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## High Yield

UNITED STATES

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# Covenants Matter

## High Yield Covenant Mispricing Opportunities

- **With a historically high level of fallen angels in the high-yield market, we recommend investors know which covenants they own and position themselves appropriately.**
- **We scoured the high-yield market for companies that have both high-yield and high-grade covenanted bonds outstanding to find relative value opportunities.**
- **Most swaps into high-yield covenants from high-grade covenants come with a cost. At the very least, it is additional dollar price posting, and at the most it involves significant OAS gives.**
- **We recommend trades where investors can pick up covenant protection while picking up OAS, as well as trades that involve giving appropriate levels of OAS.**
- **We also detail the covenant differentials in the homebuilders and recommend several relative value opportunities in that sector.**

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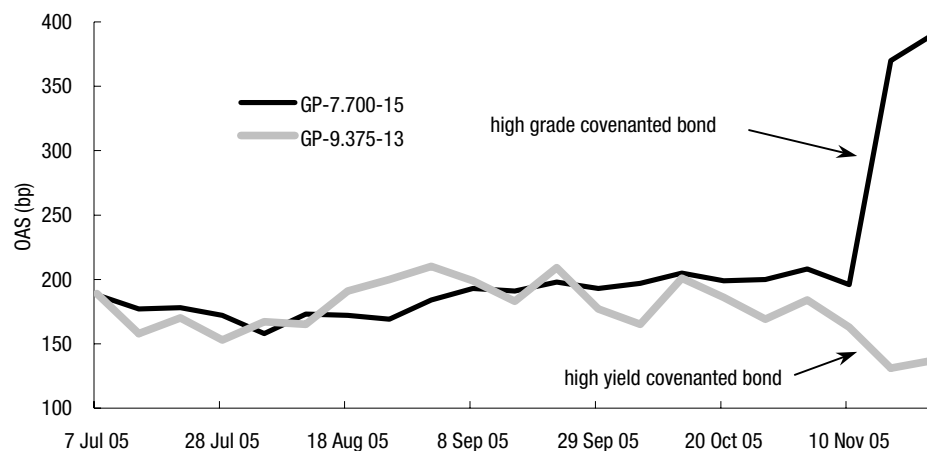
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## Covenant Mispricing Opportunities

### TINSTAAFL — There Is No Such Thing As A Free Lunch

There are laws everywhere we turn in financial markets (irrefutable laws and the government-imposed kind). It is not uncommon to hear Sir Isaac quoted in reference to a high-flying stock (what goes up), the fundamental accounting equation is a perennial favorite ( $A=L+E$ ), and the mere mention of a free lunch will have market economists all hot and bothered. We in the high-yield market also have a few laws of our own; one of the most important ones (in our opinion) is that *covenants matter*. Unfortunately, in as much as they matter as points of contention at new issuance, they are too often forgotten in the secondary market. However, at no time is the covenant differential more apparent than while examining the difference between high-grade and high-yield covenants — and never was the value of this differential more apparent than in the recently announced GP/Koch transaction.<sup>1</sup>

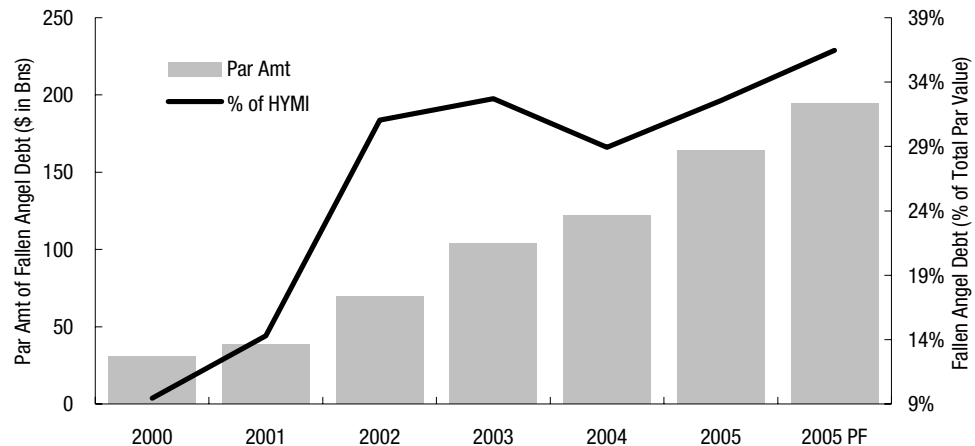
Figure 1. Selected Historical OAS Levels From the Georgia Pacific Capital Structure



Source: Citigroup.

