Credit Market Outlook & Strategy

US High Grade Strategy & CDS Research

High Grade Strategy

A reallocation from credit to equities is being discussed and HG ETF inflows have stopped, but credit managers report ongoing demand, new issues are well bid, and spreads have rallied YTD, so little actual evidence of a reallocation. In late 2010 there was a strong shift from HG bonds to equity, however. Non-Financial 10s30s curves are in line with historical averages so it does not appear investors are shortening long end duration. 144A bonds market share is rising – those without reg. rights trade about 20bp wide to public bonds. EM HG bonds turnover more than non-EM bonds, based on the limited TRACE data.

Credit Derivatives

Real time reporting has started in the US for the CDS indices, index options and index tranches. The data is available on DTCC's website and on Bloomberg using SDR<GO>. This week, the CDS market somewhat reversed from the sharp rally at the turn of the year with CDX and TRS underperforming relative to their underlyings and CDS underperforming bonds. The CDX option market indicates that worries about tail risk are increasing. Equities outperformed credit this week, but credit is still expensive to equities, especially for European Banks.

Features

Curve model: We introduce a new daily report which highlights cheap and rich bonds across over 100 issuers.

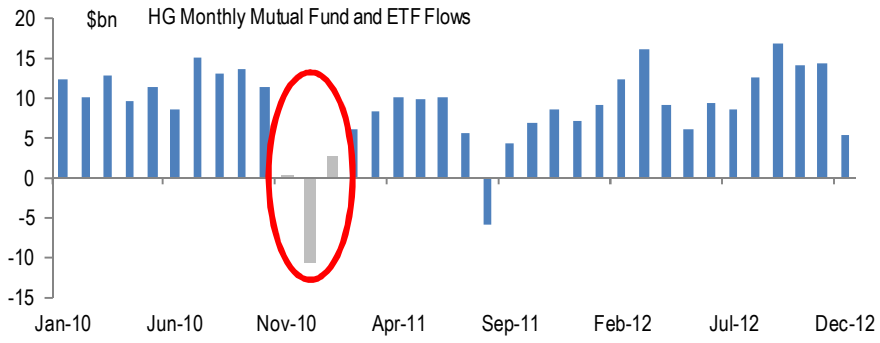
Credit Investor Survey: Investor bullishness cooled somewhat from last month.

Short-term markets: 2012 proved to be a very strong year for front-end corporates. 1-3y fixed and floating rate bonds both returned 5% on a total return basis, coming after lackluster performance in 2011.

Trade Recommendation

Since our last publication, our Trade Tracker is up by $46,169. Over the last twelve months, performance is up by $1,508,264 (+11% ROI / +130% IRR).

Chart of the week: There is limited evidence of a shift from Credit to Equity now, but there was such a shift two years ago



Source: J.P. Morgan

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Weekly Strategy Conference Call

Friday, January 11th, 10:00am

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See page 44 for analyst certification and important disclosures.

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Summary and Outlook

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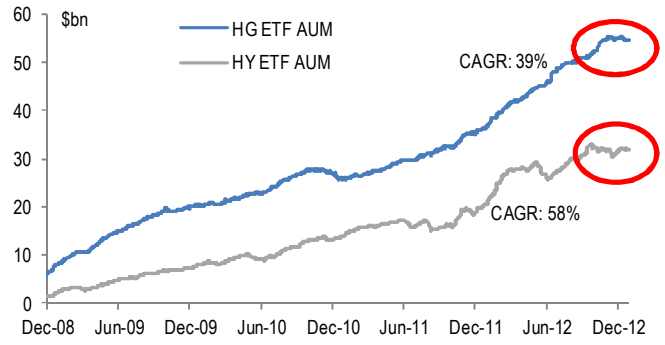
The great reallocation from credit to equities? Not much evidence yet, but something to watch

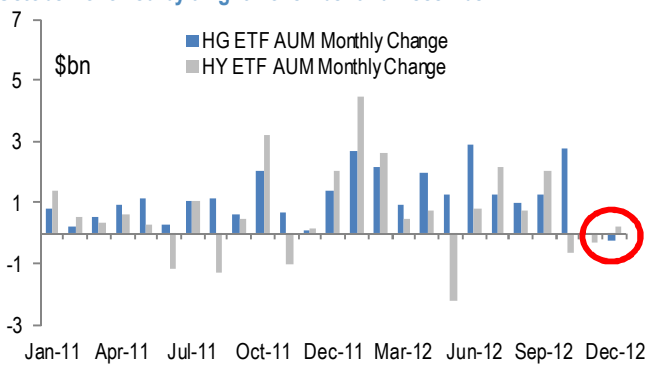
The Fed minutes last week and some stronger economic data recently has increased discussion around the risk of a large investor shift from fixed income into equities. We see some evidence of this in ETF flows, which tend to be quite volatile. HG corporate ETFs (just corporate funds, not the broader HG bond ETFs) had $1.4bn/month of inflows from Jan-October but in November and December inflows averaged just $59mn/month. For HY the figures also show an abrupt change: $987mn/month of inflows from January-October and -$144mn average for November and December. In the first week of January inflows have rebounded for both HG and HY funds. These funds hold a small share of corporate bonds and reflect the trends of very active investors, but they do suggest these investors have reduced demand for corporate credit into year end.

Exhibit 1: Demand for credit ETF has ebbed since November



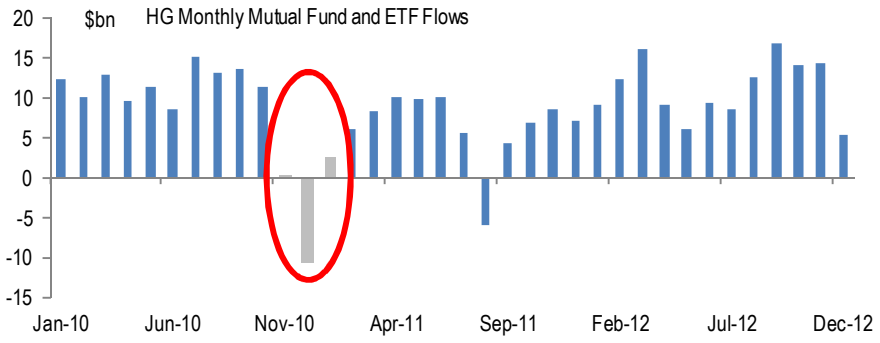
Source: J.P. Morgan

Exhibit 2: For HG the drop in ETF demand was sudden with a strong October followed by a light November and December



The broader mutual fund data also show a slowdown in inflows into HG bond funds (these are mostly Agg funds holding Treasuries, Corporates and Mortgages) but there were still inflows in December (+$5.4bn). This is down from the $15.1bn/month over the past three months.

Exhibit 3: In December HG mutual fund inflows slowed. In late 2010 there was a period when markets focused on a reallocation from credit to equities, and there were meaningful outflows from HG credit funds



Source: J.P. Morgan.

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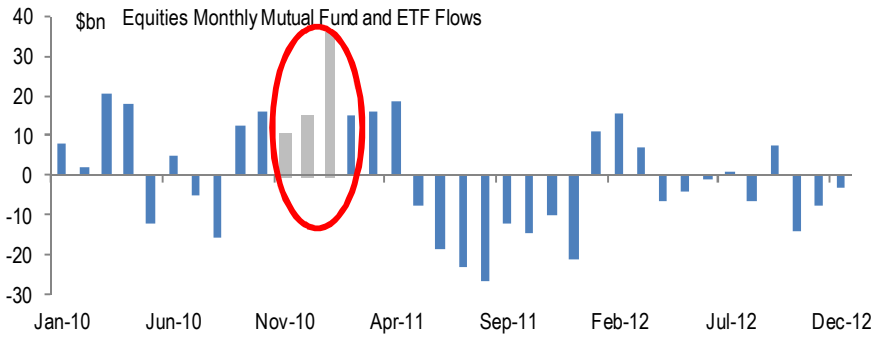
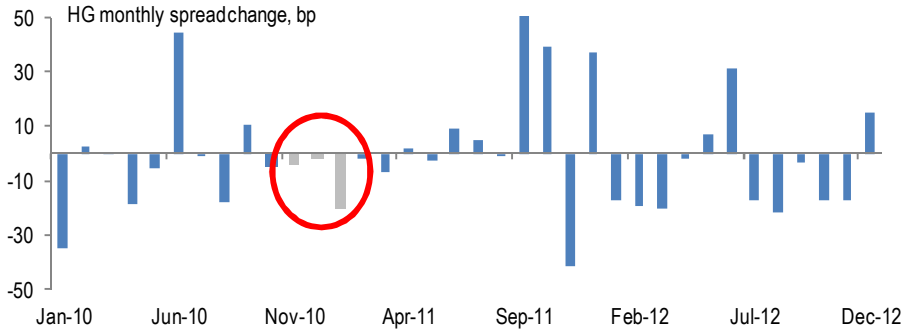
Exhibit 4: At the same time there were strong inflows into Equity funds



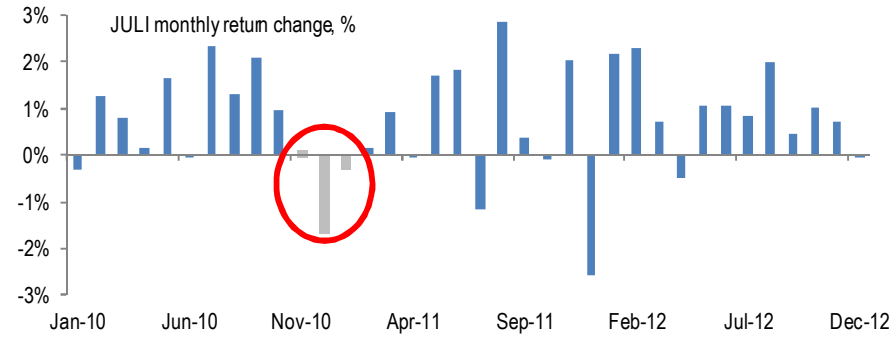
Source: J.P. Morgan.

Exhibit 5: Over this period HG bond spreads performed OK – they actually tightened



Source: J.P. Morgan.

Exhibit 6: Treasuries sold off (10yr UST yields rose by 0.12% in Dec 2010) such that HG bonds had a negative total return, despite spread tightenings



Source: J.P. Morgan.

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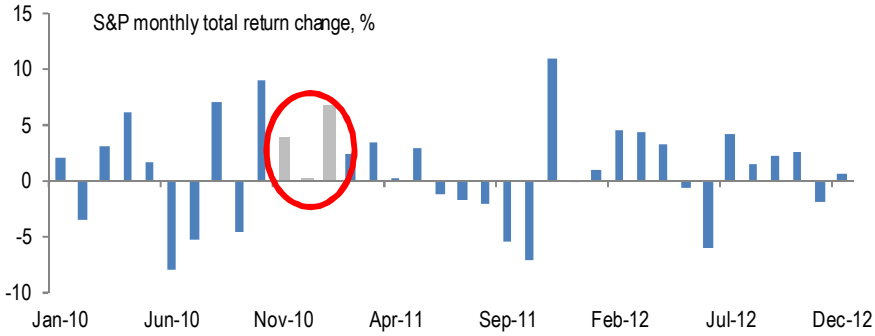
Exhibit 7: Equities had strong returns over this period



Source: J.P. Morgan.

In late 2010 there was an abrupt re-allocation from credit to equity funds, which was stopped by increased risk in Europe

The series of charts above highlights the late 2010 - early 2011 period when there were strong outflows from HG credit and strong inflows into Equities. In 2010 from January to October HG bond funds received $11.8bn/month in inflows. Then in Nov inflows slowed to just $0.2bn and in December 2010 there were $10.5bn of outflows from HG funds. This turns out to be the largest month of outflows from HG funds since the credit crisis. In contrast equity funds had $15bn of inflows in Dec 2010 and a massive $35bn in January 2011. This contributed to -0.7% HG total return from Nov '10-Jan '11 while stocks rallied 9.2%.

Over this period 10yr UST yields rose by 58bp to 3.38%. The driver of this shift was bullish economic forecasts for 2011 which were being made at the end of 2010. At the end of November 2010, JPM estimated 2011 GDP growth of 2.6% for the US. There was talk then, as now, of the end of the fixed income rally. In fact in February 2011, European stress increased sharply, equity markets sold off by 3.5% from mid-February to mid-March and HG returned 1.4% while UST yields fell by 0.29%. It turned out that 2011 GDP growth was 1.8%, well below J.P. Morgan's original forecast and that of others. This episode shows that market sentiment can turn quickly against fixed income products.

Comparing the current period to late 2010 there are some similarities with market participants discussing a shift and investors holding a generally bullish view about US growth heading into 2013. Also, there has been strong fixed income market performance so investors have profits to take. A big difference from 2010 is there is now a massive QE program in place in which the Fed's buying of Mortgages and Treasuries, however. This is likely to dampen volatility in the near term. Later in 2013 if the expectation is that the Fed will slow or end its QE program then there is likely more scope for the type of volatility seen in late 2010.

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Long end spread curves do not suggest credit investors have shortened duration

- The shape of the current 10s30s credit curve is in line with the historical pattern for Non-Financials, suggesting investors have not shortened spread duration in the long end.
- In Financials the 10s30s spread curve is actually flatter than its historical pattern, so investors who fear higher yields should focus on reducing duration in Financials. Both these conclusions are based on our spread curve model which uses the 10yr and 30yr UST yields and JULI spread as inputs.
- Last year supply in 30yr increased significantly vs the prior year ($147bn in 30yr vs $89bn in 2011) as demand for long end bonds was strong from pension funds and insurance companies. In the last month, 12% of supply has been in the long end, suggesting this demand still remains robust, despite some who fear sharply higher UST yields.

The average HG corporate credit spread curve has flattened in the long end since mid November, by about 3bp at 29bp (this level refer to our "true curve", i.e. pairs of liquid bonds from the same issuer). However, the 10s30s performance has been different for Financials and Non-Financials. The Non-Financials curve is 33bp steep, just 1bp flatter since mid November, and the Financials curve 7bp steep, 12bp flatter. Mid-November is when the 10s30s UST curve was at a recent low of 1.13%. It has since steepened to 1.20%.

We believe that the Non-Financials curve is fairly priced, but that the Financials curve is a little too flat. However, the supply/demand dynamics for long-end and 30yr rates are likely to drive the 10s30s spread curve in the short term. The main risk is a further flattening of the curve driven by a reduction in long-end supply as the demand for 30y papers seems quite strong thanks to their all-in yield pick-up vs the rest of the curve.

The spread curve flattening has happened despite heavy long-end issuance; a HG bond spread rally and a steeper long-end Treasury curve. The large long-end supply should have put some upward pressure on the long-end spread. The JULI 16bp rally to 152bp should have driven the curve to steepen, but the 6bp steepening in the 10s30s Treasury curve (to 120bp) should have led to a flattening in the credit spread curve. So it is not clear which effect should dominate and whether the current curve is "fair".

Heavy supply

One reason for the flattening of the long-end curve is the demand for long-end bonds. The average HG bond all-in yield is low (about 3.5%) and the all-in yield curve is very steep, thanks to the steepness in the Treasury curve. Overall JULI 10yr+ bonds trade at yield of about 4.5%, about 50% higher than the 10y bonds average yield. Therefore, many yield-based investors have found the long-end yields attractive. This has been particularly true for Financials, since their average long-end all-in yield is about 4.75% (Non-Financials is at 4.40%) and Financials have strongly rallied in 2012. Therefore, the demand for higher yielding paper from the traditional long-end investor base, Life Insurance companies and pension funds, has been quite strong in the last few weeks, driving the Financials spread curve flatter. US Banks seem to have been particularly impacted by this, since their true 10s30s curve is now 16bp inverted compared to 3bp upward sloping in mid November.

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Exhibit 8: The 10s30s curve has flattened recently as JULI has rallied

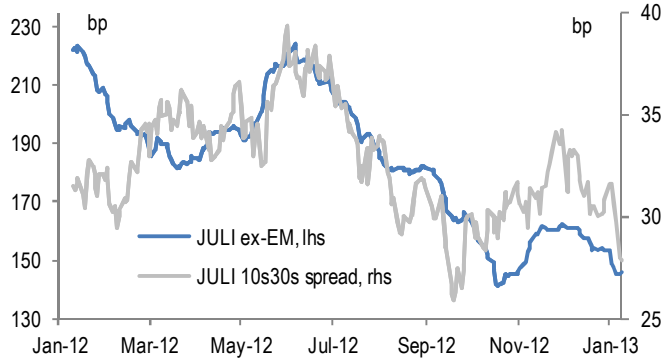
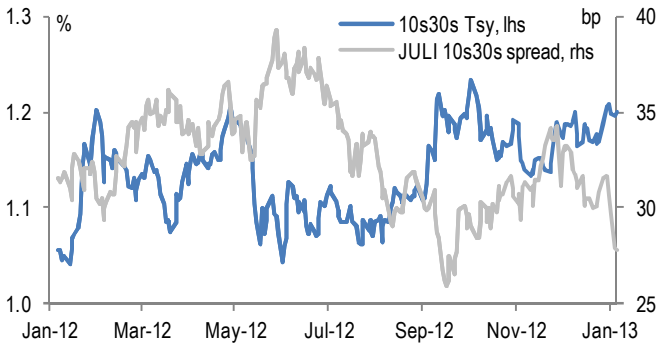


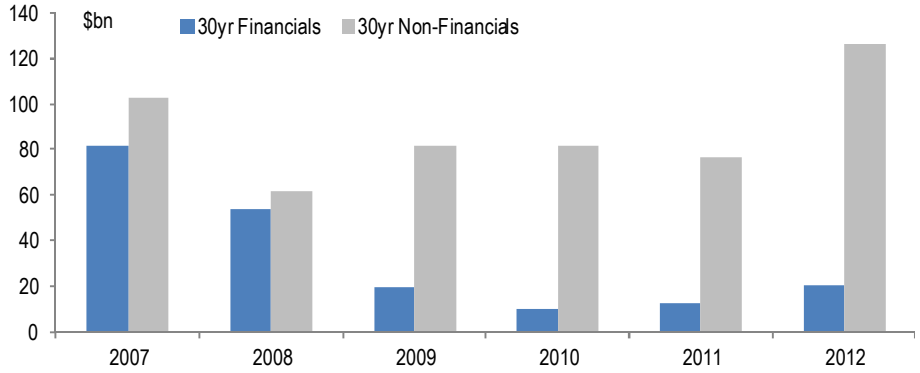
Exhibit 9: and as the 10s30s treasury curve steepened



Source: J.P. Morgan

This strong demand for long-end bonds is also seen in the new issue market with a significant increase in 30y issuance compared to prior year, especially in Financials. In 2012, 17% of the new issuance was in the long end, compared to 13% in 2011 and 14% in 2010. The 30y issuance was quite strong in Non-Financials (20% of the total 2012 Non-Financial issuance, compared to 17% in 2011 and 23% in 2010) and in Financials (9% in 2012, compared to 5% in 2011 and 3% in 2010). This strong issuance does not seem to have significantly affected the long end spreads relative to the rest of the curve.

Exhibit 10: The long-end issuance has significantly increased in both Financials and Non-Financials



Source: J.P. Morgan.

Exhibit 11: This is also true in relative terms compared to the overall HG bond issuance

% of Total Issuance In $mn	30yr Total	30yr Financials	30yr Non-Financials
2007	21%	15%	33%
2008	19%	19%	18%
2009	15%	10%	18%
2010	14%	3%	23%
2011	13%	5%	17%
2012	17%	9%	20%
5yr average	16%	10%	22%

Source: J.P. Morgan.

