall deterioration observed in the last months, and mainly the worsening of the outlook for the fiscal adjustment (especially after the preliminary 2016 budget was announced with a -0.3% of GDP primary result), was certainly the main driver of the S&P decision to downgrade Brazil now rather than in 2016. In addition to cutting the sovereign rating to high-yield, S&P maintained the negative outlook, meaning that additional downgrades going forward should not be ruled out.

Figure 5 shows that Brazilian financial markets deteriorated further after the decision by S&P to change Brazil's outlook to negative in July. Additional deterioration following its recent decision to downgrade the country to BB+ is expected<sup>5</sup>.

Moody's downgraded Brazil to Baa3 (equivalent to S&P's BBB-) from Baa2 (equivalent to S&P BBB) in July. This move was already expected, as in September 2014 the rating agency had changed the country's outlook to "negative". This time, however, Moody's attached a "stable" rather than a "negative" outlook to the grade, meaning that a possible withdrawing of the IG should take more time (see below).

Fitch is likely to follow S&P and Moody's moves and leave Brazil's rating just one step above speculative grades, as its decision to revise the outlook on Brazil's BBB credit rating to "negative" from "stable" in April 2015 reveals.

Source: BCB and BBVA Research

<sup>5:</sup> To some extent, losses in financial markets were also due to the turbulence in Chinese markets and the concerns with a sharper moderation of its economy.



Figure 5 Brazilian financial markets in the days before and after the S&P decision to revise the country's outlook

Source: Datastream, Haver and BBVA Research

# 2. Brazil is likely to be downgraded to high-yield by a second rating agency within a year

### The most likely is that at least Moody's downgrades Brazil to high yield in 2016

In our baseline scenario for the Brazilian economy the government will not be able to reach the reduced primary surplus targets in the forthcoming years, mostly due to the impact of the expected slowdown in growth on revenues (GDP is expected to decline around 2.0% in 2015 and contract slightly in 2016) and the problems the government is likely to face to get the Congress to support the fiscal adjustment. More precisely, we expect primary results to remain negative in the next two years (-0.3% and -0.2% of GDP in 2015 and 2016) and then to improve somewhat in 2017 and 2018 (to around 0.25% of GDP). These figures compare poorly to the current primary surplus targets (0.15% in 2015, 0.7% in 2016, 1.3% in 2017 and 2.0% in 2018).

In this scenario, the total fiscal result, including interest payments, should worse further to 7.3% in 2015 and 7.1% in 2016, and then moderate somewhat afterwards (Figure 6). The gross public debt, which in June 2015 stood at 63% of GDP, should increase at least until 2018, breaking the 70% of GDP mark in 2016 (the average public debt of other emerging countries owing an IG is 40% of GDP<sup>6</sup>).

Our models and recent market dynamics anticipate that the most likely scenario is that after the S&P downgrade the country will be withdrawn its IG by at least one of the two other main agencies, probably Moody's, in 2016. This would be triggered by the negative outlook on fiscal indicators (Figure 6) and takes into account that a policy turnaround such as the one observed in India (see Annex 1) in a similar situation is unlikely to be seen in Brazil.

There are some factors which represent downside risks for the Brazilian economy, and that would reinforce our negative prospects for the country. Primarily among them : i) lower than expected primary results; ii) further deterioration of GDP prospects either because of domestic factors or due to external ones; and iii) more negative political dynamics (due to further spillovers of the ongoing investigation of Petrobras corruption scandals, for example), including an intensification of talks about the impeachment of President Dilma Rousseff.

<sup>6:</sup> Within this group of countries, Slovenia, India and Morocco exhibit the highest levels, 81%, 66% and 63% respectively.