Additionally, the impetus for being aware of these differentials and picking your party lines were never more imperative than now, with more than 36% of the high-yield market comprised of fallen angels. As a result of many of these fallen angels having also issued high-yield covenanted debt, the call for managers to understand which covenants they own, and to have portfolios positioned appropriately, should be under way.

<sup>1</sup> Citigroup is the financial advisor to Koch Industries in the proposed transaction to purchase Georgia-Pacific.

**Figure 2. Fallen Angel Debt as a % of the Citigroup High-Yield Market Index**

Note: 2005 Pro-Forma includes the debt of Ford Motor Credit. Data is measured by observing the S&P rating at time of issuance of the Citigroup High Yield Market Index constituents in December of each year presented.

Sources: S&P and Citigroup.

Of the approximately \$200 billion in fallen angel debt, almost all of it is covenant light. As one would expect, there are very few issues that are brought to the high-grade market with high-yield covenants. Additionally, the vast majority of these fallen angels have larger market capitalizations than the typical high-yield issuer. This may make them more susceptible to equity-friendly events, given that small cap equities have performed significantly better than large cap equities over the last several years. Therefore, if investors own one of these fallen angels, we recommend knowing whether or not it comes with covenant protection, and if not, consider whether or not to own the bond.

The good news is that there is a choice. Many fallen angels have been down our way for several years, and have issued high-yield covenanted debt. Therefore, there are many situations where investors have the opportunity to choose whether they want the (hopefully) extra yield in a company's high-grade covenanted debt or the added protection of a company's high-yield covenanted debt.

We highlight several trades in this publication to help investors either reduce their exposure, or get adequately compensated for it. Furthermore, this publication's appendix includes over 30 companies with substantial covenant differences between bond issues currently in the market that all high-yield investors should be aware of.

### **The Dollar Price/Value Dichotomy**

One important consideration is that the trade from high-grade covenanted bonds into high-yield covenanted bonds does not come without costs. In many cases, the high-yield issues have significantly higher coupons, and therefore, this "defensive" strategy of swapping into better-protected debt will require posting additional dollars. Therefore, we would like to remind investors of the risk/return framework. In going concerns, the historical total return differential between high dollar priced bonds and low dollar priced bonds of the same issuer and quality is negligible, while the potential cost of avoiding high dollar price bonds, with superior covenant protection can be far from small.

Please take this small case study as food for thought: On November 3, 2005, if we had presented the trade below (Figure 3), our readers probably would not have been moved. A Georgia Pacific trade where you are putting in incremental dollars, and holding a negative 60bp of OAS carry looked (at the time) like a forgettable trade.

**Figure 3. Theoretical Georgia Pacific Pair Trade (at Market Prices on November 3, 2005)**

Trade	Issuer	Seniority	Cpn (%)	Maturity	Price (\$)	YTW (%)	OAS (bp)
Buy	Georgia Pacific	Senior Notes	9.375	2013	111.250	6.369	149
Sell	Georgia Pacific	Senior Notes	7.700	2015	109.000	6.443	207
Difference: 9.375% minus 7.7%					2.250	(0.074)	(58)

Bid and ask prices are shown for the 7.70% and 9.375% notes, respectively. OAS is shown to a constant maturity treasury curve assuming 15% volatility.

Source: Citigroup.

However, the profit potential on this trade would have been far from forgettable as the 9.375% (high yield) notes were taken out at \$109.887, and the 7.7% (high grade) notes are now bid \$97.

### **Unique as a Snowflake, Yet as Banal as the Lawyers That Write 'em**

We scoured the high-yield market looking for companies that have both high-yield covenanted bonds and high-grade covenanted bonds in an effort to find situations where investors can swap into bonds with better covenant protection for little cost.

As our readers know, there are no boilerplate packages. Just like snowflakes, all bond issues have their own individuality. Therefore, it would be effectively impossible (in our opinion) to quantify what a set discount should be for a “typical” high-grade covenanted issue versus a “typical” high-yield covenanted issue. In addition to covenant specific differences, when factoring in security, seniority, holdco/opco, duration, rating, liquidity, industry, and other fundamental differences (did we miss anything?), it quickly becomes obvious that there are not enough significantly similar data points to accurately quantify what this discount should be.

Despite the seemingly endless list of possible differences, there are similar situations to use as comps, and there are clearly situations (our opinion) where the economics simply are not compensating investors for their inferior covenant package, when a better alternative is available.

