

RatingsDirect®

Graubuendner Kantonalbank

Primary Credit Analyst:

Harm Semder, Frankfurt (49) 69-33-999-158; harm.semder@spglobal.com

Secondary Contact:

Heiko Verhaag, CFA, Frankfurt (49) 69-33-999-215; heiko.verhaag@spglobal.com

Table Of Contents

Major Rating Factors

Outlook

Rationale

Related Criteria

Graubuendner Kantonalbank

SACP	a+		+	Support	+2	+	Additional Factors 0
Anchor Business Position	a- Adequate	0		ALAC Support	0		Issuer Credit Rating
Capital and Earnings	Very Strong	+2		GRE Support	+2		
Risk Position	Adequate	0	1	Group	0		AA/Stable/A-1+
Funding	Average			Support	J		
Liquidity	Strong	0		Sovereign Support	0		

Major Rating Factors

Strengths:	Weaknesses:
 Very strong capitalization, supported by stable earnings. A strong retail franchise in the home market of Graubuenden. Close ties with the Swiss canton of Graubuenden, due to the canton's majority ownership of the bank and a statutory guarantee. 	 Limited growth potential due to regional focus and lack of diversity. Concentration risk owing to focus on residential real estate lending, and exposure to the volatile tourism sector in the home market of Graubuenden. Low interest rates, which make it difficult to maintain high earnings capacity.

Outlook: Stable

S&P Global Ratings' stable outlook on Switzerland-based Graubuendner Kantonalbank (GKB) reflects our view that it benefits from being a government-related entity (GRE). We consider that there is an extremely high likelihood that the Canton of Graubuenden would provide timely and sufficient extraordinary support to GKB in the event of financial distress. Moreover, the stable outlook on GKB reflects our view that its capital and earnings sufficiently buffer potential domestic financial risks.

The potential for a downgrade is very low as long as the bank's stand-alone credit profile (SACP) is at or above our threshold of 'bb+'. In the event of a small deterioration in the SACP, the ratings would be cushioned by potential extraordinary support from the canton. Further negative rating actions may be triggered by a change in GKB's role for or link with the Canton of Graubuenden, or changes in the statutory guarantee, which may lead to a weaker assessment of GKB's status as a GRE. However, we currently consider this scenario unlikely, and, if it transpired, we would expect GKB's existing obligations to be grandfathered.

We are unlikely to raise the ratings in the next 12-24 months. However, all else remaining equal, we could raise the ratings on GKB if we raised our ratings on the canton of Graubuenden.

Rationale

Our ratings on GKB reflect our 'a-' anchor for Swiss banks, and GKB's adequate business position, very strong capital and earnings, adequate risk position, average funding, and strong liquidity. The SACP is 'a+'.

Our ratings on GKB reflect its anchor of 'a-', the starting point of our ratings assessment for banks in Switzerland. The anchor is based on the country's highly diversified and competitive economy, very high household income levels, and banks' prudent loan underwriting standards.

We continue to consider GKB's business position to be adequate compared with that of domestically focused Swiss banks because we project that GKB's extraordinary business stability will continue, partly offsetting its highly concentrated business model by region and product. Moreover, we believe that GKB's reorganized private banking activities will benefit from a more efficient growth strategy fueled by domestic clients and stable earnings.

We view GKB's very strong capital and earnings position, in a domestic and global context, as a key rating strength. Our view is based primarily on our projection that GKB's risk-adjusted capital (RAC) ratio will gradually increase to 27.0%-27.5% in the next 12-18 months, from 26.51% at year-end 2016.

We consider GKB's risk position to be adequate, owing to its business model, which is focused mainly on low-risk collateralized residential mortgage lending and lending to small and midsize companies based on prudential underwriting standards. GKB is dependent on fluctuations in the local economy, and, like its domestic peers, the bank is exposed to risks related to the steady increases in residential real estate prices in Switzerland. We view positively, however, that the majority of the GKB's mortgage loan book relates to borrowers in residential rather than tourist areas, and that the tourism sector represents less than 5% of the overall mortgage portfolio by property type.

We assess GKB's funding as average and its liquidity position as strong because of the bank's strong base of customer

deposits. Our view is underpinned by GKB's stable funding ratio of 107% as of Dec. 31, 2016. Our assessment of GKB's liquidity reflects a ratio of broad liquid assets to short-term funding of 1.44x at year-end 2016, and our view that the bank should be able to withstand market stress without access to capital market funding for more than 12 months. GKB's liquid assets comfortably cover its short-term wholesale funding needs, minimizing the risk of a gap in GKB's liquidity profile.

