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INVESTORS SERVICE

CREDIT OPINION
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Update

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B3 S.A. - Brasil, Bolsa, Balcao

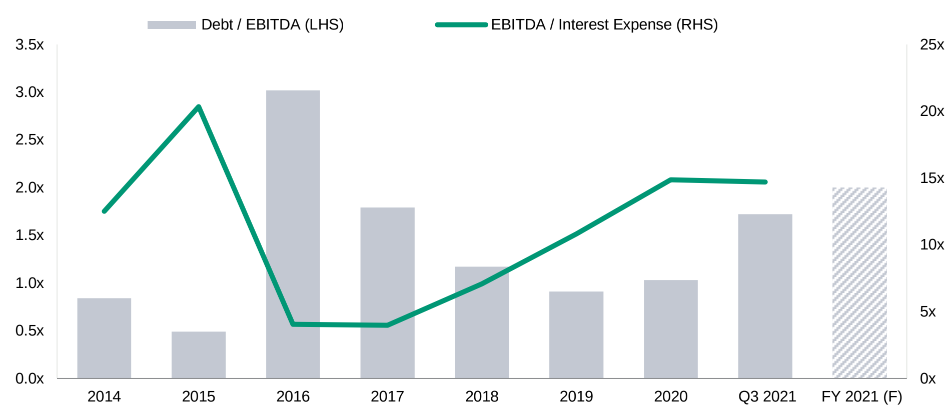
Update to credit analysis

Summary

B3 S.A. – Brasil, Bolsa, Balcao's (B3) operates as an integrated exchange, depository and clearing house of cash equities, derivatives, foreign-exchange spot and fixed-income securities. The company's Ba1 issuer rating is supported by its vertical integration and dominant position in its target markets as well as its diverse operations and strong operating leverage. B3 operates Brazil's large and systemically important central counterparty clearing house (CCP) and depositary. The efficient functioning and risk management of the CCP is the backbone of B3's effectiveness as a financial market infrastructure provider and is key to B3's intrinsic creditworthiness. The ratings are also underpinned by the company's increasing earnings, high pretax margins and cash flow generation. B3`s leverage is commensurate with its rating and we expect its coverage ratios to stay strong, given its EBITDA and cash flow generation.

Although B3's Financial Profile score is A2, the company's ratings are positioned one notch above the Government of Brazil's (Ba2 stable) rating, reflecting the fact that B3 has strong credit links to Brazilian sovereign risk through its collateral holdings of government securities and the geographical concentration of its operations.

Exhibit 1
2021 Leverage target of 2.0x in accordance with B3's revised guidance



Source: B3's financial statements, Moody's Investors Service

Credit strengths

» Dominance in its target markets, which has further enhanced after the merger with Cetip

» Low earnings volatility, supported by significant 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

» Maintaining its leading market position in the face of potential competitive threats

Rating outlook

The stable outlook on B3's ratings reflects our expectation that B3's financial performance will remain strong. The outlook is in line with the stable outlook on Brazil's sovereign rating.

Factors that could lead to an upgrade

» B3's issuer and debt ratings of Ba1 currently do not face upward pressure because they are positioned one notch above Brazil's sovereign bond rating

» In the event Brazil's creditworthiness improved and the sovereign rating is upgraded, that could lead to an upgrade of B3's Ba1 ratings

Factors that could lead to a downgrade

» A decline in Brazil's creditworthiness could result in B3's ratings being downgraded. A downgrade in B3's ratings could also be driven by a significant and unexpected 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 significantly.

» Negative pressure on the ratings could also arise from a deterioration in the company's risk management capabilities and execution effectiveness.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Key indicators

Exhibit 2

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

	09-21[2]	12-20[2]	12-19[2]	12-18[2]	12-17[2]	CAGR/Avg.[3]
Pre-tax income (loss) (BRL Million)	4,880.1	5,331.7	3,339.0	2,338.4	1,577.7	42.5[4]
Pre-tax income (loss) (USD Million)	916.4	1,044.3	847.8	644.3	494.4	25.4[4]
Pre-Tax Margin (%)	63.6	58.9	50.8	43.7	38.7	51.1[5]
Pre-Tax Margin Volatility (PTM Vol) (Securities) (%)	16.4	16.2	20.1	60.8	52.4	33.2[5]
Debt / EBITDA (Securities)	1.7x	1.0x	0.9x	1.2x	1.8x	1.3x[5]
(Retained Cash Flow-CapEx) / Debt (%)	6.4	27.7	55.6	48.2	36.4	34.9[5]
EBITDA (Securities) / Interest Expense	14.7x	14.9x	10.8x	7.1x	4.0x	10.3x[5]

[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] LOCAL GAAP [3] May include rounding differences because of the scale of reported amounts. [4] Compound annual growth rate (%) based on the periods for the latest accounting regime. Any interim period amounts presented are annualized for calculation purposes. [5] Simple average of periods for the latest accounting regime.