### **Covenant Analysis**

There are essentially two levels of covenant analysis that one can undertake. There is the observation that certain provisions exist, and then there is the calculation of the allowances of those existing provisions. For example, the mere understanding that a limitation on liens exists many times is not enough detail, particularly when comparing two issues, with each having such a covenant. The necessary analysis at that stage may be to calculate the allowances to this covenant, of which, a common allowance is typically a lien of between 10% and 20% of either net tangible assets or shareholders equity, as an example.

For purposes of this analysis, we initially focused on the existence of certain covenants because there are common themes of covenant packages in the high-yield and high-grade markets. We specifically focused on; limitation on restricted

payments, limitation on debt incurrence, change of control (poison put) provisions, limitation on liens (negative pledge), and fallaway provisions (Figure 4).

**Figure 4. Selected Covenant Descriptions**

<b>Limitation on Restricted Payments</b>	Limits the amount of cumulative payments of dividends on, or repurchases of capital stock.
<b>Limitation on Debt Incurrence</b>	Limits the amount of debt the company can incur by applying a fixed charge coverage test to the company, pro forma for the proposed leverage. The most common provision is if after giving effect to the leverage, the fixed charge coverage ratio is less than 2.0x, the company cannot incur any more debt.
<b>Change of Control Provision</b>	States that if there is a change of control, the bondholders have the right to put the bonds to the company at 101.
<b>Limitation on Liens</b>	Limits the amount of debt a company can secure (citing certain assets and/or equity) without having to equally and ratably secure the bonds issued under the indenture.
<b>Fallaway Provisions</b>	Causes certain covenants to fail to exist while the company has investment grade ratings.

Source: Citigroup.

Restricted payments, limitations on debt incurrence, and change of control provisions are most typically associated with high-yield issues. Limitation on liens can exist in both high-grade and high-yield issues, but depending on the asset and equity references, they can have far different implications. Finally, the fallaway provisions can act as an equalizing factor between high-grade and high-yield covenanted issues, but many times reference different sets of covenants that will cease to exist.

## Covenant Package Relative Value

### Get Paid for Improving Your Covenant Package

#### Goodyear Tire & Rubber

One trade that we had written about in early September, but feel is relevant to discuss in the current environment is a swap out of high-grade Goodyear Tire & Rubber 7.857% senior notes due 2011, and into high-yield covenanted Goodyear Tire & Rubber 9% senior notes due 2015. The high-yield notes are callable inside of the 2011s, and provide a substantially better covenant package, including a poison put, and restricted payments and debt incurrence protection.

Furthermore, the 9% of 2015 contains a more substantive negative pledge, which includes any property or assets (including capital stock of restricted subsidiaries). However, the 7.857% notes cite only “restricted property,” which includes any manufacturing plant or equipment owned by Goodyear Tire & Rubber or a Restricted Subsidiary used primarily to manufacture tires or other automotive products and is located within the United States. Given the issues at Goodyear, added covenant protection might not seem necessary. In this case, however, the investor is doing an economic transaction along with picking up a better indenture (maybe there is a free lunch).

**Figure 5. Goodyear 9% Senior Notes Versus Goodyear 7.857% Senior Notes**

Trade	Issuer	Seniority	Cpn (%)	Maturity	Rating	Next Call		Price (\$)	YTW (%)	OAS (bp)
						Date	Price			
Buy	Goodyear Tire & Rubber Corp.	Senior Notes	9.000	2015	B3/B-	7/1/10	104.500	100.000	8.998	454
Sell	Goodyear Tire & Rubber Corp.	Senior Notes	7.857	2011	B3/B-	NA	NA	98.250	8.253	396
Difference: 9% minus 7.857%								1.750	0.745	58

Bid and ask prices are shown for the 7.857% and 9.000% notes, respectively. OAS is shown to a constant maturity treasury curve assuming 15% volatility.

Source: Citigroup.

### Rite Aid

In Rite Aid, investors can also easily pick up some significantly increased covenant protection while getting paid for the swap. The primary reason for this situation to exist is really in the dollar price differential of the bonds. However, we think this differential is minor, given that we are not expecting an imminent bankruptcy at the company, and that both bonds are significantly below par and offer plenty of total return potential. The 9.25% notes incrementally provide a change of control put, restricted payments, and limitation on incurrence covenants. Also interestingly, the 9.25% notes offer a superior negative pledge basket that includes any property of restricted subs, including their capital stock, whereas the negative pledge of the 6.875% notes only include property.

Investors might balk at the dollar pay-up (but should not, in our opinion) as the added protection is well worth it in the case of Rite Aid — an often-mentioned LBO candidate.