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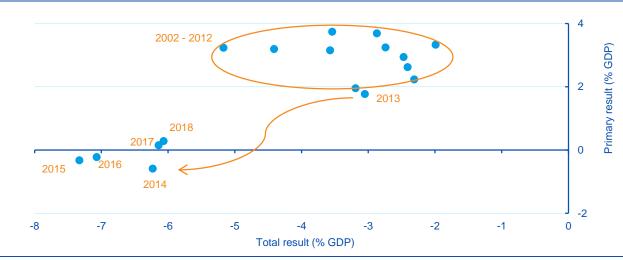


Figure 6 Fiscal indicators: primary and total results (% of GDP)

Source: BCB and BBVA Research

On the other hand, we think the government could avoid additional downgrades if: i) the prospects of fulfillment of the surplus targets for the 2015-2018 period improve, for example, due to either an earlier-thanexpected recovery of economic activity, a significant improvement of the government-congress relationship, or to a more reliable commitment to fiscal targets (by introducing a sort of fiscal rule to limit expenditure, for example); ii) an agenda of long-term economic reforms to increase investment and productivity is implemented; or iii) an aggressive program to sale some public assets is launched. But these elements are unlikely at this point, especially the first two.

## Financial markets had already priced in Brazil's losing its investment grade before the S&P decision

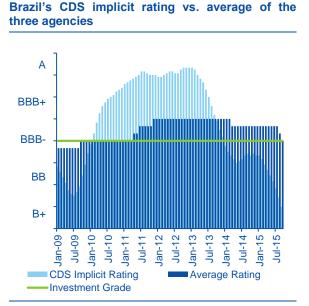
We assessed the probability that Brazil could lose its investment grade rating by looking at what the markets were currently saying about the sovereign risk of Brazil and comparing it to the actual rating from the rating agencies. In order to do this, we estimate the implicit rating embedded in the CDS sovereign spread and compare it to the average rating of the three agencies (Moody's, S&P and Fitch). At the moment of writing this report, Moody's hold Brazil's at the exact rating that defines investment grade level, Fitch maintains it one notch above and S&P just below investment grade.

In Figure 7 we can observe the evolution of the CDS implicit rating before the most recent S&P decision and the average of the three rating agencies<sup>7</sup>. We can see that the markets have usually anticipated the movements of the rating agencies. We can also see that currently, the CDS of Brazil is quoting three notches below the current agencies' average which at the moment corresponds exactly to the investment grade level.

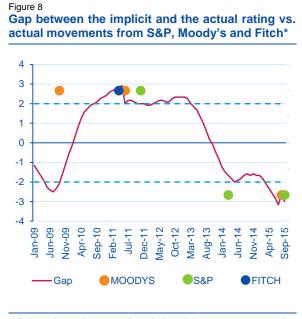
But we also note that the CDS implicit rating could largely deviate from the actual rating without necessarily implying an actual downgrade or upgrade. However, we have estimated that a deviation of more than two notches usually does anticipate a movement from any or all the agencies. And when the gap between the CDS implicit rating and the agencies' rating reach about three notches or more, it is usually assured that there will be a movement, as we can see in Figure 8.

<sup>7:</sup> In the day following the S&P decision to downgrade Brazil to high-yield, its CDS jumped 19bp.

Figure 7



Source: Datastream, S&P, Moody's, Fitch and BBVA Research



\* Points above the upper (lower) dotted line represent upgrades (downgrades) by the risk agencies indicated by the labels below. Source: Datastream, S&P, Moody's, Fitch and BBVA Research

### Our econometric models reveal that there is a very high probability that at least one of the other two main risk agencies will downgrade Brazil to high-yield by mid-2016

Taking into account the level of the CDS spread right before the S&P downgrade and the current estimated gap, we estimate that a downgrade from Fitch to the lowest rating within the investment grade zone is practically guaranteed. After a movement from Fitch, the gap would still be around three notches at the current CDS levels. This indicates that a further downgrade from any of the three agencies seems also very likely.