Sources: Moody's Investors Service and company filings

Profile

B3 operates as a fully vertically integrated exchange, depository and clearing house of cash equities, derivatives, foreign-exchange spot and fixed-income securities. These business lines expanded following the conclusion of the merger of the former BM&FBOVESPA with Cetip in 2017, adding activities such as the registration of over-the-counter (OTC) derivatives, fixed-income securities and car liens.

Detailed credit consideration

Scale and profitability: supported by B3`s dominant position with diverse revenues, deepening capital markets and trading volumes at all time highs

The Baa2 score for scale reflects B3's dominant position in its core businesses, as well as its diverse revenue base and vertically integrated operations, which were further enhanced following the merger with Cetip (March 2017).

B3 has a dominant market position as Brazil's leading financial market infrastructure provider, and is uniquely positioned to benefit from increased capital markets activity in Brazil's record low interest rate environment, particularly in equity markets. Through its vertically integrated business model, B3 earns fees from trading, settlement and clearing of cash equities and is benefitting from Brazil's deeper capital markets. The number of individual investors owning equities grown significantly over the last couple of years, reaching 4.0 million as of September 2021 from 3.2 million in December 2020. Significant flows into equity focused funds have also aided B3, leading to increased turnover in the stockmarket. In 2020, the market volatility as a reaction to the coronavirus outbreak added to the company's revenues as it earns a margin on all trades. Equity issuance have also been very strong in recent years: in the first nine months to September 2021, initial and secondary public offering amounted to BRL126.9 billion, against BRL78.9 billion at the same period a year earlier, while the total amount in 2020 was BRL117.7 billion, an increase of 31.8% from 2019, that itself was a record year since 2010. From a peak average equity daily traded volume (ADTV) of BRL38.1 billion in March 2021, September 2021 registered a still high BRL34.7 billion, which represents an increase of 10% from the BRL27.9 reported in September 2020.

All of these factors combined have underpinned B3's strong revenue growth of 16% in the first nine months of 2021, along with its pre-tax income of BRL4.9 billion, up by over 29% versus a year previously, increasing its scale.

B3's businesses are organized into four main divisions (1) Listed - trading and post trading of cash equities, interest rate and FX derivatives, 2) OTC - derivatives, fixed income funding instruments and investment fund quotas registration and custody, 3) Infrastructure for Financing - registration of liens and loans related to financed vehicles (4) Technology and data services - data analytics and other services for market participants. The listed division had total gross revenue of BRL5.5 billion (71% of total revenues) year to date to September 2021, with 67% coming from the equities and equity derivatives subdivision and 33% from its interest rates and currency subdivision (FICC) Listed division. The OTC division accounts for 11% of revenues, infrastructure for financing 5% and the technology and data segment for the remaining 13%.

On 19 October 2021, stock exchange operator B3 announced the acquisition of Neoway Tecnologia Integrada Assessoria e Negócios S.A. (Neoway), a technology company specialized in data analytics and artificial intelligence for companies operating in various sectors.

The acquisition fits B3's strategy to develop product offering in business lines adjacent to its core business of equities and derivatives trading, clearing and settlement. In July 2021, B3 provided a BRL600 million capital increase to establish Dimensa S.A., in which it holds a 37.5% stake. Dimensa is a new entity effectively carved out from TOTVS S.A., (formerly TFS Solucoes em Software SA) that provides data and software solutions for the asset management industry.

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. B3's financial performance began to benefit from significant operating leverage in 2018 a result of the completion of the BM&F Bovespa S.A. and Cetip S.A. merger, gaining further strength since. We expect B3 to continue to generate strong earnings particularly in light of strong volumes and Brazil's low rate environment.

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 will continue given its diverse sources of revenues.

Leverage to be kept at manageable levels with coverage ratios improving in line with strong performance

The A2 score for debt/EBITDA reflects the company's current levels of leverage and its ability to manage it. In September 2021, B3 revised its guidance for leverage to 2.0x for 2021. As of the same date, B3's leverage as calculated by Moody's was 1.7x, against 1.0x in December 2020 (0.9x in 2019, 1.2x in 2018 and 1.8x in 2017). In 2020, B3 issued BRL3.5 billion of local currency debentures, BRL0.2 billion in real estate receivables certificates (CRIs) and BRL1.3 billion in bank credit note. In May 2021, the company issued a further BRL3.0 billion in debentures and also a sustainability linked US$ 700m bond in September 2021.

Historically, B3 has been able to rapidly reduce its higher leverage ratio by simply reducing its discretionary dividend payments and share buybacks, enabling it to easily pay down maturing debt that was used to finance its CETIP merger. For 2022, the B3's revised leverage target is 1.6x EBITDA.

