# GLOBAL BANKS

## The implications of 0% recovery

**0% recovery:** We believe investors should assume a low (possibly 0%) recovery rate on most senior unsecured bank bonds. The reasons for this are depositor preference laws, elevated usage in Europe of secured debt such as covered bonds and central bank borrowings, and orderly liquidation authorities that allow 'bail-ins' of unsecured debt.

**Depositor preference subordinates unsecured debt:** In the U.S., depositor preference has been national law since 1993, and the consequence for senior unsecured creditors has been clear: the implied recovery rate for the senior unsecured creditors of the 422 banks that have failed in the U.S. since 2008 has been 0% in almost all cases. Countries such as Argentina, Germany, Switzerland, China, and Australia also have forms of depositor preference and adoption is poised to spread, with the U.K. having proposed depositor preference and regulatory bodies such as the Financial Stability Board considering if depositor preference should be adopted on a coordinated international basis.

**Secured borrowings encumber valuable assets:** In Europe, secured borrowings continue to increase, with funding from the European Central Bank soaring, most notably through the recent 3y LTRO, and outstanding covered bonds continuing to climb. We estimate that approximately €4.5tn of high-quality assets at European banks are now encumbered to support covered bonds and central bank borrowings, reducing their availability for unsecured creditors in liquidation.

**Bail-ins effectively subordinate unsecured debt:** Orderly liquidation frameworks, which have been adopted in countries such as the U.S., U.K., Germany, Spain, and Denmark and are to be proposed across Europe, give regulators the ability to haircut bondholders while preserving other creditors, effectively subordinating unsecured bonds.

**Implications:** We believe the implications of 0% recovery assumptions include wider spreads for banks in relation to industrial companies, reduced usefulness of unsecured debt as a source of funding, spread compression between senior and subordinated bank bonds, and spread decompression between senior bonds and covered bonds.

**We recommend three trade ideas:** 1) Buy 5y protection on iTraxx Europe Senior Financial at 210bp and Sell 5y protection on iTraxx Europe HiVol at 215bp, 2) Buy Capital One 6.15% of 2016 at T+390bp and Sell Capital One 3.15% of 2016 at T+190bp, 3) Buy Commonwealth Bank of Australia AUD covered bonds due in 2017 at DM of 147bp and Sell Commonwealth Bank of Australia AUD senior bonds due in 2017 at DM of 168bp.

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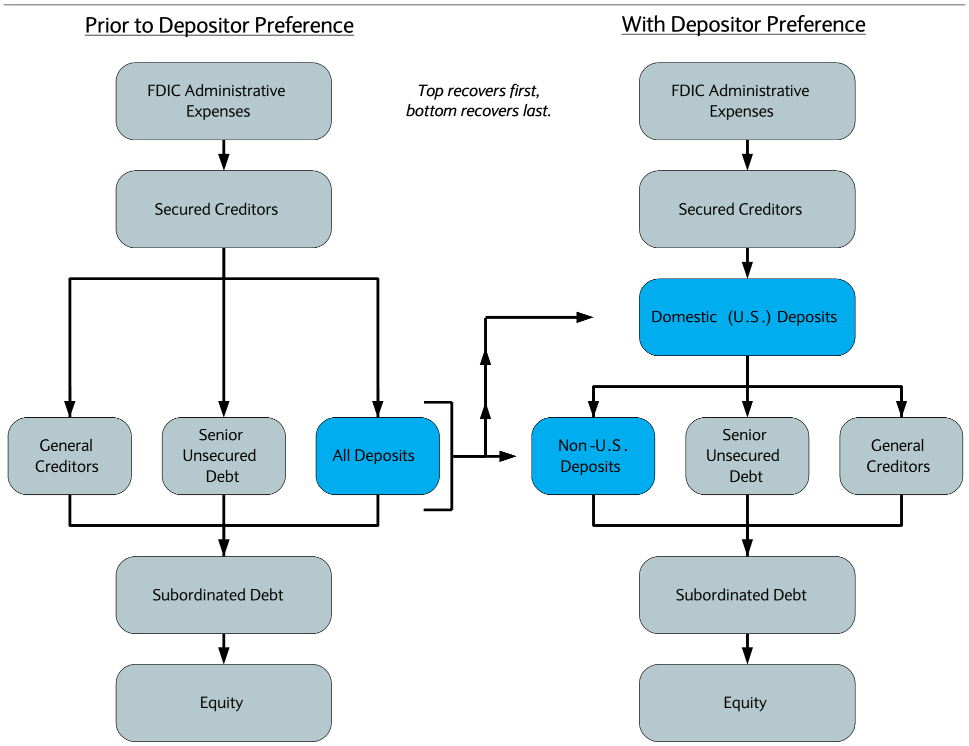
## Depositor preference deeply subordinates unsecured debt

