Morgan Stanley

March 15, 2012

MORGAN STANLEY BLUE PAPER

MORGAN STANLEY RESEARCH
Global

Francesca Tondi[1]
+44 20 7425-9721

Bart Gysens[1]
+44 20 7425-5862

Bruce Hamilton[1]

Jon Hocking[1]

Srikanth Sankaran[1]

Property, Banks, Insurance, Diversified Financials, CMBS
*See page 2 for all contributors to this report

1 Morgan Stanley & Co. International plc+
2 Morgan Stanley & Co. LLC

Srikanth Sankaran is a Fixed Income Research Strategist and he is not opining on equity securities. His views are clearly delineated

Banks Deleveraging and Real Estate

Implications of a €400-700bn Financing Gap

Commercial real estate faces a €400-700bn financing gap, mainly from bank deleveraging. Banks are set to reduce their exposure by €300-€600bn, or 12-25%, we estimate; of this, up to €150bn is cross border. CMBS run-off and open-ended fund liquidations could create a further €100bn outflow.

Alternative providers will be 'niche players' and will cherry pick, offseting this gap by only €100-200bn, we estimate. This leaves a €300-500bn multi-year gap. Liquidity provided by central banks avoids dislocations, but does not solve the problem.

We see banks as relative losers left with lower quality assets … Changes in capital and funding rules are depressing returns and values of CRE loans. Banks will likely be left with a back book of long-dated loans, which will be a drag on profitability and may still require value adjustments. Banks with larger CRE loan books, exposure to lower quality borrowers or higher risk sovereigns, and higher funding costs are more at risk, we think. We are concerned about smaller banks in southern Europe, 'restructuring stories' that still have large CRE loans, and a weakening Benelux real estate market.

… and the quoted property sector as a relative winner. Capital values will fall by an average 10% in the next 3-5 years, we estimate. As always, the picture will be mixed, with more pressure on lower-quality assets and certain geographies (parts of southern Europe and CEE, and the Benelux) while good quality and well-located assets could come through the deleveraging process rather well. Quoted stocks should be relative winners, as most are invested in good assets and offer attractive management platforms.

Private equity has clear opportunities to pick up business from banks. We see Blackstone and Partners Group as very well positioned to benefit.

Morgan Stanley Blue Papers focus on critical investment themes that require coordinated perspectives across industry sectors, regions, or asset classes.

Contributors to this Report

Banks

Francesca Tondi[1]	+44 20 7425-9721	Francesca.Tondi@morganstanley.com
Chris Manners, CFA[1]	+44 20 7425-3917	Chris.Manners@morganstanley.com
Thibault A. Nardin[1]	+44 20 7425-3787	Thibault.Nardin@morganstanley.com
Adrian Reibert [1]	+44 20 7425-2138	Adrian.Reibert@morganstanley.com
Henrick H. Schmidt[1]	+44 20 7425-8808	Henrik.Schmidt@morganstanley.com
Alvaro Serrano[1]	+44 20 7425-6942	Alvaro.Serrano@morganstanley.com
Huw van Steenis[1]	+44 20 7425-9747	Huw.vanSteenis@morganstanley.com
Magdalena Stoklosa[1]	+44 20 7425-3933	Magdalena.Stoklosa@morganstanley.com
Betsy Graseck[2]	+1 212 761-8473	Betsy.Graseck@morganstanley.com

Property

Bart Gysens[1]	+44 20 7425-5862	Bart.Gysens@morganstanley.com
Christopher Fremantle[1]	+44 20 7425-5761	Christopher.Fremantle@morganstanley.com
Bianca Riemer[1]	+44 20 7425-2646	Bianca.Riemer@morganstanley.com

Insurance

Jon Hocking[1]	+44 20 7425-2307	Jon.Hocking@morganstanley.com
Farooq Hanif[1]	+44 20 7425-6477	Farooq.Hanif@morganstanley.com

Diversified Financials

Bruce Hamilton[1]	+44 20 7425-7597	Bruce.Hamilton@morganstanley.com
Anil. K. Sharma[1]	+44 20 7425-8828	Anil.K.Sharma@morganstanley.com
Matt Kelley[2]	+1 212 761-8201	Matthew.Kelley@morganstanley.com

CMBS

Srikanth Sankaran[1]	+44 20 7425-2967	Srikanth.Sankaran@morganstanley.com
Vasundhara Goel[1]	+44 20 7677-0693	Vasundhara.Goel@morganstanley.com

Srikanth Sankaran and Vasundhara Goel are Fixed Income Research Strategists. They are not opining on equity securities; their views are clearly delineated.

1 Morgan Stanley & Co. International plc+ 2. Morgan Stanley & Co. LLC

See page 70 for recent Blue Paper reports.

Morgan Stanley

Table of Contents

Executive summary and key conclusion by industry

We see a €400-700bn financing gap in commercial real estate, mainly from European bank deleveraging. We estimate commercial real estate (CRE) could face a total financing shortage of €400-700bn over the next several years, primarily from reduced lending by European banks (€300-600bn, or 12-25% of CRE loans, which we estimate at €2.4trn). Of this c. €150bn is cross border. Banks have traditionally provided 90-95% of financing to the sector, we estimate, and are now in the process of shrinking their balance sheets. The remaining outflow derives from maturing CMBS and termination of open-ended funds (especially German funds).

Alternative providers will be 'niche players' and will be selective, but can only fill this gap by €100-200bn, we estimate. We believe that a combination of insurance companies, public equity and debt markets, private equity, opportunistic debt funds and others are likely to supply only €100-200bn of funds to fill this shortage over the next 3 to 5 years. In addition, most of these sources have a significantly higher cost of capital than commercial banks.

This is why we believe CRE deleveraging is a structural rather than a cyclical issue. Liquidity provided by central banks helps to avoid dislocations, but does not solve the problem. It will be a multi-year process as part of the wider banks' deleveraging in Europe, which will require continued liquidity and policy support. Our analysis shows that this leaves a large net €300-600bn multi-year gap and is a more serious financing squeeze than in previous cycles in Europe and relative to the crisis experienced by the US in recent years.

Banks need to increase lending spreads materially – RoEs for CRE loans are low single digit at best or even negative and a drag on profitability. This will require further adjustment in loan values over time. Our analysis shows that due to higher capital requirements and high funding costs (and because regulators no longer allow funding maturity arbitrage) return on equity on CRE loans is well below the banks' cost of equity. Banks will have to increase lending spreads well above the 200-250bp we see today – likely by as much as 50% or more for RoE to meet CoE. We think banks with higher funding costs will find it harder to stay in CRE lending and may have to exit altogether, as they are probably running a loss making business. Also, low returns mean the net present values of loans are still declining and will require further value adjustments over time. CRE losses are not entirely over.

We expect an average 10% correction in CRE values through 2016 as liquidity mitigates the impact of deleveraging. Our central scenario is a gradual correction, not a crash, in average capital values. We expect the quasi-prohibitive costs of foreclosure and ongoing influx of liquidity to prevent disorderly deleverage and thus a meaningful near-term correction in values. However, there will most likely be a wide range of outcomes, depending on asset quality, location and visibility on cash flow generation.

Winners and losers

The private equity companies will be the clear winners of this process in our view. We highlight **Blackstone**, which seems exceptionally well placed to benefit from the changes in the real estate space, and **Partners Group**. Over time, insurance companies could also benefit from writing a more meaningful amount of senior debt at very attractive spreads.

The quoted property sector will be a relative winner. In general, the sector is well capitalised, well funded and invested in good quality assets. Quoted companies should come through well in the long term, in particular those companies with limited exposure to Benelux, CEE, and southern Europe, and to secondary quality assets, which we think will be hit the hardest.

Banks are relative losers, left with the lower quality assets as alternative providers cherry pick. Changes in capital and funding rules depress returns and values of their large book of CRE loans. Banks with larger CRE loan books, exposure to lower quality borrowers or to higher risk sovereigns, and higher funding costs are more at risk, we think. We are concerned about smaller banks in southern Europe (as they are affected by exposure to riskier countries and higher funding costs) and 'restructuring stories' that still have large CRE loans, as reducing loan portfolios at a time when many banks will be deleveraging will be more difficult and may depress loan valuations further. Also, we see some risks in weakening Benelux real estate (potentially putting pressure on the banks exposed to this region).

Alternative scenarios. Our central scenario is based on a slow recovery of the broader economy with low interest rates for longer and liquidity stimulus, which allows banks to deleverage gradually. We see two alternative scenarios:

(i) More benign macro environment with slower deleveraging; property stocks trade up to or above NAV and raise equity. Better-than-expected GDP growth, negative real interest rates, and successful repricing of loans allow slower deleveraging. In this scenario of low rates but higher lending spreads, banks are more inclined to refinance rather than reduce loans (deleveraging risk settles at the lower end of our range). Inflation expectations rise, driving strong demand for real estate investment, in particular as alternative (real) yield investments are scarce. The lack of new supply squeezes rents higher. Quoted property stocks trade up to or above NAV, and raise additional equity. Values rise gradually. This also reduces the banks' need to adjust the values of their loan portfolios.

(ii) Macro crisis drives accelerated deleveraging and results in a 20% fall in real estate values. The banks' more intense need to recover capital and funding results in a greater or faster deleveraging than the €700bn we flag as top of our range. Forced liquidations from funds and maturing CMBS, as well as forced sales of loan portfolios, put additional pressure on values, which fall by around 20% on average. Alternative capital providers steer clear of the sector for several years, uncertain how far values could fall. From the banks' point of view, this scenario will see an acceleration in borrower defaults and more substantial loan losses. However, this is also the scenario where we see a high probability of further liquidity injection and broader policy intervention to avert a more substantial impact on the real economy.

Collaborative effort

Blue papers are collaborative reports focusing on key secular themes transcending sectors or geographies, where Morgan Stanley looks to identify the key debates and give investors a clearer understanding of what will define the companies most likely to benefit from or be challenged by those trends.

Differentiated approach

The reduction in the availability of commercial real estate debt is a topic that has been written about in a wide range of publications[1]. We have sought to provide incremental insight through a collaboration of Morgan Stanley's banks, insurance, property, diversified financials and CMBS analysts. This paper also reflects evidence gleaned from direct conversations with influential capital players in the industry. We have sought to better quantify the likely size of the expected capital gap, the likely capital replacements, as well as potential impacts on CRE values/profitability and winners and losers in the capital restructuring process.

[1] Reports on the topic include the *"Global Debt Funding Gap"* by DTZ, "*Capital Sources*" by INREV, "*Emerging Trends*" by the ULI and PwC, "*Distressed Real Estate Debt*" by the European Business School et al.