**Figure 6. Rite Aid 9.25% Senior Notes Versus Rite Aid 6.875% Senior Notes**

Trade	Issuer	Seniority	Cpn (%)	Maturity	Rating	Next Call		Price (\$)	YTW (%)	OAS (bp)
						Date	Price			
Buy	Rite Aid	Senior Notes	9.250	2013	Caa1/B-	6/1/08	104.625	95.000	10.228	587
Sell	Rite Aid	Senior Notes	6.875	2013	Caa1/B-	NA	NA	85.000	9.823	551
Difference: 9.25% minus 6.875%								10.000	0.405	36

Bid and ask prices are shown for the 6.857% and 9.250% notes, respectively. OAS is shown to a constant maturity treasury curve assuming 15% volatility.

Source: Citigroup.

### Buy Cheap Covenant Packages

#### Rogers Cable

The Rogers Cable capital structure is an interesting one. A maze of security, covenants, and fallaways makes understanding the differences vital for those with a view on the credit. The original outstanding notes have high-yield covenants and second priority security. However, the notes that were issued last November have high-grade covenants with second priority security. These differences are moot if investors think the company is going to investment-grade land, because the covenants on the original notes fall away, and the security of both issues fall away if that occurs. However, for those individuals that think the company is going to stay high-yield, the 7 7/8% notes provide additional protection and a duration decrease all for a give of 22bp.

**Figure 7. Rogers Cable 7.857% Senior Notes Versus Rogers Cable 6.75% Senior Notes**

Trade	Issuer	Seniority	Cpn (%)	Maturity	Rating	Next Call		Price (\$)	YTW (%)	OAS (bp)
						Date	Price			
Buy	Rogers Cable	Senior Notes	7.875	2012	Ba3/BB+	NA	NA	109.000	6.124	183
Sell	Rogers Cable	Senior Notes	6.750	2015	Ba3/BB+	NA	NA	102.500	6.383	205
Difference: 7.875% minus 6.75%								6.500	(0.259)	(22)

Bid and ask prices are shown for the 6.750% and 7.875% notes, respectively. OAS is shown to a constant maturity treasury curve assuming 15% volatility.

Source: Citigroup.

### Teco Energy

The primary differential between the Teco 7.5% notes and the Teco 7.2% notes is not just 30bp of coupon. The 7.5% notes have a negative pledge against property of the holding company and restricted subs, while the 7.2% notes do not. This difference only exists while the company is rated noninvestment grade (either by Moody's or S&P). This negative pledge includes any property of the company and restricted subs, including the capital stock of Tampa Electric Company, and has a carve-out for 5% of Consolidated Net Tangible Assets and liens incurred by Tampa Electric Company. Despite the relatively low probability of this negative pledge getting triggered, if we look at secured/unsecured differentials in the high-yield market currently, we see a difference of between 100bp and 300bp. Therefore, giving up 30bp while decreasing duration and picking up this security potential, seems to us worth the price.

**Figure 8. Teco Energy 7.5% Senior Notes Versus Teco Energy 7.2% Senior Notes**

Trade	Issuer	Seniority	Cpn (%)	Maturity	Rating	Next Call		Price (\$)	YTW (%)	OAS (bp)
						Date	Price			
Buy	Teco Energy	Senior Notes	7.500	2010	Ba2/BB	NA	NA	107.750	5.492	120
Sell	Teco Energy	Senior Notes	7.200	2011	Ba2/BB	NA	NA	106.250	5.806	151
Difference: 7.5% minus 7.2%								1.500	(0.314)	(31)

Bid and ask prices are shown for the 7.200% and 7.500% notes, respectively. OAS is shown to a constant maturity treasury curve assuming 15% volatility.

Source: Citigroup.

### Sell Overvalued Covenant Packages

#### PolyOne

The PolyOne 8.875% high-grade covenanted notes have underperformed their high-yield covenanted counterparts post-Hurricane Katrina. This growing valuation differential may be because PolyOne has a tendency to disappoint, and at this stage in the chemicals cycle, investors value the greater protection in the high-yield covenants (this would also be a perfectly valid argument for the lower dollar-price bonds). We also believe this could have been caused by investors putting some cash to work at the end of the year in relatively safe yield to call paper. This differential has grown to the point now where the 10.625% notes are even trading through their call price of 105.313 in May 2007.

While this trade flies a bit in the face of our primary premise, we believe that the 100bp OAS pickup and an over \$8 takeout is attractive despite the large covenant differences. We recommend investors swap out of the high-yield bonds here, and move into the 8.875% senior notes. Given where PolyOne is in the chemicals cycle, the premium value of the high-yield indenture may not be necessary.

