

RatingsDirect®

Default, Transition, and Recovery: U.S. Corporate Default Rate Forecasted To Rise To 3.7% By Third-Quarter 2013

Global Fixed Income Research:

Diane Vazza, Managing Director, New York (1) 212-438-2760; diane_vazza@standardandpoors.com
Jacinto D Torres, Director, New York (1) 212-438-3243; jacinto_torres@standardandpoors.com

Research Contributor:

Abhik Debnath, CRISIL Global Analytical Center, an S&P affiliate, Mumbai

Table Of Contents

U.S. Speculative-Grade New Issuance Through October 2012 Is Already At
A Record Annual High

Risks Loom In The Long-Term

Default Scenarios

Default Signposts

Related Research

Default, Transition, and Recovery:

U.S. Corporate Default Rate Forecasted To Rise To 3.7% By Third-Quarter 2013

We expect the U.S. corporate trailing 12-month speculative-grade default rate to increase to 3.7% by September 2013, from 3% as of September 2012. Our baseline projection is lower than the long-term (1981-2011) average of 4.5%. A total of 58 issuers would need to default in the 12 months ending September 2013 to reach this projection. By contrast, 46 speculative-grade entities defaulted in the 12 months ended September 2012.

Our baseline forecast is partly based on the assumptions that U.S. economic growth will continue to be slow and the unemployment rate will remain elevated. The Bureau of Economic Analysis' (BEA's) advanced estimate for real GDP growth in third-quarter 2012 was 2.0%, following a 1.3% growth in the second quarter. We expect real GDP growth of 2.1% for full-year 2012 and 2.3% in 2013. The labor market is improving but at a slow pace. According to the Bureau of labor statistics, 171,000 new jobs were created in October, bringing the 2012 annual total to more than 1.5 million jobs created. While any new job created is encouraging, the economy still has some ground to make up for the 8.7 million jobs lost in 2008 and 2009. In addition, the unemployment rate remains elevated, at 7.9% as of October 2012, and we expect it to decline modestly to about 7.5% by fourth-quarter 2013.

Capital inflows into the credit markets have been healthy in 2012, which helped to keep the count of default occurrences relatively low. The Federal Reserve has also kept interest rates low for an extended period of time, and it has pledged to continue its quantitative easing until the labor market improves. The recently reelected President Obama and the congressional leaders have expressed some willingness to reach a compromise to prevent the U.S. from "falling off the cliff." Nevertheless, the uncertainty that surrounds the possibility of U.S. lawmakers not reaching an agreement continues to threaten the U.S. recovery and makes investors nervous, and for good reason. Various market observers estimate that the impact of going over the fiscal cliff could result in a fiscal contraction of 3%-5% of GDP. In essence, it could send the U.S. economy back into a recession.

In Europe, the sovereign crisis continues to weigh on investor confidence. Monetary policy appears to be in favor of providing the necessary assistance to certain countries, but it remains to be seen if the measures that the region is trying to implement will be effective and sufficient to calm investor concerns both locally and globally. As we have witnessed in the past, an escalation in Europe's sovereign crisis could easily temper or reverse investor appetite for corporate bonds.

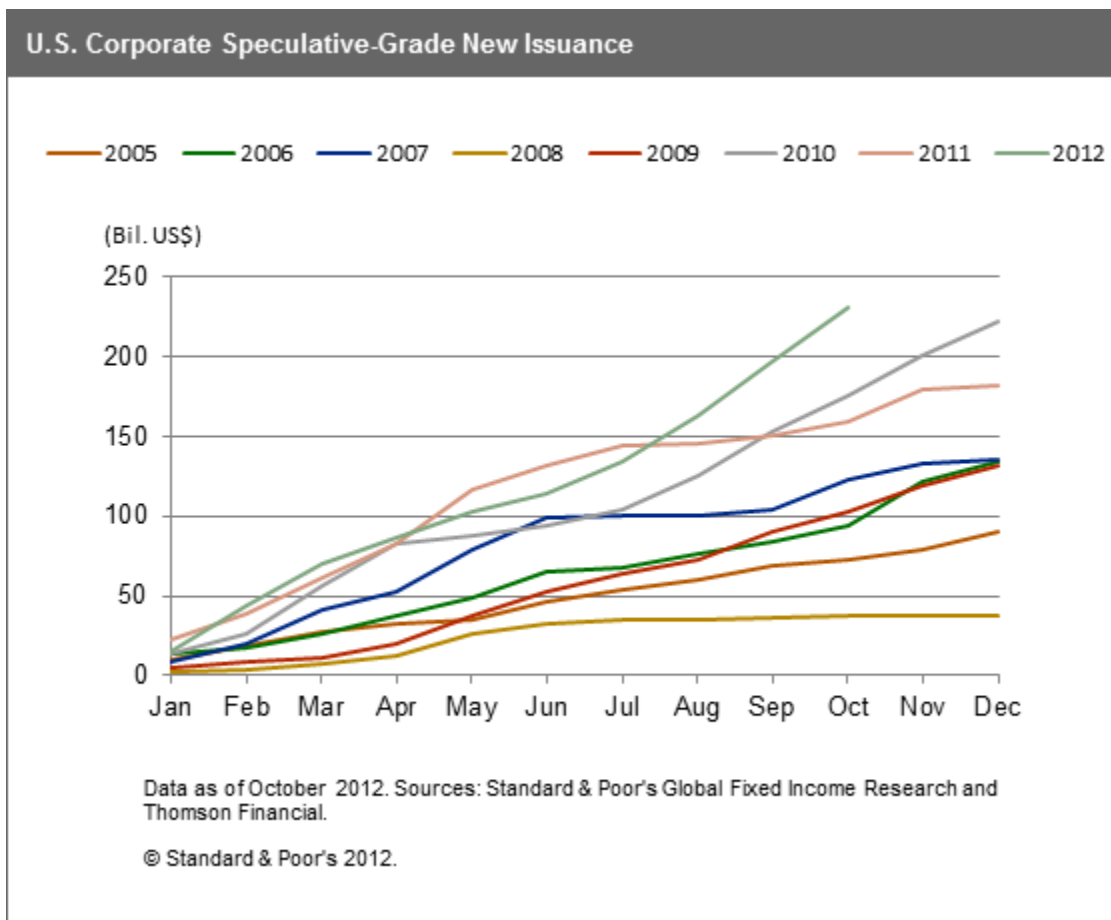
Our default forecast is based on current observations and future expectations of the likely path of the U.S. economy and financial markets. In addition to our baseline projection, we forecast the default rate in our optimistic and pessimistic scenarios. Our optimistic default rate forecast assumes a much improved U.S. economy, buoyed by U.S. lawmakers agreeing on a sound deficit-reduction plan, a faster-than-expected improvement in the labor market, which would spur consumer spending, and stronger growth abroad. As a result, we would expect the default rate to decline to 2.5% by September 2013 (or 39 defaults during the next 12 months). On the other hand, our pessimistic scenario assumes that the U.S. reverts back into recession in the next few quarters, succumbing to the threat of the fiscal cliff as