Providers of financing to CRE: the moving parts

	CURRENT POSITION	LONG TERM TREND		KEY CHANGES
Banks	**€2.4trn** exposure around 90-95% of all CRE debt in Europe	**A significant structural and cyclical decline** in available CRE senior debt from the default lender.	↓↓	Expect **at least €300bn and potentially as much as €600bn of reduction** in CRE lending, and an increase in lending spreads.
CMBS	**Small**; just over €100bn outstanding, hardly any origination	The lack of meaningful origination and the existing stock gradually maturing, results in the **pool of CMBS securities running off.**	↓	The run-off in CMBS adds to the problem; CMBS could **reduce lending availability by another €75bn.**
GOEFs	AUM of **€86bn of equity** invested in real estate	**Increased redemption pressure** drives even more funds to close and liquidate. We think this industry could halve by 2016.	↓	Significant redemptions continue, driving more funds into liquidation. **AUM falls by at least €25bn.**
Private equity	**Raising funds** for equity, debt and mezzanine finance	We expect **increased opportunistic fund raising** for a variety of equity and debt strategies.	↑	**€25bn of firepower, with more funds expected to be raised** as opportunities arise to invest and to lend.
Insurers	**Stepping up CRE lending efforts**, but early days for most	Insurers **increase their real estate investments by adding senior debt,** driven by regulation (Solvency 2).	↑	**Significant increase between €50 and €100bn** over the next 5-10 years, **but little change in the next two years.**
Quoted property stocks	**Underdeveloped** relative to US/Asia	We anticipate an increase in equity issuance through initial public offerings and secondary offerings.	=	Our central scenario is €25bn; we think the amount of issuance ultimately **depends on the alternatives available** to property owners.
SWFs	**Increasing AUM**; investing a significant amount in real estate	Continued investments in high quality assets through private equity and joint ventures with REITs.	↑	SWFs invest more in European real estate in a drive for yield and capital protection (€50bn).
Corporate Bonds	**Insignificant**; less than €30bn outstanding	A **pick-up in issuance** as more companies tap into this market.	↑	Issuance could treble, but even in that case the net increase of senior unsecured credit could perhaps **add only around €20bn**.
Pension funds	Weightings usually track inflation, **looking for yield**	A gradual continuation of investment in real estate equity; an earlier than expected adoption of Solvency 2 could change this.	↑	Invest more in real estate in a drive for yield and capital protection, but do not account for a huge increase in equity/debt capital.
Other unlisted funds	The default way for institutions to invest in the asset class	Further inflows and close to €30bn firepower. But significant terminations of funds originated in 2005-2007.	=	**The rotation in preferred style** (towards lower gearing) **and geography** (into Germany and Nordics) **is a concern** for out of favour markets.

Section 1 – Framing the debate and the possible risks

We estimate the CRE financing gap at €400-700bn

European banks have CRE lending exposure of c.€2.4trn or c.10% of their loan book; €0.4trn is cross-border
Our discussions with a wide range of bank lenders to the European commercial real estate sector, and analysis of the individual exposures they hold, suggest European banks have up to c.€2.4trn exposure in CRE lending, equivalent to c.10% of their loan book; €0.4trn is cross-border exposure. In an effort to curtail their over-extended balance sheets, European banks are undertaking a deleveraging process that will likely encompass €1.6-3trn of bank loans (not just CRE) over the next few years.

€300-600bn of CRE loans (or 12-25%) are at risk of not being renewed as banks continue the deleveraging process
We estimate a potential €300-600bn of CRE loans that banks may wish to "let go" over the next few years as part of this deleveraging process. Some of this has already been announced (c.50%) and the remainder is, in our view, at risk given it is cross-border lending and not necessarily linked to the banks' own core client franchises, and as banks are refinancing at lower LTVs.

Maturing CMBS and terminating open-ended funds exacerbate the problem
Over the last few years the real estate market has received financing from CMBS markets, while German Open-ended Funds (GOEFs) have been significant buyers. We think there is refinancing risk for CMBS of another €75bn, owing to a gradual maturing of existing CMBS without meaningful origination. And, we expect c.€25bn of equity capital outflow from real estate markets due to open-ended fund terminations. This brings the total financing shortage for the European CRE sector to €400-700bn, all else equal.

We expect there to be substantial peaks in refinancing in 2012-2014, given CRE loans tend to have an average duration of 5-7 years and most of the business was written in 2005-07. While we do not have sufficient analytical data on the maturity profile of banks' loans, our view is supported by the maturity profile of CMBS transactions.

European banks may wish to reduce CRE lending exposure for several reasons
These include the need to improve their equity capital position, structural changes in funding conditions that no longer allow attractive economics for CRE lending, significant cyclicality of the business that makes pricing risk difficult, as well as a lack of connectivity with the banks' core client base.

The key issues

CRE deleveraging is structural, not cyclical
Previous cyclical downturns in real estate in the UK (where historical series are available) show that banks reduced their exposure over a period of 5 to 7 years. Given the larger scale of the problem and synchronization across several countries, we contend that this time the issue is structural rather than cyclical and could impact the sector over an even longer period (up to 10 years). To be clear, we do not think the recent policy intervention (LTRO) will stop this process – which stems from several converging factors, not just tightness on the funding side – but it will alleviate some of the near-term effects as banks work through their books.

Banks may be flexible to avoid market dislocation …
Our analysis shows that there is a clear and large gap between the amount of financing that various lenders (banks and CMBS) may intend to let go (our €400-700bn estimate) and the €100-200bn of financing we estimate is available from other market participants (the public market, private equity, sovereign wealth funds, insurance companies, pension funds). We explore this in Section 2. It is obviously not in the banks' interest to cause a market dislocation, which would generate even larger losses for them, at a time when equity capital available to finance such losses is still limited. This is why we think that there is a trade-off between the amount that banks may wish to recover and when they can do so. We retain a high conviction level on the overall amount at risk as we think banks will reduce loans by €600bn ultimately but it may take years.

… but there is a trade-off between timing and pricing
While in other markets (for example, the US) prices for real estate loans have increased substantially, in Europe CRE lending spreads (although 50-100% higher than prior to the crisis) are arguably still not sufficient to make this business attractive for the banks, at least not in the large scale they have undertaken so far. While banks may be flexible in terms of timing to recover their loans, and thus may be willing to extend, this will clearly come at a substantial cost to the borrowers, as banks will at least try to achieve a level of profitability that covers their cost of equity. In this section, we explore some scenarios for bank repricing, based on a series

of variables (including the equity capital banks need to hold against the financing and their own cost of debt, both of which are increasing).

In this first section, we explore where the banks' exposure has been built and where the points of stress are. We are concerned about cross-border exposure in total (€0.4trn), and especially in southern Europe (c.€45bn), as this is likely to be less liquid and may be more difficult to recover as banks retrench, or more difficult for local banks to absorb. Most of this exposure has been lent by German and UK banks that are retrenching. We also see potential risk in CEE (€36bn of cross-border exposure) although the risk is of a different nature, and the portion that is extended by local subsidiaries of European banks is prevalent. This means that CRE lending is likely to be closer to the banks' own franchises, but it may present an issue of refinancing as funding through local capital markets is scarce in CEE and banks are trying to reduce their subsidiaries' lending activities that are not deposit funded.

On the other hand, we see opportunities in the US for local banks to pick up some additional business as European banks may wish to reduce at least a portion of their c.€76bn of exposure there. We have published extensively on this topic on a sector and individual bank basis; please see Appendix III for a list of relevant reports.

The CRE lending landscape: How much is at stake?

The European banking sector remains a key provider of financing to the commercial real estate sector, as banks have grown their exposure substantially over the last 10 years. Our analysis shows that European banks have up to c.€2.4trn of loans outstanding to real estate companies, accounting for c.10% of the banks' loan book. CRE financing was one of the fastest growing lending classes for banks in the last 10 years, particularly in the UK and Spain.

On aggregate, banks are the biggest providers of funds to the real estate sector in Europe (90-95% of financing we estimate), while in the US, for example, the banks' slice has been capped at c.50% as alternative means of financing have emerged to finance growth in recent years.

The largest lenders are UK, German and Irish banks (both domestically and internationally), which are unsurprisingly also the banks that are undergoing significant restructuring. Spanish banks also have large CRE exposures, but these are primarily domestic.

Of the European exposure outstanding, around a third is non-domestic and increasingly classified as "non core" by the banks. The biggest cross-border exposures are to CRE companies in the UK and Germany, but we are less concerned about these markets, which are liquid and attract a variety of foreign lenders. We are more concerned about the €45bn cross-border exposure to southern Europe, which is likely to be less liquid and may be more difficult to recover, as well as the c.€36bn in CEE as banks try to reduce exposure to non deposit funded lending in the region. Again, we find there is a complex network of foreign exposures extended by UK and German lenders, which due to their large restructuring plans, are trying to reduce risk substantially. We expand more on this risk in the next section.

We also note that the banking sector has c.€120-240bn of equity capital tied up in CRE financing, some of which needs to be recovered as low returns force banks to become more disciplined in their equity allocations.

CRE lending, the fasted growing segment over the last decade, is now a €2.4trn financing market for the banks, equivalent to 10% of their loan book

Attractive marginal profitability and low equity capital requirements were drivers of huge CRE lending …

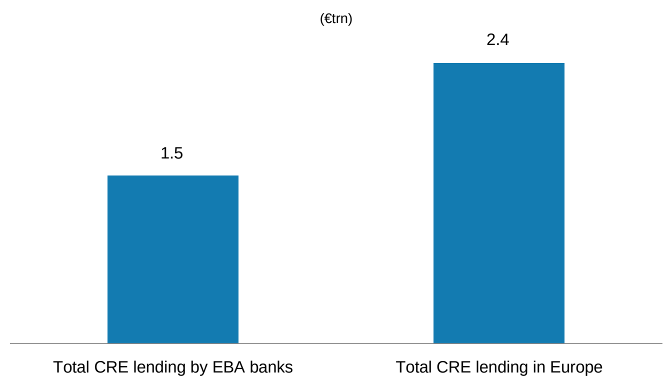
Commercial real estate (CRE) lending has been one of the fastest growing asset classes for European banks in the last decade (only paralleled by retail mortgage lending). This is because historically banks have had to hold a relatively low level of equity capital against their CRE exposure, and marginal profitability was attractive (at a time when funding was cheap and plentiful and banks were allowed to fund long-term loans with short-term funds).

… which now stands at 10% of all outstanding loans

Data recently released by the European Banking Authority (EBA) [2] in the context of its recent stress test show that the 90 banks examined (across Europe including the UK and Nordic countries) had total loan exposure to CRE of €1.5trn at the end of 2010. As these banks represent 60% of the European sector (based on total assets) we estimate that there is up to €2.4trn total CRE lending exposure outstanding in the European banking sector as a whole. This is equivalent to 10% of European loans (and 5% of assets) on an aggregate basis. As a comparison, the CRE exposure of US banks is around US$1.4trn, or 11% of their assets (as US banks tend to hold fewer loans on their balance sheet). Details of exposure by bank are shown in Appendix I.