**Figure 9. PolyOne 8.875% Senior Notes Versus PolyOne 10.625% Senior Notes**

Trade	Issuer	Seniority	Cpn (%)	Maturity	Rating	Next Call		Price (\$)	YTW (%)	OAS (bp)
						Date	Price			
Buy	PolyOne Corp.	Senior Notes	8.875	2012	B3/B+	NA	NA	98.000	9.297	499
Sell	PolyOne Corp.	Senior Notes	10.625	2010	B3/B+	5/15/07	105.313	106.500	8.334	395
Difference: 8.875% minus 10.625%								(8.500)	0.963	104

Bid and ask prices are shown for the 10.625% and 8.875% notes, respectively. OAS is shown to a constant maturity treasury curve assuming 15% volatility.

Source: Citigroup.

## The Homebuilders

The homebuilders can act as a microcosm for the covenant valuation issues presented herein. The homebuilders have bond issues outstanding with very different covenant packages as a result of recent trends in the industry. They have improved their operations significantly over the last decade, and over the last several years, have had the opportunity to issue high-yield covenanted bonds with fallaway covenants, and high-grade covenanted bonds. Depending on one's view of the credits, there are several trades that we believe are attractive in this industry.

### Trade Out of the Fallaways

#### Standard Pacific

Standard Pacific 7% senior notes due 2015 and 6.5% senior notes due 2010 have fallaway covenants (poison put and negative pledge will continue to exist), while the remainder of its capital structure does not. Therefore, we believe that the 7% notes are the least attractive Standard Pacific notes, given that they have the fallaways and the longest maturity in the capital structure. We recommend investors swap out of the 2015s and into the 2014s, while taking out dollars and giving a relatively small amount of OAS.

**Figure 10. Standard Pacific 6.25% Senior Notes Versus Standard Pacific 7% Senior Notes**

Trade	Issuer	Seniority	Cpn (%)	Maturity	Rating	Next Call		Price (\$)	YTW (%)	OAS (bp)
						Date	Price			
Buy	Standard Pacific	Senior Notes	6.250	2014	Ba2/BB	NA	NA	90.000	7.930	360
Sell	Standard Pacific	Senior Notes	7.000	2015	Ba2/BB	NA	NA	92.000	8.222	388
Difference: 6.25% minus 7%								(2.000)	(0.292)	(28)

Bid and ask prices are shown for the 7.00% and 6.250% notes, respectively. OAS is shown to a constant maturity treasury curve assuming 15% volatility.

Source: Citigroup.

#### Beazer Homes

If Beazer Homes becomes investment grade, we expect the company's 8.375% notes due 2012 to be one of the better bonds to own in the company's capital structure. Beazer bonds have high-yield covenants with similar terms and similar guarantees. However, the more on-the-run issues in the Beazer capital structure have fallaway covenants and subsidiary guarantees, while the older issues do not.

Therefore, if Beazer becomes rated investment grade (by both Moody's and S&P), the 8.375% notes due 2012 will retain their full covenants and subsidiary guarantees. The 6.5% notes due 2013, however, will lose their subsidiary guarantees and their

covenants will fall away with the exception of their change of control put, negative pledge, and limitation on mergers and consolidations.

Consequently, we believe a trade that makes sense is for investors to move into the off-the-run Beazers, specifically the 8.375% senior notes due 2012 and out of the 6.5% senior note issued due 2013. The trade will involve decreasing duration, posting additional dollars and giving OAS of approximately 65bp. We believe the 8.375% senior notes are a nice 7% cushion yield to call piece of paper with a high likelihood of being called in 2007, which is not fully priced in yet (yield to the 2007 call date is approximately 7.45%).

**Figure 11. Beazer 8.375% Senior Notes Due 2012 Versus Beazer 6.5% Senior Notes Due 2013**

Trade	Issuer	Seniority	Cpn (%)	Maturity	Rating	Next Call		Price (\$)	YTW (%)	OAS (bp)
						Date	Price			
Buy	Beazer Homes	Senior Notes	8.375	2012	Ba1/BB	4/15/07	104.188	104.875	7.020	237
Sell	Beazer Homes	Senior Notes	6.500	2013	Ba1/BB	11/15/08	103.250	94.750	7.394	302
Difference: 8.375% minus 6.5%								10.125	(0.374)	(65)

Bid and ask prices are shown for the 6.500% and 8.375% notes, respectively. OAS is shown to a constant maturity treasury curve assuming 15% volatility.