U.S. lawmakers face political gridlock. Moreover, the sovereign crisis in Europe proves to be more protracted and deeper, resulting in loss of investor, business, and consumer confidence, which in turn restrains business and consumer spending. Revenue declines squeeze corporate profits. Growth of emerging Asian economies slow further, hurting U.S. exports in the process. Available credit is constrained, particularly credit to entities with lower credit quality. These entities tend to have less financial flexibility in their funding sources and are more vulnerable to capital flight when investor confidence goes awry. Under this pessimistic scenario, we expect the default rate to rise to 5.7% (or 90 defaults during the next 12 months). We base our forecasts on quantitative and qualitative factors, including, but not limited to, Standard & Poor's proprietary default model for the U.S. corporate speculative-grade bond market. We update our outlook for the U.S. issuer-based corporate speculative-grade default rate each quarter after analyzing the latest economic data and expectations.

U.S. Speculative-Grade New Issuance Through October 2012 Is Already At A Record Annual High

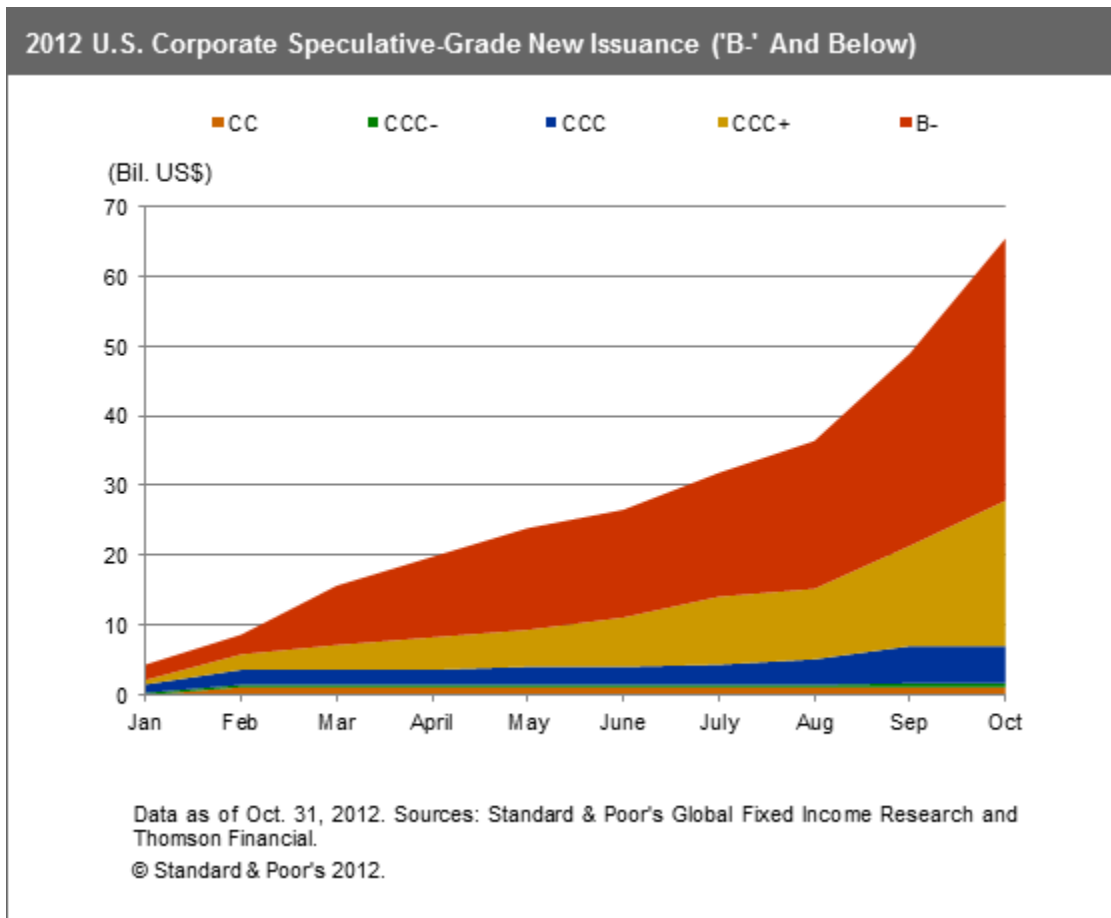
Robust demand for corporate debt pushed the 2012 U.S. speculative-grade new issuance (those rated 'BB+' and lower) to \$231 billion through October, exceeding the full-year total record high of \$223 billion in 2010 (see chart 1). Despite anxiety over Europe's sovereign crisis and the slow U.S. economic growth, investors continued to allocate significant capital to the credit markets. Attractive relative yields, coupled with the low-default conditions, lured investors who are looking to improve risk-adjusted returns. The sustained low interest rate conditions in the U.S. have kept government yields at or near historical lows, creating a catalyst for investors to seek better-yielding alternatives. The U.S. government's five-year inflation-adjusted yield was -1.4% at the end of October and has been below zero for about a year and a half. Meanwhile, the 10-year inflation-adjusted yield declined to -0.78% as of the end of October from -0.04% at the beginning of the year and 0.08% a year earlier. The sustained period of low interest rates have made the cost of carry more bearable and could support continued investor interest in corporate debt, since there is essentially no yield to be had from government securities.