Non-Financials in line with history, but Financials are somewhat flat

One way to determine the "fair" value of the curve is to compare its behavior relative to overall JULI levels and to the Treasury curve. In that case, using regressions over different time periods, from one to five years, we find that the current true curve is somewhat flat, but only by 2-3bp if we look at the last two years of trading. However, Non-Financials are about in line (1-3bp too flat), but Financials are quite flatter, by 6-9bp, depending on the time perspective. Finally, note that all sectors

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look flat compared to the historical regression, but that US Banks are the furthest away from the mean (by about 9-13bp).

In summary, we believe that the Non-Financials curve is about "fair", but that the Financials curve is somewhat too flat. However, a change in the issuance mix in the long end might affect the curves. The main risk is a reduction in long-end supply as the demand for 30y papers seems quite strong thanks to their all-in yield pick-up vs the rest of the curve. We expect that a reduction in long-end supply would lead to further flattening of the 10s30s spread curve.

Exhibit 12: The long-end curve appears to be flat vs history in most sectors. However, it is not very significant for most except US banks

Sector	10s30s	1w change	1m change	3m change	Model	Difference	z-score
JULI All	28	-4	-5	-1	30	-2	-1.2
Financials	7	-10	-13	-9	15	-8	-1.7
Industrials	32	-3	-4	0	33	-2	-0.9
Utilities	43	5	-11	-17	48	-5	-0.7
US Banks	-16	-9	-15	-22	-4	-13	-1.8
Yankee Banks	-8	-11	-5	-1	-12	4	0.4
Life Insurance	31	-4	-6	15	34	-3	-0.3

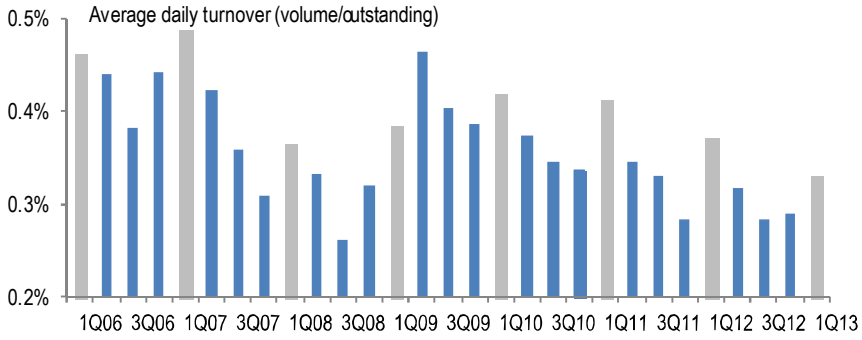
Source: J.P. Morgan.

Trading volume trends at the start of the year, and EM's impact on these volumes

HG bond trading volumes have jumped in the first few trading days of the year, as usually happens in the first quarter of each year

The average daily trading volume for HG credit in the first 5 business days this year is $13.1bn/day. This is up 21% from the $10.8bn/day in 4Q11, which is a similar increase to the prior few years comparing 1Q to the prior 4Q. The average increase in 1Q over prior 4Q in the past five years is 25%. YTD trading volume is slightly lower (-3%) than the average of 1Q last year. Trading volumes in 1Q are historically higher than the other quarters due to both heavier new supply and more active investor re-allocations across asset classes early in each new year. These factors seem to be repeating themselves once again at the start of 2013.

Exhibit 13: Trading volumes YTD are following the pattern of prior years with an increase compared with 4Q12 activity



Source: J.P. Morgan.

Trading in EM bonds is actually increasing the average turnover of HG credit (based on what we can analyze in TRACE), which is contrary to the perception of some that EM bonds trade less.

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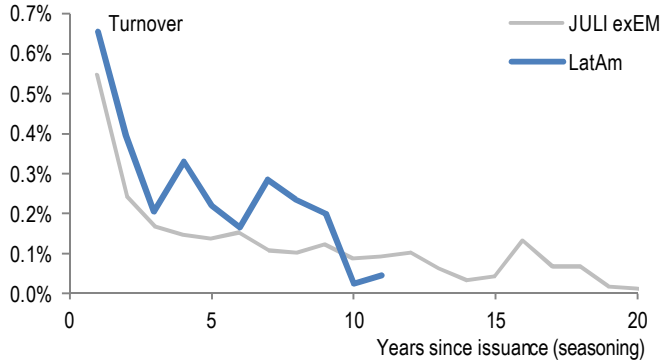
About 30% ($130bn) of EM HG bonds are TRACE eligible (most of the rest are ineligible as they are 144a bonds). About $70bn of Latam HG bonds are captured in TRACE (TRACE captures bonds traded by firms in the US so most TRACE prints for EM are on Latam bonds). In 2012 the turnover (trading volume/amount outstanding) of these Latam bonds was actually well above that of JULI exEM (about 0.6%/day for Latam vs about 0.3%/day for the non EM HG market). This is due partly to the fact that EM issuance has been increasing rapidly so a greater share of EM bonds are recently issued compared to the broader market. Bonds that are recently issued generally trade more frequently than bonds issued in years prior. If we adjust for this seasoning difference the turnover of Latam EM bonds is still about 1.3x more than non-EM. We don't know if this same dynamic is true of EM issues from the European or Asian regions but issuance has been heavy recently from all three regions, so these bonds also are also less seasoned than the broader non EM market, and therefore may benefit the greater market interest in trading more recently issued bonds.

Exhibit 14: LatAm EM bonds have slightly higher turnover than non EM bonds regardless of the age (seasoning) of the bond



Source: J.P. Morgan. Note for last 30d.

Exhibit 15: EM bonds are comparatively younger than non-EM bonds. Because younger bonds are more liquid, EM bonds appear more liquid than the non EM bonds

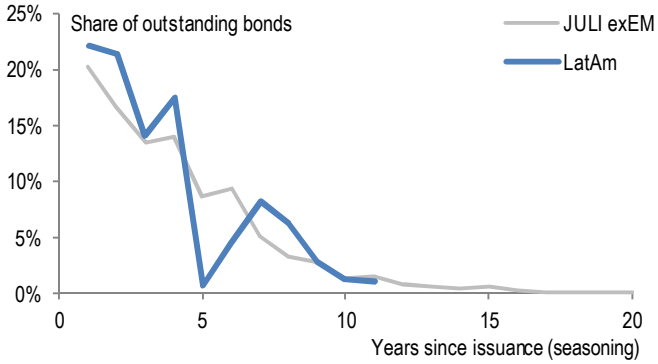
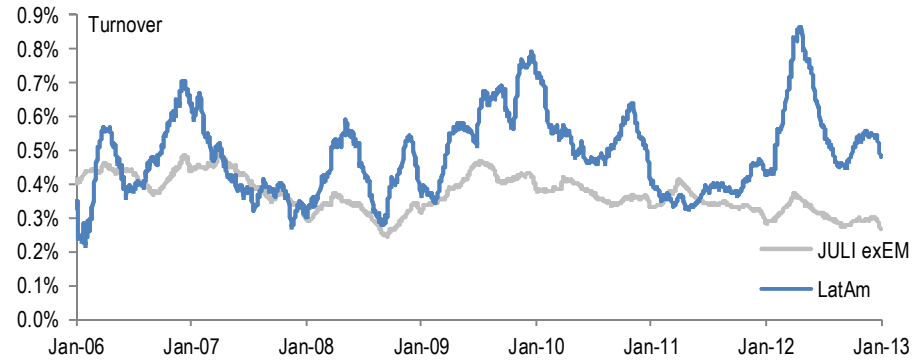


Exhibit 16: LatAm bond average daily turnover is now around 0.5% compared to non-EM turnover of 0.3%



Source: J.P. Morgan.

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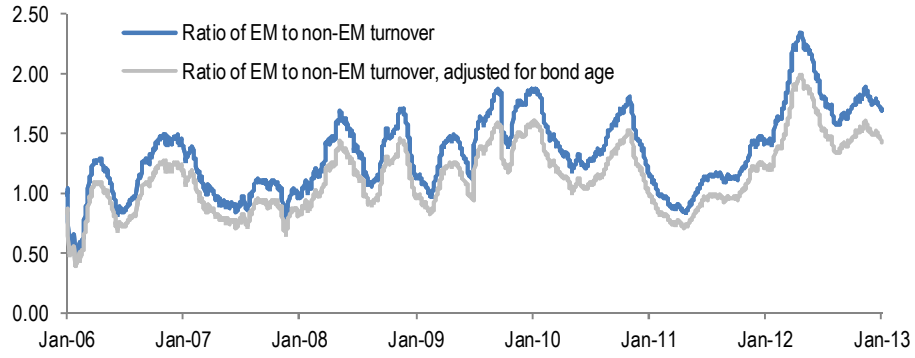
Exhibit 17: Last year LatAm EM bonds traded about 50% more frequently than non-EM bonds. Accounting for the fact that EM bonds are generally younger and younger bonds are more liquid, LatAm EM traded about 30% more frequently

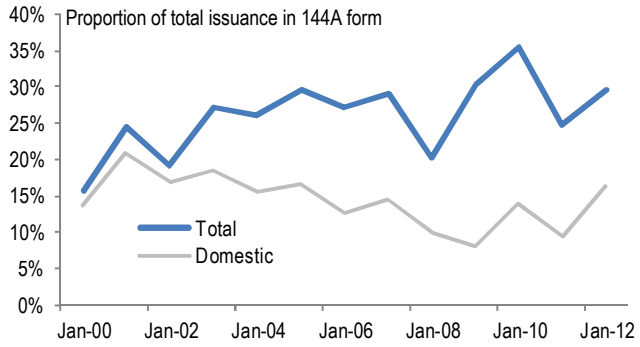


Source: J.P. Morgan.

144a's are an increasing share of the HG bond market

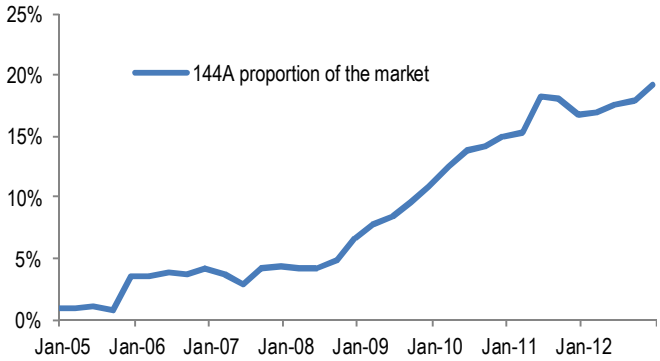
144A issuance represented about 30% of HG supply in 2012, up from about 25% a year pre-crisis. The proportion of domestic issuance in 144a form has actually declined recently – from 17% pre-crisis to 11% last year. However, about 1/2 of Yankee non-EM issuance is in 144a form and 80% of EM issuance is, so as non-EM Yankee and EM issuance has increased this has pushed up the overall 144a supply trends.

Exhibit 18: The 144A share of new issuance has been increasing overall, despite falling from Domestic issuers, due to increased Yankee and EM issuance



Source: J.P. Morgan

Exhibit 19: The 144A share of the outstanding bonds has been growing over the past 7 years as issuance increased and exchanges fell



Increasingly these bonds do not have registration rights, such that the portion of 144A bonds in the index has risen to 18% today from 4% in 2006. The proportion of 144A bonds issued with registration rights has fallen significantly over the past few years from about 70% in 2005 to about 25% now. Partly this is due to the increased issuance of Yankee and EM bonds, which have registration rights infrequently (10% and 5% respectively). The proportion of domestic 144a bonds with registration rights has declined as well, however, from 95% to 60%. The reason for the falling proportion is lower M&A volumes and higher demand for bonds. M&A related issuance is sometimes done without all the financial reporting completed. In such cases the issuer will issue bonds 144a with registration rights and exchange them later. Also, registration rights are a "bonus" to investors that is less necessary when demand for bonds is high as has been the case recently.

On average, 144A bonds with registration trade flat to public bonds from same issuers, while 144A bonds without registration rights trade about 20bp wider than their public counterparts. This analysis is based on pairs of bonds from the

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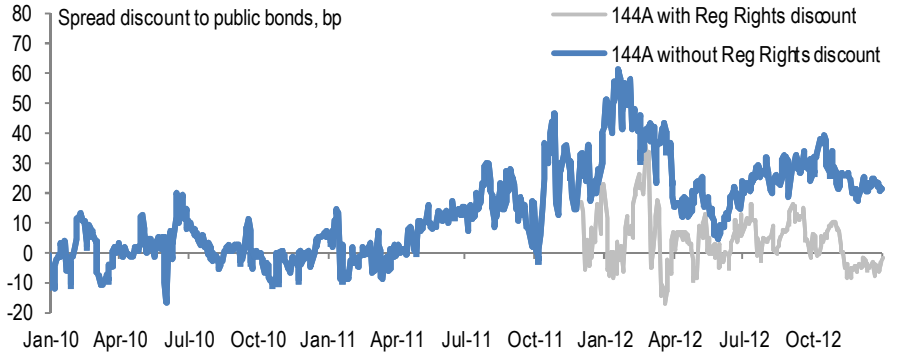
same issuer with similar maturity. Unfortunately, not many issuers have such pairs making these averages true for the companies in question, but could differ for others. However, the sample is large enough to help us understand the trends in the relative valuations of 144A and public bonds. The spread difference has been stable over the past 3 years, except in mid-2011 to mid-2012 period when it peaked in January 2012 before declining again. It has narrowed in the past few months as spreads overall have rallied.

Exhibit 20: The spread discount of 144A securities has decreased recently in tune with the overall market rally



Source: J.P. Morgan.

US Economic Summary

Most measures of employment continued to show modest improvement in the labor market through the end of 2012; however the latest JOLTS data has signaled some loss of momentum recently. ISM survey and some other related indicators show activity picking up some steam heading into the end of 2012, but overall, the recent service sector data look mixed.

Employment

Initial claims increased 4,000 to 371,000 during the week ending January 5 from a figure for the prior week that was revised down by 5,000. The most recent four-week moving average is now at the low end for recovery. However, it might not be very reliable because the claims data are often volatile around the turn of the year due to swings in the seasonal factors. Continuing claims tumbled 127,000 to 3.109 during the week ending December 29.

According to the JOLTS report through November, the total number of job openings increased only 11,000 (+0.3% samr) in November. Over the past six months, the number of openings has been essentially flat (+1% saar). Meanwhile, hires have come off a bit lately—they were basically unchanged in November and down 6% saar over the latest six months.

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Exhibit 21: Initial Jobless claims

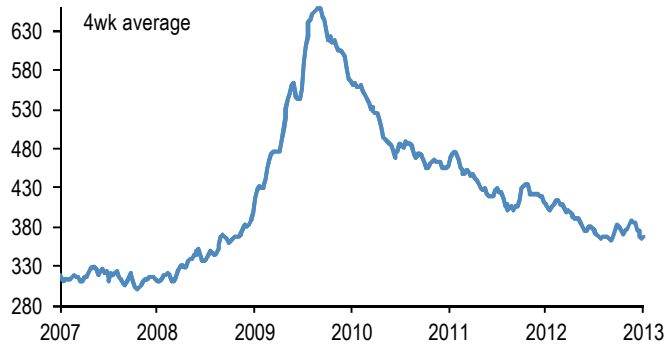

Exhibit 22: ISM surveys

Source: J.P. Morgan

Sentiment

The ISM nonmanufacturing survey surprised to the upside in December, increasing 1.4 points to 56.1. This was the strongest reading for the headline since February and most of the underlying details looked pretty favorable as well. Within the details of the survey, the business activity index slipped 0.9 points in December but remained solid at 60.3. The new orders index increased 1.2 points to 59.3 in December, reaching its highest figure since February.

Credit

Consumer credit increased $16.1bn (0.6% samr) in November with revolving credit edging up $0.8bn (0.1%) and non-revolving credit increasing $15.2bn (0.8%). Over the year through November, revolving credit rose only 0.7% which is consistent with other mediocre consumer data. Non-revolving credit increased 8.4%oya in November, largely due to a 28% jump in credit from the Federal government.

Manufacturing

New orders for factory goods were unchanged in November while shipments increased 0.4% and related inventories were also flat. Core capital goods orders jumped 23% saar over the three months through November while related shipments increased 8% saar.

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J.P.Morgan

Summary and Outlook

Credit Derivatives

CDX Indices (bp)

	Spread	1w change
IG	87	2
HY	444	7
LCDX	210	-18

	Theoretical	1w change
IG	90	-2
HY	445	-8
LCDX	314	-21

	Basis	1w change
IG	-4	4
HY	0	15
LCDX	-104	4

Source: J.P. Morgan

iBoxx TRS

TRS	Yield (%)	1w change (bp)
IG	3.44	2
HY	5.52	-2

iBoxx	Yield (%)	1w change (bp)
IG	3.46	-1
HY	5.60	-9

Basis	Yield (bp)	1w change (bp)
IG	-2	3
HY	-8	6

Source: J.P. Morgan

CDS-Bond Basis (bp)

	Bond PECS	1w change
IG	93	-5
HY	358	-19

	CDS Spread	1w change
IG	81	-2
HY	314	-5

	Basis	1w change
IG	-13	2
HY	-44	14

Source: J.P. Morgan

- Real time reporting has started in the US for the CDS indices, index options and index tranches. The data is published by DTCC and shows all trades done by "US persons". Data shown includes the index traded, the level at which executed, the notional traded (with trades above $100mn reported as $100mn for all the indices) and the time of execution. The data is also available on Bloomberg using SDR<GO>.
- CDX indices were a bit weaker this week, but levels remain on the tight side of their recent trading ranges. This appears to be more a digestion of the strong first days of the year.
- The CDX option market is showing that investors remain worried about tail risk. The relative cost of tail risk hedges has increased recently, as some investors have bought out-of-the-money put options, especially in CDX.HY.
- CDX.HY outperformed CDX.IG this week, probably driven by the strong technicals of the HY bond market. However, this was not very significant as moves were muted.
- Equities outperformed credit this week for the first time in a few weeks. However, credit remains tight to equities. This seems to be more pronounced in European banks, as their CDS appear to be significantly too tight relative to their stock.
- The CDX and iBoxx TRS indices underperformed relative to their underlyings. This had to be expected as it is a correction from their outperformance in the swift rally in the first week of the year.
- Bonds outperformed their CDS, more so in HY than in HG (ie bond basis became less negative). Bonds remain somewhat wide to their CDS, however.
- The European iTraxx indices outperformed their US counterparts this week, again a correction from the CDX outperformance early this year. However, the magnitude of the moves was limited.

Real time reporting for CDS indices, index options and index tranches

DTCC has started to publish real-time data on CDS indices, index options and index tranches, as required by the CFTC and the Dodd-Frank regulation. The data reported is similar to that reported through TRACE for the corporate bond market. Starting on January 3, DDR (DTCC Data Repository) has published real-time price information based on data from swap dealers for over-the-counter (OTC) trades as outlined by the Dodd Frank Act (DFA) and the Commodity Futures Trading Commission's (CFTC) real-time and regulatory reporting rules. The data disseminated represent the vast majority of the reportable OTC derivatives market. Reports are available through file transfers, RSS feeds and internet access to a ticker page, Excel and search functions on DRR's website,

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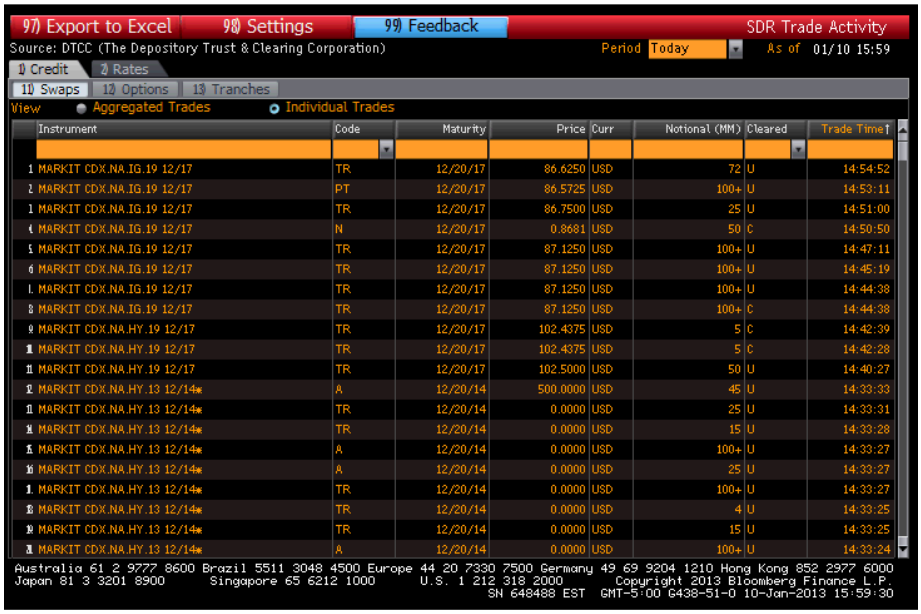
https://rtdata.dtcc.com/gtr/dashboard.do.[1] The data is also available on Bloomberg through SDR<GO>.