We continue to consider GKB to be a GRE with an extremely high likelihood of receiving timely and sufficient extraordinary support from Graubuenden if needed. We base this opinion on GKB's very important role for, and integral link with, the local government, the canton of Graubuenden.

This provides a two-notch uplift to our assessment of GKB's SACP, leading to the long-term rating of 'AA'. In our view, the Swiss bank resolution regime that came into effect on Jan. 1, 2016, does not impede cantonal owners' ability to provide extraordinary support to banks, like GKB, that we consider to be GREs.

Anchor: 'a-' for commercial banks operating only in Switzerland

Our criteria use our Banking Industry Country Risk Assessment (BICRA) economic risk and industry risk scores to determine a bank's anchor SACP, the starting point in assigning an issuer credit rating. Our anchor for a bank operating mainly in Switzerland is 'a-'. We view the trends for both economic and industry risk as stable.

Our economic risk score of '2' for Switzerland is supported by the country's highly diversified and competitive economy, very high household income levels, and banks' prudent loan underwriting standards. We assess the economic risk trend in the Swiss banking industry as stable. This reflects our view that ongoing efforts by the central bank and Swiss regulator to contain mortgage debt, using macro-prudential and self-regulatory measures, will constrain growth of imbalances and lead to a soft landing of the Swiss real estate markets. In addition, growth of house prices and private-sector credit is slowing relative to GDP. However, house prices remain above historically high levels. Moreover, Switzerland's economy remains exposed to fragile economic conditions in the Eurozone and potential misallocation of investments in a low-yield environment.

Our industry risk score of '2' primarily reflects the banking sector stability and a high share of deposit funding. Banks' net interest margins continue to decline gradually, given the pressure on deposit margins from the negative yield environment. This is partly offset, however, by higher margins on lending products, fee income from investment advisory-related activities, and cost management. As a result, banks are still able to generate returns on core banking products that are adequate to meet their cost of capital. Moreover, in our view, the Swiss regulator's regulatory initiatives are more stringent than those in other European banking industries.

Table 1

Graubuendner Kant	Graubuendner Kantonalbank Key Figures											
			Year-ended Dec. 31									
(Mil. CHF)	2017*	2016	2015	2014	2013							
Adjusted assets	24,487.3	23,907.4	23,284.0	20,591.0	20,000.7							
Customer loans (gross)	18,568.1	18,231.1	17,706.5	16,365.2	15,840.4							
Adjusted common equity	2,448.0	2,337.6	2,300.6	2,204.0	2,116.3							
Operating revenues	187.5	356.8	370.5	382.4	386.7							

Table 1

Graubuendner Kantonalbank Key Figures (cont.)											
		Year-ended Dec. 31									
(Mil. CHF)	2017*	2016	2015	2014	2013						
Noninterest expenses	80.7	201.1	186.8	186.8	183.4						
Core earnings	104.4	155.1	176.2	185.4	190.6						

^{*}Data as of June 30. CHF--Swiss Franc.

Business position: A strong regional franchise complemented by private banking activities

We consider GKB's business position to be adequate compared with that of domestically focused Swiss banks because we project that GKB's extraordinary business stability will continue, partly offsetting its highly concentrated business model by region and product.

GKB is a midsize cantonal bank with total assets of Swiss franc (CHF) 24.5 billion as of June 30, 2017. It is the leading commercial bank in its home canton, enjoying continued high and stable market shares in retail and corporate banking (52% market share of business customers and 45% of private customers). The customer base has proven to be very stable, and we expect it to continue to provide GKB with a sustainable source of revenues for the next two years. Operating revenues in mid-2017 comprise net interest income at about 65%, fee income at 25%, and 5% market-sensitive income. We expect the distribution to stay almost the same over the next two years. Consequently, we expect the bank's future stability to be superior to that of larger domestic and international peers in countries with similar industry risk as Switzerland.

Like most other Swiss cantonal banks, GKB operates almost solely in its home region, Graubuenden, with a focus on residential mortgage lending and lending to small and midsize companies. We do not believe the bank will change this business model in the foreseeable future. GKB engages selectively in corporate syndicated lending across Switzerland as a partner to larger cantonal or commercial banks, mainly to highly rated large Swiss corporate entities. However, in our opinion, this selected expansion does not provide any meaningful diversification in terms of risk and earnings.