### The U.S. depositor preference act

In 1993, the U.S. adopted a national depositor preference statute as a relatively small portion of a broad annual budgetary approval act. Versions of the legal principle had been in place on a local state-by-state basis as early as 1909, but this standardized the principle nationally and applied it to larger, more complex institutions. At core, the change raised the priority of certain classes of depositors over general creditors in liquidation. As background, in the U.S., banks do not proceed through the same bankruptcy process as other corporations, but rather enter receivership under the direction of the Federal Deposit Insurance Corporation (FDIC). Prior to the institution of depositor preference, all depositors ranked equally in priority together with general creditors and senior unsecured bondholders in FDIC receivership. Depositor preference changed this ranking by: 1) dividing depositors into domestic and foreign categories; and 2) shifting domestic depositor claims above general creditors and senior bondholders in the recovery waterfall (Figure 1).

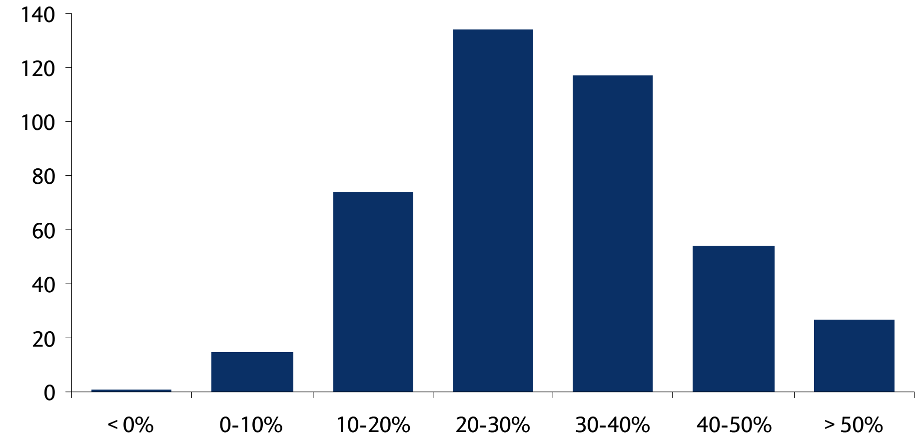
**Figure 1: Recovery Waterfall Pre- and Post-Depositor Preference Implementation**




Source: Barclays Capital

For unsecured bondholders, depositor preference dramatically reduces senior recovery. Instead of splitting the remaining value in the asset pool with domestic depositors on a pro rata basis, unsecured bondholders only recover after these depositors are made whole. Since traditional U.S. banks hold roughly 75% of liabilities in domestic deposits, assets in a bank failure are unlikely to be sufficient to cover all these claims, let alone provide unsecured bondholders with recovery. The results of recent U.S. bank failures affirm this conclusion. Of the 422 bank failures in the U.S. since the beginning of 2008, all but 1 forced a loss upon the FDIC (Figure 2). Since the FDIC only has to pay claims if assets are insufficient to cover depositors, this implies zero recovery for general unsecured creditors in almost all cases.