As shown in the Exhibit below, the data reported shows which instrument was traded (e.g. CDX.IG Series 19 maturing on December 2017, i.e. the 5y index), whether the trade was an Amendment, a Novation, a Real trade, etc[2]., the price at which the trade was executed, the currency of the trade, the notional of the trade, whether the trade was cleared or not and the time the trade was executed. Note that the trade notional has a block size of $100mn, which means that a $75mn trade will be reported as $75mn, whereas a $125mn trade will be reported as $100mn+. Furthermore, there is a delay between the execution time and the reporting time. Currently this delay is up to one hour.

Exhibit 1: SDR<GO> on Bloomberg reports real time data on CDS indices, index options and index tranches



Source: J.P. Morgan and Bloomberg.

This data is likely to be useful for market participants as it shows quite a few details about trades. DTCC and Markit are already showing some trading volume data for the CDS indices and index tranches, but it is not intraday and does not show size and execution level for each trade (for instance, see our link to CDS Notional Report). Furthermore, this data is published only weekly by DTCC and on the next day by Markit. Therefore, this new data is more complete even though it only pertains to trading done by 'US persons' and so is not global like what DTCC and Markit reports. We believe that the new real-time data will likely be more useful for less liquid instruments than for the more liquid ones as one-off trades can now be seen more timely. Finally, this is the first time that DTCC is releasing any data on CDS index options, with all details about option expiry date and option strike, which will likely bring more transparency to this market.

[1] For more details on the DTCC press release, see http://www.dtcc.com/news/press/releases/2013/real_time_reporting_live.php

[2] Note that all reported trades have to represent a change in market risk position between the counterparties. So, for instance, portfolio compression exercises will not be reported.

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So far in the first few days of trading, the quality of the data currently reported is not optimal, with obvious mistakes. We expect the data quality to improve going forward as occurred in the early days of TRACE reporting.

A correction after the strong rally at the turn of the year

Both CDX indices sold off a bit this week, but the magnitude of the move was limited. This seems to be more a case of the market digesting the sharp rally that occurred at the turn of the year. On the week, CDX.IG widened by 1bp and is now trading at 86bp. Similarly, CDX.HY sold off by 1bp/$0.04 to 438bp/$102.6 now.

However, the indices are 8bp and 51bp/$2.2 tighter YTD and are still trading in the lower end of their recent or post-crisis trading ranges, as shown in the Exhibits below. We therefore believe that this is a more a correction than a real weakening signal as the markets needed to digest the swift early year rally.

Exhibit 2: CDX.IG sold off a bit this week, but is trading in the low end of its post-crisis and recent ranges

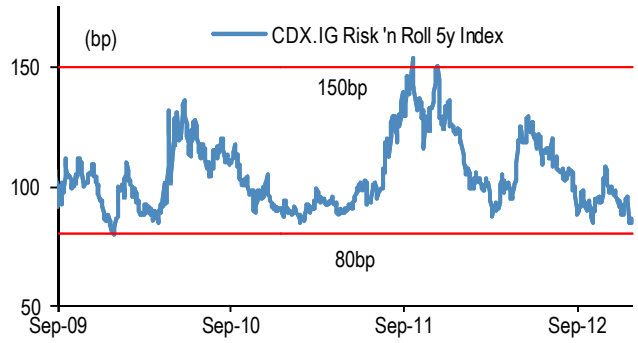
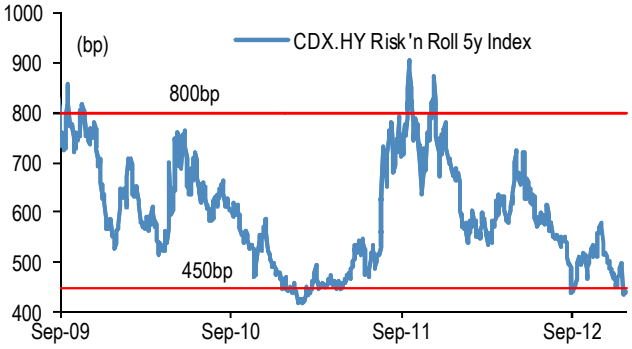


Exhibit 3: Similarly, CDX.HY is cheaper on the week, but remains close to its multiyear tights



Source: J.P. Morgan

But the market remains worried about tail risk

Despite the YTD rally, investors are remaining cautious about tail risk, which seems reasonable given the remaining issues in Europe and in the US. These worries are clearly expressed in the CDX options market. Implied volatility is down a couple of points on the week and is at 45% for both CDX.IG and CDX.HY. However, there has been an increase in tail risk hedging as investors have bought more out-of-the-money put options, especially in CDX.HY. Implied volatility is about unchanged since the beginning of December while both CDX indices are significantly tighter, by about 10bp in IG and 60bp in HY. This should have led to lower implied volatilities. Furthermore, the VIX has fallen by 3pts on the month and is now at 13.8. Therefore, CDX implied volatility might appear somewhat high compared to the indices and to equity volatility. However, we believe that CDX volatility is unlikely to fall much further unless the indices rally significantly. This is due to the remaining significant risks in the short term, especially those related to the debt ceiling.

Option investors seem to be worried about these tail risks as the cost of out-of-the-money put options is relatively large compared to at-the-money put options. This relative price difference is measured in the strike skew, which is the difference between the implied volatility of out-of-the-money put options and out-of-the-money call options. Over the week, the IG strike skew has remained elevated, at about 10%, while the HY skew has increased by 2% and reached 10% as well. This is a rare situation in HY but more common in IG.

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Exhibit 4: The IG implied volatility skew is about unchanged on the week

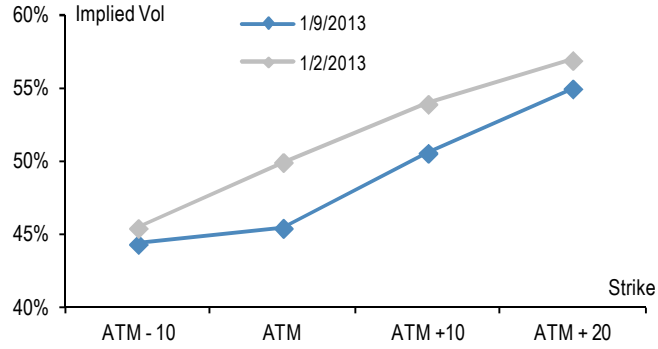
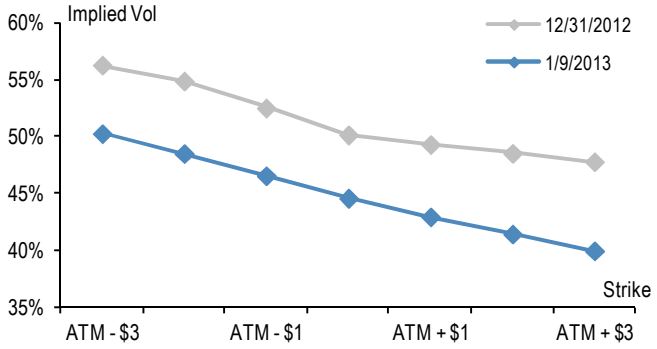


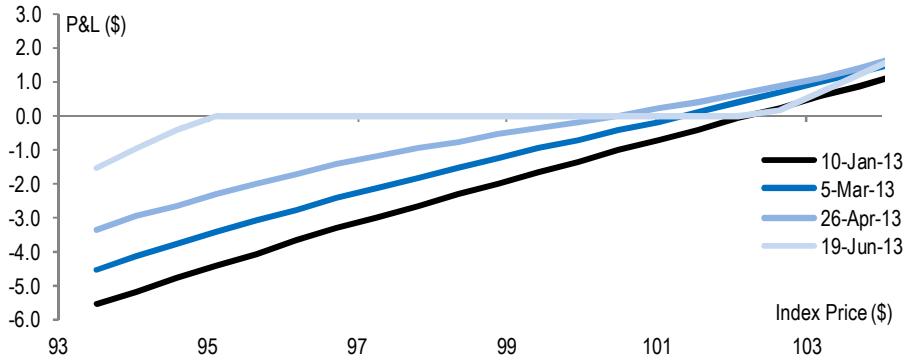
Exhibit 5: But it has increased significantly in HY



Source: J.P. Morgan

As a consequence, HY call options have become relatively cheap and investors who believe that the market will rally going forward but that there is some sell-off risk coming from Washington might find out-of-the-money call options attractive. They might also want to sell a put option against the call option to enter into a zero upfront cost trade. In June CDX.HY options, this can be done by buying a $102.5 call option and selling a $95 put option. The interest of this trade is both to expiry (where it makes money if the index trades above $102.5, but loses if the index is below $95) and before expiry to profit from a flattening of the implied volatility skew or a rally in the indices. The risk is that the index sells off from the current multiyear tights.

Exhibit 6: PnL profile when buying a HY June $102.5 call option and selling a $95 put option



Source: J.P. Morgan.

CDX.HY outperform CDX.IG, likely driven by strong inflows into the HY bond market

So far in the recent rally, CDX.HY and CDX.IG traded about in line with each other, following the long-term trading ratio. However, HY outperformed this week. The correlation between the two indices throughout the recent rally was quite high and followed the usual trading pattern. This was remarkable, given the large moves. However, it seems that this changed this week as HY outperformed IG. HY and IG both sold off by 1bp on the week, so using a 5:1 spread move ratio, this implies that HY outperformed by 4bp/17c. Furthermore, CDX.HY is now trading about 20bp/85c expensive to IG. Note that this is not statistically significant with respect to the strong long-time regression (only 0.9 standard deviations away from the mean).

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The outperformance of CDX.HY is likely due to the strong inflows into the HY bond market this week. HY mutual fund flows will exceed el $1bn this week, the strongest inflow in more than four months. As usual in this situation, many HY bond investors use CDX.HY to tactically put this new money at work while waiting to find cash bonds where these funds will ultimately reside. This pattern of supply/demand in the HY bond market impacting the CDX.HY index has been quite usual in the past few years.

Exhibit 7: CDX.HY is trading a bit tight relative to CDX.IG. This is likely due to the strong flows in the HY bond market

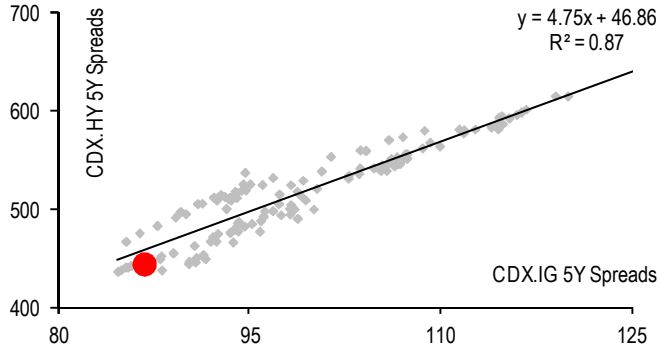
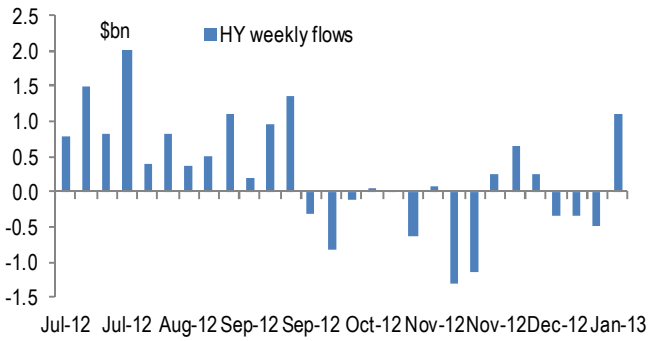


Exhibit 8: Mutual fund flows into HY markets significantly increased this week



Source: J.P. Morgan

Equities outperform CDS, but remain relatively cheap, especially for European Banks

The S&P500 outperformed the CDX indices this week as equities were up by 2pts and both CDX.HY and CDX.IG slightly wider on the week (as of Wednesday's close). Nevertheless, the CDX indices remain relatively tight compared to equities, especially CDX.HY. Based on a 6m or 1y regression, IG is a couple of bp too tight, but HY is about 15bp to 20bp too tight.

Exhibit 9: Equities have outperformed credit this week

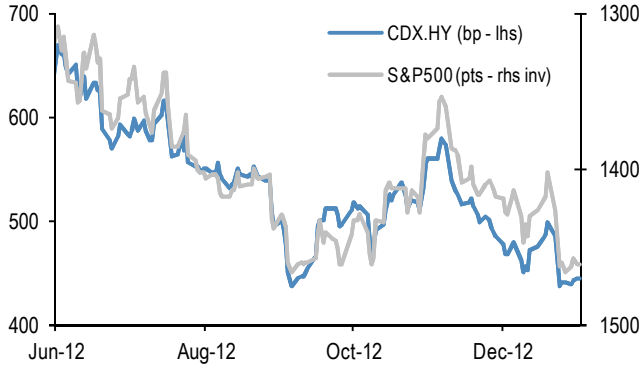
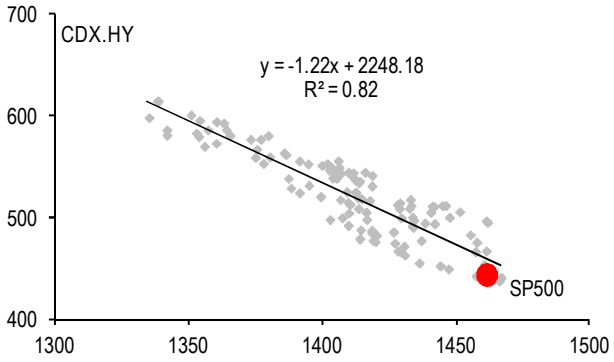


Exhibit 10: But CDX.HY remains tight to SPX



Source: J.P. Morgan

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European Equity Derivatives Weekly Outlook – 1/10/2014

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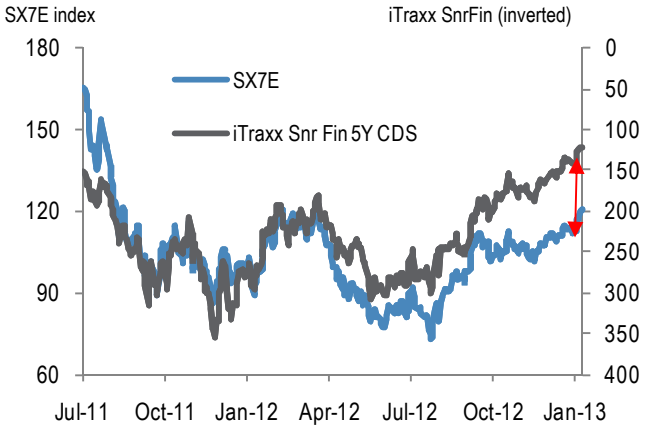
European credit CDS looks too tight vs their equities (see full report link at left)
Although both Financial credit and equities have rallied in recent weeks, there has been a notable outperformance of credit over equity (Exhibit 11). Furthermore, the compression in credit also outpaced that of the SX7E implied vol (Exhibit 12)

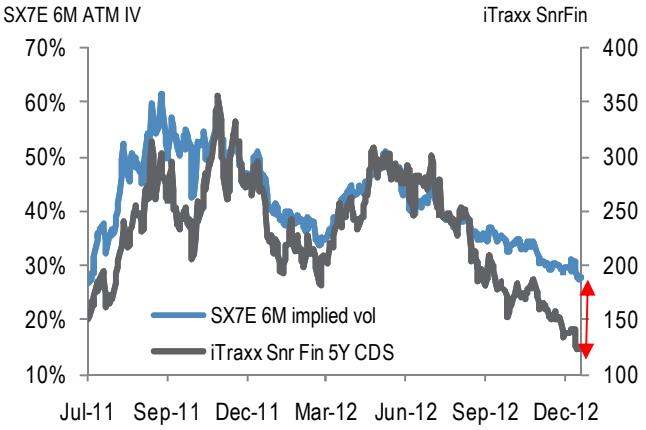
Thanks to our CEV credit-equity model, we can systematically screen for names which may have dislocated credit-equity relationships. As a reminder, the CEV model computes the implied default probability (defined as the stock price going to zero) based on equity prices and implied volatility, then translates the default probability into spread terms. The equity implied spreads, after calibration, can be compared to the market CDS to determine the rich/cheapness of credit risk premium relative to the equity risk premium. Exhibit 13 and Exhibit 14 contains the output from the CEV model. According to our model, **BBVA, UBS, and Credit Suisse** have the most expensive CDS relative to equity. Similarly, **the iTraxx Senior Financial index is also trading rich relative to the Euro STOXX Banks Index (SX7E)**, which confirms our observations.

Exhibit 11: Historical performance of SX7E and iTraxx SnrFin index



Source: J.P. Morgan Equity Derivatives Strategy

Exhibit 12: Historical performance of SX7E implied vol vs. SnrFin index



Source: J.P. Morgan Equity Derivatives Strategy

CDX underperforms, correcting for previous outperformance

As usual in a sharp rally, the CDX indices outperformed in the first stages and underperformed when markets stabilized. Using Wednesday night close, CDX.IG underperformed CDS by 4bp on the week and CDX.HY by 15bp/$0.64. CDX.IG is still trading tighter than its CDS, by about 4bp, but CDX.HY is now trading on top of its "fair value". We do not expect this to change much unless the markets move significantly, but the IG basis looks one or two bp too negative.

Exhibit 13: CDX.IG had strongly outperformed its single name CDS at the turn of the year, but this has corrected, as expected

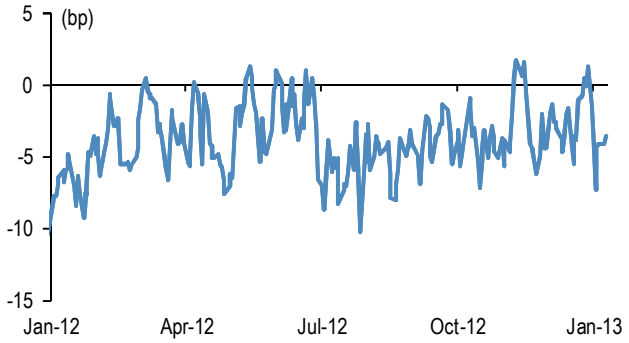
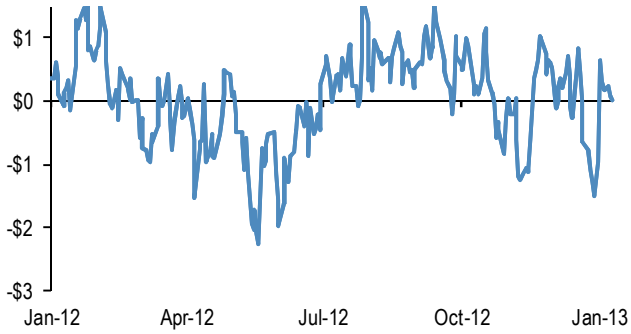


Exhibit 14: CDX.HY is now trading on top of its CDS, after underperforming this week



Source: J.P. Morgan

iBoxx total return swaps underperformed

Credit TRS underperformed the bond market correcting previous outperformance. HG TRS yield widened 2bp, while market yield was slightly tighter. In HY, TRS yield tightened 2bp vs 9bp tightening for the market. TRS is more liquid and reacts faster. As a result the correction is not surprising given the pause in the credit rally this week. Both HG and HY TRS premium to NAV has fallen from the very rich levels last week. In HG the premium has fallen 0.23%/3bp to 0.15%/-2bp, while in HY it has fallen 0.25%/6bp to 0.30%/-8bp. This compares to average premium since October of 0.17%/-2bp in HG and 0.19%/-5bp in HY.

