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CREDIT OPINION
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Update

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B3 S.A. - Brasil, Bolsa, Balcao

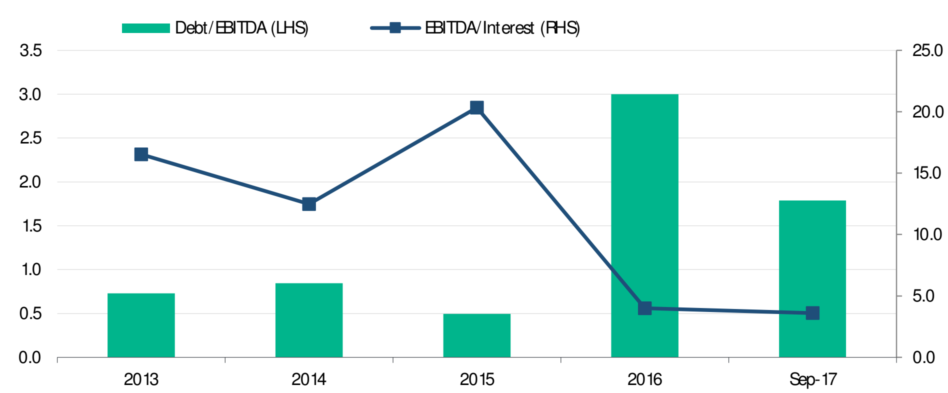
Update to credit analysis

Summary

B3 S.A. – Brasil, Bolsa, Balcao (B3) operates as an integrated exchange, depository and clearing house of derivatives, cash equities, foreign-exchange spot and fixed-income securities. These business lines expanded following the conclusion of the merger of former BM&FBOVESPA with Cetip on 29 March 2017, adding activities such as the registration of over-the-counter (OTC) derivatives, fixed-income securities and car liens. The company's Ba1 issuer rating is supported by its dominant position in its target markets and diversified revenue, which supports its large-scale operations, with high margins and low earnings volatility. B3's recent merger could also potentially improve its margins through revenue and cost synergies. Although the deal resulted in an initial increase in leverage, we expect B3's indebtedness to decline over the next three years owing to (1) a reduction in discretionary dividends; and (2) the use of a higher portion of profits to repay debt, in line with the company's conservative risk management strategy.

B3's Financial Profile score is A3, reflecting the company's strong financial profile, dominant position in the local market and systemic importance as Brazil's only integrated exchange, depository and clearing house. However, the company's ratings are positioned one notch above the Government of Brazil's (Ba2 negative) rating because of it strong credit links with the sovereign. B3 is exposed to Brazilian sovereign risk in the form of collateral holdings of government securities. In addition, B3's cash position, as well as a significant portion of the settlement funds that safeguard the company against counterparty default, is invested in Brazilian government bonds.

Exhibit 1
The increased leverage resulted from the recent merger with Cetip



Sources: Moody's Investors Services, BM&FBovespa's financial statements

Credit strengths

» The company's dominance in its target markets, which has further enhanced after the merger with Cetip

» Low earnings volatility, supported by sound revenue diversification

» Strong cash generation, and ability to reduce dividends and share buybacks, which support financial flexibility

» Effective risk management of its central counterparty clearing houses (CCP), which have been tested throughout several periods of high volatility and enhanced by well-defined safeguards

Credit challenges

» Vulnerability to Brazil's sovereign risk, given the majority of the company's collateral consist of government bonds

» Reducing the recent increase in leverage

» Capturing the potential revenue and cost synergies arising from the merger with Cetip

Rating outlook

B3's outlook is negative, despite its strong financial profile, because the company's ratings are constrained at one notch above Brazil's sovereign bond rating, given its strong links with the sovereign.

Factors that could lead to an upgrade

» B3's issuer and debt ratings of Ba1 do not face upward pressure, given the negative outlook and also because they are constrained at one notch above Brazil's sovereign bond rating.

Factors that could lead to a downgrade

» B3's ratings would likely be downgraded following a downgrade of Brazil's sovereign rating.

» A downgrade could also be driven by a deterioration in the company's financial profile, which, in turn, could be triggered by a decrease in its operating margin that substantially reduces the company's debt-service capacity and leads its leverage to increase or remain at high levels.

» Negative pressure on the ratings could also arise from a deterioration in the company's risk management capabilities and execution effectiveness, resulting from insufficient investment in technology or an unexpected increase in market volatility that threatens to overwhelm the company's safeguards.