Exhibit 1

CRE financing, a large market equivalent to up to €2.4trn or 10% of bank lending in Europe



Source: EBA data, Morgan Stanley Research estimate

UK real estate lending has grown five-fold and Spain eight-fold over the past 10 years

As an example (and given that we do not have sufficient and consistent historical data series for the whole of Europe), Exhibit 2 shows the expansion in the UK: in the last 10 years lending backed by real estate has increased five-fold and overtaken other types of lending. We see a similar trend in Spain, where CRE lending has increased eight-fold over the

[2] The bulk of this work has been based on disclosure of CRE exposures provided by 90 European banks to the EBA in the context of their July 2011 stress test. We have found that not all data defined as CRE exposures follow a uniform classification across countries and across banks, and indeed often data do not match disclosure given by the banks in their financial statements. Where possible we have tried to harmonise data or at least flag the more significant discrepancies. Note that Swiss banks were not included in this exercise, but we believe their exposure to be immaterial.

last 10 years, while other loans have increased just over 2 times Exhibit 3.

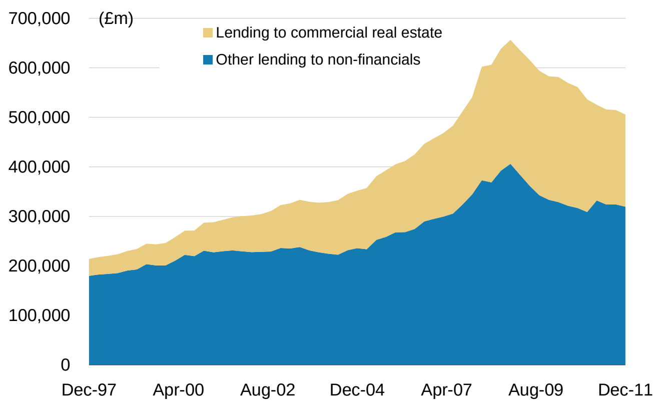
Increase in CRE lending is a very recent trend

The most significant increases in CRE new business volumes occurred in 2005-07, just before the financial crisis, as banks used cheap liquidity to expand their balance sheets and the equity capital requirement declined with regulatory changes in the early 2000s (such changes are now being reversed). Exhibit 4 shows the volume of lending in the UK as an example of this trend.

We do not have sufficient granularity on the maturity of the banks' loans, but given that the peak in lending activity (in 2005-07) coincides with the peak in the CMBS market, we think it is relatively safe to assume that there may be a similar pattern of maturity. This would imply €350-500mn refinancing requirements per year in 2012-2014.

Exhibit 2

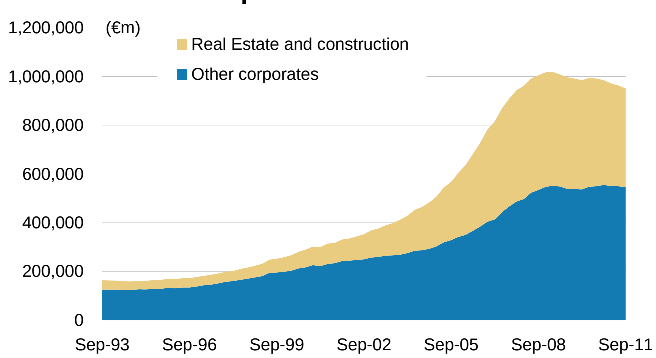
Outstanding UK bank loans – growth in real estate outstrips other business lending



Source: Bank of England, HM Treasury

Exhibit 3

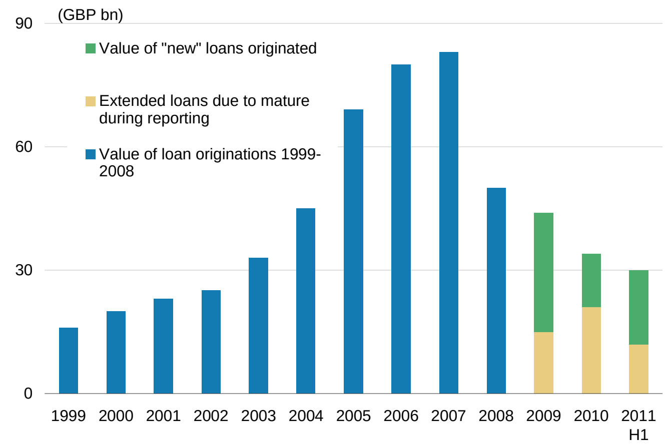
… similar trend in Spain, although driven by commercial developments for residential use



Source: Bank of Italy, Morgan Stanley Research

Exhibit 4

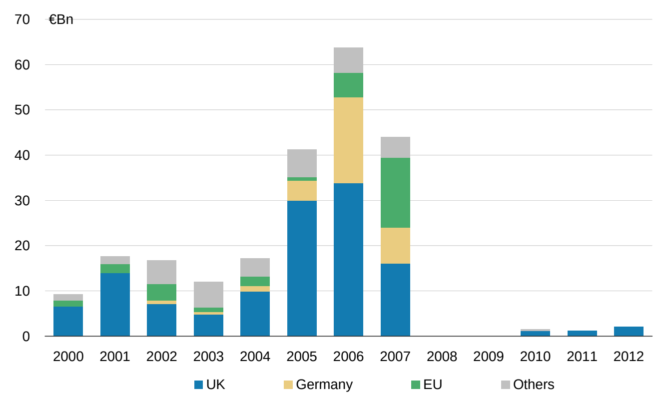
Volume of UK gross commercial property annual lending – significant peaks in 2005-2007



Source: De Montfort University report "The UK Commercial Property Lending Market Research Findings 2011 Mid-year".

Exhibit 5

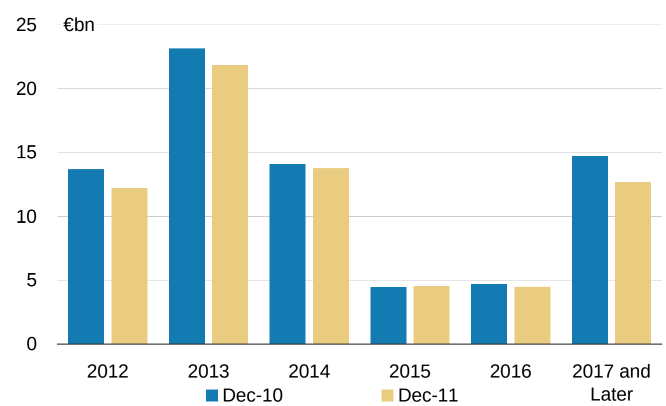
CMBS Primary activity – significant peaks in 2005-2007



Source: Bloomberg, IFR, Morgan Stanley Research

Exhibit 6

CMBS has significant maturities in 2012-2014



Source: Bloomberg, Morgan Stanley Research

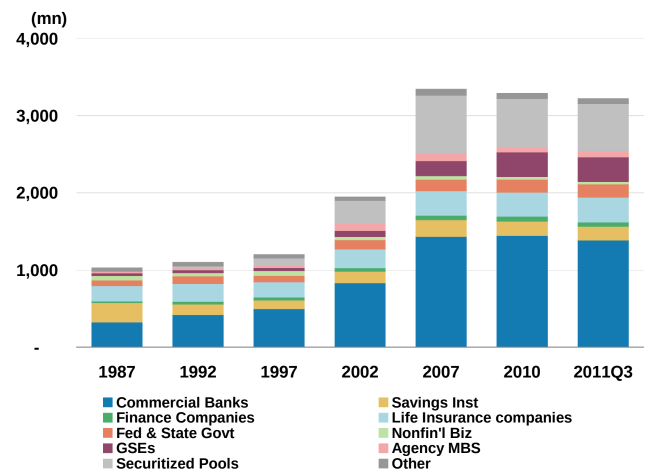
Banks are the biggest providers of funds to real estate in Europe

Alternative sources of financing remain underdeveloped in Europe versus the US

European banks are the largest providers of capital, given the intense use of banks' balance sheets to finance the real estate sector and the relatively low development of other forms of financing. This is in stark contrast to the US market, for example, where since the 1990s increased financing of the commercial real estate sector has been associated with development of bank lending as well as alternative of means financing (Exhibit 7).

Exhibit 7

US CRE lending by lender type since 1987 – alternative sources now account for 50% of the total

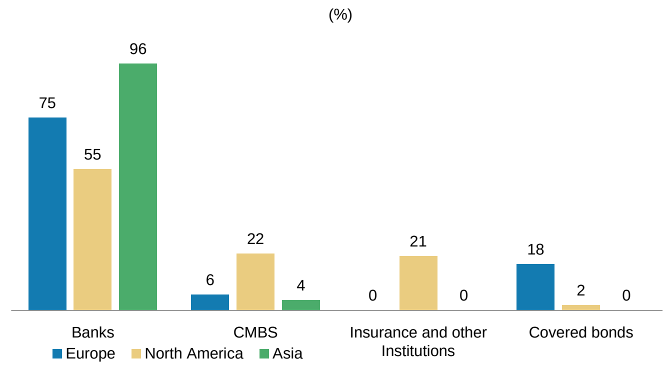


Source: Fed Flow of Funds, Morgan Stanley Research

Banks represent c.75% of real estate financing in Europe according to DTZ. However, we believe this proportion could be as high as 90-95%, given banks issue covered bonds to fund CRE and they are not a separate direct funding source to commercial real estate companies.

Exhibit 8

Banks are the biggest provider of CRE finance in Europe



Source: DTZ

Spanish, UK and German banks have built the largest CRE exposures, and now seem over-extended

German and UK lenders have domestic and international exposure; Spanish exposure is mostly domestic

Looking at the breakdown of banks that have been responsible for most of the CRE financing, we note that over 50% is on the balance sheets of Spanish, UK and German lenders. These now look overexposed, having accumulated on average 5-10% of their total assets in CRE, above the other banks' average of 4%. However, there are some differences: while UK and German banks have also built large international operations in CRE, the Spanish business is for the most part domestic.

In terms of single names, the largest exposures (based on end-2010 data, which is likely to have decreased for several banks) are as follows: HSBC (€85bn), RBS (€84bn), CBK (€71bn), Santander (€56bn), BBVA (€55bn), Deutsche Bank (€48bn). Exhibit 9 shows the 10 banks with the largest exposures as a percentage of total assets.

Exhibit 9

Top banks by exposure as at December 2010 (this may be lower by now)

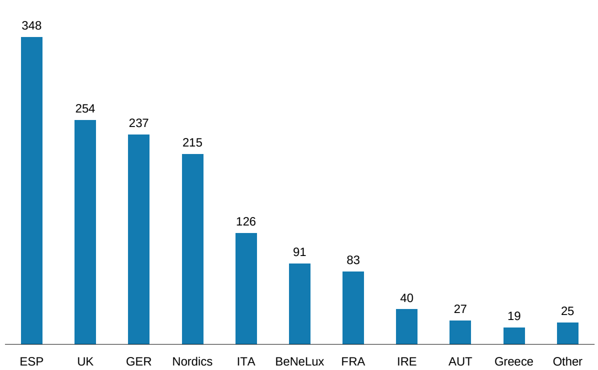
Top banks by absolute CRE exposure			Top banks under our coverage ranked by exposure as % of assets		
	€bn	% of assets		% of assets	€bn
HSBC	86	5	Banca Civica	19	14
RBS	84	14	Banco Popular	19	25
CBK	72	9	SHB	15	35
Santander	57	5	Banco Sabadell	14	14
Lloyds	56	6	RBS	14	84
BFA-BANKIA	55	17	DnB Nor	12	25
Deutsche	48	3	Danske	12	47
UCG	47	5	Banco Popolare	11	16
Danske	47	12	UBI	11	14
Nykredit	43	25	Erste	11	22
BNP	40	2	SEB	10	21
La Caixa	39	14	CBK	9	72

Source: EBA, Morgan Stanley Research

Note that the EBA data do not include some real estate lenders, such as the "bad banks" created in Ireland (NAMA, with c.€30bn exposure at end-2010) and in Germany (FMS Wertmanagement, with c.€26bn exposure at end-2010). If we add this to the total country exposures shown in Exhibit 10, German banks' exposure to CRE would be just over €260bn and the Irish exposure around €70bn, but the relative ranking would not change. Also, French data do not include some of the commercial real estate financing for social housing, which falls under the shadow banking system or is financed by CDC (Caisses des Depots and Consignations), neither of which are captured by the EBA. On the other hand, Nordics data include residual financing to cooperatives for mortgages covering the communal areas of residential developments (once the apartments have been sold); we think this accounts for as much as 30% of the exposure.