**Figure 2: Number of Bank Failures sorted by Cost to FDIC/ Deposits at Failure**




Source: SNL, Barclays Capital

Admittedly, this conclusion is complicated by the differences between the small, deposit-heavy banks that have failed this cycle and the larger, more complex (and less deposit-heavy) banks which are more common issuers in institutional bond markets. With a smaller percentage of U.S. deposits and a more complicated organizational structure, bondholder recovery could be less diluted in a large bank failure than in the typical minor bank resolution. For instance, Washington Mutual Bank, the one failure that did not present a loss to the FDIC, was also the largest failure by a wide margin. Nonzero recovery, particularly for holding company creditors, demonstrated the possibility for bondholders to benefit from idiosyncratic situations within a given capital structure. Still, other relatively complex institutions, such as IndyMac and Colonial Bank, resulted in receiverships which had a deficit of assets to deposit claims. In practice, the question is not whether depositor preference is a positive or negative for bondholders; by diluting recovery, depositor preference laws are a consistent negative from an unsecured creditor perspective. The question is rather one of degree, which varies security-by-security, based on the issuer's proportion of preferenced deposit funding and the bondholder's position within the organizational structure.

## A global trend

The U.S. is not the only country that has depositor preference and new proposals could further its spread globally. Banking systems in Asia (including China), Europe (Switzerland), Latin America (Argentina), and Australia also utilize it in some form (Figure 3). In the U.K., the Independent Commission on Banking proposed in its final report that depositor preference should be implemented. On this basis, we would expect policymakers in the U.K. to advance a potential law potentially during this parliamentary session. In 2011, the Financial Stability Board of the BIS released a discussion paper exploring depositor preference and seeking comment on potential adoption on an international level. We believe the global trend will be to move deposit liabilities above unsecured debt in the credit hierarchy, consistent with ambitions to make bondholders a more equal partner in burden sharing while protecting deposit insurance providers from losses.

**Figure 3: Depositor preference laws by country**

| Country | Depositor Preference Law? |
|---|---|
| United States | Yes |
| United Kingdom | No (proposed) |
| Switzerland | Yes (indirect) |
| Germany | Yes (indirect) |
| Holland | No |
| France | No |
| Spain | No |
| Italy | No |
| China | Yes |
| Japan | No |
| Australia | Yes |
| Argentina | Yes |
| Brazil | No |

Source: FSB, Moody's, Barclays Capital.

## In Europe, elevated use of secured borrowings and bail-in laws lower potential recovery

While depositor preference is not yet law across most of Europe, there are other important factors lowering the potential recovery rate for unsecured bonds. These are the increased use of secured borrowings, particularly covered bonds and central bank borrowings, and resolution frameworks that include potential 'bail-ins' of unsecured debt.

### Secured borrowing encumbers assets

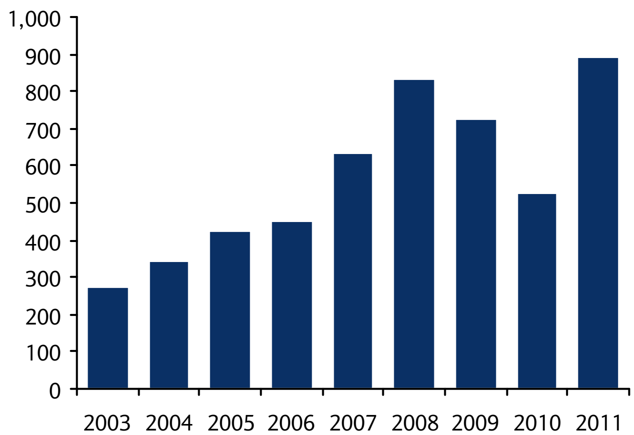
As the funding markets froze in 2011, European banks increasingly turned to the European Central Bank for funding. This culminated in €489bn of borrowing from the 3y LTRO conducted at the end of December (Figure 4). While borrowing from the ECB is already at an all-time high, our expectation is that it will further increase at the next 3y LTRO, scheduled for February 28. While the 3y LTRO has successfully improved confidence in the funding stability of European banks, unsecured creditors must realize that it is secured borrowing, which encumbers high quality assets and furthers the structural subordination of senior unsecured debt (also see *The Morning After: Why we are worried about the LTRO*).

In addition to the central banks, European banks have continued to turn to the covered bond market as a financing source. Covered bond issuance increased from 42% of bank debt issuance in 1H11 to 59% in 2H11 as the unsecured debt markets froze. Similar to central bank borrowings, covered bonds from European banks are at an all-time high, with approximately €2.6tn outstanding (Figure 5). Covered bonds create structural subordination as assets are pledged to cover pools. The pledged assets are generally high-quality and overcollateralization is typically substantial, with the median ratio of loans-to-covered bonds outstanding 140%, by our calculations. Therefore, covered bonds, similar to ECB borrowings, encumbered large pools of assets on bank balance sheets.