Key indicators

Exhibit 2

B3 S.A. - Brasil, Bolsa, Balcao (Consolidated Financials) [1]

	9-17	12-16	12-15	12-14	12-13	CAGR/Avg.[2]
Pre-tax income (loss) (BRL million)	1,159	1,247	2,807	1,647	1,688	-2.2%[3]
Pre-tax income (loss) (USD million)	365	360	855	702	785	-11.3%[3]
Pre-Tax Margin	39.6%	48.4%	114.2%	73.3%	71.4%	69.4%[4]
Pre-Tax Margin Volatility (PTM Vol) (Securities)	47.5%	41.4%	32.4%	5.4%	8.2%	27.0%[4]
Debt / EBITDA (Securities)	1.8x	3.0x	0.5x	0.8x	0.7x	1.4x[4]
(Retained Cash Flow-CapEx) / Debt	36.7%	27.7%	20.5%	38.6%	18.4%	28.4%[4]
EBITDA (Securities) / Interest Expense	3.6x	4.0x	20.3x	12.5x	16.5x	11.4x[4]

[1] All of the quantitative credit metrics incorporate Moody's standard adjustments to financial statements in the analysis of financial institutions as per our cross-sector methodology; Moody's may also make other analytical adjustments that are specific to a particular securities firm. [2] May include rounding differences due to scale of reported amounts. [3] Compound Annual Growth Rate (%) for the latest accounting regime. Any interim period amounts presented are annualized for calculation purposes. [4] Simple average of periods presented for the latest accounting regime.

Source: Moody's Financial Metrics

Profile

B3 S.A. - Brasil, Bolsa, Balcao is one of the world's largest financial market infrastructure providers by market value. In Brazil, the company operates as a trading platform, clearing house and depository for cash equities, derivatives and foreign exchange, as well as a registration platform for fixed-income securities, OTC derivatives and car liens.

Detailed credit consideration

Scale and profitability: Supported by dominant position, diversification and cost control

The Baa2 score for scale reflects B3's dominant position in its core businesses, as well as its high diversification and vertically integrated operations, which were further enhanced following the merger with Cetip, which became effective on 29 March 2017.

After the merger, B3's business has become more diversified, reflected by the fact that as of September 2017, no single business segment represented more than 30% of the company's total revenue. In this sense, the company's revenue was mainly distributed across (1) derivatives trading (25% of total revenue); (2) equities clearing and settlement (25%); (3) registration, custody and settlement of private fixed-income securities and OTC derivatives (24%); (4) registration and custody of information about vehicles financed in Brazil (9%); and (5) the reminder in other business lines, such as securities lending, depository services, market data, listing, financial intermediation among others services. Clearly, the recent merger has further enhanced the company's scale, diversification and position relative to competition, which also supports its earnings stability.

The Aaa score for pre-tax margin is supported by the company's strong earnings generation and sound operational efficiency, with a continuous focus on cost control. Moreover, in the coming years, the company's margins should be further strengthened by revenue synergies and cost savings. While the company's management may be challenged to capture all these synergies, the rating does not incorporate an expectation that they will be realized.

The Aa1 score for pre-tax margin volatility reflects the company's stable earnings, supported by its diversified business model. Historically, underperformance in certain business lines has been offset by good performance in others, which is expected to be further enhanced following the improved diversification after the merger with Cetip.

Leverage and coverage: Remain manageable after incremental debt from the merger

The A1 score for debt/EBITDA reflects B3's current ratio and the expectation that its leverage will fall meaningfully over the next few years. As of September 2017, the company's leverage (debt/EBITDA) decreased to 1.8x from 3.0x before the combination of Cetip and BM&FBovespa. This decrease in leverage shows that the company has successfully managed its vertical integration and is able to rapidly reduce its higher leverage ratio by simply reducing its discretionary dividend payments and share buybacks. The company's new potential for earnings generation would help it pay back the BRL3.4 billion debt raised to finance the merger.

B3's cash generation, coupled with relatively low capital spending, leads to a ratio of retained cash flow-capital spending to debt of around 27%, resulting in a Baa1 score.

The company's EBITDA/interest expense of Baa2 reflects our expectation that its EBITDA is going to increase and that its debt will decrease over time, therefore, diminishing the company's interest coverage of 3.6x as of September 2017.

Operating environment

We assign an A2 score to BM&FBovespa's operating environment, based on a 45% weight for Brazil's Macro-Level Indicator and 55% for competitive dynamics and industry fundamentals (the Baa3 score assigned to Brazil's Macro-Level Indicator has a 45% weight in the overall score for operating environment because it is below the company's Aa score for competitive dynamics and industry fundamentals). However, because the company's operating environment score is equal to its financial profile, the score does not affect the adjusted financial profile.

Macro-Level Indicator

BM&FBovespa's revenue is entirely generated in Brazil, and, consequently, the company's Macro-Level Indicator is equal to that of the country. Brazil's Baa3 Macro-Level Indicator score reflects the country's moderate levels of economic strength, susceptibility to event risk and institutional strength.