GKB's lending activities are complemented by its private banking operations, which focus mainly on domestic clients and some cross-border business with German and Italian clients owing to their geographic proximity, with total assets under management estimated at CHF16 billion. As part of its growth strategy, GKB reorganized these activities among its subsidiaries Privatbank Bellerive AG (not rated; 55% share) and Albin Kistler AG (25% share, acquired in July 2016), after selling its 50% share in Private Client Bank AG on Jan. 1, 2016. We believe that this niche activity will benefit from a more efficient growth strategy, fueled by domestic clients and stable earnings of about 15%-20%. We also think that the private banking operations will provide some risk and earnings diversification, but they will not lead us to revise our business position assessment upward.

In our view, the bank's management continues to demonstrate a strong track record, underpinned by prudent underwriting standards and conservative risk management. We expect this to provide ongoing stability to GKB's sound financial position.

Table 2

Graubuendner Kantonalbank Business Position										
		Year-ended Dec. 31								
(%)	2017*	2016	2015	2014	2013					
Total revenues from business line (CHF mil.)	190.7	380.1	387.7	383.5	388.6					
Other revenues/total revenues from business line	100.0	100.0	100.0	100.0	100.0					
Return on equity	8.0	6.9	7.1	7.1	7.3					

Capital and earnings: One of the highest RAC ratios worldwide, supported by strong earnings capacity

We view GKB's very strong capital and earnings position, in a domestic and global context, as a key rating strength. Our view is based primarily on our projection that GKB's RAC will gradually increase to 27.0%-27.5% in the next 12-18 months, from 26.51% at year-end 2016. We continue to believe that GKB's capitalization will remain at the upper end of our range for a very strong assessment and superior to that of other cantonal banks, and most other banks we rate globally.

In our view, GKB's earnings are predictable and stable, and we do not expect any changes to the bank's dividend policy of distributing 50%-60% of earnings to the home canton and other shareholders. The low interest rates continue to put pressure on GKB's net interest margin and operating revenues, and we estimate that operating income after loss provisions of around CHF155 million-CHF160 million in 2017-2019 will decrease compared to the previous four years. Nevertheless, we expect GKB to be able to maintain its outstanding capital position. We estimate GKB's three-year average earnings buffer at 130 basis points (bps), which indicates superior capacity for its earnings to cover normalized losses.

We view GKB's capital as very high quality because it includes only core Tier 1 capital in the form of share capital, a capital surplus, and reserves. We anticipate that GKB's majority owner, the canton of Graubuenden, which holds approximately 85% of GKB's capital with 100% of the voting rights, will remain supportive of the current capital levels. We also believe that GKB will not experience pressure from major dividend distributions that could weaken its RAC ratio.

Table 3

Graubuendner Kantonalbank Capital And Earnings											
		Year-ended Dec. 31									
(%)	2017*	2016	2015	2014	2013						
Criteria reflected in RAC ratios	N/A	2017 RAC Criteria	2010 RAC Criteria	2010 RAC Criteria	2010 RAC Criteria						
Tier 1 capital ratio	18.4	18.6	18.7	18.9	18.9						
S&P Global Ratings' RAC ratio before diversification	N/A	26.5	24.5	24.0	25.7						
S&P Global Ratings' RAC ratio after diversification	N/A	20.7	21.7	22.5	24.8						
Adjusted common equity/total adjusted capital	100.0	100.0	100.0	100.0	100.0						
Net interest income/operating revenues	64.4	67.2	62.3	62.1	63.0						
Fee income/operating revenues	24.8	25.2	28.6	29.6	29.2						
Market-sensitive income/operating revenues	5.6	5.1	6.7	6.4	5.3						

Table 3

Graubuendner Kantonalbank Capital And Earnings (cont.)										
		Year-ended Dec. 31								
(%)	2017*	2016	2015	2014	2013					
Noninterest expenses/operating revenues	43.0	56.4	50.4	48.8	47.4					
Preprovision operating income/average assets	0.9	0.7	0.8	1.0	1.0					
Core earnings/average managed assets	0.9	0.7	0.8	0.9	1.0					

^{*}Data as of June 30. RAC--Risk-adjusted capital. N/A--Not applicable.