Chart 1



Interestingly, the availability of capital in recent quarters is part of the reason why speculative-grade defaults have been benign. Entities--some from even the lowest rating categories--have been able to raise capital to refinance maturing debt at relatively attractive terms or explore other opportunities that would diversify or expand their interests. Entities rated 'B-' and lower have raised more than \$65 billion in the first 10 months of 2012, which is about 27% of the total \$231 billion in new corporate speculative-grade new issuance (see chart 2).

Chart 2



Nevertheless, investor confidence could prove to be fleeting, as history has shown. In 2011, for instance, U.S. corporate speculative-grade new issuance was trending at historic levels in the first half of the year, but it slowed dramatically in the second half as uncertainty in Europe escalated. U.S. investors remain cautious of the continued risks in the U.S. economy and the global financial markets, and the political and fiscal challenges abroad, especially in Europe. Standard & Poor's has repeatedly expressed its view on Europe's sovereign crisis with several sovereign downgrades in 2011 and 2012, which reflects its opinion that credit quality among these sovereigns have deteriorated. Furthermore, the ratings on many other sovereigns in the eurozone (European Economic and Monetary Union) still have negative outlooks or are on CreditWatch with negative implications, which indicate Standard & Poor's view that continued credit quality erosion among these sovereigns is likely.

The availability of capital and favorable terms has certainly augmented the otherwise more damaging effects of lackluster economic growth. Even low-rated and highly leveraged companies have been able to tap the capital markets for financing, which helped them to extend debt maturities and lower their debt costs. Nonetheless, risks to entities at the lower end of the rating spectrum remain, particularly as economic growth in the U.S. continues at a sluggish pace through 2013. For some entities with lower credit quality, strong issuance may prove insufficient absent any meaningful profit growth, which is harder to come by in current economic conditions. In the short-term, this may be

enough to fuel a moderate increase in the default rate from the current low level.

Risks Loom In The Long-Term

In the long-term, a reversal in investor sentiment could lead to a sustained slowdown in bond issuance activity, which, together with an increase in borrowing costs, could result in a considerable increase in defaults, particularly among companies that have yet to refinance maturing debt. Low-rated companies would be disproportionately more at risk, especially if the economy or the financial markets deteriorate. Based on the maturity schedules of all speculative-grade U.S. fixed- and floating-rate corporate bonds and bank debt, maturing debt will escalate significantly in 2013 and 2014 (see table 1). Borrowers vying for capital would likely face increased competition, especially in light of the nearly \$800 billion of debt that we expect to mature from investment-grade entities in the same period. (For more details, see "U.S. Refinancing Study: Challenges Loom For Financial Institutions And The Lowest Rated Corporate Issuers In 2012 And Beyond," published June 14, 2012, on RatingsDirect on the Global Credit Portal.)

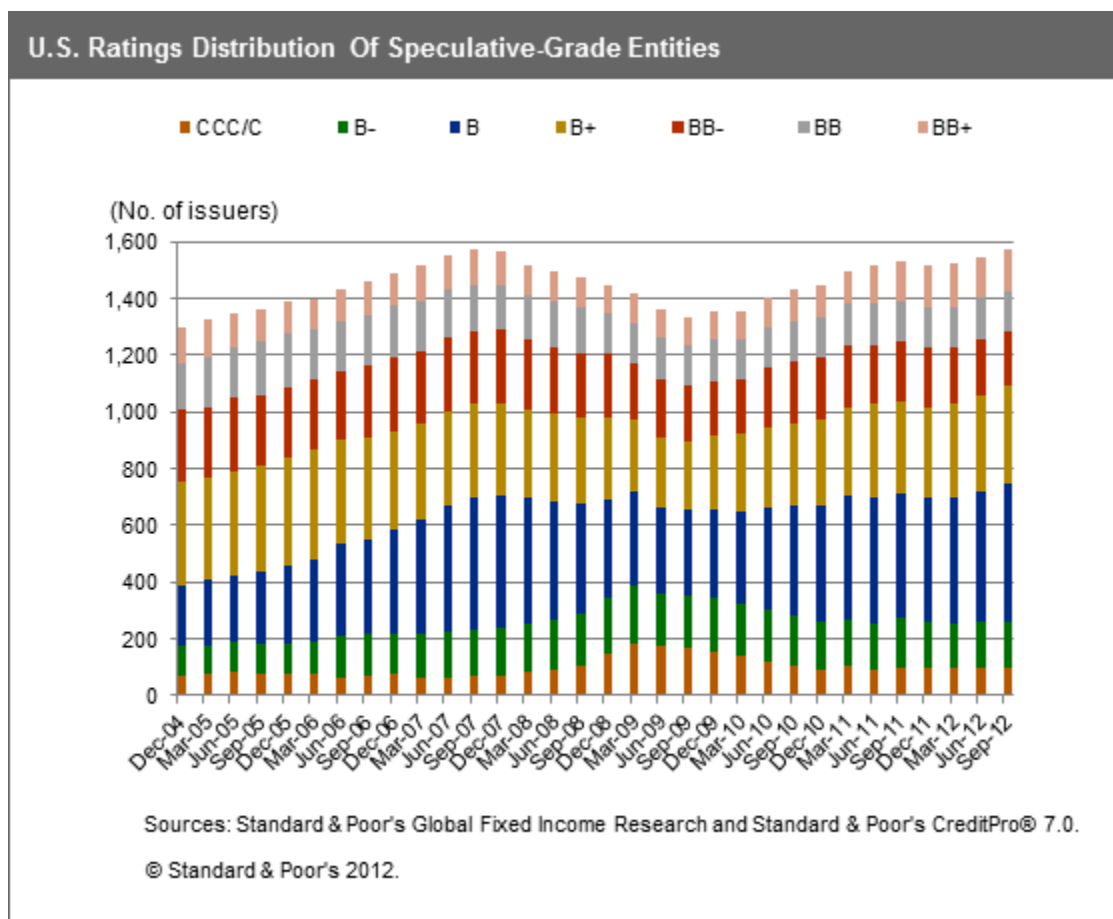
Table 1

U.S. Maturing Speculative-Grade Corporate Debt			
	--(Bil. US\$)--		
	2012*	2013	2014
BB+	9.66	28.71	24.78
BB	11.44	25.09	22.04
BB-	13.41	30.02	44.38
B+	27.57	43.87	85.00
B	18.73	42.28	69.30
B-	11.51	18.16	23.22
CCC+/below	4.89	13.57	41.57
Total	97.21	201.69	310.28