Exhibit 15: HG TRS underperformed bonds correcting last week's outperformance

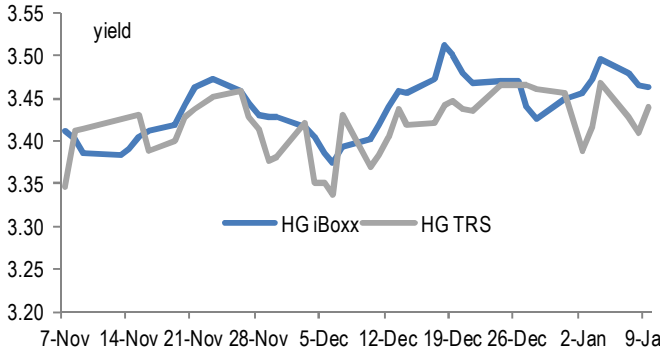
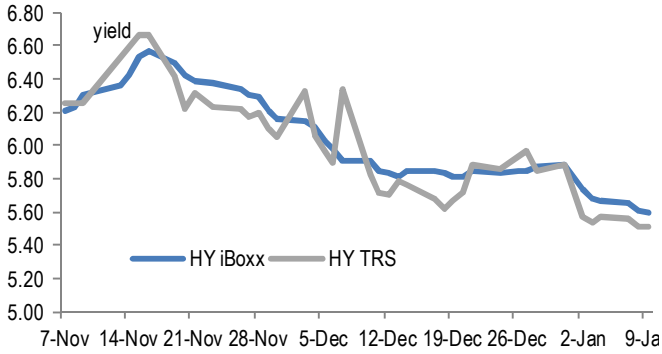


Exhibit 16: HY bonds caught up with TRS this week, lowering the premium to NAV

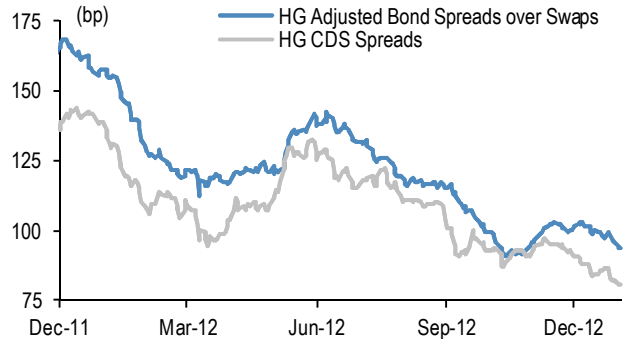


Source: J.P. Morgan

Bonds outperformed CDS this week

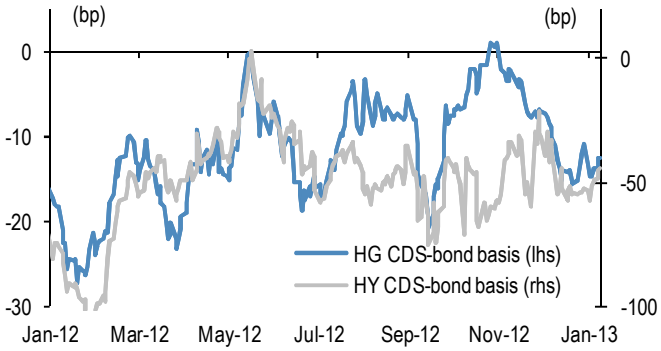
Single name CDS have underperformed their bonds over last week. Since late November, single name CDS have essentially rallied while bonds traded sideways, as shown in Exhibit 11 below for High Grade. However, there was a correction to that trend this week, with bonds outperforming CDS, by 2bp in HG and by 14bp in HY. Bonds are still trading wider than their CDS, on average, however. HG bonds are about 13bp wide and HY bonds by about 44bp. We believe that the current CDS-bond basis is a bit too negative here and expect CDS-bond basis around -10bp in HG and about -30bp in HY.

Exhibit 17: HG single name CDS underperformed their bonds this week



Source: J.P. Morgan

Exhibit 18: And CDS-bond basis has narrowed in both HG and HY

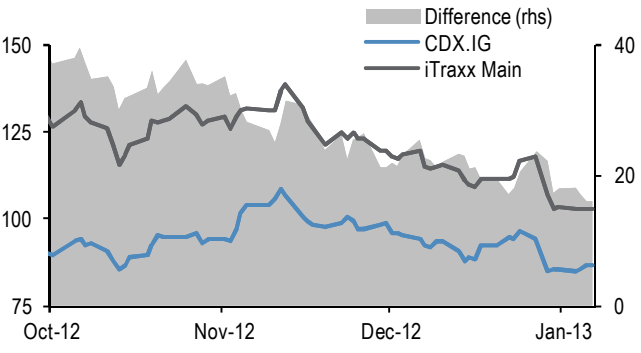


European indices outperformed a bit this week, but the magnitude of the moves was limited

The gap between iTraxx Main and CDX.IG continued to narrow. The Xover/HY gap is somewhat volatile but has been range-bound recently. The US fiscal cliff deal helped CDX.IG outperform iTraxx Main. This week, there was a small reversal, with the gap between CDX.IG and iTraxx Main narrowed by 1bp to 16bp. Altogether, the gap between Main and IG has narrowed quite gradually and is now trading about 15bp tighter than the last time the indices were art these levels. However, that was in October of last year, when CDX had rallied strongly thanks to QE3. Nevertheless, Main is about 7bp too tight vs IG in a 6m perspective, but this is well within of the "normal" noise around that relationship. Furthermore, while the indices are slowly but surely getting closer to their pre-European crisis relative levels, the current gap is similar to the February 2011 levels, but still quite larger than the 5bp gap of April 2010.

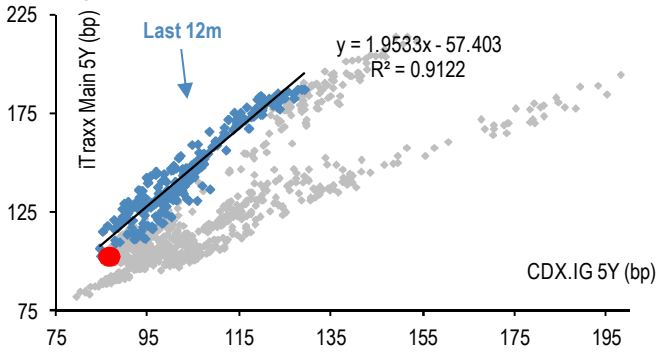
The gap between iTraxx Xover and CDX.HY has been relatively range-bound in the last few weeks, trading between -25bp and 5bp since mid November. This week, Xover underperformed a little bit, but the current gap is 12p, well within the recent range.

Exhibit 19: CDX.IG slightly underperformed iTraxx Main this week



Source: J.P. Morgan

Exhibit 20: The gap between Main and IG is now in-between the levels previously reached when IG was around 85bp



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Trade Tracker

- Our Trade Tracker highlights all the trades since the inception that have been introduced and/or closed in one of our publications, including but not limited to CMOS. Note that the performance of these trades reflects bid/ask spreads but is only indicative. We track the history of all of these trades in CMOS, even if no new trades are introduced or closed that week.
- Since our last publication, our Trade Tracker is up by $46,169. Over the last twelve months, performance is up by $1,508,264 (+11% ROI / +130% IRR).

Exhibit 1: Open trades: summary and mark-to-market

	Entry	Trade Leg			Spreads/Prices		P&L	
Trade Description	Date	B/S[1]	Not'l[2]	Description	Entry	Current	Absolute	Change
Long GS EUR bond vs USD bond	12-Sep-12	B	2.4	GS 4.75 2014 Price	10420	10398	(5,304)	8,616
	12-Sep-12	S	2.4	GS 4.75 2014 Coupon	475	475	37,683	8,867
	12-Sep-12	S	3.1	1y EUR BM Price	9998	10000	(414)	93
	12-Sep-12	B	3.1	1y EUR BM Coupon	0	0	-	-
	12-Sep-12	S	3	GS 5.25 2013 Price	10460	10343	35,010	39,510
	12-Sep-12	B	3	GS 5.25 2013 Coupon	525	525	(52,063)	(12,250)
	12-Sep-12	B	3.1	1y T BM Price	9985	9994	2,772	832
	12-Sep-12	S	3.1	1y T BM Coupon	0	0	-	-
	12-Sep-12	B	2.4	1y Xccy Swap Price	0	2	(35)	-
	12-Sep-12	S	2.4	1y Xccy Swap Coupon	27	27	2,129	501
							19,778	**46,169**
Open Total							**19,778**	**46,169**
Closed Total							**1,476,699**	
Portfolio Total							**1,496,477**	

Source: J.P. Morgan. Note: Trade levels as of day before publication date. 1 B/S - Buying or Selling protection for CDS trading in upfront terms and for its coupon; the opposite if the CDS is trading in Price terms; if the instrument is not a CDS and is based on price then B and S refer to buying and selling the instrument. 2 Not'l - this is in millions. 3 Change - this is the change since we last published the Trade Tracker.

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Exhibit 2: Closed trades: summary and mark-to-market

Trade Description	Entry Date	Exit Date	P&L description	Trade P&L	Trade ROI	Trade IRR
Trades closed prior to 9-Jan-12				846,557		
SWY 3s5s flattener	7-Sep-11	26-Jan-12	Taking profits on trade	6,549	16%	48%
Long risk CDX.IG S9 5y 3-7 tranche	17-Jan-12	26-Jan-12	Taking profits on trade	93,056	24%	587292%
MTNA 2019 / 2020 High-Price vs Low-Price	14-Sep-11	13-Feb-12	Taking profits on trade	54,202	27%	78%
Long BAC EUR bond vs USD bond	18-Jan-12	22-Feb-12	Taking profits on trade	51,300	19%	514%
Long GS EUR bond vs USD bond	18-Jan-12	14-Mar-12	Taking profits on trade	13,604	5%	38%
VZ 2037 / 2041 Liquidity pair	22-Feb-12	14-Mar-12	Taking profits on trade	20,659	8%	260%
ECACN 2037 / 2041 Liquidity pair	22-Feb-12	16-Mar-12	Taking profits on trade	18,762	7%	190%
NBR 2019 / 2018 High-Price vs Low-Price	14-Mar-12	29-Mar-12	Taking profits on trade	41,289	15%	3090%
BHP 2017 / 2016 High-Price vs Low-Price	14-Mar-12	11-Apr-12	Taking profits on trade	38,594	14%	471%
GE 2016 / 2015 Liquidity pair	22-Feb-12	18-Apr-12	Taking profits on trade	17,063	6%	49%
Long DE EUR bond vs USD bond	18-Jan-12	18-Apr-12	Taking profits on trade	19,460	7%	32%
RIOLN 2019 / 2018 High-Price vs Low-Price	14-Mar-12	2-May-12	Taking profits on trade	38,819	14%	172%
NWSA 2039 / 2037 High-Price vs Low-Price	14-Mar-12	2-May-12	Taking profits on trade	39,580	15%	177%
IG to outperform SPX	16-May-12	18-May-12	Taking profits on trade	129,406	4%	222312%
Short risk LCDX vs long risk CDX.HY	6-Mar-12	30-May-12	Taking profits on trade	78,141	20%	115%
NWSA 2039 / 2041 Liquidity pair	22-Feb-12	6-Jun-12	Taking profits on trade	27,705	10%	40%
Long the IG S14/S17 roll	18-Jan-12	6-Jun-12	Taking profits on trade	35,042	10%	28%
K 3s5s flattener	7-Sep-11	20-Jun-12	Did not perform as expected. Exiting with a small loss	(1,716)	-4%	-5%
IG/HY spread compression through calls	28-Feb-12	20-Jun-12	Taking profits on trade	40,000	80%	568%
Sell CDX.IG S17 June Straddle	22-Feb-12	20-Jun-12	Taking profits on trade	110,730	74%	445%
AXP 2015-2017 bond curve flattener	25-Jul-12	8-Aug-12	Taking profits on trade	20,824	7%	510%
Long AIG EUR bond vs USD bond	18-Jan-12	8-Aug-12	Taking profits on trade	22,188	8%	15%
Long TD EUR bond vs USD bond	18-Jan-12	8-Aug-12	Taking profits on trade	22,494	8%	15%
AIG 2015-2016 bond curve flattener	25-Jul-12	8-Aug-12	Taking profits on trade	23,685	8%	625%
GS 2015-2016 bond curve flattener	25-Jul-12	8-Aug-12	Taking profits on trade	28,923	11%	1464%
MS 2015-2016 bond curve flattener	25-Jul-12	5-Sep-12	Taking profits on trade	15,613	7%	73%
BK 2015-2016 bond curve flattener	25-Jul-12	5-Sep-12	Taking profits on trade	15,910	5%	54%
MO 1939 / 1942 High-Price vs Low-Price	19-Sep-12	10-Oct-12	Taking profits on trade	20,739	8%	262%
VZ 1939 / 1941 High-Price vs Low-Price	19-Sep-12	10-Oct-12	Taking profits on trade	65,356	24%	4228%
CDX.IG S18 5s10s falttener	25-Jul-12	17-Oct-12	Did not perform as expected. Exiting trade with a loss	(172,260)	-34%	-84%
Long BAC EUR bond vs USD bond	12-Sep-12	24-Oct-12	Taking profits on trade	14,186	5%	56%
IG/HY spread decompression through puts	19-Jul-12	24-Oct-12	Taking profits on trade	22,500	15%	69%
CMCSA 2022 / 2022 High-Price vs Low-Price	19-Sep-12	24-Oct-12	Taking profits on trade	35,006	13%	257%
Long MS 13 EUR bond vs USD bond	12-Sep-12	14-Nov-12	Taking profits on trade	19,813	10%	78%
UNH 1937 / 1942 High-Price vs Low-Price	19-Sep-12	14-Nov-12	Taking profits on trade	33,231	27%	375%
Long MS 14 EUR bond vs USD bond	12-Sep-12	14-Nov-12	Taking profits on trade	57,427	22%	218%
Long C EUR bond vs USD bond	12-Sep-12	2-Jan-13	Taking profits on trade	12,108	6%	21%
Long GS EUR bond vs USD bond	12-Sep-12	2-Jan-13	Taking profits on trade	21,710	7%	26%
Long IG call option vs short IG put option	12-Dec-12	2-Jan-13	Taking profits on trade	325,000	33%	13212%
Total				**1,476,699**	11%	130%

Source: J.P. Morgan.

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Feature

Introducing the J.P. Morgan High Grade Curve Model and Relative Value Report

- We are introducing a curve model with the goal of identifying bonds which are rich and cheap across the curve
- The model compares each bond to others by the same issuer based on current spreads and with an historical perspective, so bonds appearing out of line are compared to their usual trading relationship to the curve
- Our framework uses spreads adjusted for dollar price difference between bonds (i.e. par equivalent spreads)
- The curve model chosen to fit the bonds takes into account trading volumes so more liquid bonds are given more weight in the curve definition
- We produce a daily report which shows the curve and outliers for each credit, with summary tables listing the richest and cheapest senior unsecured bonds across credits and by maturity bucket. Note that bonds which are always cheap or rich are identified
- In this note, the model and report are first introduced at a general level. We then present more detail on the framework and backtest it. Finally, the Appendix gives more mathematical details about the curve model used in the report

Single issuer bond relative value across the maturity curve

One of the key decisions facing investors is to decide in which specific bond to invest once the choice of sector, issuer and maturity has been made. For the largest issuers with many bonds outstanding there often are quite a few alternatives available. These different bonds from the same issuer and similar maturity often have different spreads. We present a framework that identifies which bonds are cheap and expensive relative to the other bonds.

Our framework is based on a relatively intuitive curve model that we believe is representative of the shapes that credit curves tend to take. Each specific issuer curve is driven by the spreads of all the pari passu bonds of that issuer on that day. The relative value of the bonds is determined relative to this curve.

However, note that such a framework will always have some limitations. Some of the bonds spread difference might be justified by their different characteristics (e.g. bond vintage, price, liquidity, size, etc). While it is relatively easy to systematically adjust bond spreads for some of these factors (e.g. price – see link to 9/21/12 CMOS with price discussion), others are more difficult to take into account (e.g. bond size).

In our framework, we adjust spreads for price but not for bond vintage, size or liquidity. However, our framework gives more importance to the larger and more liquid bonds in defining the curve. This is done for two reasons. First, these bonds tend to trade more frequently and as a consequence their pricing tends to be more precise and better reflect market valuation. The higher weight given to these bonds in the model curve construction should make that model curve more representative of the market sentiment on that issuer across maturities. Second, the goal of the daily

report is to highlight opportunities that are executable. Therefore, we do not find it very useful to highlight bonds that always trade wider/tighter than the other bonds because of some of their characteristics. A typical example is a small illiquid bond issued a few years ago which may trade systematically wider than similar large and liquid bonds issued recently. The report does not ignore these bonds, so that investors in these bonds can compare them to the other bonds from that issuer, but they are not highlighted in the report as attractive opportunities on that day.

Below, we start by presenting the daily report. We then describe the model in more details and explain how the report is constructed every day. Finally, the backtest we performed of the model is reviewed. It showed that the model was predictive of future spread changes.[3]

Daily Report

The report is divided in two parts. First, a summary of the most significant outliers across all companies considered. This first part contains 12 tables: two tables for the current cheapest/dearest bonds relative to their respective issuer curve, two tables for the bonds that have widened/tightened the most relative to their respective issuer curve over the last week and two tables for each 1-3yr, 3-5yr, 5-10yr and 10yr+ maturity buckets.

Second, a presentation of all the bonds for each issuer and a relative value analysis across this issuer credit spread curve. This is done both graphically and in a table with all the bonds considered in the analysis. The visual presentation is done with two figures: a graph showing all the bonds and the model curve, and a graph showing each bond spread relative to the curve. The table shows all the numerical details for all the bonds from that issuer, with the usual bonds characteristics (coupon, time to maturity, price, benchmark spread etc) as well as their spread relative to the curve (expressed both in bp and in number of standard deviations away from the curve). This table also highlights the bonds we consider to be significant outliers.

[3] Note that successful backtesting does not guarantee future success.