Exhibit 10

Banks with largest total CRE exposure (by country) €bn



Total EBA CRE lending: €1.5trn
Source: EBA, Morgan Stanley Research

Exhibit 11

Banks' domestic and non-domestic CRE lending (€bn) – Spain stands out for domestic exposure

	Domestic	Non-domestic	Total CRE
Spanish	323	25	348
UK	126	128	254
German	118	120	237
Nordics	187	28	215
Italians	99	27	126
Benelux	65	26	91
French	42	40	82
Irish	17	23	40
Other	46	25	71
Total	**1,022**	**443**	**1,464**

Source: EBA, Morgan Stanley Research

Two-thirds of Spanish banks' exposure is commercial developments for residential use

Spanish banks have c.€320bn of real estate exposure, of which we estimate close to €100bn is commercial real estate and the rest (€220bn) commercial developments for residential use, which is where we have seen more of the real estate bubble build in recent years. The latter, we estimate, includes land exposure of c.€90bn. The vast majority of this exposure is domestic, and banks have been trying to reduce it for the last couple of years.

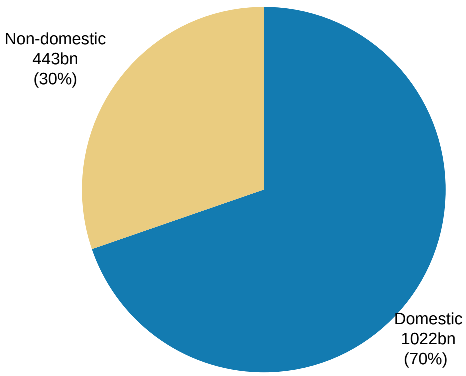
Note that loans for residential development are not included in other countries, and this makes data less comparable with Spain, although they would still be on a much smaller scale than Spain. We also note that these data have been aggregated using the EBA datafile, but data provided by the banks for the EBA test are not always entirely uniform.

Almost one-third of European CRE loans are non-domestic, and so are likely to be less strategically important going forward

In a quest for growth, European banks significantly expanded loan books outside their domestic franchise

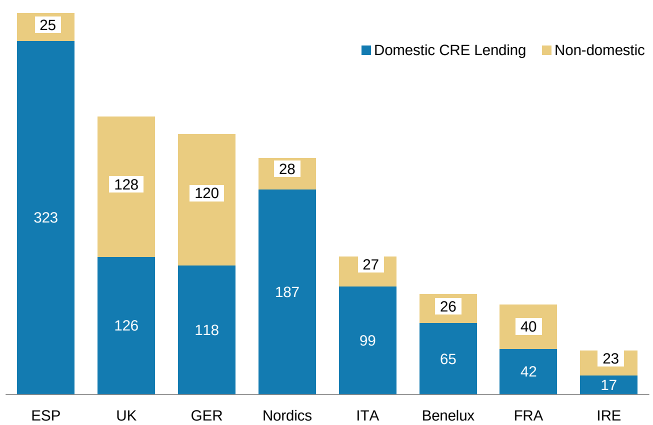
According to the data gathered by the EBA, the 90 banks included in the sample now have over a third of their CRE exposure (or c.€440bn) extended outside their home country. (This allows for the fact that Benelux and the Nordics are treated as two countries for the purpose of this exercise.)

Exhibit 12
30% of CRE loans are non-domestic (for the banks in EBA universe)



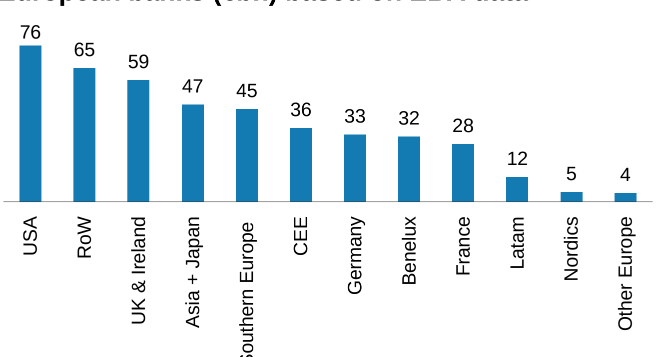
Source: EBA, Morgan Stanley Research

Exhibit 13
UK and German banks have substantial portfolios outside their domestic market (€bn)



Source: EBA, Morgan Stanley Research

Exhibit 14
Largest recipient countries of CRE funding from European banks (€bn) based on EBA data



Source: EBA, Morgan Stanley Research

UK and German banks are the largest international lenders

UK and German banks have the largest cross-border exposures, because in the 1980s and 1990s banks set up large real estate financing operations. These are now being substantially scaled down as the banks retrench towards their core business. For further details of exposure by bank, refer to Exhibit 9.

Within Europe, UK and Germany are also the biggest recipients of cross-border financing, but we are more concerned about southern Europe and CEE

On the other hand, looking at the receiving end, the UK and Germany are also the largest recipients of real estate financing from foreign lenders. This is probably due to the presence of high quality properties (especially in the larger cities), a liquid market and more "lender friendly" laws. Therefore, these markets are likely to remain attractive and able to draw alternative funding if some of the foreign banks were to retrench (for example, we have seen wealth funds very active in the UK, and insurance companies active in Germany). Similarly, within Northern Europe, at €28bn France is a large recipient of cross-border financing, and also a more liquid market. For detail of banks' exposure by country, please refer to Appendix 1.

We remain comfortable with assets funded in London, Paris, Germany (and the Nordics)

We think capital will remain available to finance good assets located in the "right" locations; we think that either banks will be happy to refinance loans on such assets or alternative financing will readily fill the gap should banks wish to exit. The 'right' locations are:

(i) London and Paris, which are very liquid and very much a priority for foreign investors;

(ii) Germany, which we think could be 'flavour of the month' for the next several years, as many institutional investors in real estate remain underweight Europe's largest and strongest economy; and

(iii) parts of the Nordic region, such as Norway, Sweden, and Finland, which have robust economies, strong domestic banking systems, are outside the eurozone, and where a lot of capital is looking to invest.

Liquidity in European commercial property markets

Liquidity is mainly in London, Germany and Paris

Total transaction volume in commercial property in Europe was €118 billion last year; London, which is the most liquid city globally by far, and Paris, which also features in the global top three cities (see Exhibit 15), accounted for the majority of this. At the country level, the UK (mainly London), Germany (volumes more widely spread) and France (mainly Paris) account for as much as two-thirds of all commercial real estate transaction volumes.

In 2011 €118 billion of CRE changed hands

Last year's total pan-European transaction volumes were around half of peak volumes in 2006 and 2007, and about two-thirds above trough levels in 2009 (see Exhibit 16). To put this in context, a €500 billion senior debt capital would be equal to more than four years of 2011 transactional volumes, all else being equal. In addition, as we think it is fair to assume that most investors have significantly less than 100% loan-to-value, such a reduction in senior debt capacity would equal to several more years of 2011 deal volume.

Exhibit 15

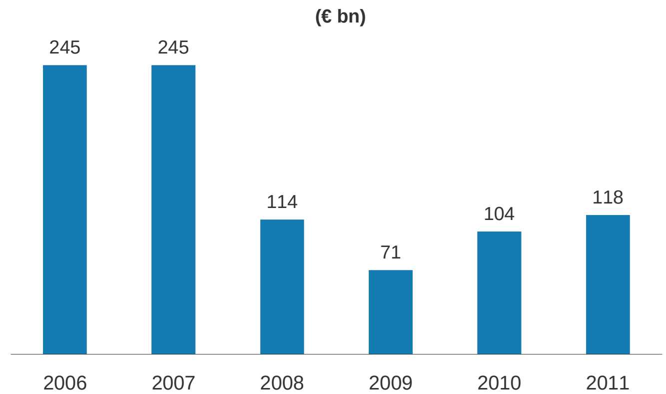
London and Paris are very liquid commercial property markets

Rank	City	Comments
1	**London**	**$5 bn more annual liquidity than #2**
2	New York City	
3	**Paris**	**Up from #4 in 2010**
4	Tokyo	
5	Hong Kong	
6	Singapore	
7	Washington DC	
8	Seoul	
9	Shanghai	
10	Los Angeles	

Source: JLL, Morgan Stanley Research

Exhibit 16

CRE deal volume in 2011 was around half peak levels, but already two-thirds above trough levels



Source: JLL, Morgan Stanley Research

Exhibit 17

UK (i.e. London), Germany and France (i.e. Paris) make up two-thirds of transaction volumes in Europe

Country/region	(€ bn)	(%)	Cumulative (%)
UK	36.8	31	31
Germany	22.8	19	50
France	16.1	14	64
Nordics	15.7	13	77
CEE & Russia	13.2	11	88
Southern Europe	6.1	5	93
Benelux	5.3	4	98
Other	2.4	2	100
Total	**118.4**	**100**	**NA**

Source: JLL, Morgan Stanley Research

We see risks mainly in southern Europe, but also Benelux, as banks need to deleverage and domestic real estate trends are somewhat worrying
In southern Europe, there is an aggregate c.€45bn of exposure financed by foreign banks. This was built up in the upswing of the credit cycle in 2005-07 and could now be at risk of refinancing as banks retrench.

Spain is the largest recipient of foreign financing, with c.€18bn; of this, €8bn comes from German lenders, €4bn from UK lenders and €2.7bn from French lenders, none of which have substantial local banking operations.

Italy is the second largest recipient, with just under €18bn; however, true cross-border funding is probably closer to €11bn if we exclude the two French banks with large local subsidiaries. Of the remainder, over half is financed by German banks.

Greece (c.€4bn largely funded by Cyprus) and Portugal (€5.5bn with €2.7bn from Germany – largely CBK, and €1.1bn from Spain) account for the remainder.

We are concerned about the property value and rental development in most of Spain, Italy, and Benelux
(i) **Spain and Italy.** Other than some truly 'prime' shopping centres and offices, a significant portion of property investors could have difficulty sourcing debt capital, especially if cross-border financing were to be reduced, as we argue. Lack of alternative financing sources, especially as foreign banks retrench, could cause borrowers default, reduction in property values and this could trigger further losses for the banks. Beside local banks, listed banks with larger cross-border exposures to Spain and Italy include CBK, BNP, RBS, CASA and Deutsche Bank.