Table 4

(CHF 000s)	Exposure*	Basel III RWA	Average Basel III RW (%)	S&P Global RWA	Average S&P Global RW (%)
Credit risk					
Government and central banks	3,315,868	471,735	14	106,315	3
Institutions and CCPs	1,079,528	476,125	44	26,629	2
Corporate	6,034,581	3,218,963	53	3,935,359	65
Retail	11,949,767	6,513,288	55	2,917,753	24
Of which mortgage	11,607,921	6,279,100	54	2,691,877	23
Securitization§	0	0	0	0	0
Other assets†	724,026	754,750	104	650,741	90
Total credit risk	23,103,770	11,434,860	49	7,636,796	33
Credit valuation adjustment					
Total credit valuation adjustment		235,558		0	
Market risk					
Equity in the banking book	71,839	172,425	240	432,301	602
Trading book market risk		17,993		26,990	
Total market risk		190,418		459,291	
Operational risk					
Total operational risk		687,918		722,244	
(CHF 000s)		Basel III RWA		S&P Global RWA	% of S&P Global RWA
Diversification adjustments					
RWA before diversification		12,548,754		8,818,331	100
Total diversification/concentration adjustments				2,491,427	28
RWA after diversification		12,548,754		11,309,758	128
(CHF 000s)		Tier 1 capital	Tier 1 ratio (%)	Total adjusted capital	S&P Global RAC ratio (%)
Capital ratio					
Capital ratio before adjustments		2,326,939	18.5	2,337,575	26.5
Capital ratio after adjustments‡		2,326,939	18.5	2,337,575	20.7

Table 4

Graubuendner Kantonalbank Risk-Adjusted Capital Framework Data (cont.)

*Exposure at default. §Securitization exposure includes the securitzation tranches deducted from capital in the regulatory framework. †Other assets includes Deferred Tax Assets (DTAs) not deducted from ACE. ‡Adjustments to Tier 1 ratio are additional regulatory requirements (e.g. transitional floor or Pillar 2 add-ons). RWA--Risk-weighted assets. RW--Risk weight. RAC--Risk-adjusted capital. CHF--Swiss Franc. Sources: Company data as of Dec. 31, 2016, S&P Global.

Risk Position: Exceptional loan loss experience despite regional concentration in Graubuenden We consider GKB's risk position to be adequate, owing to its business model, which is focused mainly on low-risk collateralized residential mortgage lending and lending to small and midsize companies based on prudential underwriting standards.

We still regard GKB's regional concentration in a canton that relies considerably on the cyclical tourism sector as a key risk to its lending activities, even though the 2016/2017 tourist season was good and no losses are expected. Still, this dependency exposes the bank to fluctuations in the local economy. However, thanks to GKB's prudent management of risks and consistent very low risk appetite, we expect it to be able to demonstrate resilience to economic stress. Risk costs have gradually decreased from a low level of 3-6 bps in the past four years to 0 bps at year-end 2016. The risk costs were 2 bps as of mid-year 2017.

Residential real estate loans, mainly from the home region, represented about 65% of GKB's loan book at Dec. 31, 2016. High granularity and adequate collateralization in the loan portfolio mitigate the concentration risk; we estimate the average loan-to-value ratio at about 60% for mortgage loans. Moreover, we observe that the share of nonresidential mortgage loans, at about 17% of GKB's portfolio, is a bit higher than at its cantonal bank peers. Although we consider that this elevates GKB's risk profile compared with its peers, we believe that the financing is mainly to small and midsize corporate clients in the home canton, and our RAC framework adequately captures these exposures. We expect GKB's lending growth to stay at 3% in the coming two years, as at mid-2017 and in 2016, and in line with the trend we have observed at some other cantonal banks.

Like its domestic peers, GKB is exposed to the risks related to the steady increases in residential real estate prices in Switzerland. We observe that real estate prices in Graubuenden have stabilized at relatively high levels, especially in the winter-tourism resort areas. We view positively, however, that the majority of the bank's mortgage loan book relates to borrowers in residential rather than tourist areas, and that the tourism sector represents less than 5% of the overall mortgage portfolio by property type.

Furthermore, we expect the bank to maintain its conservative underwriting practices in mortgage lending. According to our projections, we will see this in the high asset quality of the bank's credit portfolio, with projected nonperforming loans at about 0.2% of customer loans in the next two years, nearly in line with previous years. However, we expect this level to be unsustainable over the full economic cycle.