B3's score for its cash flow coverage ratio, defined as retained cash flow after dividends minus capex to total debt, of A3 reflect our view that it will continue to remain strong. For fiscal year 2020, a total payout of BRL6.2 billion was approved, corresponding to a payout ratio of 150%. As of September 2021, B3 had paid BRL4.6 billion in dividend. These dividends have led to a deterioration in the cash position: as of September 2021, B3's cash flow coverage was at 6.4%, compared to 27.7% in 2020. The assigned score of A3, incorporates B3's strong cash flow generation which mitigates the effects of higher target dividend payout ratios on its cash coverage ratio as calculated by Moody's.

Moody's expects B3's interest expense coverage, as measured by EBITDA to total interest expense, to improve as well even as more debt is issued because a combination of higher EBITDA and refinancing at lower interest rates will offset the effect of high leverage. The company's EBITDA/interest expense of Baa1 reflects our expectation that its strong earnings power will grow EBITDA at a faster rate than interest expense even accounting for new debt issuance.

Operating environment

We assign an A1 score to B3's operating environment, based on a 40% weight for Brazil's Macro-Level Indicator and 60% for competitive dynamics and industry fundamentals (the Baa2 score assigned to Brazil's Macro-Level Indicator has a 40% 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 above its financial profile, the score does not affect the adjusted financial profile.

Macro-Level Indicator

B3's revenue is entirely generated in Brazil, and, consequently, the company's Macro-Level Indicator is equal to that of the country. Brazil's Baa2 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 an 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 have to be registered on a platform under regulators' surveillance.

New entrants could be focused on trading activities/ the cash-equities business, which represent only a small portion of the market for companies with vertically integrated operations (currently just B3). 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. There are also potential new entrants in the registration business of banking instruments, which again is a small part of B3's total revenue.

Environmental, Social and Governance Consideration

In line with our general view for the securities industry (including market infrastructure providers), B3 has a low exposure to Environmental risks. See our Environmental risk heatmaps for further information.

Given that customers are generally other financial and non-financial institutions, we consider the securities industry to face low social risks. Securities firms do not produce tangible physical products that could give rise to responsible production issues or employee health and safety risks, and they employ relatively higher-skilled personnel and there are no significant labor-relations issues. See our social risk heatmaps for further information.

Governance is highly relevant for B3, as it is to all players in the financial services industry. Corporate governance weaknesses can lead to a deterioration in a company's credit quality, while governance strengths can benefit its credit profile. Governance risks are largely internal rather than externally driven, and for B3 we do not have any particular governance concerns. Nonetheless, corporate governance remains a key credit consideration and requires ongoing monitoring.

About Moody's 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.A. - Brasil, Bolsa, Balcao

Financial Profile	Factor Weights	Historic Ratio	Initial Score	Assigned Score	Key driver #1	Key driver #2
Scale						
Pre-Tax Earnings (USD Million)	20%	1001	A3	Baa2	Revenue trend	
Profitability						
Pre-Tax Margin	10%	58.9%	Aaa	Aaa	Revenue trend	
Pre-Tax Margin Volatility	10%	16.4%	Aa2	Aa1	Expected trend	
Leverage and Coverage						
Debt/EBITDA	20%	1.0x	A1	A2	Leveraging/de-leveraging	
(Retained Cash Flow-CapEx)/Debt	20%	27.7%	Baa1	A3	Cash flow trend	Dividend trend
EBITDA/Interest Expense	20%	14.9x	A1	Baa1	Interest expense trend	EBITDA trend
Financial Profile Score	**100%**		**A1**	**A2**		
Operating Environment						
Brazil	Factor Weights	Sub-factor Score	Score			
Macro Level Indicator	40%		Baa2			
Economic Strength	25%	baa3				
Institutions and Governance Strength	50%	baa3				
Susceptibility to Event Risk	25%	baa				
Competitive Dynamics and Industry Fundamentals	60%		Aa			
Home Country Operating Environment Score			A1			
	Factor Weights			Score	Comment	
Operating Environment Score	**0%**			**A1**		
ADJUSTED FINANCIAL PROFILE				Score		
Adjusted Financial Profile Score				**A2**		
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 Scorecard-indicated Range				Ba1 - Ba3		
Assigned Standalone Assessment				Ba1		

Source: Moody's Investors Service

Exhibit 4

B3 S.A. - Brasil, Bolsa, Balcao

Instrument Class	Assigned Standalone Assessment	Affiliate Support Notching	Government Support Notching	Individual Debt Class Notching	Assigned Rating
Issuer Rating	Ba1	0	0		Ba1
Senior Unsecured (Holding Company)	Ba1	0	0		Ba1

Source: Moody's Investors Service

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