To analyze the probability that Brazil is withdrawn its investment grade by the three main agencies, we can also rely on several econometric models that allow us to estimate the evolution of the CDS spreads and the agencies ratings. According to these models<sup>8</sup>, that incorporate our forecasts on several macroeconomic and institutional variables, at least one of the other two main agencies will downgrade Brazil to junk status by the middle of 2016 with almost 100% probability, as it can be seen in Figure 9. The probability that the three agencies do it is around 75%.

8: For a detailed description of the methodology employed see our 2Q15 Country Risk Report



Source: S&P, Moody's, Fitch and BBVA Research

# 3. Brazil will be additionally hit by the downgrades; there could be some spillovers on other Latin American countries

## The economic literature shows that obtaining and losing an investment grade has an unanticipated impact on financial markets

Empirical studies show that a country facing a change in its credit ratings and, in particular, obtaining or losing an investment grade, sees a significant impact on its sovereign spreads, due to the effects on capital inflows and changes in market expectations. Cantor and Parker (1996)<sup>9</sup>, for example, assess that a one-notch downgrade implies a 25% rise of sovereign spreads. Kaminsky and Schmukler (2002)<sup>10</sup> argue that rating and outlook changes do affect bond and stock markets. Moreover, they provide some evidence that rating changes have spillover effects over other countries, particularly at regional level.

Jaramillo and Tejada (2011)<sup>11</sup> show that owing an IG rating reduces spreads between 35% and 60%. They also show that a one-notch upgrade within the IG asset class reduces spreads between 5% and 10%, while an upgrade from BBB- (the lowest IG) from BB+ (the highest within the HY range) reduces spreads by 36%.

## An investment grade loss determines an automatic exclusion of the country from some financial indexes, with a negative impact on financial markets

As some of the main holders of Brazilian assets are emerging markets dedicated funds, which normally invest in high-yield bonds, a downgrade of the Brazilian sovereign credit rating to high-yield might not boost significantly outflows from Brazilian assets, especially when investors have been underweighting Brazil's assets for a time (since 2014), underpinned by the deterioration in the fundamentals.

Nonetheless, Brazilian sovereign, quasi-sovereigns and corporate bonds are also included in several aggregated bond indices that require an IG credit rating. Therefore, a loss of the IG status could lead to Brazilian bonds to be excluded from IG indices, spurring index-related outflows and extending market

10: Kaminsky and Schmukler (2002) "Emerging Markets Instability: Do Sovereign Ratings Affect Country Risk and Stock Returns?" World Bank Economic Review, 2002.

<sup>9:</sup> Cantor and Parker (1996). "Determinants and Impact of Sovereign Credit Ratings". FRBNY Economic Policy Review, October 1996.

<sup>11:</sup> Jaramillo and Tejada (2011). "Sovereign Credit Ratings and Spreads in Emerging Markets: Does Investment Grade Matter?" IMF Working Paper.

negative impact. It is worth noting that the exclusion of Brazil would imply some rebalancing of the indexes which could end up increasing the weight of some IG emerging countries. This potentially positive effect on other countries in the region could help to partially offset the negative impact that a return of Brazil to high yield could have on its neighbors.

Main bond index providers (Barclays and BofA Merrill Lynch) rate securities using the simple average of the ratings from the three major rating agencies (Moody's, S&P and Fitch). Thus, in general, it is required two of the main rating agencies moving below IG in order to exclude an asset from an IG index<sup>12</sup>.

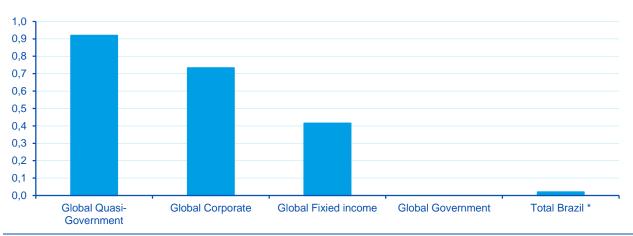
The Barclay's Global Aggregated index, which is estimated to have USD 2 trillion benchmarked worldwide against it, attaches a weight of 0.7% to Brazilian assets, while only 0.1% to the Brazilian sovereign (Figure 10). With respect to the BoA Merrill Lynch indices, Brazilian sovereign bonds are not included in its Global Government IG index, while the weights of Brazil's quasi-government and corporate assets on the respective BoA Merril Lynch index from 0.4% to around 1.0% (Figure 11).