*Maturing between May 29, 2012 - Dec. 31, 2012. Includes bonds, loans, and revolving credit facilities. Estimates are likely biased on the high side because our tallies do not always take into account amortization schedules and loan paydowns. In addition, revolving credit facilities are usually tallied at full value whether or not they are fully drawn. Includes all debt issued by U.S. companies and their foreign subsidiaries, both in U.S. dollars and foreign currencies. Foreign currencies are converted to U.S. dollars at the exchange rate on close of business on May 28, 2012. The table does not include foreign companies issuing U.S. dollar-denominated debt under the name of their U.S. subsidiary. Data as of May 28, 2012. Sources: Standard & Poor's Global Fixed Income Research and S&P Capital.

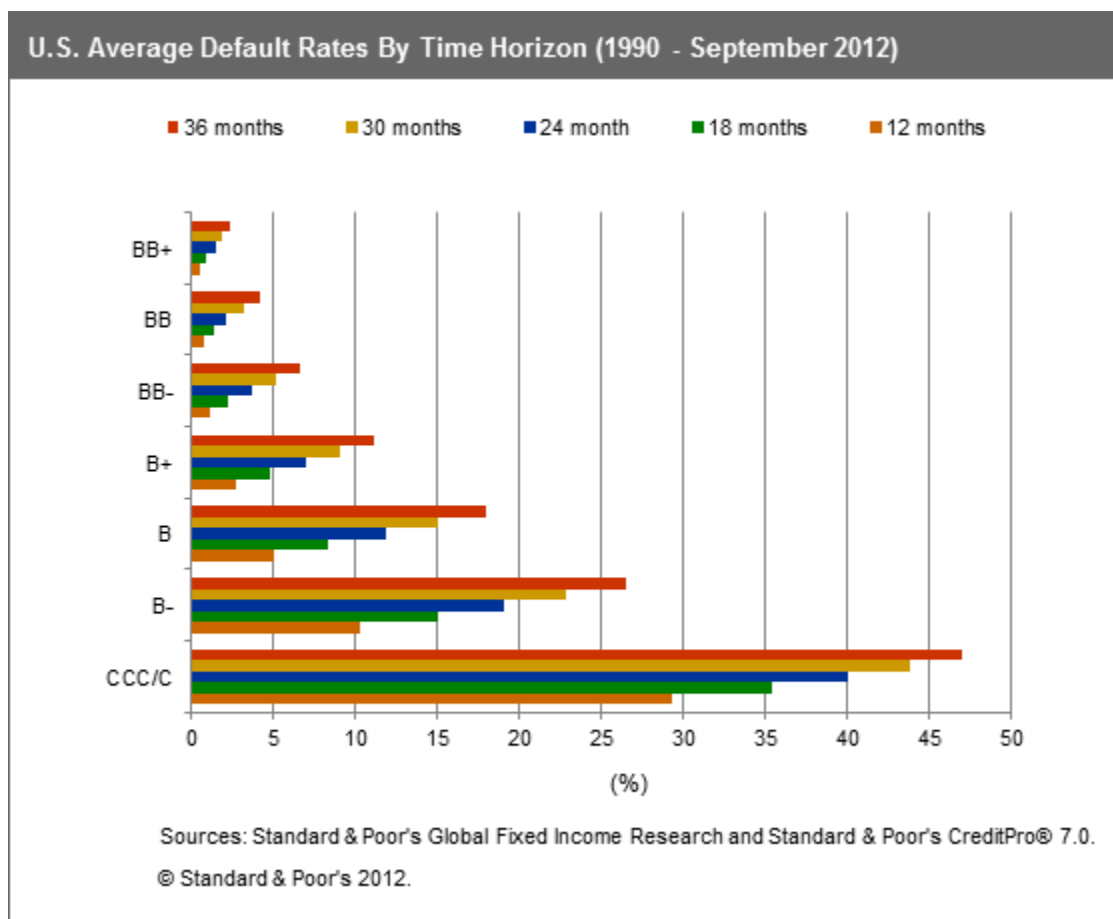
From a rating perspective, the combination of downgrades from investment-grade to speculative-grade and new entities rated in the speculative-grade segment has pushed the number of speculative-grade entities to a record level—one that exceeds the pre-2007 recession level (see chart 3). As of third-quarter 2012, there were 1,572 speculative-grade entities in our database, which is significantly higher than the 1,332 entities at the end of third-quarter 2009 and slightly higher than the previous high of 1,570 speculative-grade entities at the end of third-quarter 2007. Speculative-grade companies comprised 52% of all rated entities as of September 2012—the highest level ever reached. Based on our study of historical data, we've found that default occurrence is not only more frequent among lower-rated companies, but the time it took those companies to default is also shorter (see "2011 Annual U.S. Corporate Default Study And Rating Transitions," published March 23, 2012).

Chart 3



There were 166 entities rated 'B-' and 97 entities rated 'CCC' and lower in the entire U.S. speculative-grade pool as of September 2012. Entities rated 'B-' and lower accounted for 17% of the total. Since 1990, an average of 10.3% and 29.3% of entities rated 'B-' and 'CCC' and lower, respectively, defaulted within a 12-month period. Hypothetically, applying these averages to the current mix of entities rated 'B-' and lower would yield a total of 45 defaults during the next 12 months, excluding any defaults from entities with higher ratings. To put this in perspective of our baseline forecast, 58 entities must default during the next 12 months from a total pool of 1,572 U.S. speculative-grade entities for the default rate to rise to 3.7%. Historical default rates for longer time horizons (such as 24 months or 36 months) are even higher (see chart 4).