(ii) **Benelux.** Underlying property fundamentals are weak, and German open-ended funds own significant investments. The relaxed Dutch planning environment has facilitated the supply of new office space in recent decades. When combined with a lack of meaningful demand growth, this has driven property vacancy in the Netherlands. Indeed, we believe that a significant part of the commercial property market (offices and industrial property, in particular) will never be let and is effectively obsolete. Meanwhile, tenants continue to enjoy a very strong bargaining position with their landlords over the renewal of rental agreements. Our main concern is that, as market conditions suppress rental income, the ability of borrowers to meet loan interest may become stretched, which in turn could increase the probability of loan nonperformance and higher loss provisioning. We are also concerned about the impact on Dutch market yields of the ongoing liquidation of German open-ended property funds. The latter own the equivalent of 4.6 times quarterly Dutch office transaction volumes over the last two years. We therefore think their future disposal activity will have a detrimental impact on asset values in the Dutch market. While perhaps to a lesser extent than the Netherlands, the Belgian real estate markets, offices in particular, face similar challenges. Listed banks with larger exposures to Benelux include ING, BNP, Deutsche Bank, KBC and RBS.

Brussels office vacancy stands at a relatively high 11% according to Jones Lang Lasalle (JLL) and it is therefore no surprise office rents have started sliding, down 3% in 2011. Anecdotal evidence suggests increasing pressure on values; Segro, the pan-European industrial and business parks owner, has earmarked Pegasus Parks, a large business park in Brussels, for sale and has already recognised significant valuation losses at the end of 2011 ahead of the sale.

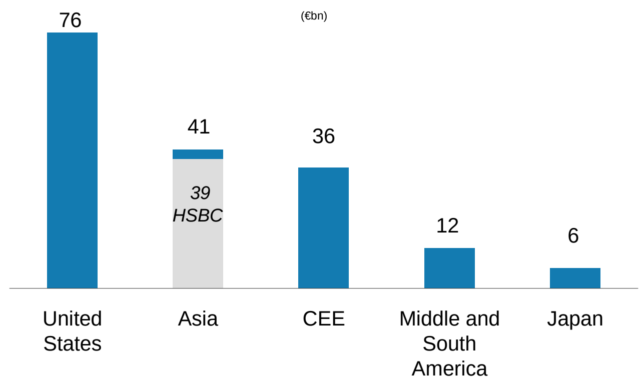
As European banks withdraw funding from non-domestic markets, local US banks could see some opportunities …
Outside Europe, US and CEE receive substantial financing from European banks, as indicated in Exhibit 18. In Asia, of the €41bn exposure €38bn relates to HSBC and is likely to remain strategic. The remainder is small and very fragmented, with the largest single exposure just €1.3bn (for BNP).

In the US, c.40% of the €76bn exposure relates to the business written by local subsidiaries of European banks. The rest is likely to be 'true' cross border and, given the issue several European banks experienced with regard to US dollar financing (which dried up suddenly in Q3/Q4 2011 for several European banks), it is likely they will try to reduce the exposure over time.

The largest lenders in the US are Wells Fargo, Bank of America, USBancorp, JPMorgan, PNC and BBT. These banks will look at opportunities to expand their relationships, but are less interested in lending more to existing clients or in taking on portfolios that do not provide avenues for further growth. Ultimately, quality properties and growing clients will receive financing, while mid-tier properties and slower-growth clients may need to reach beyond the largest banks to look for financing.

The fragmented nature of the US banking system means that there are hundreds of banks involved in CRE (the six banks mentioned above cover only 20% of the market). The challenge is that CRE exposures in the books of European banks are relatively large for smaller US lenders (BBT's CRE loan book is only US$11bn, similar in size to that of Deutsche Bank). So reducing exposures for European banks may require some time and will benefit those that try to reduce first. Beyond banks, US life insurers, hedge funds, pension funds and REITs (a type of listed real estate stock) are also looking for yield and/or capital appreciation, and could be interested in the CRE portfolios of European banks.

Exhibit 18
Outside Europe, US and Asia receive substantial financing from European banks



Source: EBA, Morgan Stanley Research

Exhibit 19
Top European CRE lenders to the US

Bank	US CRE exposure	o/w in US banking subsidiaries
Deutsche	10	
RBS	9	9
HSBC	9	9
Santander	8	8
BNP	5	5
LBBW	5	
CBK	5	
ING	4	
BAR	3	
NordLB	3	
BBVA	2	2
Other	12	
Total	**76**	**33**

Source: EBA, Morgan Stanely Research

… but CEE may see some stress
In CEE, unsurprisingly nearly two thirds of the €36bn exposure is represented by Austrian, German and Italian banks and is likely financed through their local subsidiaries. If we include Unicredit's exposure to CEE (which the bank did not split out) we think total exposure to CEE is c. €40bn. The issue we see here is that the increasing push from European regulators (particularly in Austria) to fund local lending with local deposits, and in the absence of more developed capital markets in the region, may result in reduced lending capacity by the banks. This would likely affect CRE disproportionately, as it is not an activity that tends to be financed through deposits. We also note that the CEE subsidiaries owned by Greek banks are responsible for c.€5bn of CRE lending in the region, which we think could be at risk given the funding constraints of the parent banks.

Note that European banks "own" c.80% of the banking assets in the region (through ownership of local subsidiaries), and thus the capacity for the alternative absorption of lending by local banks is very limited.

Exhibit 20
Lending to CEE – main markets are Poland, Romania, Czech Republic and Hungary

CEE	CRE exposure €bn
Poland	8
Romania	5
Czech Republik	4
Hungary	3
Other	16
Total CEE	**36**

Source: EBA, Morgan Stanley Research

Of the €36bn cross-border exposure, c.€21bn is across four countries. Poland accounts for €8bn (of which €6.1bn is from German lenders), with €4.6bn in Romania (€3bn from Austrian lenders that have large local banks), €3.6bn in the Czech Republic (€2.9bn is Austrian lenders that have large local banks), and €3.3bn in Hungary (€1.4bn from German, €0.9bn from Austrian and €0.9bn from Italian lenders, the latter two having substantial local banks).

In terms of markets, we are concerned about Hungary, which is already undergoing a significant downturn, and Romania. Poland represents a larger exposure but has a stronger economy with a more solid banking system.

There is also a residual €65bn of European cross-border financing to the rest of the world (Canada, Australia, etc.), which we very much doubt banks will want to roll over, given they are reducing their international presence. Of this, €29bn is on the books of UK banks c.€5.5bn is Benelux and c.€8bn is German banks.

Banks often fund lower quality assets…
We think the current polarisation trend is set to continue with increasing differentiation between 'prime' assets and everything else. This is well understood, but nevertheless highly significant.

We think the scarcity of debt will drive a reclassification of assets, with investors becoming more demanding on what they consider ‘prime’.

We do not have precise details of the assets the banks fund (beside some scattered evidence of loan-to-values (LTVs)). However, in general, the majority of the banks’ books tend to be concentrated on loans to companies that do not have alternative sources of financing in the capital markets, either because of their size or because of their low credit rating, and thus are inherently of lower quality.

How much is at risk from bank deleveraging?

European banks are in deleveraging mode – we expect €1.6-3trn of total loan reduction over the next 3 to 5 years, as banks endeavour to increase capital, recover funding, improve profitability and generally refocus business models.

We estimate a potential aggregate €300-600bn reduction in CRE loans over the next few years in the context of this deleveraging process. We derive this number from the sum of the specific CRE deleveraging plans already announced by some banks (c.€300bn of loans) and our estimate that up to €300bn of exposure may not be entirely rolled over as banks retrench and refocus their business, and thus reduce their cross-border loans or simply reduce LTVs. To put this into context, this is equivalent to five times the annual real estate transactions over the last 4 years in Europe.

While we see significant exposure concentration in the UK and Germany, these are also liquid markets (accounting for c.50% of European real estate transactions), which attract significant foreign interest, at least in the larger cities (even if banks wish to reduce some of their substantial exposures here) and thus we are only moderately concerned. In terms of the impact on the real estate market and risks for the banks, we are most concerned about southern Europe (€45bn cross-border exposure) and CEE (€36bn), where transaction volumes are low and foreign interest likely muted. We also look at Spanish banks, which are a specific case with €348bn exposure to CRE (largely domestic) and within this €110bn deleveraging risk.

In addition, the real estate sector over recent years has received financing from CMBS, while German Open-Ended Funds (GOEF) have been significant buyers. We expect a refinancing risk from CMBS and a reduction in equity capital availability from GOEFs to the tune of another €100bn (€75bn and €25bn respectively).

Previous cyclical downturns in real estate in the UK (where historical series are available) show that banks reduced their exposure over a period of 5 to 7 years. Given the larger scale of the problem and synchronization across several countries, we think that this time the issue is structural rather than cyclical and could affect the sector over an even longer period (up to 10 years). To be clear, we do not think that the recent policy intervention (LTRO) will stop this process – which stems from several converging factors and not just tightness on the funding side – but it will alleviate some of the near-term effects as banks work through their books. We see the decline in CRE financing as structural, not just cyclical.

Regulation changes may cause further reductions – we point to the UK as a case study.

European banks are in deleveraging mode

We estimate €1.6-3trn of deleveraging in Europe over the next 3 to 5 years

Given constraints on capital and funding, European banks are likely to deleverage substantially over the next 3 to 5 years and likely beyond. The ECB's liquidity support lines will support funding in the near term and will likely allow banks to delever in a more gradual way. However, the need to shore up capital (as the Basel III deadline is fast approaching) and to refocus the banks' business model will result in continued deleveraging. We have written extensively on this topic – see our December 2011 report European Banks: 2012 Outlook - Deleveraging remains the key theme(pdf) and more reports are listed in Appendix III

We estimate €1.6-3trn of deleveraging in Europe over the next 3 to 5 years, with a significant proportion likely underpinned by CRE, given the large exposure that this represents in the banks' balance sheets.

We have identified four constraints driving deleveraging:

1. **Equity capital availability and prudential regulation,** which also extends to leverage. The near-term requirement on capital sparked by the stress test conducted last year by the European Banking Authority (EBA) resulted in a significant stream of deleveraging plans (as well as equity raisings) to cover the €115bn capital gap identified as part of the test.

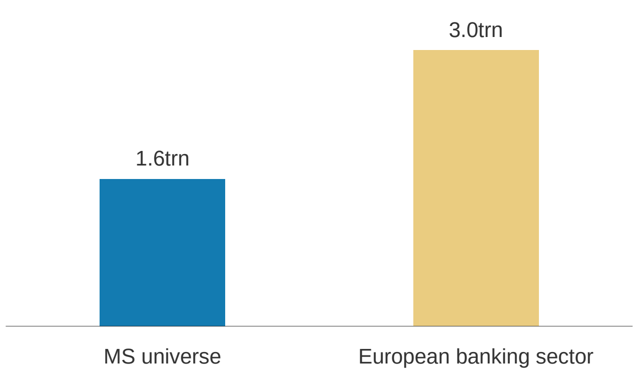
2. **Funding and liquidity**, in own currency or in other currencies. We see two main drivers of the loan contraction in Europe: 1) French banks lost access to US dollar funding in September/October; and 2) the lack of access to the funding markets in general for many southern European banks, especially in the fourth quarter of last year. While we expect LTRO to help reduce some of the domestic loan contraction, French banks' deleveraging of dollar funded assets has continued, and indeed increased, recently. New regulation requires new minimum liquidity and funding buffers, which is forcing banks to change their balance sheet structure and/or deleverage (see case study below).