To diversify its loan book geographically and by sector, GKB participates in syndicated corporate loans mainly across Switzerland. Although corporate lending increases the credit risk in GKB's loan book, mitigating factors are that borrowers are mainly large rated Swiss corporations, and GKB participates selectively and with small amounts. We don't believe that this activity, today representing less than 5% of GKB's loan book, will provide any significant diversification benefit or, at its current magnitude, increase GKB's credit risk to an extent that would lead us to revise

down our capital or risk assessments.

Table 5

Graubuendner Kantonalbank Risk Position					
	Year-ende				
(%)	2017*	2016	2015	2014	2013
Growth in customer loans	3.7	3.0	8.2	3.3	3.6
Total diversification adjustment/S&P Global Ratings' RWA before diversification	N/A	28.3	1.3	6.4	3.7
Total managed assets/adjusted common equity (x)	10.0	10.2	10.1	9.3	9.5
New loan loss provisions/average customer loans	0.0	(0.0)	0.0	0.0	0.1
Net charge-offs/average customer loans	N.M.	0.0	0.0	0.1	0.0
Gross nonperforming assets/customer loans + other real estate owned	0.2	0.2	0.3	0.2	0.4
Loan loss reserves/gross nonperforming assets	N/A	456.4	389.1	847.3	351.3

^{*}Data as of June 30. RWA--Risk-weighted assets. N/A--Not applicable. N.M.--Not meaningful.

Funding and liquidity: A favorable funding profile, owing to stable retail deposits

We assess GKB's funding as average and its liquidity position as strong because of its strong base of customer deposits. GKB holds a very granular and stable core deposit base, which accounted for 68% of its total funding on Dec. 31, 2016. We also view favorably the bank's superior capital base. We don't consider GKB's deposits to be very confidence-sensitive because of the bank's public-sector ownership, the statutory guarantee from the canton of Graubuenden, and GKB's sound brand. Moreover, the shareholder and guarantee structure gives GKB access to low-cost long-term wholesale funding (14% of the funding base) and the ability to issue covered bonds (10%). In our view, GKB will continue to benefit from a so-called "flight to quality," with customers steering away from riskier banks during difficult economic periods toward banks with a sound reputation. Therefore, we expect GKB's stable funding ratio to remain at a comfortable 105%-110% over 2017-2019, compared with 107% as of Dec. 31, 2016.

Our assessment of GKB's strong liquidity reflects our estimate that the bank's one-year liquidity ratio (broad liquid assets to short-term funding) was 1.44x at year-end 2016. In our view, the bank should withstand market stress without access to capital market funding for more than 12 months. GKB's liquid assets comfortably cover its short-term wholesale funding needs, minimizing the risk of a gap in its liquidity profile. GKB's solid customer base will likely help it weather potential capital market stress, in our opinion.

Table 6

Graubuendner Kantonalbank Funding And Liquidity									
	_	Year-ended Dec. 31							
(%)	2017*	2016	2015	2014	2013				
Core deposits/funding base	72.1	71.9	72.9	81.4	82.1				
Customer loans (net)/customer deposits	118.4	117.7	116.9	111.6	110.8				
Long term funding ratio	86.0	87.0	88.3	95.8	95.1				
Stable funding ratio	N/A	106.7	107.8	106.5	105.3				
Short-term wholesale funding/funding base	15.6	14.5	13.1	4.7	5.5				
Broad liquid assets/short-term wholesale funding (x)	N/A	1.4	1.6	3.1	2.7				
Net broad liquid assets/short-term customer deposits	N/A	8.5	11.0	12.7	11.7				
Short-term wholesale funding/total wholesale funding	55.9	51.7	48.3	25.4	30.7				

Table 6

Graubuendner Kantonalbank Funding And Liquidity (cont.)									
	-	Year-ended Dec. 31							
(%)	2017*	2016	2015	2014	2013				
Narrow liquid assets/3-month wholesale funding (x)	N/A	1.7	1.7	3.9	4.8				

^{*}Data as of June 30. N/A--Not applicable.