European banks utilize over €3.5tn of central bank borrowings and covered bond funding. While the ECB recently relaxed the eligibility criteria for collateral, they continue to apply substantial haircuts. For investment grade marketable securities, the haircuts range from 0.5% to 46%. Haircuts on investment grade credit claims are up to 64.5%. On average across all utilized collateral, we estimate the haircut to be approximately 15%, implying €1tn of assets have been encumbered by central bank borrowings. Covered bonds generally encumber even larger pools of assets. Given 140% overcollateralization, we estimate over

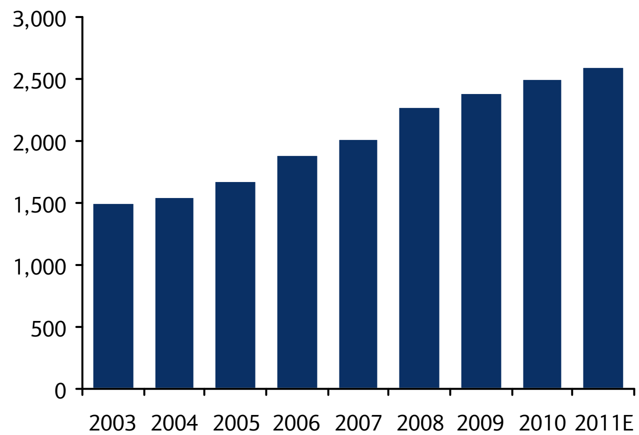
€3.5tn of loans reside in covered bond pools. In aggregate, we estimate that approximately €4.5tn of European bank assets have been encumbered by central bank borrowings and covered bond issuance, removing these assets (excluding any remaining overcollateralization) from the potential recovery pool for unsecured creditors (Figure 6).