	Agregate			Credit indices		Corporate indices	
	Global	US	Euro	US	Euro	US	Euro
Sovereigns	0,07	0,16	0,02	0,05	0,02	0,00	0,00
Quasis	0,15	0,20	0,09	0,06	0,09	0,00	0,00
Corporates	0,12	0,09	0,03	0,03	0,03	0,14	0,14
Total Brazil	0,34	0,45	0,14	0,14	0,14	0,14	0,14

#### Figure 10 Brazil weight in Barclays IG indices (%)

Source: Barclays and BBVA Research

#### Figure 11 Brazil weight in BoA Merrill Lynch IG indices \* (%)



\* "Total Brazil" is an average of the four Merrill Lynch IG indices exhibited in the figure. More precisely, it is the Brazilian market cap in each of the four indices divided by the total market cap of the four indexes.

Source: Barclays and BBVA Research

Source: BoA Merrill Lynch and BBVA Research

It is worth noting that a loss and an obtainment of IG could impact a country's risk premium asymmetrically: investors may not rush for an asset that gains IG status, but they may be forced to rapidly withdraw from assets that lose such grading.

<sup>12:</sup> IG indexes are updated once a month to take into account the most recent changes in ratings.





\* The data for the four countries was standardized to ease comparisons. Source: Haver Analytic and BBVA Research

Moreover, a loss of IG grade status should impact mainly in non-resident holders of Brazil's assets. Currently, the foreign investors hold 20% of the Brazil's public securities and 52% of the total investment in the Brazil's equity index (BOVESPA). In a worst case scenario, if Brazil followed the pace showed by Russia, when it lost its credit status, the Brazilian bonds held by non-residents would decrease to 16%-17% (levels showed in 2013). Nonetheless, the impact on Brazil's risk premium will depend on the capacity of domestic investors (financial institutions, insurance companies and pension funds) to offset the effect (home bias). Current risk premium levels are higher than those saw in 2013, thus may by some effects have already priced-in.

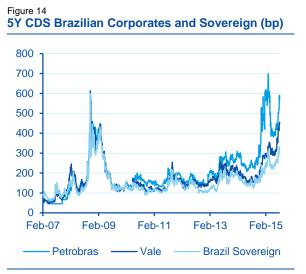


Figure 15 5Y CDS Brazilian Corporates and Sovereign (bp)

Source: Bloomberg

Source: Bloomberg

Finally, it is worth highlighting that corporate credit ratings are in some way associated with the sovereign rating, as rating agencies tend to link them with each credit's local currency rating. Corporate credit ratings can be rated up to 3 notches (usually 2 notches) above the sovereign rating. Thus, the effect of a potential downgrade of Brazil's sovereign rating on Brazilian corporates depend on whether each corporate is rated with respect the sovereign rating. Against this background, although, the Credit Default Swaps (CDS) for selected Brazilian companies have widened (Figures 16 and 17), broadly in line with the evolution of the Brazilian Sovereign CDS. It is worth noting that Brazilian non-financial corporates have an external debt of around USD120bn, which implies that they would have an additional burden of approximately USD0.6bn if they had to rollover its external debt at a cost 50bp higher due to a deterioration of their ratings.

### Sovereign spreads usually deteriorate further right after the downgrade to high-yield status

Evidence from previous downgrades since the beginning of the 2000s suggests that sovereign spreads deteriorate in advance of the downgrade. However, the deterioration usually continues –even speeds up-immediately after the country is withdrawn its IG (Figures 16 and 17).