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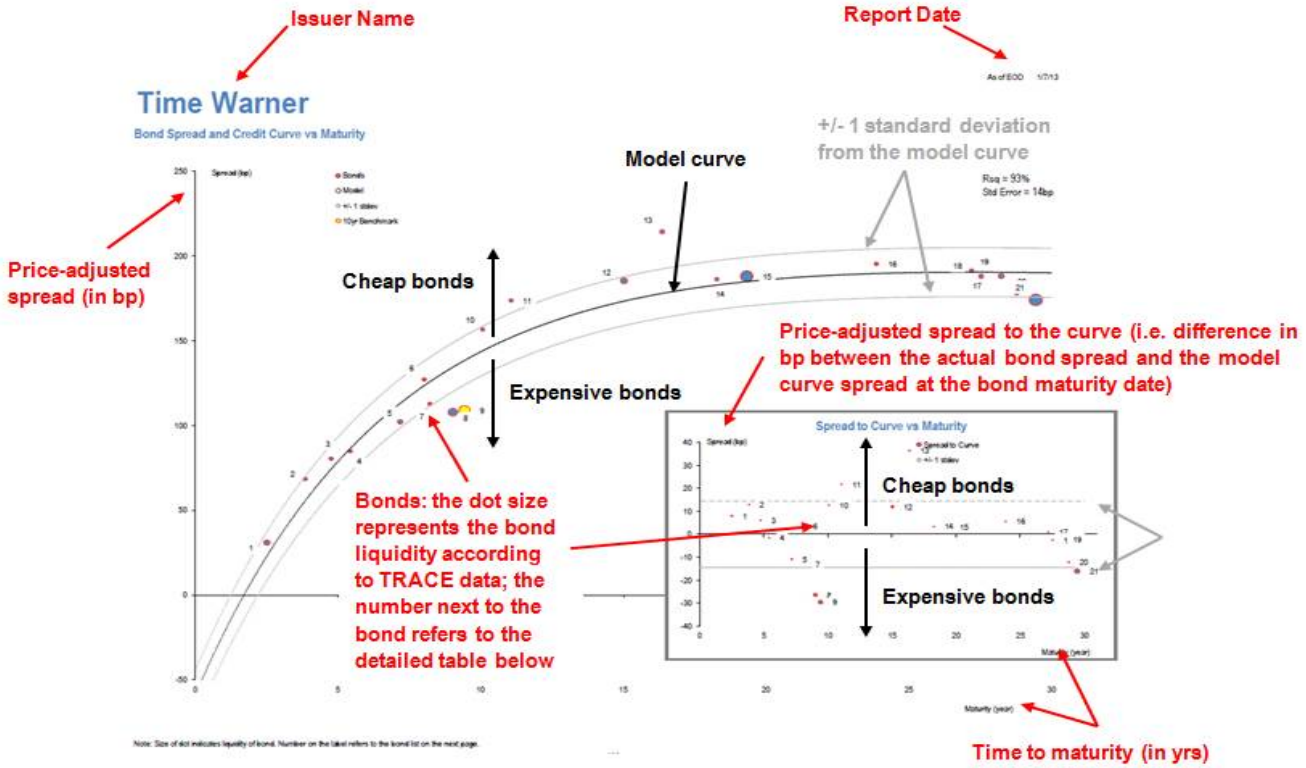
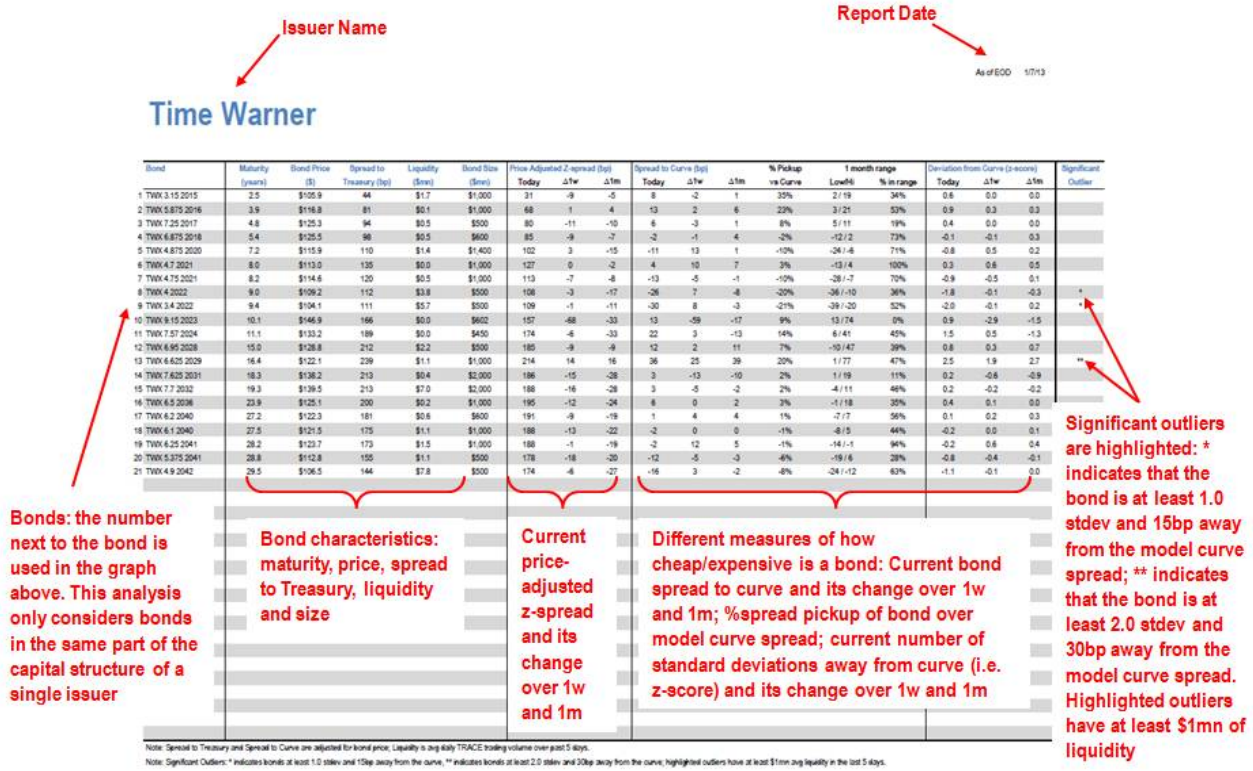
Exhibit 1: Visual depiction of all the bonds and the model curve for a specific issuer



Source: J.P. Morgan

Exhibit 2: Detailed tables of all the bonds from that issuer considered in the analysis with their main characteristics and measure of their relative cheapness/expensiveness vs the model curve. Significant outliers with sufficient liquidity are highlighted



Source: J.P. Morgan

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The summary tables in the first two pages of the report use the same metrics as shown in the Table above. The tables on page 1 highlight the richest and cheapest bonds relative to their model curve as measured by the number of standard deviations away from their curve (i.e. z-score). The tables on page 2 highlight the bonds that have tightened/widened the most relative to their respective curve over the past week, as measured by the 1-week change in z-score.

Introduction to the curve model and its construction

There are a multitude of curve models that can be constructed. Each of these choices will have pros and cons and always entails some compromise. The more extreme models are on the one hand those based only on the most traded bonds (aka "Gogo models") and on the other hand highly complex models based on some fundamental theoretical construction of credit curves. Our choice of model stands somewhat in between. Technically, our model belongs to the family of "forward shock models" and is based on the work done by our colleagues in London (link).

We believe that any model should be constrained by the following requirements:

- As simple as possible, but not too simple (e.g. need to allow for standard curve shapes: upward sloping, inverted and humped)
- "Universal", i.e. can be used across different companies/sectors
- Takes liquidity into account in the curve model itself
- Uses price-adjusted spreads rather than benchmark spreads or spreads to Treasury to feed the model
- Works historically: Framework produces positive gains with small volatility and meaningful success rate when backtested using actual history

Pros and cons of two alternative models in more details: Gogo vs Forward Shock

Many market participants tend to look at the credit curve by solely focusing on the "on-the-run" or "Gogo" bonds. The relative value of other bonds is determined relative to the Gogo bond curve. The main advantage of this model is its simplicity and its ease of use. However, we believe this model to be a little too simplistic and we prefer using a slightly more involved model called the "forward shock model" that takes into account all the bonds to infer a model curve, but giving more weight to large liquid bonds. Below, we describe each model and what we believe are their main pros and cons. Together, we believe that the forward shock model offers a better compromise to describe credit curves.

1. Gogo model: the issuer reference curve is solely determined by its "on-the-run" (i.e. Gogo) bonds
    - Construction: Use the Gogo bond in each maturity bucket and connect them piecewise linearly to form the issuer reference curve
    - Pros:
        - Simplicity
        - Many market participants look at spread curves this way
        - Works well in backtest
    - Cons:

- Choice of Gogo can sometime be arbitrary; as is the choice/definition of the tenor buckets
- There's not always a Gogo bond for each tenor bucket (often there is none for the 5-7y bucket)
- Shortest Gogo tends to be a 3y bond, so it is hard to determine relative value for bonds with less than 3y left to maturity (i.e. shorter than the shortest Gogo)
- Similarly, it is hard to determine relative value for bonds with longer maturity than the longest Gogo
- Gogos change with new issuance, so the Gogo curve can significantly change with new issuance (e.g. because of new issue concession)
- Gogos tend to trade tighter than any other bond (liquidity premium), so all bonds will tend to look wide to the Gogo curve
- The model ignores other information given by the market (e.g. from non-Gogo bonds that have decent liquidity)

2. Forward shock model: the issuer reference curve is determined by fitting all bonds to a curve model based on general credit curve intuition. More weight is given to liquid and large bonds
    - Construction: The curve model (aka "forward shock model") is constructed using some intuition on credit curves and on forward spreads. It contains only 3 parameters. These 3 parameters are optimized so that the average "distance" of the bonds to the curve is as small as possible, giving more weight to large liquid bonds. (see the Appendix for more details on the model construction and math).
    - Pros:
        - Takes all information available into account
        - Model is relatively simple with only a few parameters
        - Works well in backtest
    - Cons:
        - Market does not tend to think about curves this way, so it might lead to discrepancies (but also to opportunities)
        - Model not as simple as the Gogo model
        - Implicitly assumes that all bonds are connected, from the 1y bond to the 30y bond, while many investors look at the curve in a piecewise perspective (i.e. short end, bulk and long end)
        - The largest and most liquid bonds tend to trade systematically tighter than the reference curve (but that is a simple reflection of liquidity premium)
        - Cannot reproduce all imaginable shapes (e.g. negative forward spread)

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Backtesting the model

In this section, we show that the model described above leads to enhanced returns with relatively low volatility. While we believe that our model adequately identifies relative value across bonds, we also think that the model implications in bonds to be traded should be tested. There are many ways to test such models, but they are always based on historical data. Therefore, the conclusions of this test only show that the model would have worked historically and this does not guarantee that the model will work going forward. However, we believe that passing such test is a good sign that the model is and will be useful.

The backtest strategy we used is relatively simple. We considered the bonds of the twenty largest USD HG issuers[4] over a period of 2.5 years (i.e. 30 months, or about 300 bonds per months on average between January 2010 and June 2012). At the end of the first business day of each month, we identified all the cheap/expensive large and liquid bonds for each of these issuers[5]. If a bond was identified as "too cheap" by the model, we bought it and sold against it the closest Gogo bond (i.e. the on-the-run bond). Similarly, if a bond was found to be "too expensive", we sold it and bought the closest Gogo bond[6]. Each trade was then held for one month and exited in a five-day window at the beginning of the next month[7].

Finally, we tested two implementation strategies. In the first one, the "trade by trade strategy", the same amount of money was invested in each bond, no matter how many opportunities were identified at the beginning of that month. In the second strategy, the "month by month strategy", we invested the same amount of money at the beginning of each month. In other words, we invested $100 in one bond if there was only one attractive bond at the beginning of the month, but we invested $10 in each bond if the model identified ten bonds to be attractive at the trade entry date. These two strategies test slightly different characteristics of the returns. In particular, the first strategy tests the quality of every single trade independently and whether the model leads to very bad trades. On the other hand, the second strategy tests whether the model consistently delivers month after month in sell-offs or rallies and determines whether there are months were the model performs poorly.

The Tables below show the backtest results for both strategies. We find that these strategies were quite successful: the performance of the outlier bond identified by the model relative to the Gogo bond leads to an annualized excess return of more than 8% (i.e. about 0.66% per month). This result is consistent across the two strategies considered, trade by trade or month by month, and this return is consistent whether all bonds are taken into account or if we focus on the cheap bonds only or on the expensive bonds only. Furthermore, the trades worked most of the time: 68% of the trades and 86% of the months had positive returns. Returns were also higher than the volatility of these returns across trades or months, leading to an information ratio (i.e. return / return volatility) of 1.3 in the trade by trade perspective and of 3.4 in the month by month strategy. The worst trade returned -4.7% and the best one returned

[4] ABI, AMGN, BAC, C, CAT1, CMCSA, COP, GELK, GS, HPQ, JPM, KMP, MET, MS, PEP, PRU, RIO, T, VZ, WMT.
[5] To be precise, we defined attractive outliers as those being at least 30bp and 1 standard deviation away from the model curve. We only used bonds that traded at least $1mn on the entry and closing days. Note that overall results are not significantly affected if the liquidity constraint is changed between $0.5mn and $2mn, there are just fewer trades in the latter case.
[6] Note the results presented here are for equal notional trades between the two bonds. Results are only marginally different if the trades are executed with duration-weighted notionals.
[7] To avoid mispricing, we allowed the trade to be exited on a day when these bonds were liquid in the first week on the month.

10.0%. In the "month by month" strategy, the worst month had a -0.4% return and the best one had a 2.8% return. Finally, note that the model identified about 200 trades (i.e. almost 7 trades for each possible trading day) and that it led to trades almost every time (29 months out of 30, so 97% of the time). These results show that the curve model presented here would have enhanced returns in the last few years.[8]

Exhibit 3: Trade by trade results

	Number of trades	Return	Success rate	Return Volatility	Information Ratio*	Median Return	Min Return	Max Return
All trades	197	8.2%	68%	6.2%	1.3	0.4%	-4.7%	10.0%
Cheap bonds only	119	8.5%	67%	5.7%	1.5	0.5%	-3.3%	8.0%
Expensive bonds only	78	7.7%	69%	6.9%	1.1	0.4%	-4.7%	10.0%

Source: J.P. Morgan. Note: Information Ratio is given by Return / Return Volatility. The larger the Information Ratio the better

Exhibit 4: Month by month results

	Number of trades	Return	Success rate	Return Volatility	Information Ratio*	Median Return	Min Return	Max Return
All trades	29	8.7%	86%	2.5%	3.4	0.5%	-0.4%	2.8%
Cheap bonds only	28	7.3%	82%	2.9%	2.6	0.4%	-1.3%	2.1%
Expensive bonds only	24	8.4%	79%	3.8%	2.2	0.4%	-0.4%	4.6%

Source: J.P. Morgan. Note: Information Ratio is given by Return / Return Volatility. The larger the Information Ratio the better

All the results above are shown for trades executed at mid level. It is legitimate to ask whether this strategy works when bid/ask is taken into account. The answer is mixed. On the one hand, if the trade is really to buy one bond and sell another one and then to close both trades one month later, then bid/ask costs will more than eat up all the excess return. Indeed, we found a monthly excess return of 0.66% when executed at mid, but bid/ask costs for a typical HG bond is about 0.7% (i.e. 10bp bid/ask and 7y duration).

On the other hand, when an investor always has to pay bid/ask costs when he buys a bond whether this model is used or not. What the results above show is that choosing bonds that are deemed attractive by the model leads to an excess return of 0.66% per trade on average. This is still true after bid/ask costs are taken into account. In other words, if you buy a random bond and sell it a month later, your average return will be lowered by the 0.7% bid/ask. However, the backtest shows that if you buy a bond deemed cheap by the curve model described here, the bond return will enhance by 0.66% per month, on average, while still being lowered by the 0.7% bid/ask cost. Now, in the trades above one of the bonds traded is a Gogo bond and the other one is not (but it is a liquid bond that traded at least $1mn on the trade day). So, the Gogo bond bid/ask is likely narrower than that of the non-Gogo bond. Therefore, we should assume that the Gogo bid/ask is smaller than that of the non-Gogo. Let's assume 10bp for the Gogo and 15bp for the non-Gogo. In that case, the model still leads to an excess return of about 0.3% per month (since the non-Gogo bid/ask cost is 0.35% higher than the Gogo bid/ask cost and the curve model excess return is 0.66% per month on average). Therefore, trading according to the curve model signals leads to a post-transaction cost excess return of about 3.7% when comparing very liquid bonds to less liquid bonds.

[8] Note that trading according to a curve model defined by Gogo bonds only also leads to enhanced returns. However, we find that returns and information ratios are somewhat worse than the ones discussed here.

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Trading Rich/Cheap Signals in EM Sovereigns & Corporates

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Appendix: The forward shock model in more detail

The intuition behind the forward shock model is that future credit spreads are made up of different economic effects that impact an issuer's default probability at different points in the future. Long-term economic growth prospects and short-term funding stresses would be examples of these economic effects. In a more formal sense, (instantaneous) forward credit spreads can be thought of as constant spread (a0) plus a combination of some economic shocks on some unknown average timeframe λ_i[9]. We can model these shocks as exponential random variables Y(s, λi) for given forward dates distributed according to:

$$\text{Forward rate } f(s) = a_0 + \sum_{i=1}^{n} a_i\, Y(s,\lambda_i), \text{ where Shock Variable } Y(s,\lambda) \sim \text{Exp}\left(\frac{1}{\lambda}\right)$$

This will mean that there is current information which leads us to have a view about immediate default probabilities and that this information gets weaker as time goes on. So that at some point the short-run information gives way to long-run factors. Now we can say that the fair credit spread up to maturity x is the average of the integral of the instantaneous forward rate along all points up to this maturity.

$$\text{Fair credit spread } C(x) = \frac{1}{x}\int_0^x f(s)ds = a_0 + \sum_{i=1}^{n} a_i \frac{1-e^{-\lambda_i x}}{x} = a_0 + \sum_{i=1}^{n} a_i\, S(x,\lambda_i)$$

In general this will require (2n+1) degrees of freedom to fit non-linearly for a_i and λ_i, where a corresponds to the magnitude of the effect upon forward spreads and λi^{-1} gives the expected timeframe. In theory, these timeframes should correspond to particular forecasts for a given issuer fundamentals. For example, a 10 year fiscal plan (the shock) might lead to a credit improvement with average effect around 5 years (which would give a $\lambda = 5^{-1} = 0.2$). Two problems are: i) that as we increase our degrees of freedom we increase our risks of overfitting; and ii) since all of our parameters are essentially interchangeable we end up with a model which is not robust to small changes in single name spreads.

In practice we can tackle both of these issues by forcing λ_i to take on predetermined value without losing much descriptive power. This simplification allows the use of simple linear regression techniques based on S(x), which can be easily implemented. We chose to use a simple three factor model, with two λs chosen empirically to represent unknown short- and mid- term factors. We settled upon using expected life of 5 and 20 years (the continuous equivalent of two known constant 10 year and 40 year shocks), which fits well with our intuition of the horizon of investor views. Note that this choice is not totally arbitrary, as these parameters emerge as one of the best fits when many issuers are combined over different dates[10]. The key point here is that we use two factors that differ significantly: a shorter term factor which decays due to our uncertainty over forecasts and regime change and a longer term factor that models the longer term trends.

The Forward Shock model is not a *no arbitrage* model for forward spreads. In contrast to bootstrapping methods, which work out an implied default probability as

[9] This is an adapted form of Julian Wiseman's work on The Exponential Yield Curve Model, (JPMorgan 1994). Importantly this uses a general λ_i factor which should be found by nonlinear optimization. In practice this adds to the computational complexity and severely limits potential degrees of freedom. Our implementation addresses some of these issues.

[10] In other words, using the model without constraining the λs, these can be determined by fitting the model across many issuers and all their bonds and over many dates. We have done such fits across different issuers and for different dates. This procedure shows that our choice of parameters is consistently good across issuers when spreads are tight, wide or in-between.