**Figure 4: Borrowings from European Central Bank Open Market Operations, €bn**



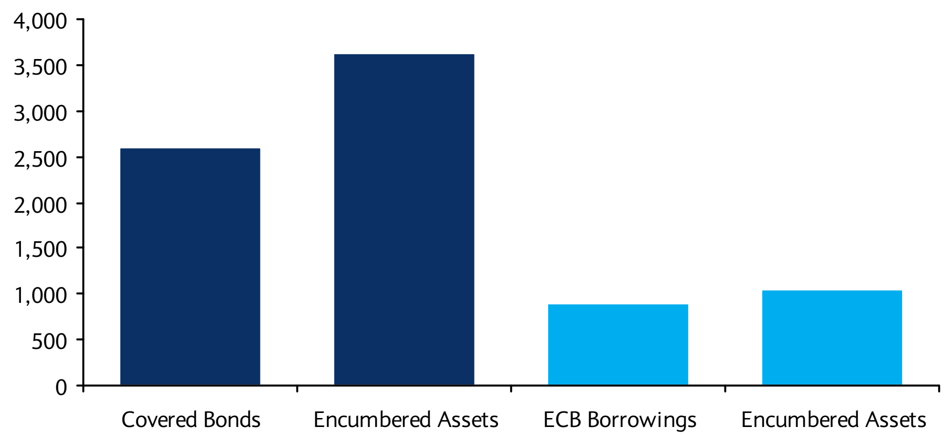

Source: ECB

**Figure 5: Covered Bonds Outstanding, €bn**




Source: EMF, ECBC, Barclays Capital

**Figure 6: European Banks: Secured borrowings and encumbered assets, €bn**



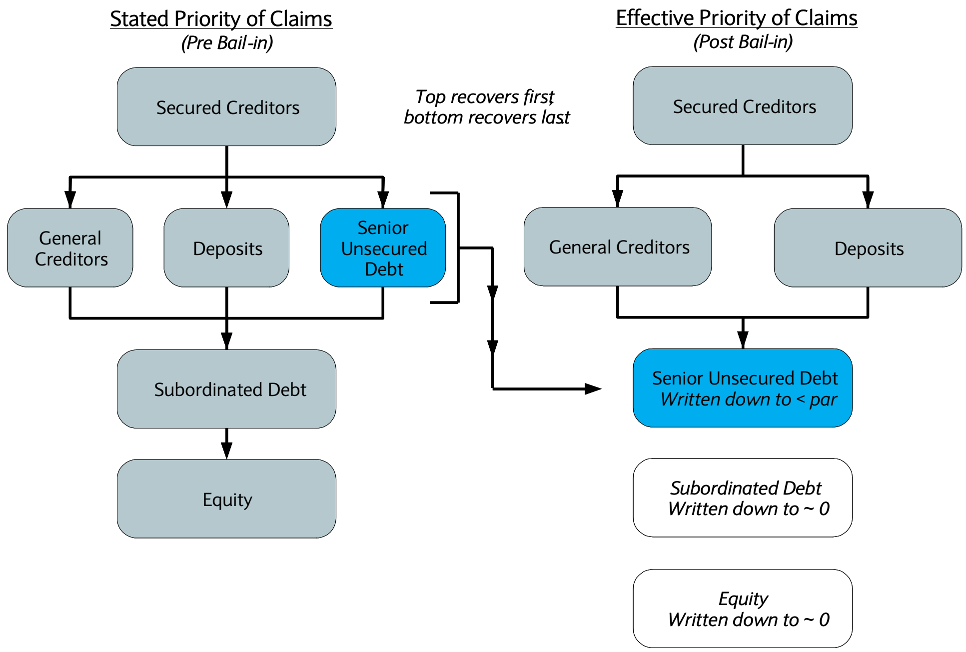

Source: ECB, EMF, ECBC, Barclays Capital

## Orderly liquidation frameworks subordinate unsecured bonds

There has been a global movement to adopt orderly liquidation frameworks, resulting from the recognition that regulators lacked the tools to effectively resolve systemically important financial institutions. In the U.S., the Dodd-Frank bill provided regulators with the potential capacity to orchestrate a managed liquidation of systemically important financial institutions that reach the point of non-viability. In Europe, the European Commission is expected to release a final legislative proposal regarding bank recovery and resolution, including providing national authorities with the statutory power to reduce the principal amount of senior and subordinated unsecured debt. Laws allowing this are already in place in the United Kingdom, Germany, Denmark, and Spain.

Statutory bail-in power, as envisioned in Europe, effectively subordinates those liabilities that can be impaired, such as senior and subordinated medium-term unsecured debt, to those that may not be impaired, such as secured borrowings, derivatives, short-term debt, and deposits. This effective subordination occurs because the principal value of 'bail-in' eligible liabilities (such as unsecured debt) could be continually reduced, eventually to 0%, before other liabilities (such as deposits) absorb any losses (Figure 7).