3. **Profitability and need to refocus business model**, which to an extent is also a derivative of the first two points. Many banks used to derive a profit from extending loans with long-term maturities using cheaper short-term funding (maturity transformation or duration gap risk). As regulators are putting stricter limits on maturity risk, and long-term funding is now less available, banks find that the profitability of certain types of loans (and CRE loans fall into this category) is no longer attractive, unless even more substantial repricing takes place.

4. **Government intervention.** As a result of government intervention following the financial crisis, several European governments and the European Commission imposed strict rules for the repayment of public aid, often forcing banks to deleverage.

Exhibit 21

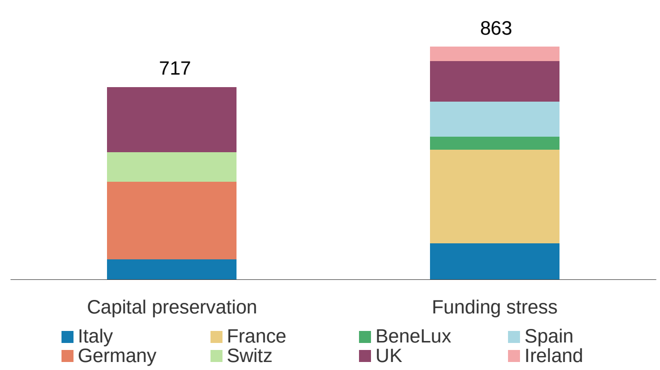
We expect about €1.6trn of deleveraging from the banks in our coverage universe and in total up to €3trn for the European banking sector



Source: Morgan Stanley Research estimates

Exhibit 22

Banks' deleverage is driven by a mix of capital restoration and funding pressure (€mn)



Source: Morgan Stanley Research

European banks have c.€120-240bn of equity capital tied up in CRE, we estimates … and equity absorption is increasing

Requirements to hold more equity capital, coupled with low returns on capital, is driving European banks to review lending exposure

How much equity capital have banks allocated to their commercial real estate lending operations? This is a key question in an area with limited transparency. Prudential regulation drives equity capital in banks. Prudential regulation has evolved significantly over recent years, and generally regulators now require banks to hold additional equity capital against their assets. Specifically, equity capital absorption of CRE has changed over time and resulted in higher equity capital requirements for the banks.

With an average risk weighting of 60-100% for CRE loans, and a c.8-10% capital ratio requirement by most regulators in Europe, we estimate European banks have c.€120-240bn of capital tied up in CRE, with likely single-digit returns. The need to hold more equity capital, the difficulty in finding it, and the low returns on capital are the reasons why European banks are reviewing their lending exposure and will likely try to reduce it

Equity capital absorption of CRE has changed over time as prudential regulation has evolved and is resulting in higher equity capital requirements for the banks

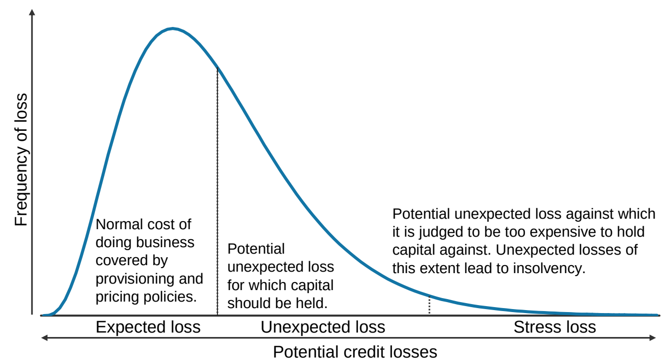
Under the current discipline, risk weights of loans change depending on the methodology applied, and are a function of the exposure at default (EAD) i.e. the nominal loan, probability of default (PD), loss given default (LGD) and maturity of exposure (M).

The goal is to define risk weights by determining the cut-off points between and within areas of the expected loss (EL) and unexpected losses (UL), as banks are expected to hold capital against unexpected losses (expected losses being covered through their profit and loss), in the probability of default.

One of the problems is that CRE losses are typically very lumpy and thus it is difficult to determine such cut-off points. The Financial Services Authority points to a number of areas of subjectivity and difficulty in modeling CRE credit risks:

Exhibit 23

Risk weights are used to determine capital to hold against unexpected loss



Source: Basel Committee, Morgan Stanley Research

- Risk associated with cash flows – for example creditworthiness of tenants, lease structures and building quality (i.e. the collateral).
- Refinance risk – particularly if the existing lending is at high LTV and finding another bank to refinance the loan is unlikely. If the maturity of deals is extended solely to avoid payment default – “delay and pray” – the FSA thinks this should be considered a default.
- Interest rate risk – which increases or decreases the cash flows required to service a deal. This depends on hedging strategy and modeling economic circumstances. Many models were built on data corresponding to a benign environment.

Recent Financial Services Authority (FSA) recommendations in the UK could increase the requirement to hold capital against CRE exposure

In the UK, the FSA issued guidance on the modeling for specialised lending – a subset of CRE lending – in December 2010. The FSA is reviewing banks’ modeling practices, and if it finds non-complaint models, it can impose a “slotting” approach on banks, which would lead to higher RWAs and thus a higher equity capital requirement. At the time, the FSA estimated that this could lead to up to £1-3bn of additional equity capital requirements for UK banks. If this were to turn into a final requirement, such an approach could put UK banks at a disadvantage versus their international counterparties that operate in the UK real estate market. That said, it is possible, as we have seen in other cases, that prudential recommendations introduced in one country are replicated in other countries.

Banks capital jargon demystified

Banks are required to hold equity against loans or other assets in their balance sheets according to "weightings" that vary depending on the riskiness of the loans or assets in question. Assets thus weighted are called Risk Weighted Assets or RWA.

Under the previous prudential discipline known as Basel I, the regulator set the "risk weightings" to be applied to each asset category. Once all assets are "risk weighted", they are summed up, and the banks are then required to hold a minimum equity level, which is usually expressed as a percentage of RWA. For example under Basel I this percentage was 4%.

Under a revised discipline, which was implementedin 2008 called Basel II, banks were given the opportunity to define the risk weighting of each asset on their balance sheet using their internal risk models, under three methodologies (standardised, foundation or advanced internal-ratings based (IRB)) which were characterised by increasing levels of sophistication. The introduction of the Basel II discipline often resulted in banks being able to reduce the risk parameters applied to their assets and thus reduce the level of equity held against them, a move that has since been widely criticised.

Following the 2008 financial crisis, regulators have further revised prudential regulation with regard to capital (Basel III). While they have changed some of the methodology related to risk weighting of certain asset classes, they have also increased the minimum percentage of equity capital to be held against RWA from 4% to 7% (with an additional buffer of 100-300bp that could bring the ratio to 8-10%).

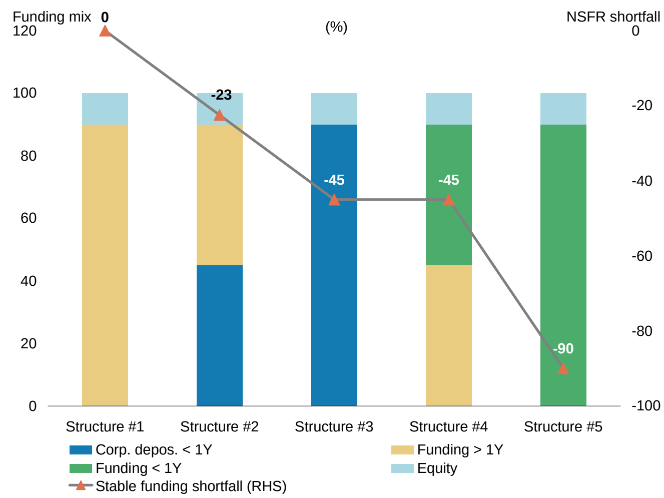
For example, a nominal loan value of €1000, if risk weighted at 40%, will generate RWA of €400; if the bank needs to hold 4% equity against it, this is equivalent to €16 of equity capital requirement. If the regulator changes the risk weighting to 60% then RWA is €600 without any change in nominal value of the loan. What is more, if the equity parameter also increases to 8-10%, then the equity capital the bank needs to hold is €48-60, a substantial increase, again despite the fact that the nominal value of the loan has not changed.

Case study on new funding requirements and impact on CRE

We think the new funding regulations remain a key headwind to CRE lending, especially the Net Stable Funding Ratio (NSFR) as required by the new prudential discipline. Although this rule will likely be revised and implementation will not start before 2019, banks know it will be more difficult to fund long-dated assets, including commercial real estate lending. According to this ratio, a commercial real estate loan will require 100% of stable funding, defined as funding with similar maturity.

We have considered several potential scenarios in the case study below (see Exhibit 24). We look at various combinations of funding through equity, short-dated interbank funding, corporate deposits and longer-dated senior funding. While in the past banks used to fund CRE loans with a structure similar to number 3, 4 or 5, under the new regime (or our interpretation of it), the funding structure will have to be a mix of number 1 and 2 to achieve a NSFR ratio of as close to 100% as possible (to meet the requirements). Given that long-dated senior funding will be more expensive/less available for banks (and is certainly more expensive than short-dated funding) this has two implications: i) banks' profitability is compressing, and ii) banks may need to hold a larger portion of equity capital.

Exhibit 24
Funding a CRE loan under the NSFR is becoming more difficult



Source: Morgan Stanley Research

We think substantial policy intervention in Europe – Long Term Refinancing Operations (LTRO) – alleviates the deleveraging process but does not stop or reverse it
Some of the deleveraging that we estimated in our research report in December will likely be alleviated or reduced by recent policy intervention.

For example, of the €1.6trn of deleveraging we highlighted in December for our universe of banks, c.45% was due to capital constraints and 55% to funding constraints. One could say that LTRO reduces the need for banks to deleverage due to funding constraints. However, we think this applies only to a limited portion of the deleveraging we estimated at the time, and Italy is most likely the only country where this has helped substantially, as this is where the funding stress was felt the most by the local banks.

Looking at Exhibit 24 above, of the c.€0.9bn deleveraging we calculated as driven by funding needs, over 50% related to French banks and the unavailability of US dollar funding they experienced in Q3 2011. This has continued to drive their deleveraging of US funded assets, even after US dollar markets reopened at the beginning of 2012.