Source: Citigroup.

## Other Homebuilder Opportunities

### Hovnanian

Hovnanian has fallaway covenants in its recently issued debt, including the 6.25% senior notes due 2016. Fortunately, these fallaways do not cause the company's change of control put and negative pledge to cease to exist. Therefore, in an LBO situation, investors have significant protection in the entire capital structure. However, investors looking to increase exposure in the name should look to the more off-the-run Hovnanian notes, including the 8% senior notes due 2012, which contain a full suite of high-yield covenants that all continue to exist if the company gets rated investment grade.

In our opinion, it is not necessarily economical to swap out of the Hovnanian fallaways into the non-fallaways now, because the swap comes with a significant OAS give, and a move into a bond trading several points above par. However, we believe investors should know which bonds they own, and should reevaluate their positions if Hovnanian becomes a more likely investment-grade candidate.

### DR Horton

DR Horton has issued some investment-grade notes recently, and still has some notes outstanding that have high-yield fallaways, which will remain outstanding until S&P upgrades the company. For investors that believe DR Horton will remain high yield, we think a swap into the company's 7.875% notes due 2011 and out of the 5.375% senior notes due 2012 makes sense. Until both Moody's and S&P rate the company investment grade, the 2011s will have a substantially better covenant package.

On the other hand, for investors that expect the company will be rated full investment grade, the covenant differences become less clear. The 2011s fallaway provision allows the bondholders to retain their poison put, while the company's 5.375% negative pledge is large enough to drive a bus through. Therefore, we can imagine a scenario where the change of control provision could become more valuable than the

5.375% negative pledge, even as the 7.875% notes are trading significantly above par. This swap is not clear-cut, and definitely depends on investors' outlook in the name, but we think it can make sense for essentially flat OAS.

**KB Home**

KB Home's high-yield bonds are subordinated but provide substantially better covenant protection than the company's senior notes. For example, KB's 6.375% senior notes have a relatively standard high-grade covenant package that includes a negative pledge. We should note, however, that this negative pledge does not have much bite, in our opinion, because it allows the company to secure any of its inventory (including land). The KB Homes 7.75% senior subordinated notes contain a high-yield package including a change of control put (101%), but excluding a negative pledge, and excluding a fallaway provision. We believe that the high-yield package is obviously superior, although we believe that the give of almost 80bp of OAS to move from the 6.375% notes is not economical.