**Figure 7: 'Bail-ins' effectively subordinate senior unsecured debt by making it loss absorbing**




Source: Barclays Capital

## Implications of 0% recovery assumptions

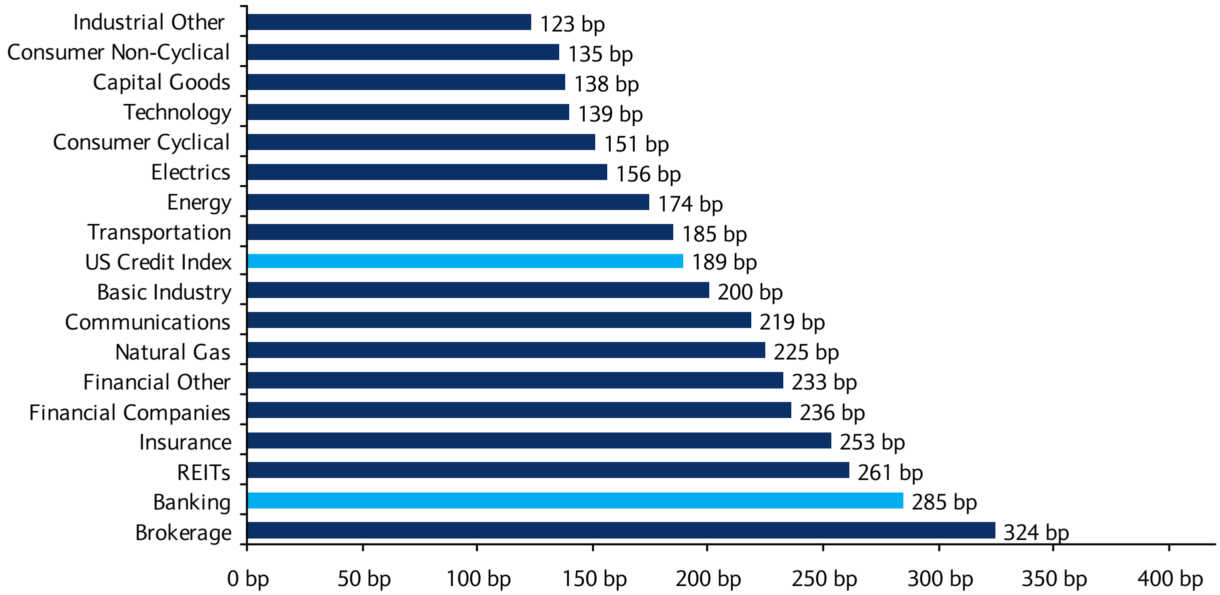
The probability of default and the recovery rate given default are two critical components of a credit spread calculation. Historically, the pricing of CDS and non-distressed cash bonds was done using a generic 40% recovery assumption. For bank unsecured debt, this high recovery assumption is not justified given increased depositor preference, increased structural subordination resulting from elevated secured borrowings, and resolution frameworks allowing 'bail-ins'.

We believe there are various implications of a more widely adopted 0% recovery assumption for bank bonds. These are wider spreads for bank bonds in relation to industrial bonds, reduced usefulness of unsecured debt as a funding tool, spread compression between senior and subordinated bonds, and spread decompression between senior and covered bonds.

### Wider spreads in relation to industrial bonds

Banks traded tighter than industrials in the past. Conceptually, this made sense, as banks were aggregators of risk and therefore benefitted from diversity. Following the financial crisis, bank bonds no longer trade through industrial bonds (Figure 8), and spreading adoption of a 0% recovery assumption will limit the ability of banks to tighten through industrials. In theory, in our view the probability of default on industrial bonds would need to be twice what it is on bank bonds to offset the difference in expected recovery rates.

Figure 8: The U.S. bank sector trades at a wider spread than any industrial sector, OAS b