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the only determinant of credit spreads, our model allows for other factors (such as liquidity, convexity or repo considerations) to alter spread dynamics. This would allow us, in theory, to fit a curve with negative implied forward conditional default probabilities. In practice, we do not think that the market would allow interpolated curves that imply negative default probabilities to persist for long.

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Feature

Client Survey

Summary: Investor bullishness towards spreads cooled somewhat from last month. 41% expect spreads to be tighter 1 month forward, down from 52% last month, with 29% expecting wider spreads up from 18% last month. 63% of insurance companies expect tighter spreads while 30% of asset managers do. This wide gap is interesting as it suggests asset managers are focused on potential reduced demand for HG credit given low potential returns, while insurance companies are faced with needing to buy bonds with few available thanks to the Fed, and are therefore more bullish on the direction of spreads. There was little change in cash positions, with 60% reporting average cash balances and the remaining split evenly between those with low and high cash positions.

On the first special questions regarding the growing share of 144a bonds in the HG market 30% responded that some of their funds were at or near limits re adding more 144a bonds, another 23% said they had funds with limits but they were not yet constraining buying, and 48% said they were not impacted by this issue. On the second question re positioning in Financials vs. non-Financials 66% reported being OW financials, but somewhat less than last year. 20% were UW Financials with 1/2 of these lowering the UW, and 14% were neutral Financials. On the third question re the attractiveness of long end bonds 24% said they were unattractive and were waiting for yields at least above 5% (vs. 4.47% today). 32% also thought current levels unattractive but that the backup in yields was close to attractive levels. 23% were more optimistic on the long end, citing an expectation for QE3 to continue and for pension fund demand for long end corporates to increase.

Note: Our spread outlook index is calculated as (% expecting tighter spreads + % expecting unchanged spreads)/ (%expecting wider spreads + % expecting unchanged spreads). This is the same formula for the corporate bond weighting and cash position indices.

Spread outlook: Investor bullishness towards spreads cooled somewhat from last month. 41% expect spreads to be tighter 1 month forward, down from 52% last month, with 29% expecting wider spreads up from 18% last month. 63% of insurance companies expect tighter spreads while 30% of asset managers do. This wide gap is interesting as it suggests asset managers are focused on potential reduced demand for HG credit given low potential returns, while insurance companies are faced with needing to buy bonds with few available thanks to the Fed, and are therefore more bullish on the direction of spreads.

Cash Position: There was little change in cash positions, with 60% reporting average cash balances and the remaining split evenly between those with low and high cash positions. This is despite heavy issuance total issuance of $160bn between November and December, which suggests that inflows were equal to the supply.

Weighting to HG credit: Most (78%) of the investors are Neutral relative to their target positions. The remainder report being OW but this is down from last month when 34% reported being OW. The proportion of investors reporting an UW allocation decreased to 0% from 5% in December.

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Exhibit 1: Investors are less bullish than last month. Investor views of the market have been quite volatile recently (our Outlook index)

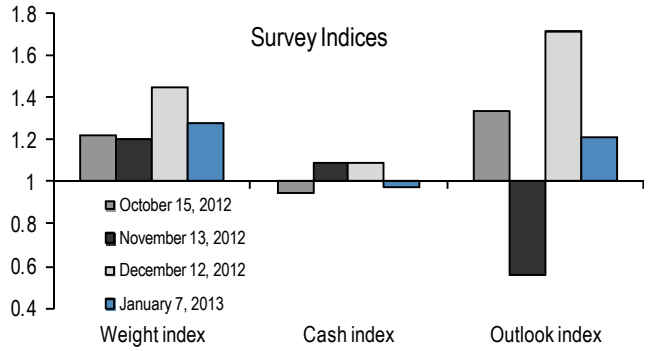


Exhibit 2: Allocations to HG decreased slightly in the recent survey

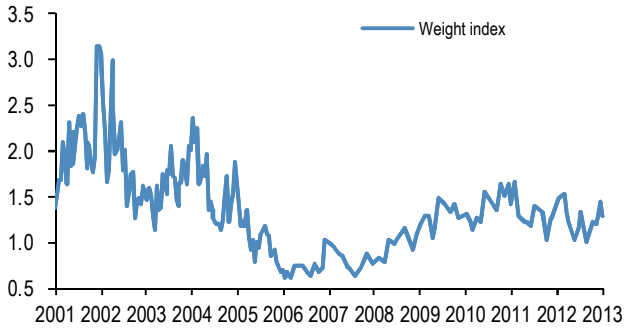


Exhibit 3: Cash balances were modestly lower than last month

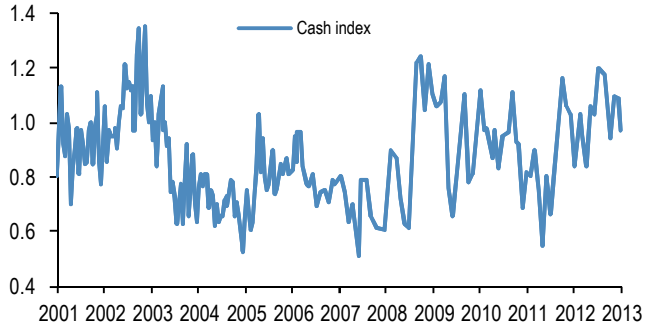
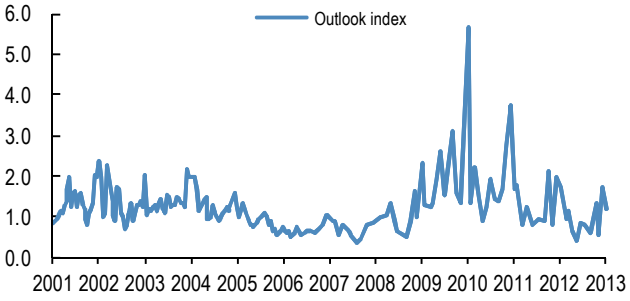


Exhibit 4: Investor bullishness towards spreads cooled somewhat from last month



Source: J.P. Morgan

Special survey questions:

144a issuance represented 30% of supply last year, up from 25% before the crisis, primarily due to the increasing share of Yankee issuers. 144a's now represents 18% of our index. Does this have an impact on your investing? 48% said no, they had no meaningful constraints limiting 144a purchases; 23% said no, but had limits in their accounts that they hadn't yet reached, and 30% answered that this moderately impacted their investing as some of their accounts were at or near their 144a limits.

Financials outperformed Non-Financials by 51bp in 2012 benefitting many active managers. How are you positioned in Financials vs Non-Financials going into 2013? 66% are Overweight (27% are OW by the same extent as last year, 29% are less OW than last year, and 10% are more OW than last year). 20% are Underweight Financials (10% about the same extent as least year, and 10% are less UW than last year). 14% reported being Neutral, most were also Neutral last year. This suggests investors come into 2013 expecting Financial outperformance to continue.

Both the spread curve and the treasury curve have steepened lately. As a result, the 10s30s spreads are at 16bp, only a few bp flatter than their post-crisis steepest and the 30-yr all-in yield is now about 4.5%, on average. Do you find long-end bonds attractive? 24% answered no, the current valuation is not compelling as long-end yields need to be at least above 5%. 32% said no, but the valuations were getting close to being compelling. 12% responded yes, there is little chance for QE3 to end soon, so long-end all-in yields will remain relatively attractive compared to other maturities, and 10% answered that current valuation and high stock prices will naturally lead LDI driven investors to rotate into 10+yr bonds.

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Feature

The year of the corporate rally

Short Term Fixed Income Weekly – 01/4/2013

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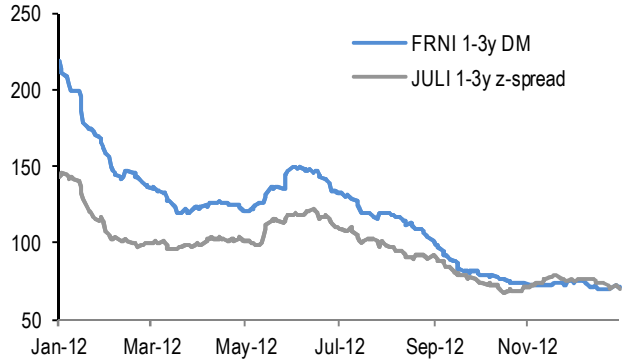
The year 2012 proved to be a very strong year for front-end corporates. Based on our JULI fixed-rate and FRNI floating-rate bond indices, 1-3y fixed and floating rate bonds both returned 5% on a total return basis, coming after a rather lackluster performance in 2011 of 2% and -1% respectively. The conclusion of the Moody's bank review, combined with the extraordinary actions taken by the ECB over the course of the past year (e.g., 3y LTROs, OMT announcement), reinvigorated many investors' risk appetite for credit. Tack on the Fed's unwavering pledge to keep interest rates low at least until mid-2015, it fueled the demand of many short duration investors to grab what little yield was still available by extending beyond the money markets. Indeed, if we use JPMorgan's Cash Index as a proxy for returns on rolling 3mo and 6mo credit instruments, investors would have received an annual total return of a mere 0.8% and 1.4% respectively.

Exhibit 1: Short duration corporate spreads tightened significantly in 2012…



Source: J.P. Morgan

Exhibit 2: …with spread compression in both financials and non-financials

	Index		Financials		Non-Financials	
Date	FRNI (DM)	JULI (Z-Spread)	FRNI (DM)	JULI (Z-Spread)	FRNI (DM)	JULI (Z-Spread)
12/30/2011	226	143	265	228	72	70
3/30/2012	121	97	149	145	39	55
6/29/2012	134	113	166	162	35	70
9/28/2012	82	78	101	105	22	53
12/31/2012	72	72	87	87	28	59
y/y Chg	**-153**	**-71**	**-179**	**-142**	**-44**	**-11**

On a relative value basis, floating rate notes outperformed their fixed counterparts in 2012. Last year, our 1-3y FRNI index saw its discount margins rally an impressive 153bp, while the z-spreads of our 1-3y JULI index tightened by 71bp (Exhibit 1). Notably, their outperformance over fixed rate bonds was consistent across both the financial and non-financial sectors (Exhibit 2).

Financials were the biggest driver of fixed- and floating rate note performance. In particular, US financials were the best performer in the financial sector, largely attributed to broker/dealers (Exhibit 3), and more specifically to Morgan Stanley that saw a better than expected outcome to their credit rating downgrade by Moody's. By year's end, Morgan Stanley bonds had rallied 298bp in their 1-3y fixed rate notes and 435bp in their 1-3y floaters. While the rally in US banks and Yankee banks were not as significant as the broker/dealers, there were a couple high beta single names that performed extremely well. Bank of America, for example, saw its z-spreads and DM tightened by 294bp and 495bp respectively. BNP Paribas also saw its z-spreads and DM tightened by 409bp and 429bp respectively.

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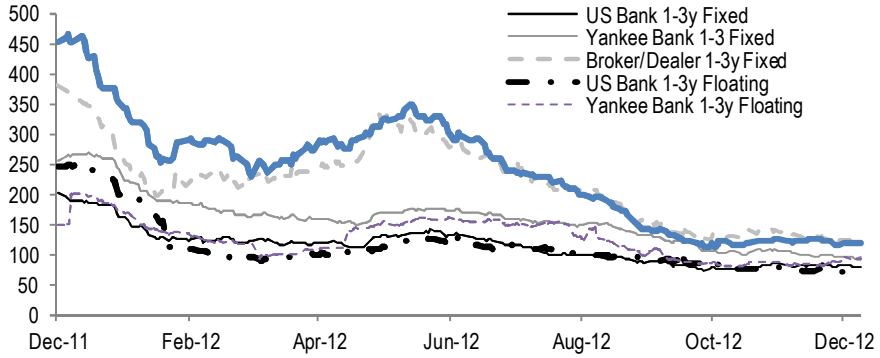
Exhibit 3: Broker/dealers saw the largest spread compression



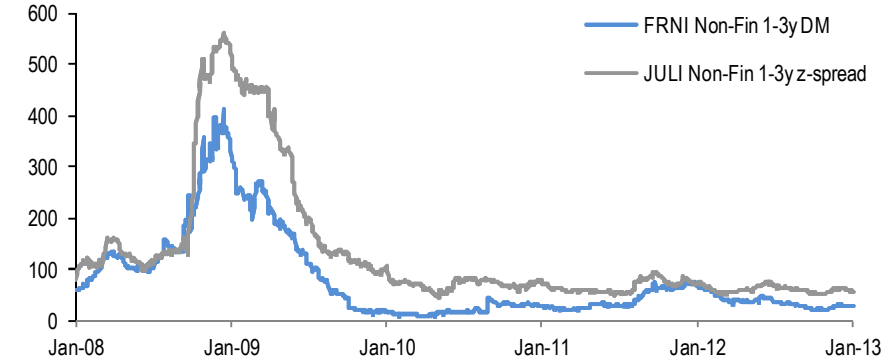
Source: J.P. Morgan.

Non-financials, on the other hand, had a less impressive performance with spreads modestly down year over year. This was to be expected given how rich bonds in this sector traded over the past few years. By year's end, spreads of 1-3y fixed and floating non-financials were only 15-20bp away from their five year historical lows (Exhibit 4). Further spread compression was going to be incremental at best.

As such, a key question for 1-3y corporates this year is whether the rally can sustain for the foreseeable future. As we saw in the non-financial sector and to some extent the financial sector late last year, resistance in further spread tightening is already emerging. High-grade corporate fundamentals have also been slowly deteriorating, due to lower earnings and higher debt levels. We suspect these weakening fundamentals will remain in place at least for the next couple of quarters, even longer if compromises agreed over the fiscal cliff adversely impacts US growth more than we currently forecast.

However, our belief is that spreads will continue to rally this year, albeit on a smaller scale, and remain overweight this sector vs. other short-term sectors. We think the demand for bonds (and yield) will continue to overwhelm corporate fundamentals and over time will result in lower spreads and even richer valuations. We recognize that there are risks in the market (fiscal cliff, debt ceiling, Europe) and believe they will, at times, drive spreads wider, but over the course of the year, we expect the strong demand for bonds will be the dominant factor in determining market direction in 2013.

Exhibit 4: Short duration non-financial spread compression was less impressive given already tight spreads



Source: J.P. Morgan.

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High Grade Analytics

Sector recommendations

There were no changes to our sector recommendations this week.

Exhibit 1: JULI sector recommendations

Sector	Analyst	Analyst Recommendation	Date of Rec	Index Weight	Portfolio Weight	Difference	Spread Current	Spread Change 30d	Spread change vs JULI 30d	Spread change vs JULI Since initiated
Energy	Robin Levine	Overweight	5/15/12	8.4%	12.4%	+4.0%	141	-19	-4	6
Domestic Telecoms	Brian Turner	Overweight	5/21/12	3.2%	5.2%	+2.0%	143	-9	6	20
Cable/Satellite	Mike Pace	Overweight	5/15/12	2.8%	4.3%	+1.5%	174	-11	3	16
Diversified Media	A. Steiner, M. Pace	Overweight	4/14/11	2.6%	4.1%	+1.5%	163	-17	-2	-8
Utilities HoldCos	Susan Voorhees	Overweight	1/25/12	2.3%	3.8%	+1.5%	179	-13	2	10
P&C Insurance	Arun Kumar	Overweight	8/8/12	2.1%	3.6%	+1.5%	172	-19	-4	-25
REITs	Mark Streeter	Overweight	8/8/12	1.9%	2.9%	+1.0%	162	-18	-4	-12
Business/Cons Services	Virginia Chambless	Overweight	6/16/11	0.9%	1.4%	+0.5%	170	-19	-4	30
Canadian Banks	Kabir Caprihan	Overweight	6/16/11	0.9%	1.4%	+0.5%	56	-3	11	-33
Tobacco	Virginia Chambless	Overweight	8/8/12	1.2%	1.7%	+0.5%	157	-12	3	13
Airlines/EETCs	Mark Streeter	Overweight	2/8/12	0.1%	0.6%	+0.5%	284	-16	-2	15
Paper/Packaging	Tarek Hamid	Overweight	2/8/12	0.5%	1.0%	+0.5%	193	-15	0	0
Core European Banks	Kabir Caprihan	Neutral	1/25/12	3.2%	3.2%	0.0%	161	-17	-2	-98
Finance Companies	Kabir Caprihan	Neutral	6/8/10	4.6%	4.6%	0.0%	152	-17	-3	-11
Food/Drug Retail	Virginia Chambless	Neutral	10/12/11	1.4%	1.4%	0.0%	148	-9	6	64
Healthcare/HMOs	Arun Kumar	Neutral	10/12/11	2.1%	2.1%	0.0%	141	-8	7	31
Japanese Banks	Kabir Caprihan	Neutral	11/10/11	0.6%	0.6%	0.0%	111	-14	0	13
Large US Banks	Kabir Caprihan	Neutral	6/16/11	12.0%	12.0%	0.0%	164	-27	-12	-32
Life Insurance	Arun Kumar	Neutral	5/15/12	2.3%	2.3%	0.0%	196	-21	-6	-8
Regional US Banks	Kabir Caprihan	Neutral	1/18/12	2.7%	2.7%	0.0%	117	-14	1	-55
UK Banks	Kabir Caprihan	Neutral	1/25/12	2.2%	2.2%	0.0%	202	-31	-17	-90
Utilities Power Gencos	Susan Voorhees	Neutral	5/15/12	0.3%	0.3%	0.0%	211	-17	-3	36
Freight	Mark Streeter	Underweight	8/8/12	0.6%	0.1%	-0.5%	129	-13	1	26
Consumer Products	Virginia Chambless	Underweight	8/8/12	1.1%	0.6%	-0.5%	99	-3	11	24
Railroads	Mark Streeter	Underweight	8/8/12	1.0%	0.5%	-0.5%	132	-5	9	14
Automotives	Eric Selle	Underweight	10/25/11	1.5%	1.0%	-0.5%	112	-5	9	-16
Aerospace/Defense	Virginia Chambless	Underweight	8/8/12	1.8%	1.3%	-0.5%	126	-9	6	19
Australia/NZ Banks	Kabir Caprihan	Underweight	6/16/11	1.4%	0.9%	-0.5%	131	-13	2	-42
Chemicals	Robin Levine	Underweight	4/12/11	1.7%	1.2%	-0.5%	136	-13	1	4
Yankee Telecoms	Brian Turner	Underweight	5/21/12	2.1%	1.1%	-1.0%	219	-24	-9	-40
Pipelines/Midstream	Robin Levine	Underweight	10/31/12	2.8%	1.8%	-1.0%	171	-20	-5	5
Utilities OpCos	Susan Voorhees	Underweight	10/10/12	4.2%	3.2%	-1.0%	123	-6	9	14
Non-Food Retail	Virginia Chambless	Underweight	8/8/12	2.5%	1.5%	-1.0%	112	-12	3	21
Manufacturing	Virginia Chambless	Underweight	8/8/12	2.9%	1.9%	-1.0%	99	-10	4	26
Metals/Mining	Robin Levine	Underweight	5/15/12	2.7%	1.7%	-1.0%	175	-24	-10	2
Food/Beverages	Virginia Chambless	Underweight	8/8/12	4.9%	2.9%	-2.0%	118	-7	8	20
Technology	Brian Turner	Underweight	2/8/12	4.7%	2.7%	-2.0%	127	-14	0	49
Pharmas/Medical Products	Arun Kumar	Underweight	10/12/11	6.1%	4.1%	-2.0%	107	-7	8	69
Portfolio				**100%**	**100%**	**0.0%**	**150**			
JULI ex-EM							**146**			

Note: Yankee Telecoms: The ratings here cover USD bonds only. Our US Telecom analyst Tom Egan covers only USD bonds from these issuers, while Andrew Webb in our London group covers the credit as a whole. On any company the rating on USD bonds from Tom Egan may differ from the rating assigned by Andrew Webb.
Source: J.P. Morgan.