External support: Two notches of uplift for likely support from Graubuenden

We regard GKB as a GRE and assess the likelihood that GKB's owner, the canton of Graubuenden, would provide timely and sufficient support to GKB as extremely high. We base our assessment on our view of the bank's:

- Integral link with the canton. We expect Graubuenden to provide considerable and timely credit support in all circumstances to GKB, due to the canton's majority ownership of GKB and possession of 100% of the voting rights, as well as its provision of a statutory guarantee for GKB; and
- Very important role in the canton, owing to the large impact of GKB's activities on the local economy.

Because of these factors, we incorporate a two-notch uplift into the long-term rating on GKB. We do not envisage that the bank's GRE status or our view of an extremely high likelihood of extraordinary government support will change in the foreseeable future.

GKB benefits from Graubuenden's statutory guarantee, which ultimately covers all of its liabilities, excluding those of its subsidiaries Privatbank Bellerive and Albin Kistler, subordinated liabilities, and nonvoting participation certificates (Partizipationskapital). We note, however, that the guarantee does not ensure timely repayment, as defined by our criteria, but we believe that the canton has strong incentives to help GKB meet its obligations on time, due to the bank's importance to the regional economy.

Additional rating factors: None

No additional factors affect this rating.

Related Criteria

- Criteria Financial Institutions General: Risk-Adjusted Capital Framework Methodology, July 20, 2017
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Criteria Financial Institutions Banks: Bank Rating Methodology And Assumptions: Additional Loss-Absorbing Capacity, April 27, 2015
- General Criteria: Rating Government-Related Entities: Methodology And Assumptions, March 25, 2015
- General Criteria: Group Rating Methodology, Nov. 19, 2013
- Criteria Financial Institutions Banks: Quantitative Metrics For Rating Banks Globally: Methodology And Assumptions, July 17, 2013
- Criteria Financial Institutions Banks: Banking Industry Country Risk Assessment Methodology And Assumptions, Nov. 9, 2011
- Criteria Financial Institutions Banks: Banks: Rating Methodology And Assumptions, Nov. 9, 2011
- General Criteria: Use Of CreditWatch And Outlooks, Sept. 14, 2009

Anchor	Matrix											
Industry		Economic Risk										
Risk	1	2	3	4	5	6	7	8	9	10		
1	a	a	a-	bbb+	bbb+	bbb	-	-	-	-		
2	a	a-	a-	bbb+	bbb	bbb	bbb-	-	-	-		
3	a-	a-	bbb+	bbb+	bbb	bbb-	bbb-	bb+	-	-		
4	bbb+	bbb+	bbb+	bbb	bbb	bbb-	bb+	bb	bb	-		
5	bbb+	bbb	bbb	bbb	bbb-	bbb-	bb+	bb	bb-	b+		
6	bbb	bbb	bbb-	bbb-	bbb-	bb+	bb	bb	bb-	b+		
7	-	bbb-	bbb-	bb+	bb+	bb	bb	bb-	b+	b+		
8	-	-	bb+	bb	bb	bb	bb-	bb-	b+	b		
9	-	-	-	bb	bb-	bb-	b+	b+	b+	b		
10	-	-	-	-	b+	b+	b+	b	b	b-		

Ratings Detail (As Of December 12, 2017)

Graubuendner Kantonalbank

Counterparty Credit Rating AA/Stable/A-1+

Counterparty Credit Ratings History

01-Dec-2014 AA/Stable/A-1+
03-Jul-2012 AA+/Negative/A-1+
17-Dec-2010 AA+/Stable/A-1+

Sovereign Rating

Swiss Confederation AAA/Stable/A-1+

Additional Contact:

Financial Institutions Ratings Europe; FIG_Europe@spglobal.com

^{*}Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings' credit ratings on the global scale are comparable across countries. S&P Global Ratings' credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.

Copyright © 2017 by Standard & Poor's Financial Services LLC. All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED, OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. S&P's opinions, analyses, and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P reserves the right to assign, withdraw, or suspend such acknowledgement at any time and in its sole discretion. S&P Parties disclaim any duty whatsoever arising out of the assignment, withdrawal, or suspension of an acknowledgment as well as any liability for any damage alleged to have been suffered on account thereof.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain nonpublic information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, www.standardandpoors.com (free of charge), and www.ratingsdirect.com and www.globalcreditportal.com (subscription) and www.spcapitaliq.com (subscription) and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at www.standardandpoors.com/usratingsfees.

STANDARD & POOR'S, S&P and RATINGSDIRECT are registered trademarks of Standard & Poor's Financial Services LLC.