Therefore, not surprisingly, on September 10, the day following the S&P decision to downgrade Brazil to high-yield, the country's EMBI increased 15bp to 388. Moreover, the 5-year CDS jumped 19bp, the Brazilian real depreciated 1.8% and local equity markets lost 0.3%.

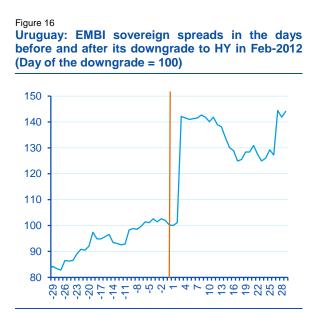
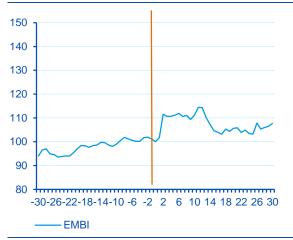


Figure 17 Emerging economies\*: Average EMBI sovereign spreads in the days before and after their downgrade (Day of the downgrade = 100)



## If Brazil loses its investment grade, some spillovers on other Latin American countries are likely

A way other Latin American economies could be hit by a possible downgrade in Brazil is through regional financial indexes. Investors tend to build their exposure to Latin American assets using Latin American financial indices (basket compounded by main representative Latin American assets). Furthermore, project finances normally use the spread between the US Treasury and Latin American bond indices (such as the J.P.Morgan Emerging Market Bond Index) as a risk premium for both market or project valuations. In most cases, Brazil has an important weight in the region indices (Figures 18 and 19). Thus, the loss of Brazil's investment grade may drag Brazilian's assets prices and then Latin American indices, encouraging investors

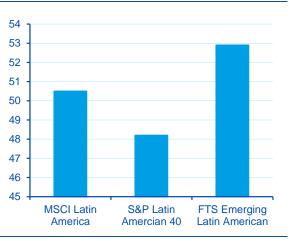
Source: Haver Analytic and BBVA Research

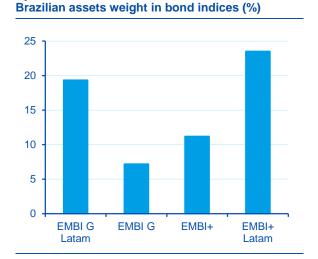
<sup>\*</sup> Uruguay (Feb-2002), Egypt (May-2002), Hungary (Dic-2011), Croatia (Dic-2012) and Russia (Jan-2015). Source: Haver Analytic and BBVA Research

to underweight their exposure to the region. All in all, if Brazil loses its IG, regional assets would be also dragged at least temporarily.

Figure 19

Figure 18 Brazilian Assets Weight equity indices (%)

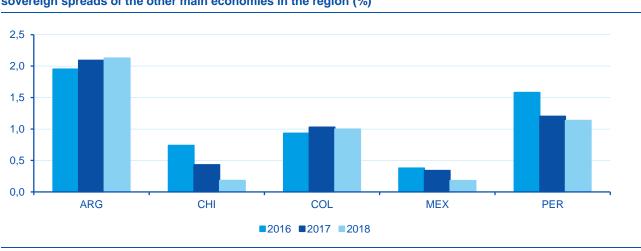




Source: JP Morgan

To gauge the effects a downgrade of Brazil to high-yield would have on other Latin American countries, we use our Global-VAR model to estimate the impact of a permanent and idiosyncratic increase of 1% of Brazil's sovereign spread on the sovereign spreads of the other main economies in the region<sup>13</sup>. According to our estimations the impact over other Latin American countries would be non-negligible<sup>14</sup> (Figure 20).

#### Figure 20





Source: BBVA Research

13: We model this shock in a way that it can be interpreted as being an idiosyncratic Brazilian shock. We have also run a model with a non-idiosyncratic shock (due to a global factor, for example). The results are qualitatively similar to the one presented on Figure 20.14: We also estimated the impact this shock would have on Turkey and China. In both cases it would be around 0.