**Figure 12. Appendix — Covenant Differentials of Similar Seniorities/Structures**

Issuer	Tkr-Cpn-Mat	S&P Rating		Seniority	Callable	Equity Claw	Poison Put	Negative Restr. Pledge	Debt Pmts.	Debt Incur.	Fallaway Provision
		Original	Current								
ANR Pipeline Company	EP-8.875%-'10	B+	B	Sr. Unsecured	Yes	No	No	Yes	Yes	Yes	Yes
ANR Pipeline Company	EP-7.375%-'24	BBB	B	Sr. Unsecured	No	No	No	Yes	No	No	No
Case Corp.	CNH-7.25%-'16	BBB-	BB-	Sr. Unsecured	Yes	No	No	Yes	No	No	No
Case New Holland, Inc.	CNH-6%-'09	BB-	BB-	Sr. Unsecured	Yes	No	Yes	Yes	Yes	Yes	Yes
Case New Holland, Inc.	CNH-9.25%-'11	BB-	BB-	Sr. Unsecured	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cincinnati Bell Inc.	CBB-7%-'15	B-	B-	Sr. Unsecured	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cincinnati Bell Telephone Company	CBB-6.3%-'28	AA-	BB-	Sr. Unsecured	Yes	No	No	Yes	No	No	No
Citizens Communications	CZN-6.25%-'13	BB+	BB+	Sr. Unsecured	Yes	No	Yes	Yes	No	No	Yes
Citizens Communications	CZN-9.25%-'11	BBB	BB+	Sr. Unsecured	Yes	No	No	Yes	No	No	No
Crown Cork & Seal Company, Inc.	CCK-7.375%-'26	BBB+	B	Sr. Unsecured	Yes	No	No	Yes	No	No	No
Crown Amer, LLC & Crown Amer, Corp.	CCK-7.625%-'13	B	B	Sr. Unsecured	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Crompton Corporation	CEM-9.875%-'12	B	BB+	Sr. Unsecured	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Great Lakes Chemical Corporation	CEM-7%-'09	A	BB+	Sr. Unsecured	Yes	No	No	Yes	No	No	No
Dana Corp	DCN-9%-'11	BB	B-	Sr. Unsecured	Yes	No	Yes	Yes	Yes	Yes	Yes
Dana Corp	DCN-5.85%-'15	BBB-	B-	Sr. Unsecured	Yes	No	No	Yes	No	No	No
El Paso Natural Gas Company	EP-7.5%-'26	BBB	B	Sr. Unsecured	No	No	No	Yes	No	No	No
El Paso Natural Gas Company	EP-7.625%-'10	B+	B	Sr. Unsecured	Yes	No	No	Yes	Yes	Yes	Yes
Equistar Chem. LP/Equistar Fund. Corp.	LYO-10.625%-'11	BB-	BB-	Sr. Unsecured	Yes	No	Yes	Yes	Yes	Yes	Yes
Equistar Chem. LP/Equistar Fund. Corp.	LYO-8.75%-'09	BBB	BB-	Sr. Unsecured	Yes	No	No	Yes	Yes	Yes	No
Equistar Chem. LP/Equistar Fund. Corp.	LYO-10.125%-'08	BBB-	BB-	Sr. Unsecured	Yes	No	Yes	Yes	Yes	Yes	Yes
Freeport McMoran Copper & Gold, Inc.	FCX-6.875%-'14	B-	B+	Sr. Unsecured	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Freeport McMoran Copper & Gold, Inc.	FCX-7.2%-'26	BBB-	B+	Sr. Unsecured	Yes	No	No	Yes	No	No	No
Goodyear Tire & Rubber Corp.	GT-7.857%-'11	BBB	B-	Sr. Unsecured	Yes	No	No	Yes	No	No	No
Goodyear Tire & Rubber Corp.	GT-9%-'15	B-	B-	Sr. Unsecured	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alco Standard Corp.	IKN-6.75%-'25	A-	BB	Sr. Unsecured	Yes	No	No	Yes	No	No	No
IKON Office Solutions	IKN-7.75%-'15	BB	BB	Sr. Unsecured	Yes	Yes	Yes	Yes	Yes	Yes	No
IMC Global Inc.	MOS-7.3%-'28	BBB	B+	Sr. Unsecured	Yes	No	No	Yes	No	No	No
IMC Global Inc.	MOS-7.375%-'18	BBB	B+	Sr. Unsecured	Yes	No	No	Yes	No	No	No
IMC Global Inc.	MOS-10.875%-'13	B+	BB	Sr. Unsecured	Yes	No	Yes	Yes	Yes	Yes	Yes
Nevada Power Co.	SRP-6.5%-'12	BB	BB	Sr. Sec. 2nd Lien	Yes	No	Yes	No	Yes	Yes	No
Nevada Power Co.	SRP-8.25%-'11	A-	BB	Sr. Sec. 2nd Lien	Yes	No	No	No	No	No	No
PolyOne Corporation	POL-8.875%-'12	BBB-	B+	Sr. Unsecured	Yes	No	No	Yes	No	No	No
PolyOne Corporation	POL-10.625%-'10	BB-	B+	Sr. Unsecured	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Rite Aid Corp.	RAD-9.25%-'13	B-	B-	Sr. Unsecured	Yes	Yes	Yes	Yes	Yes	Yes	No
Rite Aid Corp.	RAD-6.875%-'13	BBB+	B-	Sr. Unsecured	No	No	No	Yes	No	No	No
Rogers Cable, Inc.	RCICN-7.875%-'12	BBB-	BB+	Sr. Sec. 2nd Lien	Yes	No	Yes	Yes	Yes	Yes	Yes
Rogers Cable, Inc.	RCICN-6.75%-'15	BB+	BB+	Sr. Sec. 2nd Lien	Yes	No	Yes	Yes	No	No	Yes
Sierra Pacific Power Co.	SRP-6.25%-'12	BB	BB	Sr. Sec. 2nd Lien	Yes	Yes	Yes	Yes	Yes	Yes	No
Sierra Pacific Power Co.	SRP-8%-'08	BBB+	BB	Sr. Sec. 2nd Lien	Yes	No	No	No	No	No	No
Teco Energy Inc	TE-7.2%-'11	A-	BB	Sr. Unsecured	Yes	No	No	No	No	No	No
Teco Energy Inc	TE-7.5%-'10	BB+	BB	Sr. Unsecured	Yes	No	No	Yes	No	No	Yes
Visteon Corp.	VC-8.25%-'10	BBB	B-	Sr. Unsecured	Yes	No	No	Yes	No	No	No
Visteon Corp.	VC-7%-'14	BB+	B-	Sr. Unsecured	Yes	No	No	No	No	No	No

Callable flag includes Makewhole provisions.