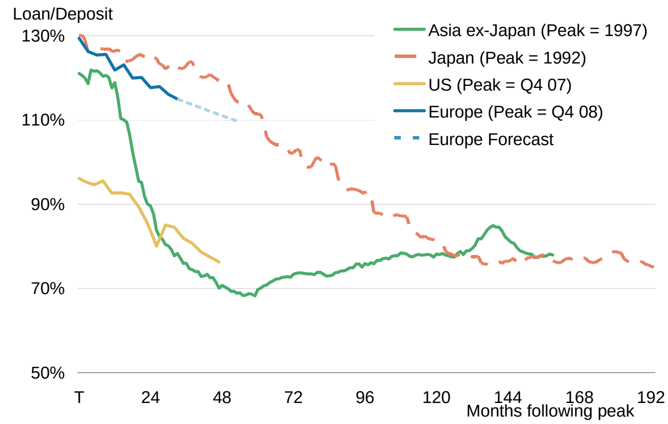
On the other hand, the deleveraging we estimated in UK and Spain is probably structural, and thus LTRO only allows banks more time to execute it, rather than radically change it.

Despite the funding relief provided by the ECB with the LTRO in December and the LTRO 2 in February, since January we have seen an acceleration in deleveraging plans and even an increase in, for example, disposals of US dollar funded assets, or international assets.

What is more, and with specific reference to CRE, over the last few months we have witnessed several banks suspending all commercial real estate lending or all non-domestic lending in an effort to shore up their balance sheets. Examples include EuroHypo and SocGen, which have announced plans to significantly reduce their CRE activities, especially at the international level.

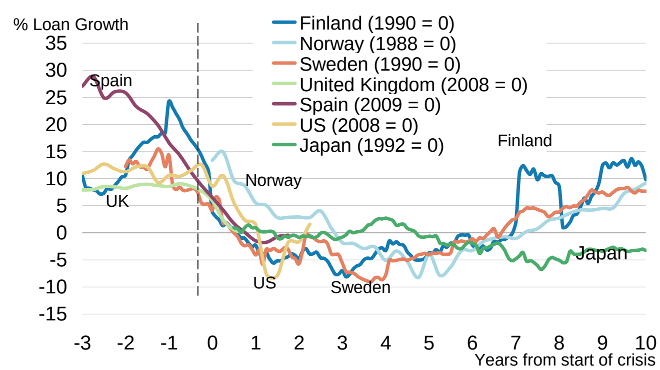
Deleveraging after a crisis takes several years
We do not think the process will be over quickly, based on the deleveraging experiences of Japan and Asia following past crises. Given the structure of the European banks' balance sheet, these examples are most probably more relevant than the US example. We think Europe could still delever by as much as €4.0-4.5trn in the next 3 to 5 years or even longer, as we indicate in Exhibit 25. Indeed, it is quite possible that, while alleviating the near-term stress, LTRO may actually lengthen the process of deleveraging in Europe.

Exhibit 25
The trajectory of loan/deposit ratios in previous crises implies the European deleveraging cycle has just begun



Source: Company data, Morgan Stanley Research. For further detail please see: "2012 Credit Outlook: Yielding to Credit', Andrew Sheets et al.

Exhibit 26
History suggests many years of deleveraging post a banking crisis – the euro-zone crisis could drive a longer shrinkage period, especially as LTRO relieves the stress near term



Source: Bank of England, Financial Stability Report, Thompson Datastream, Bank Calculations, and Morgan Stanley Research. Finland and Japan represent bank lending and all other series represent lending by financial institutions

Banks will delever through repayments, sales and write-downs
In essence, banks deleverage or reduce loans through three means:

1. Actual repayment by the borrower
2. Sale of portfolios
3. Reduction through write-downs

History shows that usually in a down-cycle more aggressive write-downs allow banks to sell their inventory more quickly, and this is what happened in the US real estate downturn of the early 1990s. European banks have been rather reluctant to take more substantial write-downs so far, and thus it is likely that the reduction will take longer. Given changes in write-down requirements promoted by the new government in Spain, it will be interesting to track whether transaction volumes in the country pick up.

Exhibit 27

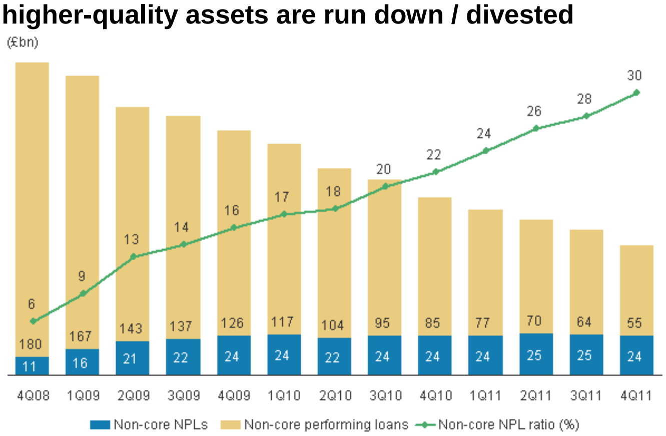
Common difficulties in selling assets … and some anecdotal evidence

Cherry Picking	Investors often only want to buy the highest quality assets and banks are then left with NPLs and other low quality assets, especially if not properly marked	RBS has been successful in achieving its target but in the meanwhile its non-core assets to NPLS ratio has risen from 11% to 24%
Pricing	Seller and buyer often have diverging opinions concerning the value of the assets, and work on different economics Due to these different views, insufficient provisions limit bank's ability to sell	The Spanish banks so far have had limited provisions and the valuation gap with the potential buyers has meant that transactions so far have been minimal
Costs	There may be only a small cost difference for the banks between a) keeping assets on the balance sheet and funding it and b) selling the assets and incurring a loss	BBVA made provisions it deems sufficient, but has kept assets on balance sheet until now since it deemed it more beneficial than selling the assets at current market prices
Illiquid Market	The market for certain CRE loans is illiquid with a limited strategic and financial investor base	Hedge funds have shown interest since 2009 in CRE finance; however, very few deal have closed
Publicity	Announcing the desired sale of assets will likely impact the value of those assets; in some cases forced government sales has exacerbated this issue	Following the European Commission's requirement that Commerzbank sells Eurohypo, investors have expressed concerns about its feasibility
Managing broad asset portfolios	Often mixed portfolios are very opaque and even the seller may have limited knowledge of the underlying assets. These portfolios hence demand extensive due diligence, which requires time	Lloyds has recently appointed a dedicated non-core management team and recently reclassified certain assets between core and non-core

Source: Morgan Stanley Research

Exhibit 28

The NPL ratio of RBS is rising in non-core as higher-quality assets are run down / divested



Source: Company Data, Morgan Stanley Research
Note: RBS Non-Core Gross Loans

Overall, we see up to €600bn refinancing risk to the real estate sector over the next few years

In our analysis, we see up to €600bn of exposure at risk of refinancing by European banks. The vast majority of such exposure is in Europe, but there is c.€200bn outside Europe (mainly US and CEE). This figure is clearly large, representing c.25% of total CRE lending, and is made up of a combination of asset sale plans, lack of refinancing as loans gradually mature, and an element of valuation reduction.

While policy intervention has improved liquidity in Europe and thus likely facilitated asset sales (or made temporary financing possible thanks to cheap 3-year liquidity lines) banks are still confronted with the need to improve capital and funding over time.

In our model we build our estimate of exposure at risk and run four scenarios
We start with the €300bn deleveraging plans already announced (for the portion not yet executed) by certain European banks (largely UK, German). The timing of such plans span the next 3 to 5 years, and we assume that the whole amount will be reduced, the only variable being the time the banks will need to execute it, which is why we keep that amount constant in all three scenarios. The lion's share of these plans are from Spanish, German and UK banks.

We add our estimate of the additional deleverage that could derive from the reduction in CRE exposure of the other European banks on the EBA list, which is likely to be a reduction in their cross-border lending. This totals c.€150bn out of the c.€300bn cross-border exposure we identified earlier (net of the plans announced by the banks). We then add another €150bn reduction, related to some reduction in LTVs.

Next, we run four scenarios. In the basic scenario, we assume that what has been announced so far will be done and no more. In the following three scenarios, we gradually increase the probability of further deleveraging from one-third to two-thirds to 100% in the most cautious.

Exhibit 29
Deleveraging risk, €300-600bn as banks retrench

Deleveraging risk in CRE (€ bn)		Minimal	→		Cautious
Announced CRE deleveraging plans	c. 300	c. 300	c. 300	c. 300	c. 300
Exposure to "non-home markets"	c. 150	0	c. 50	c. 100	c. 150
LTVs reduction	c. 150	0	c. 50	c. 100	c. 150
Deleveraging risk in CRE, total		**c. 300**	**c. 400**	**c. 500**	**c. 600**
As % of Tot CRE lending exposure		15%	20%	25%	30%

Source: Morgan Stanley Research estimates

While we think it is highly likely that the whole €600bn of financing will be reduced, the variable is the timing over which this will materialize
This is a large number, which clearly cannot be executed entirely through sales. Simply looking at the annual volume of transactions of c.€100bn per year in the last 4 years suggests it would take c.6 years to be digested (and would assume that the lending had been done without any leverage).

Within real estate financing, banks have announced c.€300bn of CRE deleveraging so far
Several banks in Europe have announced large reductions in their CRE exposure. The more substantial plans have been announced by UK and German banks, partly as a requirement or conditionality of the respective government's rescue packages (Exhibit 30). The exposures are as at end-2010 in most cases and the deleveraging plan figures refer to the most recent data.

Banks have already been active in the past 3 years in reducing exposures
UK banks (RBS and Lloyds) have already reduced CRE exposure by £50bn on aggregate since their respective restructuring plans were announced. CBK has already reduced CRE by €29bn, and NAMA by €6.2bn just to offer a few examples.

NAMA (the Irish National Asset Management Agency, a government agency), established at end-2009, purchased €72bn of loans from the Irish banks but only paid €30bn, so we use the net value as the actual exposure. They have indicated they intend to dispose of a quarter of their loans by 2013.

Exhibit 30
Deleveraging plans announced by banks

Institution	Total CRE exposures (end 2010)	Residual deleverage plans (end 2011)
RBS	84	**37**
Lloy	56	**25**
CBK	72	**30**
DBK	48	**7**
FMS Wertmanagement (formerly part of HRE)	26	**26**
Westimmo (WestLB)	16	**16**
NAMA	30	**27**
Allied Irish Bank	19	**8**
Bank of Ireland	20	**8**
Irish Life and Permanent	2	**2**
Total specific announcements	372	**185**
Spain	348	**100**
Total	720	**285**

Source: Company data, EBA, Morgan Stanley Research.

Spain is a special case, running the numbers of a €100bn deleveraging over time (net of up to €100bn write downs)
As indicated earlier, of the c. €320bn of Spanish CRE exposure, €100bn is actual CRE, €130bn is commercial development for residential use, and c.€90bn is financing of land. These figures include c. €80bn of repossessed assets on aggregate.

We are less concerned about the €100bn CRE exposure in the books of the Spanish banks; we think the majority will be refinanced over time without major shocks, as this is not where the real estate bubble was concentrated. We are more concerned about the exposure of international bank to Spanish CRE as it seems of lower quality than that of the local banks.