Source: MSCU; S&P; FTSE

In addition to an impact in sovereign markets and through financial indexes, we have to note that Latin American countries could also be affected by the overall economic deceleration that to some extent was the cause of the downgrade, especially because other Latin American countries are also being hit by the moderation of China and commodity markets. As we analyzed in a recent report (see the Box 1 "What impact does Brazil have on the Latin America's economy?" of our 2Q15 Latin America Economic Outlook), within Latin America, Argentina, Uruguay and Paraguay are the countries that have most exposure, and therefore, would be the most affected by a deceleration of the Brazilian economy. Among these, Argentina is the country which would be most affected by a shock to its neighbor, mainly on account of the magnitude of its exports of manufactures to Brazil. The region's other countries would in any event also be affected to a certain degree, albeit less than Argentina, Paraguay and Uruguay, by problems originating in Brazil.

Anyway, we expect the other main economies in the region currently holding an IG (Chile, Colombia, Mexico, Peru and Uruguay) to continue doing so in the future.

### Final remarks about the impact of losing the IG on Brazil

The IG loss could have other effects on Brazil than those analyzed before. More precisely, either during the remaining of the government of Dilma Rousseff or –more likely- under the leadership of the next president to be elected in 2018, it could end up unchaining efforts for the country to finally adopt some reforms to improve its economic policy framework (implementation of a fiscal rule to limit expenditure, reduction of public expenditure rigidities, creation of an independent fiscal authority to overhaul public sector accounts, granting legal independency to its central bank, etc.) and to increase investment and productivity.

Anyway, the example set by previous episodes (Romania and Latvia) shows that recovering the IG after losing it would take at least some few years (in the case of the referred countries it took 5.5 and 3.3 years, respectively).

### Annex 1: How to avoid falling over the precipice? The example of India.

In April 2012, S&P lowered India's sovereign credit outlook to "negative" from "stable" while warning of a possible credit downgrade to high yield status (HI), as economic growth slowed, inflation was under upward pressure and both current account and fiscal deficit widened (the former reached 4.0%, to some extent due to the sharp increase in oil and gold prices, and the latter was at 5.9% of GDP at the end of 1Q12, well above the 4.6% government target). At the same time, the then prime minister, Manmohan Singh, was unable to lure the needed investment and to carry out fiscal reforms as the country was also hurt by corruption scandals and political turbulence. Meanwhile, Fitch and Moody's also graded India one step above junk status at that point in time.

In July 2012, P.Chidambaram was appointed minister of finance. After three months in office, he unveiled an ambitious program of reviving India's growth prospects. The program consisted in a string of reforms in the fiscal and investment spheres, including: i) hikes in regulated fuel prices; ii) permitting partial FDI in multibrand retail, civil aviation, broadcasting and power; iii) divestment in four state owned undertakings; and iv) curbs on gold imports. In February 2013, Chidambaram pledged to reduce fiscal deficit to -3% of GDP from -5.3% over the next 3 years. Then, in September of 2013, a major event occurred, which helped to increase the credibility of India's economic policy: R. Rajan, former IMF's chief-economist, was appointed as the new head of the RBI. He unveiled a plan to attract capital inflows and strengthen the Indian rupee and commanded the implementation of a more hawkish monetary policy, less tolerant with inflation pressures. Almost two years after S&P lowered India's outlook to negative, BJP Modi-led party, which exhibited a probusiness reform program, won the national election. The victory was larger than expected and reassured rating agencies and investors as Modi had a pro-business reform program. During his first years in office, Modi focused on improving governance quality, removing administrative bottlenecks, rationalizing ministries, easing infrastructure projects, continuing the previous government's fuel subsidy reforms agenda, hiking foreign investment limits and cementing bilateral trade and investment ties with other economies.

As a consequence of the implementation of important economic reforms and the improvement in the management of economic policy, India's outlook was upgraded to "stable" from "negative" by S&P on September 2014, reducing significantly the risk the country is withdrawn its IG.

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