Chart 4



In recent years, many highly leveraged issuers have sought to avoid Chapter 11 bankruptcy by implementing buybacks below par value or other forms of distressed exchanges. Standard & Poor's views distressed exchange as tantamount to default because of the loss in economic value, even if these are not considered defaults per se under the terms of the bond indenture. Since 2009, 108 U.S.-based entities underwent distressed exchanges, and we believe that many of them continue to have weak credit quality (see table 2). For instance, 38 of those companies are rated 'B-' or lower, which reflects Standard & Poor's view that these issuers remain vulnerable to default risk.

Table 2

	--Outlook--				--CreditWatch--			N.M.	Total
	Developing	Negative	Stable	Positive	Positive	Negative	Developing		
BB+				1					1
BB			1						1
BB-	1		5						6
B+			6						6
B		5	12	2					19
B-		4	11	1	2				18
CCC+		4	1						5

Table 2

Life After Distressed Exchanges: Current Rating And Outlook Of U.S. Distressed Exchanges In 2009-2012 (cont.)										
CCC-									3	3
CCC	3	8		1						12
CC										0
No longer rated									37	37
Total	4	21	36	5	5	0	0	37		108

Data as of Oct. 24, 2012. N.M.--Not meaningful. Source: Standard & Poor's Global Fixed Income Research.

Default Scenarios

Our baseline forecast (with a 60% probability) is for a 12-month-forward (through September 2013) corporate speculative-grade default rate of 3.7% in the U.S. (see chart 5 and table 3). To realize the mean baseline projection, a total of 58 speculative-grade-rated issuers would need to default during the 12 months ending September 2013. This implies an average of about 4.8 defaults per month, which is higher than the average of 3.8 defaults per month in the last 12 months.