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J.P.Morgan

High Grade Analytics

New bond issuance

Exhibit 1: High Grade corporate bond issuance ($ mn)

	Gross Issuance				Redemptions			
	2013 F	2013 YTD	2012	2011	2013 F	2013YTD	2012	2011
Unguaranteed	750,000	35,800	858,980	691,753	441,038	10,632	396,791	356,703
Financials	250,000	23,100	239,618	248,657	197,838	10,000	200,508	158,209
Non-Financials	500,000	12,700	619,362	443,096	243,200	632	196,283	198,494
Domestic	450,000	21,800	550,738	443,122	293,611	4,946	310,128	278,408
Yankee	300,000	14,000	308,242	248,631	147,427	5,685	86,663	78,295
Memo: Yankee EM	107,000	0	92,325	49,125	11,774	409	12,758	10,039
Fixed	705,000	32,600	816,105	583,526	373,684	5,632	318,456	275,664
Floating	45,000	3,200	42,875	108,227	67,355	5,000	78,335	81,039
Financials	250,000	23,100	239,618	248,657	197,838	10,000	200,508	158,209
Domestic	130,000	13,600	134,951	121,526	114,952	4,750	143,858	126,947
Yankee	120,000	9,500	104,667	127,131	82,887	5,250	56,650	31,263
Memo: Yankee EM	32,000	0	17,775	9,875	1,440	0	6,720	1,100
Non-Financials	500,000	12,700	619,362	443,096	243,200	632	196,283	198,494
Domestic	320,000	8,200	415,787	321,596	178,660	196	166,270	151,461
Yankee	180,000	4,500	203,575	121,500	64,540	435	30,013	47,033
Memo: Yankee EM	75,000	0	74,550	39,250	10,334	409	6,038	8,939
Guaranteed	0	0	0	0	12,650	0	215,153	109,862
Domestic (TLGP)	0	0	0	0	0	0	152,578	92,162
Yankee (Foreign Grnted)	0	0	0	0	12,650	0	62,575	17,700
Memo: Financials + Guaranteed	250,000	23,100	239,618	248,657	210,488	10,000	415,662	268,071
Memo: Total + Grnted	750,000	35,800	858,980	691,753	453,688	10,632	611,945	466,565

Note: Issuance data includes MTNs, 144A, and Yankees with minimum maturity of 13 months. 2013 Forecasts last updated 11/16/2012.
Source: Thomson Financial, Bloomberg, and J.P. Morgan. Data as of Wednesday.

Exhibit 2: Unguaranteed HG corporate bond issuance by sector ($ mn)

	Gross Issuance				Redemptions			
	2013 F	2013 YTD	2012	2011	2013 F	2013YTD	2012	2011
Banks	190,000	17,250	170,215	207,157	141,131	7,000	132,060	95,714
US banks	75,000	7,750	75,465	85,326	64,769	1,750	81,480	70,826
Yankee Banks	115,000	9,500	94,750	121,831	76,362	5,250	50,580	24,888
Memo: European Banks	37,000	6,000	35,850	75,996	37,990	3,500	36,180	12,780
Finance Companies	33,000	3,250	35,548	23,075	31,612	3,000	51,303	46,482
Insurance	27,000	2,600	33,855	18,425	25,095	0	17,145	16,014
Basic Industries	46,500	0	59,575	37,150	19,486	0	18,661	12,689
Capital Goods	38,000	700	56,850	35,895	25,025	0	12,850	15,401
Diversified	12,000	500	13,600	7,150	9,700	0	4,400	3,800
Energy	83,000	700	113,875	73,295	28,235	0	25,215	23,952
Retail	17,500	1,000	22,050	20,294	10,200	0	6,826	9,327
Consumer	78,000	4,500	109,900	64,856	40,961	0	32,459	29,918
Healthcare/Pharma	50,000	0	68,106	56,900	17,539	409	16,525	15,660
Media/Entertainment	21,000	2,950	28,150	20,200	7,950	0	9,725	9,025
Property/Real Estate	21,500	300	19,650	13,950	7,583	0	8,620	9,050
Technology	31,500	0	41,150	41,325	19,685	0	12,500	11,410
Telecoms	36,000	0	27,775	31,825	22,335	0	16,325	31,270
Transportation	16,000	0	17,943	8,822	6,047	72	4,470	4,676
Utilities	49,000	2,050	40,737	31,434	28,454	150	27,708	22,315

Note: Issuance data includes MTNs, 144A, and Yankees with minimum maturity of 13 months. 2013 Forecasts last updated 11/16/2012.
Source: Thomson Financial, Bloomberg, and J.P. Morgan. Data as of Wednesday.

Exhibit 3: Gross issuance ($ bn)

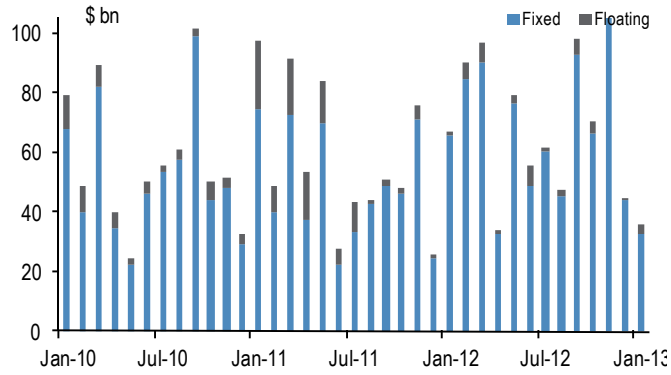
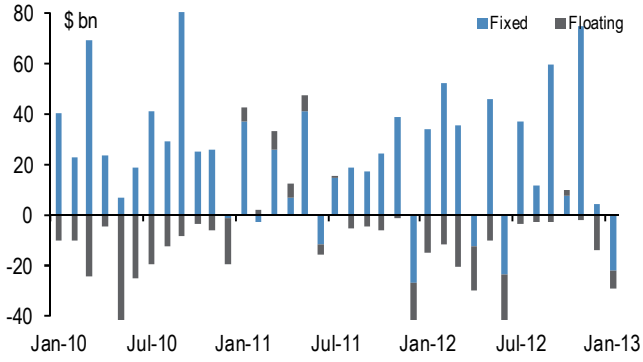


Exhibit 4: Net issuance ($ bn)



Note: Issuance data as of Wednesday

Source: Thomson Financial, Bloomberg, and J.P. Morgan

Exhibit 5: List of new issues over the past two weeks

Issue Date	Ticker	Issuer	Moody's	S&P	Principal Amt	Coupon	Maturity	Industry	Spread[1]
1/7/2013	MET	METLIFE INSTITUTIONAL FD	Aa3e	AA-	600	FRN	1/6/2015	GIC	L+37
1/7/2013	GE	GENERAL ELEC CAP CORP	A1e	AA+	1,250	FRN	1/9/2015	FINANCE	L+38
1/7/2013	SPLS	STAPLES INC	Baa2	BBB	500	2.750 %	1/12/2018	RETAIL	+200
1/7/2013	SPLS	STAPLES INC	Baa2	BBB	500	4.375 %	1/12/2023	RETAIL	+250
1/7/2013	WSTP	WESTPAC BANKING CORP	Aa2e	AA-	1,250	0.950 %	1/12/2016	BANK	+60
1/7/2013	WSTP	WESTPAC BANKING CORP	Aa2e	AA-	1,000	1.600 %	1/12/2018	BANK	+80
1/7/2013	TOYOTA	TOYOTA MOTOR CREDIT CORP	Aa3e	AA-	800	1.375 %	1/10/2018	AUTO	+60
1/7/2013	TOYOTA	TOYOTA MOTOR CREDIT CORP	Aa3e	AA-	700	2.625 %	1/10/2023	AUTO	+80
1/7/2013	MDC	MDC HOLDINGS INC	Baa3	BB+	250	6.000 %	1/15/2043	HOMEBUILDER	+291
1/7/2013	PSA	PUBLIC STORAGE	NR	BBB+	450	5.200 %	CAPITAL	REIT	NA
1/7/2013	DAIGR	DAIMLER FINANCE NA LLC	A3e	A-	750	FRN	1/9/2015	AUTO	L+60
1/7/2013	DAIGR	DAIMLER FINANCE NA LLC	A3e	A-	1,250	1.250 %	1/11/2016	AUTO	+90
1/7/2013	DAIGR	DAIMLER FINANCE NA LLC	A3e	A-	1,000	1.875 %	1/11/2018	AUTO	+115
1/7/2013	KRC	KILROY REALTY LP	Baa3	BBB-	300	3.800 %	1/15/2023	REIT	+190
1/7/2013	RY	ROYAL BANK OF CANADA	Aa3e	AA-	1,250	1.500 %	1/16/2018	BANK	+72
1/7/2013	ISPIM	INTESA SANPAOLO SPA	Baa2	BBB+	2,000	3.125 %	1/16/2016	BANK	+275
1/7/2013	ISPIM	INTESA SANPAOLO SPA	Baa2	BBB+	1,500	3.875 %	1/15/2018	BANK	+310
1/8/2013	NU	CONNECTICUT LIGHT & PWR	A3	A-	400	2.500 %	1/15/2023	UTILITY	+70
1/8/2013	ATO	ATMOS ENERGY CORP	Baa1e	BBB+	500	4.150 %	1/15/2043	UTILITY	+110
1/8/2013	F	FORD MOTOR CREDIT CO LLC	Baa3e	BB+	1,250	2.375 %	1/16/2018	AUTO	+168
1/8/2013	STANLN	STANDARD CHARTERED PLC	A3e	A-	2,000	3.950 %	1/11/2023	BANK	+210
1/8/2013	STANLN	STANDARD CHARTERED PLC	A3e	A-	500	5.300 %	1/9/2043	BANK	+225
1/8/2013	BAC	BANK OF AMERICA CORP	Baa2e	A-	1,000	1.250 %	1/11/2016	BANK	+95
1/8/2013	BAC	BANK OF AMERICA CORP	Baa2e	A-	2,000	2.000 %	1/11/2018	BANK	+125
1/8/2013	BAC	BANK OF AMERICA CORP	Baa2e	A-	3,000	3.300 %	1/11/2023	BANK	+150
1/8/2013	RY	ROYAL BANK OF CANADA	Aa3e	AA-	2250	FRN	1/6/2015	BANK	L+23
1/8/2013	CMCSA	COMCAST CORP	Baa1	BBB+	750	2.850 %	1/15/2023	TECHNOLOGY	+100
1/8/2013	CMCSA	COMCAST CORP	Baa1	BBB+	1,700	4.250 %	1/15/2033	TECHNOLOGY	+125
1/8/2013	CMCSA	COMCAST CORP	Baa1	BBB+	500	4.500 %	1/15/2043	TECHNOLOGY	+145
1/9/2013	DUK	DUKE ENERGY CORP	Baa3e	BBB-	500	5.125 %	CAPITAL	UTILITY	NA

Source: Thomson Financial, Bloomberg, and J.P. Morgan, as of 9 Jan-13

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JULI sector statistics and performance

	Size				Average I- Spread(Treasury) bp					Portfolio Spread(Treasury) bp					Total return (%)				Duration change				
	Num	Size	(%)	Yield	Crnt	7d	30d	90d	ytd	Crnt	7d	30d	90d	ytd	7d	30d	90d	ytd	Dur	7d	30d	90d	ytd
JULI	4,372	4,024		3.49	133	-1	-12	-1	-99	152	-1	-13	0	-84	0.4	0.3	0.1	9.9	7.3	0.0	0.0	-0.3	0.3
JULI EM	468	426	10.6%	3.78	199	4	-19	-7	-124	213	5	-21	-6	-118	0.0	0.7	0.8	13.0	6.3	0.0	0.0	-0.1	0.3
JULI ex EM	3,904	3,598	89.4%	3.46	125	-1	-11	-1	-99	146	-1	-13	-1	-84	0.4	0.2	0.0	9.6	7.4	0.0	0.0	-0.3	0.3
AAA	37	35	0.9%	3.06	59	-1	-5	2	-62	79	-1	-9	2	-51	0.5	-0.1	-0.8	4.1	8.5	0.0	-0.1	-0.4	0.8
AA	289	344	8.5%	2.76	73	1	-5	1	-89	91	1	-7	0	-88	0.3	-0.1	-0.1	6.6	6.5	0.0	0.1	-0.2	0.1
A	1,683	1,686	41.9%	3.22	103	0	-10	2	-107	121	-1	-11	1	-88	0.4	0.0	-0.4	8.5	7.4	0.0	0.0	-0.4	0.5
BBB	2,363	1,960	48.7%	3.83	170	-1	-15	-6	-108	189	-1	-17	-4	-93	0.4	0.5	0.5	12.0	7.3	0.0	0.0	-0.2	0.1
3-yr	1,074	949	23.6%	1.20	87	-2	-8	-1	-110	90	-2	-8	-1	-116	0.1	0.3	0.5	4.9	2.2	0.0	0.0	0.0	0.1
5-yr	851	807	20.1%	1.82	113	-1	-12	-2	-123	116	-1	-12	-2	-120	0.2	0.3	0.5	9.1	4.1	0.0	0.0	0.0	0.2
7-yr	489	495	12.3%	2.56	140	-1	-18	-5	-108	147	-1	-18	-3	-101	0.4	0.6	0.8	11.9	5.4	0.0	0.0	0.1	0.2
10-yr	878	795	19.8%	3.15	153	2	-14	-2	-101	156	1	-15	-4	-99	0.3	0.2	0.3	12.2	7.3	0.0	0.0	0.0	0.4
30-yr	1,080	978	24.3%	4.47	174	0	-12	4	-62	171	-1	-13	6	-60	0.9	0.0	-1.2	12.1	13.6	0.0	0.0	-0.1	0.5
Financials	1,071	1,282	31.9%	3.32	145	-1	-16	-11	-182	170	-1	-20	-13	-172	0.3	0.7	1.2	14.4	5.7	0.0	0.0	-0.2	0.3
Non Financials	3,301	2,742	68.1%	3.55	127	0	-10	4	-57	146	0	-11	4	-54	0.4	0.0	-0.4	7.8	8.0	0.0	0.0	-0.3	0.2
US Banks	334	529	13.1%	3.20	133	0	-19	-10	-221	158	-1	-22	-14	-211	0.3	0.7	1.0	16.0	5.6	0.0	0.0	-0.3	0.3
Yankee Banks	362	425	10.6%	3.09	162	-2	-15	-15	-188	189	-2	-21	-18	-184	0.3	0.8	1.6	13.6	4.6	0.0	0.1	0.0	0.2
Finance Companies	142	172	4.3%	3.29	124	1	-12	-5	-106	150	0	-16	-6	-109	0.3	0.4	0.3	10.4	6.3	0.0	0.1	-0.3	0.4
Life Insurance	122	82	2.0%	4.18	162	-1	-14	-14	-95	196	-4	-20	-18	-102	0.7	0.9	1.5	12.8	8.2	0.0	0.0	-0.2	0.9
P&C Insurance	111	75	1.9%	3.73	153	1	-16	-17	-185	172	-1	-18	-13	-157	0.5	0.6	1.2	17.6	7.5	0.0	0.1	-0.2	0.5
Bldg Mat / Cstrction	5	4	0.1%	2.97	194	-9	-42	-82	-117	207	-2	-33	-63	-108	0.4	1.3	3.4	11.2	4.4	0.0	0.0	-0.2	-0.2
Chemicals	97	67	1.7%	3.39	129	-5	-11	0	-40	153	-4	-13	-2	-42	0.6	0.2	-0.5	6.6	7.1	0.0	0.0	0.1	0.3
Metals/Mining	142	130	3.2%	4.01	172	-2	-15	-7	-91	196	-3	-20	-10	-86	0.6	0.8	1.0	8.9	7.9	0.0	0.0	-0.1	0.6
Paper/Packaging	30	20	0.5%	3.94	190	-3	-11	-5	-76	203	-4	-15	-5	-80	0.7	0.4	0.3	11.5	7.6	0.0	-0.1	-0.2	0.3
Capital Goods	217	166	4.1%	3.18	94	-1	-8	5	-42	110	-2	-9	4	-50	0.5	-0.3	-0.8	6.3	8.1	0.0	0.0	-0.1	1.0
Food/Drug Retail	72	51	1.3%	3.60	132	0	-3	11	-22	153	0	-4	13	-23	0.4	-0.3	-0.9	5.7	8.1	0.0	0.0	-0.4	-0.1
Non-Food Retail	94	92	2.3%	3.48	97	-1	-10	6	-26	113	-2	-9	6	-28	0.6	-0.4	-1.1	5.7	9.5	0.0	0.0	-0.4	0.1
Food/Beverages	201	178	4.4%	3.20	98	-3	-7	9	-36	121	-2	-6	7	-36	0.5	-0.2	-0.7	6.1	7.5	0.0	0.0	-0.4	0.4
Tobacco	37	42	1.0%	3.68	131	-1	-8	14	-58	157	-1	-10	2	-81	0.5	0.0	-1.0	8.3	8.3	0.0	-0.1	0.0	1.1
Consumer Products	58	38	0.9%	2.98	85	1	0	6	-35	99	0	-2	5	-32	0.3	-0.6	-0.4	5.4	7.2	0.0	-0.1	-0.6	-0.4
Leisure	11	5	0.1%	2.65	138	1	-17	-23	-124	149	-2	-22	-27	-151	0.3	0.4	1.0	10.1	4.9	0.0	0.2	0.2	1.6
Services	48	33	0.8%	3.78	163	-4	-10	0	-83	180	-5	-12	-1	-62	0.7	0.1	0.2	9.2	7.8	0.0	0.0	-0.2	0.1
Automotive	79	60	1.5%	2.28	104	-3	-3	-6	-90	113	-3	-4	-13	-99	0.3	0.0	0.5	6.6	4.3	0.0	-0.1	-0.4	-0.4
Healthcare/HMOS	107	74	1.8%	3.51	121	-3	-5	-2	-66	141	-3	-6	-2	-60	0.7	-0.3	-0.3	8.0	8.1	0.0	-0.1	-0.3	0.2
Pharma	214	227	5.6%	3.19	89	0	-4	12	-26	107	-1	-5	9	-33	0.5	-0.4	-0.9	6.0	8.0	0.0	-0.1	-0.5	-0.2
Cable/Satellite	80	99	2.5%	3.95	143	4	-7	14	-61	174	7	-9	13	-62	-0.1	-0.1	-1.4	8.4	8.6	0.0	0.0	-0.2	0.6
Div Media	120	95	2.3%	3.80	143	-3	-16	6	-70	164	-1	-15	5	-74	0.6	0.1	-0.8	9.8	8.6	0.0	-0.1	-0.4	0.1
REITs	118	68	1.7%	2.99	149	-4	-15	-8	-139	162	-4	-17	-11	-133	0.5	0.4	0.6	11.9	5.6	0.0	0.0	0.0	0.3
Technology	177	170	4.2%	3.14	110	1	-11	11	-22	127	1	-13	12	-21	0.3	0.2	-1.0	3.9	6.9	0.0	0.0	-0.4	-0.1
Domestic Telecoms	86	114	2.8%	3.69	118	3	-7	16	-45	143	4	-8	15	-50	0.1	-0.6	-2.0	7.0	8.8	0.0	0.0	-0.5	0.3
Yankee Telecoms	92	108	2.7%	4.02	174	-1	-18	-7	-129	200	-1	-19	0	-101	0.4	0.6	0.8	12.5	7.3	0.0	0.0	-0.3	0.3
Transportation	112	71	1.8%	3.58	138	-1	-5	-4	-25	144	-1	-6	0	-27	0.6	-0.2	0.1	7.9	8.5	0.0	0.1	-0.2	0.4
Energy	413	403	10.0%	3.60	138	3	-15	-2	-73	154	2	-17	-4	-70	0.3	0.4	0.1	10.1	8.0	0.0	-0.1	-0.4	0.1
Utilities	468	268	6.7%	3.77	137	-2	-9	6	-51	147	-3	-9	10	-39	0.7	-0.2	-0.9	7.0	9.3	0.0	0.0	-0.3	0.3