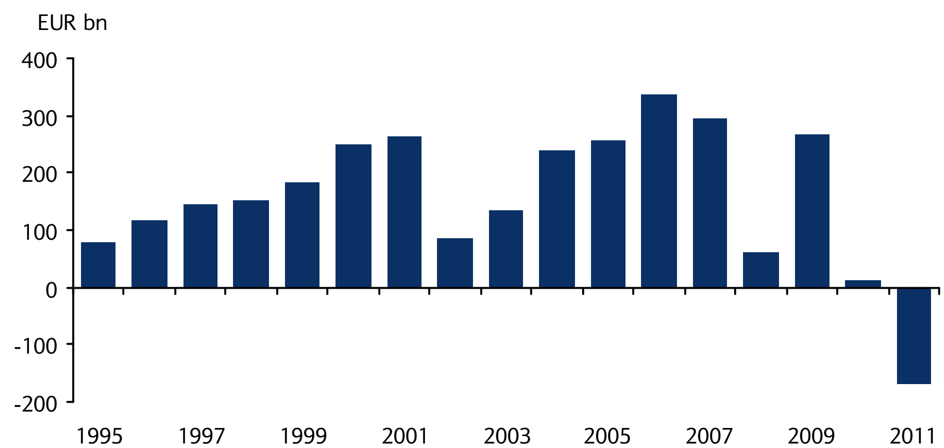



Source: Barclays Capital

## Reduced usefulness of unsecured debt

Unsecured debt is a profitable funding tool only if it can be lent or invested at a positive spread. Given that banks are among the widest trading sectors in the credit market, their relative attractiveness compared with other liabilities has become less clear. We believe that most recent bank debt issuance has been used to roll-over maturing debt, rather than invest in growth, as evidenced by net issuance of unsecured debt turning negative in 2011 (Figure 9). This is the first time we have observed negative net unsecured debt issuance by banks. Over time, the amount of unsecured debt will fall if spreads do not tighten materially. There are cheaper funding sources, such as deposits, covered bonds, and central bank borrowings, though there are regulations in some jurisdictions that limit the ability to fund an entire organization with these sources. The reduced attractiveness is partially mitigated by forthcoming liquidity rules that place emphasis on long-term unsecured funding, such as the Net Stable Funding Ratio.

Figure 9: Estimated global bank net issuance of senior unsecured debt

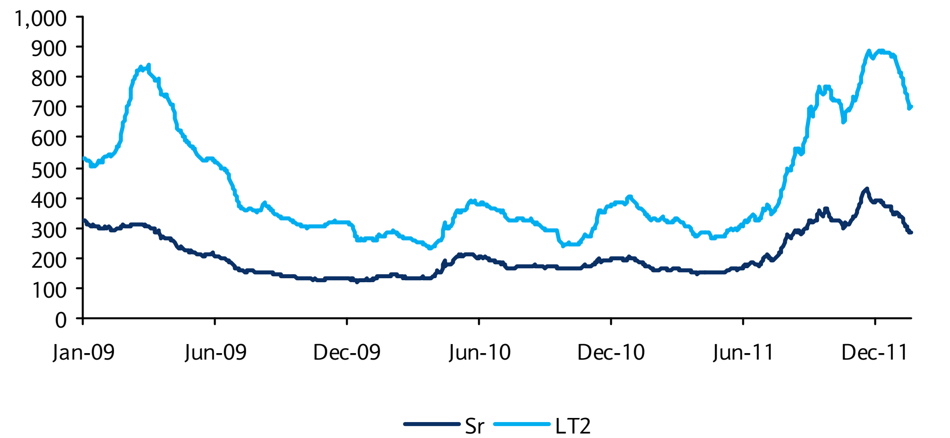



Source: Barclays Capital

## Spread compression between senior bonds and subordinated bonds

Under most legal frameworks, senior debt and non-deferrable subordinated debt (lower tier 2) effectively have the same probability of default. In these situations the difference in spread should be explained by a lower recovery assumption in liquidation for subordinated bonds compared with senior bonds. If senior bond recovery assumptions approach 0%, then there is no justification for senior bonds to trade tighter than subordinated bonds. Yet, subordinated bonds are trading close to their all-time wides in relation to senior bonds (Figure 10). We believe this creates attractive relative value in subordinated bonds.

**Figure 10: European bank subordinated spreads compared to senior spreads, bp**




Source: Barclays Capital

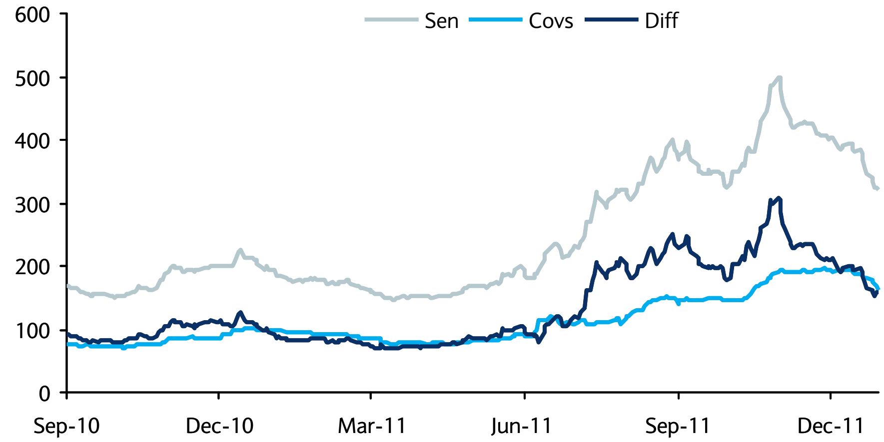
## Spread decompression between senior and covered