Competitive dynamics and industry fundamentals

We assign a Aa score to the competitive dynamics and industry fundamentals for Brazil's exchange operators with extensive clearing activities in cash equities and derivatives markets. Firms in this sector operate securities exchanges and similar "lit" venues that have a relatively high degree of transparency in terms of access and the public display of price quotes and trades. These venues facilitate trading in cash equities, fixed-income securities, currencies, commodities and derivatives. Exchanges tend to benefit from higher trading volumes and increased transactional cash flow generation when markets are volatile, as is often the case in Brazil, which helps sustain their creditworthiness. Individual segments in Brazil have historically been dominated by particular companies, a trend that was further enhanced by the industry's consolidation in the last 10 years.

The historic vertical integration of exchanges and clearing across multiple products and geographies has resulted in a concentrated sector with oligopolistic barriers to entry. These barriers to entry arise from the substantial liquidity pools that are incumbent to clearing and the extensive regulatory infrastructure surrounding these activities owing to their importance to global financial stability (including, subsequent to the financial crisis, the mandated clearing, exchange trading and trade reporting of a significant portion of OTC derivatives globally). At the same time, high constraints to investing abroad faced by domestic investors in Brazil represent an additional competitive edge for local operators.

CCPs are key strategic assets that provide firms in this sector with extensive control over product and technological innovation, pricing policy and other strategic business decisions. However, they also face relatively high operational (including technological) risks in managing counterparty exposures and transactional activities. In Brazil, these companies operate under strict regulation and supervision from the central bank and the CVM (the Brazilian securities exchange commission), which are also responsible for granting authorization for potential new entrants. The comprehensive level of surveillance is reinforced by the fact that trades and margin requirements must be set and identified at the beneficial owner level. Also, dark pools and internalization of orders in the cash equities market are not allowed, and the trading of stocks and securities lending can only be made through an exchange. While OTC derivatives have not fully migrated to CCPs in Brazil, they represent a small portion of the derivatives market and are mandatorily registered on a platform under regulators' surveillance.

New entrants are exclusively focused on cash-equities-exchange businesses, which represent only a small portion of the market for companies with vertically integrated operations (currently just BM&FBovespa). Moreover, while locally established players in this market face competition for volumes from American Depositary Receipts of Brazilian companies listed on the New York Stock Exchange, their market share has declined in the last few years.

About Moody's Bank Scorecard

Our scorecard is designed to capture, express and explain in summary form our Rating Committee's judgment. When read in conjunction with our research, a fulsome presentation of our judgment is expressed. As a result, the output of our scorecard may materially differ from that suggested by raw data alone (though it has been calibrated to avoid the frequent need for strong divergence). The scorecard output and the individual scores are discussed in rating committees and may be adjusted up or down to reflect conditions specific to each rated entity.

Overall, the scorecard-calculated standalone assessment range for B3 is Ba1-Ba3. The company's assigned Ba1 issuer rating is at the top of the range, positioned one notch above the Ba2 Brazilian government bond rating, reflecting its strong financial profile and dominant position in the local market.

Rating methodology and scorecard factors

Exhibit 3
B3's scorecard

B3						
Financial Profile	**Historical**			**Assigned**		
	Factor Weights	**Historic Ratio**	**Initial Score**	**Assigned Score**	**Key driver #1**	**Key driver #2**
Scale						
Pre-Tax Earnings	20%	360	Ba1	**Baa2**	Revenue trend	
Profitability						
Pre-Tax Margin	10%	48.4%	Aaa	**Aaa**	Revenue trend	
Pre-Tax Margin Volatility	10%	47.5%	Baa3	**Aa1**	Expected trend	
Leverage and Coverage						
Debt/EBITDA	20%	3.0x	Ba1	**A1**	Leveraging/de-leveraging	
(Retained Cash Flow-CapEx)/Debt	20%	27.7%	Baa1	**Baa1**	Cash flow trend	
EBITDA/Interest Expense	20%	4.0x	Ba3	**Baa2**	Interest expense trend	
Financial Profile Score	**100%**		**Baa3**	**A3**		
Operating Environment						
Brazil	**Factor Weights**	**Qualitative Scale**	**Score**			
Macro Level Indicator	45%		Baa3			
Economic Strength	25%	Moderate				
Institutional Strength	50%	Moderate				
Susceptibility to Event Risk	25%	Moderate				
Competitive Dynamics and Industry Fundamentals	55%		Aa			
Home Country Operating Environment Score			A2			
	Factor Weights			**Score**	**Comment**	
Operating Environment Score	**0%**			**A2**		
ADJUSTED FINANCIAL PROFILE				**Score**		
Adjusted Financial Profile Score				**A3**		
Financial Profile Weight	100%					
Operating Environment Weight	0%					
Business Profile and Financial Policy				**Adjustment**	**Comment**	
Business Diversification				0		
Opacity and Complexity				0		
Liquidity Management				0		
Corporate Behavior				0		
Total Business Profile and Financial Policy Adjustments				**0**		
					Comment	
Sovereign or parent constraint				**Ba2**		
Standalone Assessment Range				Ba1 - Ba3		
Assigned Standalone Assessment				**Ba1**	Sovereign Bond Rating +1	

Source: Moody's Investors Services

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