Source: J.P. Morgan, as of 09-Jan-13

Upcoming Earnings Releases (Jan 11 – Jan 31)

Date	Ticker	Name	Status	Quarter	Est EPS Current Qtr	Time
1/11/2013	WFC	Wells Fargo & Co	Confirmed	Q4	0.885	20:30
1/14/2013	PPG	PPG Industries Inc	Confirmed	Q4	1.522	21:30
1/15/2013	LEN	Lennar Corp	Confirmed	Q4	0.446	21:30
1/16/2013	BK	Bank of New York Mellon Corp/The	Confirmed	Q4	0.537	18:30
1/16/2013	CMA	Comerica Inc	Confirmed	Q4	0.651	18:30
1/16/2013	USB	US Bancorp	Confirmed	Q4	0.743	18:30
1/16/2013	JPM	JPMorgan Chase & Co	Confirmed	Q4	1.21	19:30
1/16/2013	GS	Goldman Sachs Group Inc/The	Confirmed	Q4	3.562	21:00
1/16/2013	NTRS	Northern Trust Corp	Confirmed	Q4	0.746	22:30
1/17/2013	EBAY	eBay Inc	Confirmed	Q4	0.692	3:30
1/17/2013	BBT	BB&T Corp	Confirmed	Q4	0.708	18:30
1/17/2013	SLM	SLM Corp	Confirmed	Q4	0.533	18:30
1/17/2013	BAC	Bank of America Corp	Confirmed	Q4	0.129	19:00
1/17/2013	UNH	UnitedHealth Group Inc	Confirmed	Q4	1.197	19:15
1/17/2013	BLK	BlackRock Inc	Confirmed	Q4	3.691	19:30
1/17/2013	FITB	Fifth Third Bancorp	Confirmed	Q4	0.418	20:00
1/17/2013	PNC	PNC Financial Services Group Inc	Confirmed	Q4	1.534	20:30
1/17/2013	HBAN	Huntington Bancshares Inc/OH	Confirmed	Q4	0.165	20:30
1/17/2013	C	Citigroup Inc	Confirmed	Q4	0.965	21:30
1/17/2013	APH	Amphenol Corp	Confirmed	Q4	0.903	23:30
1/18/2013	AXP	American Express Co	Confirmed	Q4	1.06	3:30
1/18/2013	COF	Capital One Financial Corp	Confirmed	Q4	1.61	3:30
1/18/2013	INTC	Intel Corp	Confirmed	Q4	0.481	3:30
1/18/2013	PBCT	People's United Financial Inc	Confirmed	Q4	0.19	3:30
1/18/2013	STI	SunTrust Banks Inc	Confirmed	Q4	0.622	18:30
1/18/2013	GE	General Electric Co	Confirmed	Q4	0.431	19:00
1/18/2013	SLB	Schlumberger Ltd	Confirmed	Q4	1.082	19:30
1/18/2013	STT	State Street Corp	Confirmed	Q4	1.007	19:30
1/18/2013	FHN	First Horizon National Corp	Confirmed	Q4	0.181	20:00
1/22/2013	VZ	Verizon Communications Inc	Confirmed	Q4	0.556	19:00
1/22/2013	WAT	Waters Corp	Confirmed	Q4	1.585	19:00
1/22/2013	JNJ	Johnson & Johnson	Confirmed	Q4	1.173	19:00
1/22/2013	TRV	Travelers Cos Inc/The	Confirmed	Q4	0.137	19:30
1/22/2013	DD	El du Pont de Nemours & Co	Confirmed	Q4	0.074	19:30
1/22/2013	RF	Regions Financial Corp	Confirmed	Q4	0.206	21:30
1/23/2013	NSC	Norfolk Southern Corp	Confirmed	Q4	1.187	3:00
1/23/2013	GOOG	Google Inc	Confirmed	Q4	10.633	3:00
1/23/2013	ISRG	Intuitive Surgical Inc	Confirmed	Q4	4.048	3:00
1/23/2013	IBM	International Business Machines Corp	Confirmed	Q4	5.255	3:00
1/23/2013	AMD	Advanced Micro Devices Inc	Confirmed	Q4	-0.194	3:30
1/23/2013	TSS	Total System Services Inc	Confirmed	Q4	0.328	3:30
1/23/2013	TXN	Texas Instruments Inc	Confirmed	Q4	0.338	4:00
1/23/2013	MSI	Motorola Solutions Inc	Confirmed	Q4	1.018	18:30
1/23/2013	BHI	Baker Hughes Inc	Confirmed	Q4	0.621	18:30
1/23/2013	TXT	Textron Inc	Confirmed	Q4	0.568	18:30
1/23/2013	STJ	St Jude Medical Inc	Confirmed	Q4	0.878	18:30
1/23/2013	WLP	WellPoint Inc	Confirmed	Q4	0.953	19:00
1/23/2013	CSX	CSX Corp	Confirmed	Q4	0.395	19:00
1/23/2013	DGX	Quest Diagnostics Inc	Confirmed	Q4	1.09	19:00
1/23/2013	ABT	Abbott Laboratories	Confirmed	Q4	1.172	19:30
1/23/2013	UTX	United Technologies Corp	Confirmed	Q4	1.028	19:30
1/23/2013	PX	Praxair Inc	Confirmed	Q4	1.384	21:30
1/23/2013	GD	General Dynamics Corp	Confirmed	Q4	1.918	22:00
1/23/2013	ATI	Allegheny Technologies Inc	Confirmed	Q4	0.167	23:30
1/24/2013	SYK	Stryker Corp	Confirmed	Q4	1.122	3:00
1/24/2013	ALTR	Altera Corp	Confirmed	Q4	0.392	3:15
1/24/2013	AMGN	Amgen Inc	Confirmed	Q4	1.469	3:30
1/24/2013	LSI	LSI Corp	Confirmed	Q4	0.139	3:30
1/24/2013	SNDK	SanDisk Corp	Confirmed	Q4	0.726	
1/23/2013	MCD	McDonald's Corp	Confirmed	Q4	1.33	
1/24/2013	SWK	Stanley Black & Decker Inc	Confirmed	Q4	1.449	18:30
1/24/2013	GWW	WW Grainger Inc	Confirmed	Q4	2.602	18:30
1/24/2013	MKC	McCormick & Co Inc/MD	Confirmed	Q4	1.143	18:30
1/24/2013	UNP	Union Pacific Corp	Confirmed	Q4	2.169	19:15
1/24/2013	MMM	3M Co	Confirmed	Q4	1.411	19:30

Source: Bloomberg and J.P. Morgan

Upcoming Earnings Releases (Jan 11 – Jan 31) (Cont.)

Date	Ticker	Name	Status	Quarter	Est EPS Current Qtr	Time
1/24/2013	RTN	Raytheon Co	Confirmed	Q4	1.297	19:30
1/24/2013	NE	Noble Corp	Confirmed	Q4	0.669	19:30
1/24/2013	KEY	KeyCorp	Confirmed	Q4	0.209	19:30
1/24/2013	CELG	Celgene Corp	Confirmed	Q4	1.308	19:30
1/24/2013	XRX	Xerox Corp	Confirmed	Q4	0.292	20:30
1/24/2013	BMY	Bristol-Myers Squibb Co	Confirmed	Q4	0.435	21:00
1/24/2013	LUV	Southwest Airlines Co	Confirmed	Q4	0.075	22:00
1/25/2013	LMT	Lockheed Martin Corp	Confirmed	Q4	1.78	1:30
1/25/2013	T	AT&T Inc	Confirmed	Q4	0.488	3:00
1/25/2013	VRSN	VeriSign Inc	Confirmed	Q4	0.509	3:00
1/25/2013	ETFC	E*TRADE Financial Corp	Confirmed	Q4	-0.394	3:30
1/25/2013	JNPR	Juniper Networks Inc	Confirmed	Q4	0.217	3:30
1/25/2013	HON	Honeywell International Inc	Confirmed	Q4	1.099	19:30
1/25/2013	HAL	Halliburton Co	Confirmed	Q4	0.609	19:30
1/25/2013	WY	Weyerhaeuser Co	Confirmed	Q4	0.173	20:30
1/25/2013	KMB	Kimberly-Clark Corp	Confirmed	Q4	1.357	20:30
1/29/2013	PCL	Plum Creek Timber Co Inc	Confirmed	Q4	0.284	3:30
1/29/2013	YHOO	Yahoo! Inc	Confirmed	Q4	0.284	3:30
1/29/2013	ZION	Zions Bancorporation	Confirmed	Q4	0.321	4:00
1/29/2013	DHR	Danaher Corp	Confirmed	Q4	0.841	18:30
1/29/2013	GLW	Corning Inc	Confirmed	Q4	0.325	19:00
1/29/2013	EMC	EMC Corp/MA	Confirmed	Q4	0.523	19:00
1/29/2013	HOG	Harley-Davidson Inc	Confirmed	Q4	0.312	19:30
1/29/2013	IP	International Paper Co	Confirmed	Q4	0.632	19:30
1/29/2013	LLY	Eli Lilly & Co	Confirmed	Q4	0.802	19:30
1/29/2013	PFE	Pfizer Inc	Confirmed	Q4	0.443	20:30
1/29/2013	ITW	Illinois Tool Works Inc	Confirmed	Q4	0.899	20:30
1/29/2013	VLO	Valero Energy Corp	Confirmed	Q4	1.182	21:30
1/29/2013	BTU	Peabody Energy Corp	Confirmed	Q4	0.265	
1/30/2013	NUE	Nucor Corp	Confirmed	Q4	0.309	0:30
1/30/2013	X	United States Steel Corp	Confirmed	Q4	-0.748	1:30
1/30/2013	BRCM	Broadcom Corp	Confirmed	Q4	0.735	3:15
1/30/2013	HES	Hess Corp	Confirmed	Q4	1.418	20:30
1/30/2013	MPC	Marathon Petroleum Corp	Confirmed	Q4	2.096	20:30
1/30/2013	MWV	MeadWestvaco Corp	Confirmed	Q4	0.195	20:30
1/30/2013	BA	Boeing Co/The	Confirmed	Q4	1.186	21:00
1/30/2013	PSX	Phillips 66	Confirmed	Q4	1.695	21:30
1/30/2013	NOC	Northrop Grumman Corp	Confirmed	Q4	1.732	22:00
1/30/2013	LLL	L-3 Communications Holdings Inc	Confirmed	Q4	2.121	22:00
1/30/2013	SO	Southern Co/The	Confirmed	Q4	0.398	23:30
1/30/2013	BXP	Boston Properties Inc	Confirmed	Q4	0.433	
1/31/2013	AVY	Avery Dennison Corp	Confirmed	Q4	0.489	0:30
1/31/2013	ZMH	Zimmer Holdings Inc	Confirmed	Q4	1.494	18:30
1/31/2013	PBI	Pitney Bowes Inc	Confirmed	Q4	0.515	18:30
1/31/2013	NDAQ	NASDAQ OMX Group Inc/The	Confirmed	Q4	0.607	18:30
1/31/2013	OI	Owens-Illinois Inc	Confirmed	Q4	0.367	19:00
1/31/2013	PHM	PulteGroup Inc	Confirmed	Q4	0.298	19:00
1/31/2013	TMO	Thermo Fisher Scientific Inc	Confirmed	Q4	1.275	19:00
1/31/2013	TWC	Time Warner Cable Inc	Confirmed	Q4	1.559	19:00
1/31/2013	AET	Aetna Inc	Confirmed	Q4	0.949	19:00
1/31/2013	DOW	Dow Chemical Co/The	Confirmed	Q4	0.33	19:30
1/31/2013	MA	Mastercard Inc	Confirmed	Q4	4.814	19:30
1/31/2013	AMP	Ameriprise Financial Inc	Confirmed	Q4	1.481	19:30
1/31/2013	MJN	Mead Johnson Nutrition Co	Confirmed	Q4	0.677	20:00
1/31/2013	CAM	Cameron International Corp	Confirmed	Q4	0.954	20:00
1/31/2013	XEL	Xcel Energy Inc	Confirmed	Q4	0.282	20:30
1/31/2013	BMS	Bemis Co Inc	Confirmed	Q4	0.495	20:30
1/31/2013	BLL	Ball Corp	Confirmed	Q4	0.656	21:30
1/31/2013	R	Ryder System Inc	Confirmed	Q4	1.102	21:30
1/31/2013	SHW	Sherwin-Williams Co/The	Confirmed	Q4	1.154	21:30
1/31/2013	AN	AutoNation Inc	Confirmed	Q4	0.633	21:30
1/31/2013	PCAR	PACCAR Inc	Confirmed	Q4	0.686	22:30
1/31/2013	MUR	Murphy Oil Corp	Confirmed	Q4	1.33	23:30

Source: Bloomberg and J.P. Morgan

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HG CDS-bond basis across buckets

	# Bonds	Avg Rating	Avg Tenor	Avg PECs[1] Current	1w Ago	1m Ago	Avg Interp. CDS[2] Current	1w Ago	1m Ago	Avg CDS-bond Basis[3] Current	1w Ago	1m Ago	Basis as % CDS Spread
HG Portfolio	890	A	4.77	93	98	102	81	83	91	**-13**	-15	-11	-16%
Avg Basis by Industry													
Basic Materials	46	A	4.98	103	118	110	93	96	100	**-10**	-22	-11	-11%
Consumers/Retails	120	A	5.10	71	76	74	60	61	63	**-11**	-15	-11	-18%
Energy	97	BBB	5.35	105	106	113	105	107	115	**0**	1	2	0%
Financials	308	A	4.29	105	108	118	88	92	107	**-17**	-15	-12	-19%
Banks	156	A	4.19	104	107	120	87	91	107	**-16**	-16	-13	-19%
Diversified Financials	72	A	4.10	98	100	110	82	86	98	**-17**	-14	-12	-20%
Insurance	51	A	4.72	110	112	121	99	105	120	**-11**	-7	-1	-11%
REITS	29	A	4.58	117	122	126	88	91	101	**-29**	-31	-25	-33%
Healthcare and Pharms	75	A	5.00	67	72	72	52	54	57	**-15**	-19	-15	-29%
Industrials/Homebuilders	64	A	5.22	92	99	95	58	59	65	**-33**	-40	-30	-57%
Media	51	BBB	4.94	86	95	92	68	69	69	**-18**	-26	-23	-26%
Technology	49	A	4.67	111	114	122	122	122	128	**11**	8	6	9%
Telecom	28	A	4.34	60	62	68	51	52	54	**-10**	-9	-13	-19%
Utilities	58	BBB	4.90	91	96	97	85	86	93	**-6**	-9	-4	-7%
Avg Basis by Rating													
AAA	10	AAA	6.28	32	31	26	31	30	32	**-1**	-1	6	-4%
AA	81	AA	4.36	52	56	56	61	63	68	**9**	7	12	14%
A	414	A	4.66	74	78	83	66	68	76	**-8**	-10	-7	-12%
BBB	385	BBB	4.94	124	130	134	102	105	114	**-22**	-25	-20	-22%
Avg Basis by Tenor													
18M-4Y	365	A	2.77	67	73	76	55	58	66	**-12**	-15	-10	-22%
4Y-6Y	241	A	5.00	95	97	101	87	89	98	**-8**	-8	-3	-9%
6Y-8Y	240	A	6.94	123	130	135	105	108	114	**-18**	-22	-21	-17%
8Y-10.25Y	44	A	8.38	138	138	139	127	129	130	**-12**	-9	-9	-9%

1. Par Equivalent CDS Spread (PECs) can be thought of as Z-spread, adjusted for the dollar price issues, day-count convention and other convention differences between the cash bond and the CDS markets. 2. Interpolated CDS is CDS spread interpolated to the bond maturity date. 3. CDS-bond basis is defined as Interpolated CDS less Par Equivalent CDS Spread.
For more information on CDS-bond basis, please refer to the Credit Derivatives Handbook, published on Dec 1, 2006 (available on www.morganmarkets).
Source: J.P. Morgan, as of 09-Jan-13

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US economic calendar

Monday	Tuesday	Wednesday	Thursday	Friday
14 Jan San Francisco Fed President Williams speaks on economy in California (11:55am) Atlanta Fed President Lockhart speaks on economy in Atlanta (12:40pm) Chairman Bernanke speaks at University of Michigan (4:00pm)	**15 Jan** **Retail sales** (8:30am) Dec **PPI** (8:30am) Dec **Empire State survey** (8:30am) Jan **Business inventories** (10:00am) Nov Philadelphia Fed President Plosser speaks on economy in New York (12:30pm)	**16 Jan** **CPI** (8:30am) Dec **TIC data** (9:00am) Nov **Industrial production** (9:15am) Dec **NAHB survey** (10:00am) Jan **Beige book** (2:00pm)	**17 Jan** **Initial claims** (8:30am) w/e prior Sat **Housing starts** (8:30am) Dec **Philadelphia Fed survey** (10:00am) Jan Announce 10-year TIPS $15 bn	**18 Jan** **Consumer sentiment** (9:55am) Jan preliminary
21 Jan **Martin Luther King, Jr. Day** **Markets closed**	**22 Jan** **Existing home sales** (10:00am) Dec **Richmond Fed survey** (10:00am) Jan	**23 Jan** **FHFA HPI** (9:00am) Nov	**24 Jan** **Initial claims** (8:30am) w/e prior Sat **Manufacturing PMI** (8:58am) Jan flash **Leading indicators** (10:00am) Dec **KC Fed survey** (11:00am) Jan Auction 10-year TIPS $15 bn Announce 2-year note $35 bn Announce 5-year note $35 bn Announce 7-year note $29 bn	**25 Jan** **New home sales** (10:00am) Dec
28 Jan **Durable goods** (8:30am) Dec **Pending home sales** (10:00am) Dec **Dallas Fed survey** (10:30am) Jan Auction 2-year note $35 bn	**29 Jan** **S&P/Case-Shiller HPI** (9:00am) Nov **Consumer confidence** (10:00am) Jan **Housing vacancies** (10:00am) 4Q **FOMC meeting** Auction 5-year note $35 bn	**30 Jan** **ADP employment** (8:15am) Jan **Real GDP** (8:30am) 4Q advance **FOMC statement** (2:15pm) Auction 7-year note $29 bn	**31 Jan** **Initial claims** (8:30am) w/e prior Sat **Personal income** (8:30am) Dec **Employment cost index** (8:30am) 4Q **Chicago PMI** (9:45am) Jan	**1 Feb** **Employment** (8:30am) Jan **Manufacturing PMI** (8:58am) Jan final **Consumer sentiment** (9:55am) Jan final **ISM manufacturing** (10:00am) Jan **Construction spending** (10:00am) Dec **Light vehicle sales** Jan
4 Feb **Factory orders** (10:00am) Dec **Senior loan officer survey** (2:00pm) 1Q	**5 Feb** **ISM nonmanufacturing** (10:00am) Jan	**6 Feb** Announce 3-year note $32 bn Announce 10-year note $24 bn Announce 30-year bond $16 bn	**7 Feb** **Initial claims** (8:30am) w/e prior Sat **Productivity and costs** (8:30am) 4Q preliminary **Consumer credit** (3:00pm) Dec **Chain store sales Jan**	**8 Feb** **International trade** (8:30am) Dec **Wholesale trade** (10:00am) Dec