Assumed recovery rates should directly affect the relationship between the spreads of a bank's senior unsecured bonds and covered bonds given that they share an equivalent probability of default. A basic calculation is:

(1-covered recovery)/(1-senior recovery)=covered spread/senior spread

Using a 0% recovery rate for senior bonds makes the equation simpler, allowing the implied recovery rate of covered bonds to be derived from the spread differential of senior bonds and covered bonds. Senior unsecured bank debt has recently tightened in relation to covered bonds, with the average option-adjusted spread for a representative group of covered bonds from the issuers in our European bank aggregate at 161bp, a ratio of 0.5x the average senior spread of 319bp for these same issuers (Figure 11). Using this spread ratio of 0.5x and a 0% recovery assumption on unsecured debt means that the average implied recovery rate on covered bonds is just 50%. This is too low, in our view, given the substantial overcollateralization of covered bonds, indicating the spread differential between covered bonds and senior unsecured bonds should widen.

**Figure 11: Covered bond spreads compared with senior unsecured bond spreads, bp**




Source: Barclays Capital

## Trade ideas

We highlight three trade ideas that reflect the theme of a 0% recovery rate assumption for unsecured bank debt (Figure 12). Each trade matches one of the primary implications highlighted above. To reflect the implication of wider spreads for banks in relation to industrials, we recommend buying 5y protection on iTraxx Europe Senior Financial at 210bp and selling 5y protection on iTraxx Europe HiVol at 215bp. To reflect spread compression between senior and subordinated bonds, we recommend a trade in Capital One bonds. Capital One 6.15% of 2016, which is subordinated, is quoted at T+390bp, while Capital One 3.15% of 2016, a senior bond, is quoted at T+190bp. We do not agree with this relationship and recommend buying the subordinated bond and selling the senior bond. Lastly, to reflect the implication of spread decompression between senior bonds and covered bonds we recommend a trade in Australian banks. The Commonwealth Bank of Australia floating rate covered bonds due in 2017 are quoted at a discount margin of 147bp versus swaps, while comparable maturity senior unsecured bonds are quoted at a discount margin of 168bp - a ratio of 0.9x versus the 0.5x average for European banks discussed previously.

**Figure 12: Trades to reflect implications of 0% recovery**

| Trade Ideas | |
|---|---|
| **Banks wider in relation to industrials** | |
| Long | Sell iTraxx Europe HiVol at 215bp |
| Short | Buy iTraxx Europe Senior Financial at 210bp |
| **Spread compression between senior and sub** | |
| Long | Capital One 6.15% of 2016 (subordinated) at T+390bp |
| Short | Capital One 3.15% of 2016 (senior) at T+190bp |
| **Spread decompression between senior and covered** | |
| Long | Commonwealth Bank of Australia AUD floating rate covered bonds of 2017 at DM of 147bp |
| Short | Commonwealth Bank of Australia AUD floating rate senior bonds of 2017 at DM of 168bp |

Source: Barclays Capital

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**Market Weight:** The analyst expects the issuer's index-eligible corporate bonds to provide excess returns in line with the Barclays Capital U.S. Credit Index, the Pan-European Credit Index, or the EM Asia USD High Grade Credit Index over the next six months.

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**Underweight:** Expected six-month total return of the sector is below the six-month expected total return of the Barclays Capital U.S. High Yield 2% Issuer Capped Credit Index, the Pan-European High Yield 3% Issuer Capped Credit Index excluding Financials, or the EM Asia USD High Yield Corporate Credit Index, as applicable.

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**Overweight:** The analyst expects the six-month total return of the rated debt security or instrument to exceed the six-month expected total return of the

Barclays Capital U.S. 2% Issuer Capped High Yield Credit Index, the Pan-European High Yield 3% Issuer Capped Credit Index excluding Financials, or the EM Asia USD High Yield Corporate Credit Index, as applicable.

**Market Weight:** The analyst expects the six-month total return of the rated debt security or instrument to be in line with the six-month expected total return of the Barclays Capital U.S. 2% Issuer Capped High Yield Credit Index, the Pan-European High Yield 3% Issuer Capped Credit Index excluding Financials, or the EM Asia USD High Yield Corporate Credit Index, as applicable.

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