Chart 5

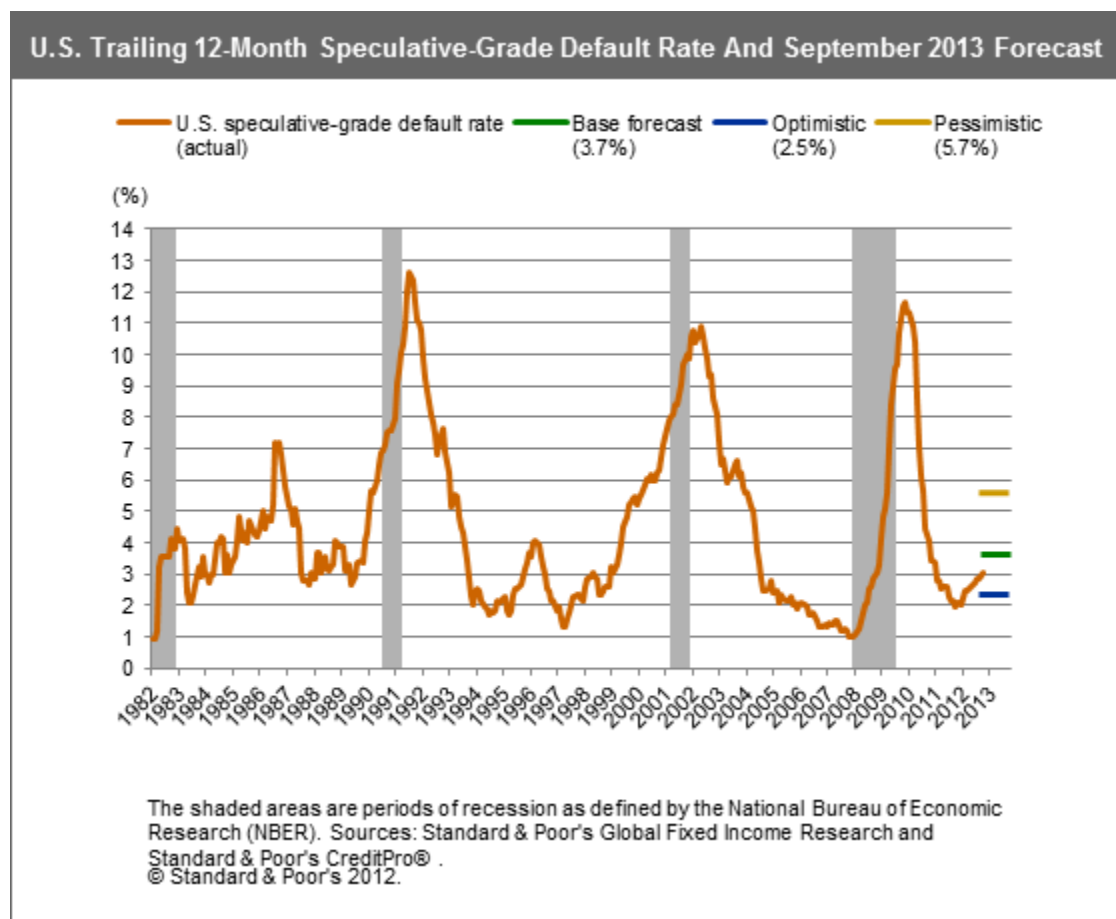


Table 3

Economic Underpinnings Of U.S. Speculative-Grade Default Rate Scenarios

	Baseline (60% probability)	Pessimistic (20% probability)	Optimistic (20% probability)
Real GDP	The U.S. continues its sluggish economic recovery, with real GDP growing by 2.1% in 2012 and 2.3% in 2013. Consumer spending growth remains modest, increasing by only 1.9% in 2012 and 2.4% in 2013. Weak nonresidential construction offsets stronger residential construction.	U.S. lawmakers' failure to reach a compromise on a sound budget deficit reduction plan pushes the the economy into another recession in 2013. Europe's sovereign crisis escalates and the region declines into a more severe recession. Tensions rise in the Middle East, adding more uncertainty in the global economy. Consumer and business confidence declines, constraining spending.	U.S. lawmakers reach a compromise on a sound budget deficit cutting plan. A stronger U.S. economy supports the continued housing recovery. The recession in Europe proves to be shorter and milder. Tensions in the Middle East ease, bringing uncertainty in the region down. Business and consumer confidence increase helping real GDP grows by about 3.7% in 2013.
Unemployment rate	Unemployment rate declines modestly to 7.5% by fourth-quarter 2013.	Businesses pull back on spending and hiring, and increase layoffs. The unemployment rate rises to 9% by third-quarter 2013.	Improved credit conditions spur capital spending and hiring. The unemployment rate falls to less than 7% by third-quarter 2013.
Nonfarm productivity	Low output keeps nonfarm productivity growth at 1.1% in 2012 and even lower in 2013.	Productivity declines in 2013 due to low output and weak consumer demand. Unit labor cost increase modestly in 2013.	Stronger output helps keep productivity at about the same level in 2013.
Yield curve*	Long-term interest rates rise modestly, while short-term interest rates remain essentially flat. The yield curve increases to about 230 bps by year-end 2013.	Long-term interest rates decline, while short-term interest rates remain suppressed, pushing the yield spread to about 140 bps by year-end 2013.	Long-term interest rates rise as the economy strengthens, while short-term interest rates remain depressed as a result of the Fed's decision to hold benchmark rates low. The yield curve rises to more than 380 bps by fourth-quarter 2013.
Corporate profits	After-tax corporate profits decline modestly in 2013.	Corporate profits drop sharply, contracting throughout 2013 as consumers and businesses pull back spending.	Corporate profits remain essentially flat in 2013.
Negative bias§	Negative bias increases slightly to 20%, partly due to lack of profit growth.	Weak economic growth translates to poor earnings and lower profitability, pushing the negative bias up to 25%. Note that as defaults accumulate, it results in a natural attrition of issuers with negative bias.	The improved outlook keeps negative bias low--at about the current level of 18%.
Speculative-grade default rates	The U.S. default rate is projected to rise to 3.7% by third-quarter 2013 as the slow economic growth and continued uncertainty globally hurt the already vulnerable entities at the lower end of the ratings spectrum.	Credit conditions deteriorate and lower-rated speculative-grade companies experience difficulty getting financing. Default rates rise to 5.7% by third-quarter 2013, and possibly higher beyond the one-year horizon.	The default rate declines to 2.5% by third-quarter 2013--below the current level. Easier access to financing and a more convincing recovery reduces the strain on speculative-grade companies.

*Measured by the 10-year treasury rate minus the three-month Treasury Bill. §The ratio of entities with negative rating outlooks or ratings on CreditWatch negative to total speculative-grade entities. Bps-- Basis points. Sources: Standard & Poor's Economics Team and Standard.

Our baseline projection assumes real GDP growth in the U.S. of 2.1% in 2012 and 2.3% in 2013 (see "U.S. Economic Forecast: Back To The Future," published Nov. 14, 2012). Real GDP growth was 2.0% in third-quarter 2012 and 1.3% in the second quarter, according to the BEA's latest estimates. The improvement in the labor market is encouraging but without robust economic growth, the unemployment rate will likely remain elevated. The economy has created some jobs in recent months, but a large chunk of the new workforce appears to be in part-time jobs--in lieu of the still missing full-time opportunities. The Bureau of Labor Statistics reported that the unemployment rate in October was 7.9%, representing a modest increase from September's 7.8% but down from 8.9% from a year ago. Standard & Poor's expects that the unemployment rate will decline modestly to 7.5% by year-end 2013. A high unemployment rate would continue to hinder consumer spending, which we expect to increase by only 1.9% in 2012 and 2.4% in 2013. We also

expect net export growth to remain subdued due to a weak global economy, particularly in Europe, where the sovereign crisis is hindering economic growth in the region. The Fed's willingness to aid the U.S. economy by keeping interest rates low and through another round of quantitative easing that would last until the labor market improves "substantially," could help spur U.S. domestic activity and offset weak global demand, which in turn, could give the economy a boost.

In a less-likely pessimistic scenario, U.S. lawmakers fail to agree on a sound deficit-reduction plan pushing the U.S. economy into a recession. Despite the European Central Bank's and other central banks' efforts, Europe's sovereign crisis escalates, and the region enters a more protracted and deeper recession. The global financial system goes in turmoil, which results in loss of investor and consumer confidence. Growth of emerging Asian economies slows, hurting U.S. exports. Businesses rein in hiring, pushing the unemployment rate up to about 9% by third-quarter 2013. The housing market's recovery falters in the U.S., with weak demand and tight credit conditions further depressing housing prices. Available credit is constrained, particularly credit to entities with lower credit quality that tend to have less financial flexibility in their funding sources and are more vulnerable to capital flight when investor confidence goes awry. Under this scenario, we expect the default rate to rise to 5.7% and possibly even higher beyond the one-year forecast horizon. A total of 90 issuers would need to default from October 2012 through September 2013 to realize the pessimistic scenario.

Conversely, a relatively optimistic scenario suggests a default rate of 2.5% by September 2013, lower than the current 3% rate as of September 2012. A total of 39 issuers would need to default to realize this projection, or about 3.3 defaults per month during the next 12 months. In this scenario, we assume a much improved U.S. economy, buoyed an improving labor market that is spurring consumer spending, and a more stable global economy, which includes a speedier resolution of Europe's sovereign crisis. Easing tensions in the Middle East lead to stability in domestic oil prices. The stronger economy and low mortgage rates continue to support the recovery in the housing sector, while improved credit conditions spur capital spending and hiring. Robust growth in real GDP in the first half of 2013 would help push the unemployment rate to less than 7% by the second half of the year.

We determine our forecast based on a variety of factors, including Standard & Poor's proprietary default model for the U.S. corporate speculative-grade bond market. The main components of the model include economic variables such as the unemployment rate; financial variables such as corporate profits, the Fed's Senior Loan Officer Opinion Survey on Bank Lending Practices, the interest burden, and the slope of the yield curve; and credit-related variables such as negative bias. The interaction between the dependent variable--the U.S. speculative-grade default rate--and the input variables is in line with our expectations. For instance, increases in the unemployment rate and negative bias are positively correlated with the speculative-grade default rate, which means that as the unemployment rate increases or as the proportion of entities with negative outlooks or ratings on CreditWatch negative rises, default rates usually increase.