Source: Company filings and Citigroup.

**Figure 13. Appendix — Covenant Differentials of Different Seniorities/Structures**

Issuer	Tkr-Cpn-Mat	S&P Rating		Seniority	Callable	Equity Claw	Poison Put	Negative Pledge	Restr. Pmts.	Debt Incur.	Fallaway Provision
		Original	Current								
Caraustar Industries, Inc.	CSAR-7.375%-'09	BBB	B+	Sr. Unsecured	Yes	No	No	Yes	No	No	No
Caraustar Industries, Inc.	CSAR-9.875%-'11	BB-	B-	Sr. Subordinated	Yes	Yes	Yes	Yes	Yes	Yes	No
El Paso Corp.	EP-7.875%-'12	B	B-	Sr. Unsecured	Yes	No	No	Yes	No	No	No
El Paso Production Holdings	EP-7.75%-'13	B+	B	Sr. Unsecured	Yes	Yes	Yes	Yes	Yes	Yes	No
Hercules Incorporated	HPC-6.6%-'27	A	BB	Sr. Unsecured	Putable	No	No	Yes	No	No	No
Hercules Incorporated	HPC-6.75%-'29	B+	B+	Sr. Subordinated	Putable	Yes	Yes	No	Yes	Yes	No
Houghton Mifflin Company	HTN-7.2%-'11	BBB+	BB-	Secured	Yes	No	No	Yes	No	No	No
Houghton Mifflin Company	HTN-8.25%-'11	B	B-	Sr. Unsecured	Yes	Yes	Yes	Yes	Yes	Yes	No
Qwest Capital Funding, Inc.	QUS-7.25%-'11	BBB+	B	Sr. Unsecured	Yes	No	No	Yes	No	No	No
Qwest Comm Int'l Inc.	QUS-7.25%-'11	B	B	Sr. Unsecured	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Qwest Corp.	QUS-7.875%-'11	BB-	BB-	Sr. Unsecured	Yes	No	No	Yes	No	No	No
Xerox Capital Trust I	XRX-8%-'27	A-	B-	Sub Unsecured	Yes	No	No	No	No	No	No
Xerox Corp.	XRX-6.875%-'11	B+	BB-	Sr. Unsecured	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Callable flag includes Makewhole provisions.

Source: Company filings and Citigroup.

**Figure 14. Appendix — Covenant Differentials Among the Homebuilders**

Issuer	Tkr-Cpn-Mat	S&P Rating		Seniority	Callable	Equity Claw	Poison Put	Negative Pledge	Restr. Pmts.	Debt Incur.	Fallaway Provision
		Original	Current								
Beazer Homes	BZH-6.5%-'13	BB	BB	Sr. Unsecured	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Beazer Homes	BZH-8.375%-'12	BB	BB	Sr. Unsecured	Yes	Yes	Yes	Yes	Yes	Yes	No
DR Horton	DHI-5.375%-'12	BB+	BB+	Sr. Unsecured	Yes	No	No	Yes	No	No	No
DR Horton	DHI-7.875%-'11	BB	BB+	Sr. Unsecured	No	Yes	Yes	No	Yes	Yes	Yes
Hovnanian Enterprises	HOV-6.25%-'16	BB	BB	Sr. Unsecured	Yes	No	Yes	Yes	Yes	Yes	Yes
Hovnanian Enterprises	HOV-8%-'12	BB-	BB	Sr. Unsecured	Yes	No	Yes	Yes	Yes	Yes	No
KB Home	KBH-6.375%-'11	BB+	BB+	Sr. Unsecured	Yes	No	No	Yes	No	No	No
KB Home	KBH-7.75%-'10	BB-	BB-	Sr. Subordinated	Yes	Yes	Yes	No	Yes	Yes	No
Standard Pacific	SPF-7%-'15	BB	BB	Sr. Unsecured	Yes	No	Yes	Yes	Yes	Yes	Yes
Standard Pacific	SPF-6.25%-'14	BB	BB	Sr. Unsecured	Yes	No	Yes	Yes	Yes	Yes	No

Callable flag includes Makewhole provisions.

Source: Company filings and Citigroup.

## Disclosure Appendix A1

### ANALYST CERTIFICATION

We, John Fenn, and Peter Zippelius, hereby certify that all of the views expressed in this report accurately reflect our personal views about any and all of the subject securities, issuers, currencies, commodities, futures, options, economies or strategies. We also certify that no part of our compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) expressed in this report.

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