Default Signposts

The Fed's Senior Loan Officer Opinion Survey in fourth-quarter 2012 showed, on net, that banks were slightly more willing to lend to corporations, compared with the third quarter (see table 4). Corporate profits and industrial

production continue to rise but at a slower pace. The yield curve, as measured by the 10-year treasury rate minus the three-month T-bill, was 161 basis points (bps) as of October 2012, compared with 155 bps in the third quarter, 158 bps in the second quarter, and 216 bps in the first-quarter. The number of distressed companies (speculative-grade entities trading at 1,000 bps or higher) declined to 10.6% in October and September, from 14.5% in June 2012, reflecting the decrease in the speculative-grade spread in recent months. Concerns about Europe has kept the financial markets on edge, pushing volatility (as measured by the Chicago Board Options Exchange Market Volatility Index) higher to 18.6 in October, from 15.7 in September and 17.1 in June. The default rate continued its gradual increase in 2012 to 3.0% in September, while the number of weakest links (issuers rated 'B-' and lower with either negative rating outlooks or ratings on CreditWatch negative) remained steady at about 80 entities throughout the year.

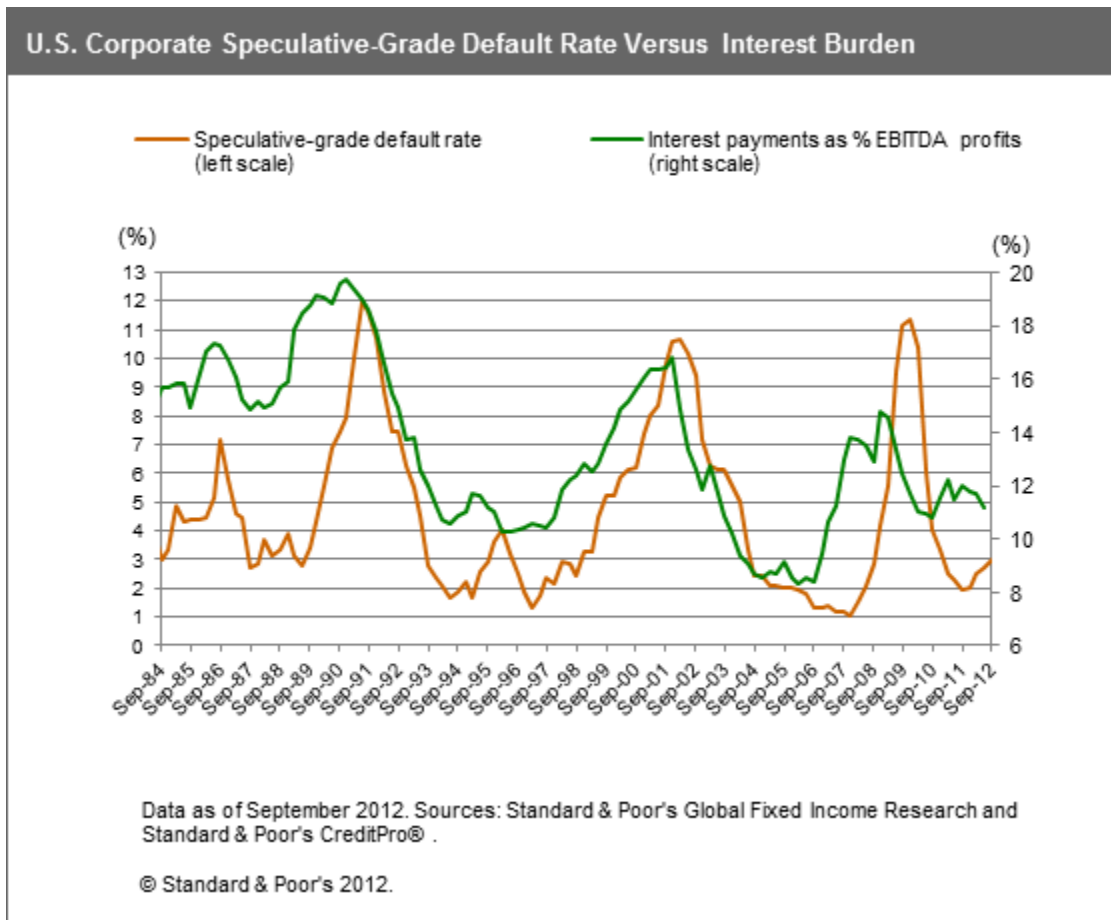
Table 4

	U.S. Early Warning Signals Of Default Pressure									
					--Year end--					
	Q4 2012	Q3 2012	Q2 2012	Q1 2012	2011	2010	2009	2008	2007	
U.S. unemployment rate (%)	7.9 (Oct.)	7.8	8.2	8.2	8.5	9.4	10.0	7.4	5.0	
Fed Survey on lending conditions	(7.6)	(9.5)	(6.9)	5.4	(5.9)	(10.5)	14.0	83.6	19.2	
Industrial production (% change)		2.8	4.7	3.8	2.9	5.9	(1.6)	(9.4)	1.8	
Slope of the yield curve (10-year less three-month, bps)	161.0	155.0	158.0	216.0	197.0	315.0	354.0	239.0	110.0	
Corporate profits (nonfinancial, % change)			6.8	17.2	13.7	16.4	59.0	(29.0)	(6.8)	
Equity market volatility (VIX)	18.6 (Oct.)	15.7	17.1	15.5	23.4	17.5	21.7	40.0	22.5	
High yield spreads (bps)	599 (Oct. 26)	617.0	685.0	623.0	723.0	521.0	604.0	1,647.0	561.0	
Interest burden (%)			11.1	11.7	11.8	11.5	11.7	14.8	13.8	
S&P distress ratio (%)	10.6 (Oct.)	10.6	14.5	10.8	16.6	6.5	14.6	85.2	6.1	
S&P speculative-grade outlook distribution (%)	62 (Oct.)	62.0	66.0	66.0	64.0	60.0	77.0	83.0	70.0	
Ratio of downgrades to total rating actions (%)	54 (Oct.)	76.0	53.0	47.0	67.0	45.0	82.0	79.0	63.0	
Proportion of speculative-grade issuance rated 'B-' or lower (%)	32 (Oct.)	32.0	32.0	28.0	22.0	34.0	21.0	19.0	49.0	
U.S. weakest links (number)	80 (Oct.)	81.0	79.0	81.0	92.0	80.0	152.0	190.0	78.0	

Note: The Fed Survey refers to net tightening for large firms. Standard & Poor's outlook distribution is defined as the ratio of firms with negative bias compared with firms with positive bias. Bps--Basis points. Sources: Standard & Poor's Global Fixed Income Research and Global Insight.

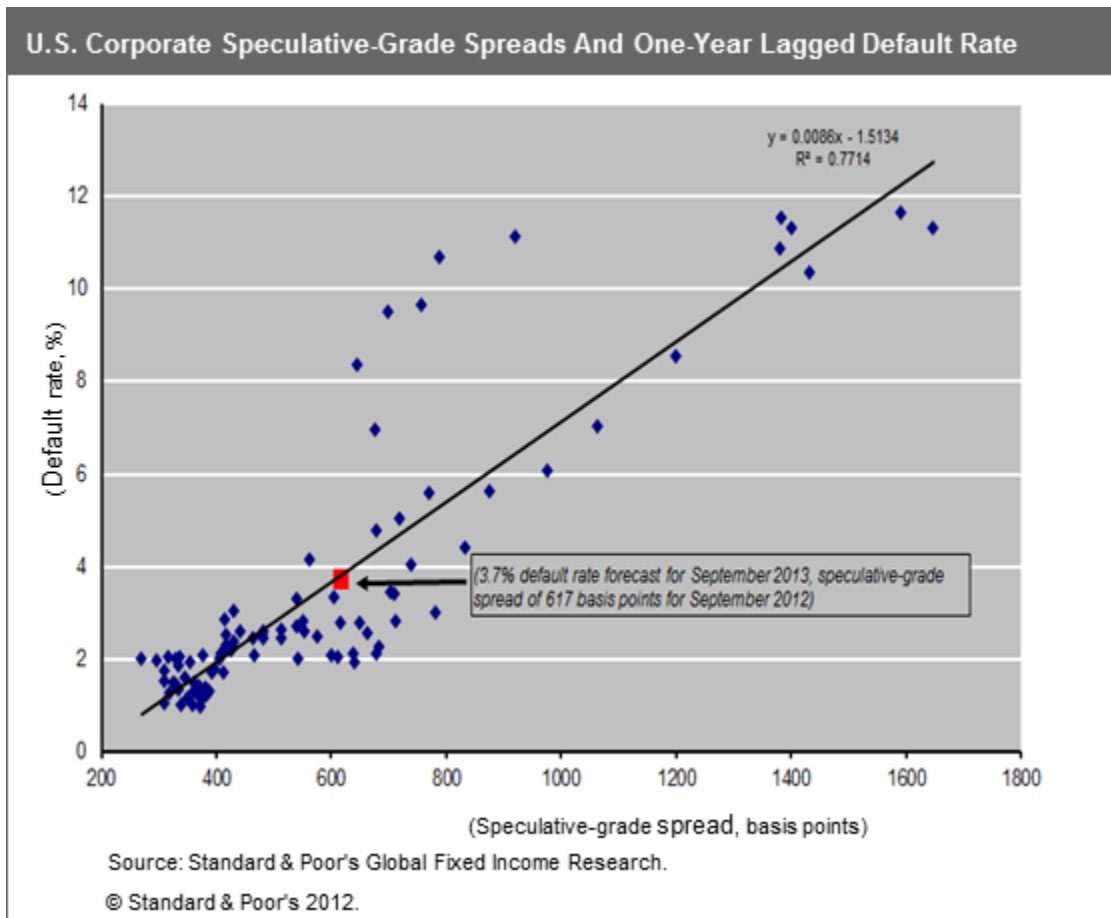
U.S. corporate interest burden has been ranging at about 10%-12% since 2009 (see chart 6). Despite large borrowing in recent quarters, low interest rates and strong corporate profit growth has kept interest payments from rising higher. We define interest burden as net interest payments as a percentage of our EBITDA profits proxy (the sum of profits, consumption of fixed capital, and net interest payments).

Chart 6



Companies' cost of borrowing is an important indicator of the health of the credit markets. A measure of this is the U.S. corporate speculative-grade spread, which inherently reflects default rate expectations. For example, the speculative-grade spread was at its five-year high in 2008, a wave of defaults followed, pushing the default rate to its peak in November 2009 (see chart 7). The speculative-grade spread has tightened considerably since then, and it is not surprising that the default rate has declined as well. In September 2012, the U.S. speculative-grade spread decreased to 617 bps, from 685 bps in the second quarter and 623 bps in the first quarter. This remains within range vis-à-vis our baseline forecast of 3.7% for September 2013.

Chart 7



Related Research

- U.S. Economic Forecast: Back To The Future, Nov. 14, 2012
- U.S. Refinancing Study: Challenges Loom For Financial Institutions And The Lowest Rated Corporate Issuers In 2012 And Beyond, June 14, 2012
- 2011 Annual U.S. Corporate Default Study And Rating Transitions, March 23, 2012
- 2011 Annual Global Corporate Default Study And Rating Transitions, March 21, 2012
- 2011 Default Synopses, March 21, 2012
- Most Of The Global Defaulters In 2011 Were Weakest Links, Jan. 20, 2012

Temporary contact numbers: Diane Vazza (646) 752-5369; Jacinto Torres (347) 403-1265

Copyright © 2012 by Standard & Poor's Financial Services LLC. All rights reserved.

No content (including ratings, credit-related analyses and data, 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 acknowledgement 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 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.

McGRAW-HILL