For the €130bn residential developments, we anticipate c.€30-40bn write-downs, which will reduce the exposure and allow a further reduction in exposure via housing transactions, as banks will be able to finance households to purchase houses from the developers (in other words, the loans will switch from commercial debt to retail mortgages).

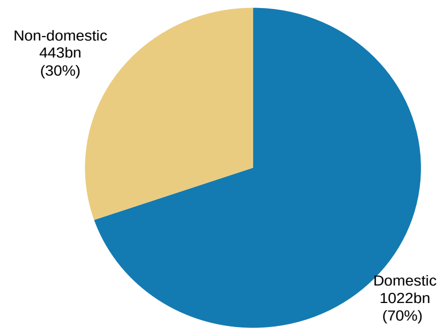
Assuming an average selling price of €120,000-150,000 per unit, this translates into 900k-1.1mn houses. As we see new house transactions of c.150,000-200,000 units a year in Spain, this suggests it will take 4 to 6 years to work through the excess inventory. Note that when banks break down the loans to developers into individual mortgages, the exposure is reduced by the home buyers' down-payments, which should reduce the total by c.30%, on our estimates, based on recent transactions.

Overall, we expect €70bn of loans to transfer into mortgages, €30bn cash down-payments and €30bn write-off (up to €40bn). We believe the normalized exposure should stabilize at around €30bn once the bubble is digested.

Land exposure is the major issue, as it will be 3 to 4 years before land can start to be built on. We therefore expect a c.€70-80bn reduction in exposure through cumulative write-downs by the banks following the new rules on provisioning, as we expect the bulk of this exposure to turn into non-performing loans (NPLs).

We estimate up to €300bn of cross-border exposure may not be entirely rolled over as banks retrench and refocus
In our analysis of the CRE exposure, we highlighted that around a third of European banks' exposure (or c.€440bn) is extended outside their home countries.

Exhibit 31
30% of CRE loans are non-domestic



Source: EBA, Morgan Stanley Research

If we exclude banks with 'multiple home markets' (for example France, Belgium and Italy for BNP Paribas, or UK and Asia for HSBC), treat groups of smaller markets as countries (Benelux and the Nordics), and exclude the portion already included in the plans announced, there is still €300bn of cross-border exposure at risk of refinancing, as it is less likely that there will be some form of connectivity with the banks' core client base.

We do not argue that all of this €300bn will be cut, and indeed financing of good property in key locations such as London, Paris, and Frankfurt will likely be maintained, but some will certainly be reduced. We assume a 50% reduction rate.

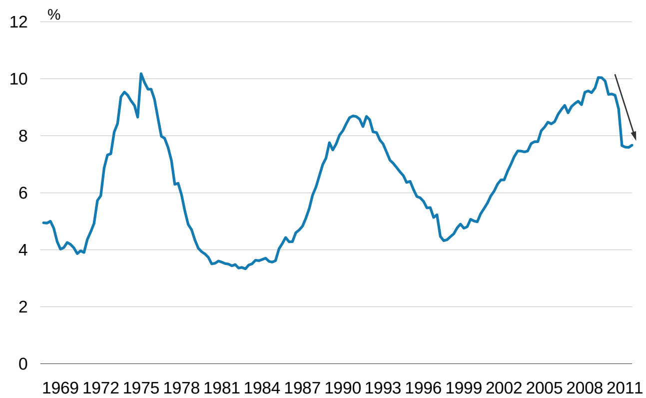
Refinancing at lower LTVs will also cause some deleveraging – we estimate €150bn
Even if banks were to refinance some of the loans, they now tend to require lower LTVs (which on average are being reduced by c.5-15%). This means that a loan will be reduced, unless the borrower can offer additional assets as collateral. For example, even if banks were to refinance their entire €2.4trn exposure, the application of lower 5-15% LTVs would still imply a reduction of €120-360bn. Given the loan rollover, we assume a €150bn risk over the next 3 to 5 years for an average 10% LTV reduction.

This time it is structural rather than cyclical – the unwind will be a long process

A 'normal' real estate downturn takes 5 to 7 years
Exhibit 32, which maps the shape of previous real estate lending cycles in the UK, shows that in the past 30 years the market has suffered two major corrections, when banks have pretty much halved their exposure to CRE over a period of 5 to 7 years. It is hard to make a direct comparison with past cycles, but given the size and extent of the deleveraging required and the synchronization of the trend across Europe,

we believe the correction will take longer this time, prompting us to define it as structural rather than cyclical.

Exhibit 32
UK CRE lending is cyclical, and the cycles are long



Source: BoE, Datastream, Morgan Stanley Research

We think the run-off of commercial property will be long dated, as borrowers find it difficult to refinance, given falls in principal values, leading to significant rollovers of existing debt. Selling commercial property loans is also a difficult process; the prices offered by unlevered investors are typically too low versus where the loans are marked on the banks' balance sheets, given the higher IRR hurdle of investors. One solution is for banks to offer vendor finance, which has the benefit of removing risk concentrations, but does not offer funding relief or indeed capital relief.

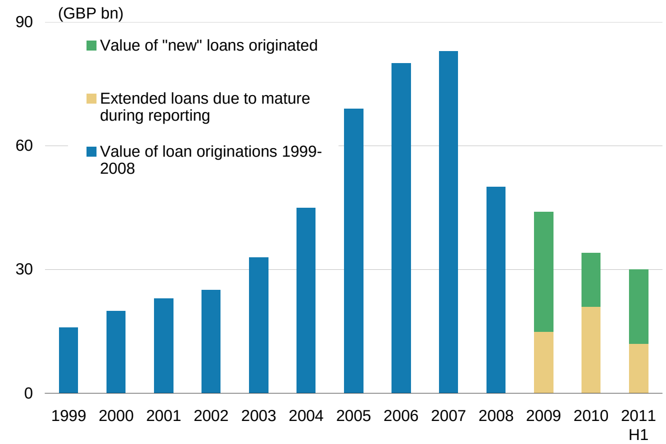
We expect significant maturity peaks in 2013-14

We expect there to be substantial peaks in refinancing in 2012-2014, as CRE loans tend to have an average duration of 5 to 7 years and most of the business was written in 2005-07. While we do not have sufficient analytical data on the maturity profile of banks' loans, our view is supported by the maturity profile of CMBS transactions (for which we have more precise maturity data), which show substantial peaks in 2012-13. Exhibit 33 illustrates the volume of lending in the UK, as an example.

CRE lending is no longer as attractive for banks

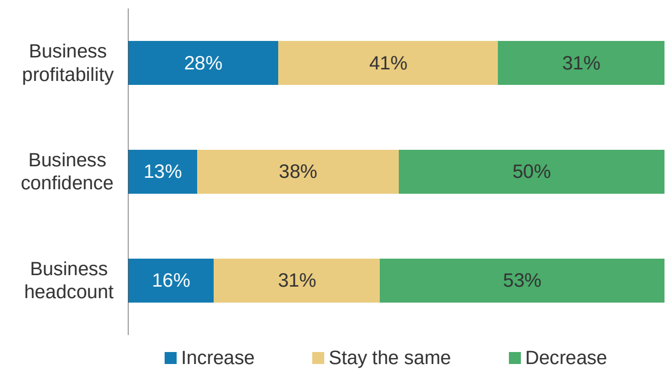
While banks need to reduce overall leverage in Europe, we see specific reasons why lending to the commercial real estate sector is becoming less attractive for banks. A recent survey conducted by PWC confirmed the view we have formed from speaking to a large sample of commercial banks across Europe.

Exhibit 33
Volume of UK gross commercial property annual lending, significant peaks in 2004-2007



Source: De Montfort University report "The UK Commercial Property Lending Market Research Findings 2011 Mid-year".

Exhibit 34
Views on real estate business prospects for 2012 – banker, lender, securitized lender



Source: PWC "Emerging Trends in Real Estate Europe 2012 survey".

We attribute the reduced appeal of CRE lending to 5 factors:

(i) Financing is no longer easy and is getting more expensive, especially for long-term tenures. The boom in real estate financing of the last few years was fostered by the availability of plentiful and cheap funding for the banks, coupled with relatively low capital requirements. The provision of capital to the real estate industry, which tends by definition to be of a longer-term nature, was often funded by the banks using relatively shorter-dated funds, thus allowing them larger spreads through effectively taking maturity transformation risk or duration gap risk.

This is no longer allowed to the extent it was used. That is not to say that all long-term lending is dead. Issuance of Pfandbriefe covered bonds in Germany, for example, although more expensive than in the past is still provides substantial financing for the industry. However, volumes are greatly reduced, and this will continue to constrain new business. For this reason, we are seeing signs of more international banks trying to set up legal entities in Germany to take advantage of the cheap and liquid Pfandbriefe market.

(ii) Capital is getting tighter, especially as we move towards Basel III.

(iii) CRE relationships are less profitable than corporate client relationships. Ultimately, despite the fact that banks have overextended their balance sheets to the real estate sector, this is still a marginal activity and one that does not relate to their core client base. Also, compared to corporate lending, it provides lower ancillary revenues.

(iv) Huge cyclicality makes the business less attractive. The peak-to-trough loan loss provisioning (LLP) in CRE is significantly higher than that of any corporate lending activity.

(v) There tends to be more pressure from governments and regulators to keep financing corporates and SMEs in sectors that are more crucial for the real economy.

Banks face other issues when trying to deleverage

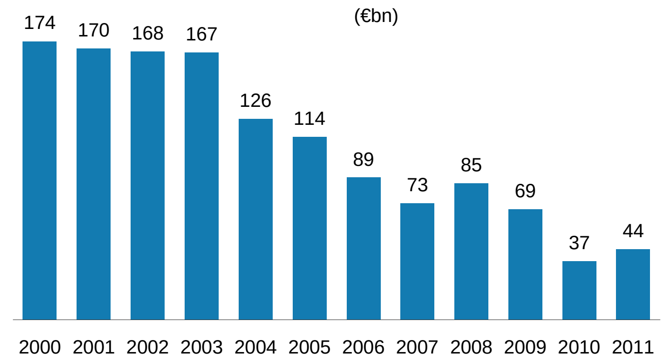
(i) Lack of alternative financing is the single biggest issue banks encounter when trying to reduce their loan exposure. As Brendan McDonagh, NAMA's chief executive, was quoted in the Financial Times on 7 March 2012, "There is a lot of interest in our portfolio, but also a lot of difficulties getting finance at the moment". If borrowers cannot find alternative sources of funding, they cannot repay, unless they sell the underlying assets.

(ii) Falling property prices mean that borrowers find it hard to sell and repay, while quality of exposure declines and LTVs increase. This often makes loan extensions and other forms of restructuring of CRE loans that otherwise would be in breach of LTV covenants more likely.

(iii) Swap transactions linked to loans may also prevent banks from selling down exposure more aggressively. As commercial real estate companies prefer to take loans at fixed rates and banks tend to want to lend at variable rates, banks usually sell an interest rate swap contract to the company that takes the loan. These swap contracts are becoming an issue when banks try to offload the loans, as they may be forced to take losses on the swap, especially if contracts have been put together when interest rates were higher.

Exhibit 35

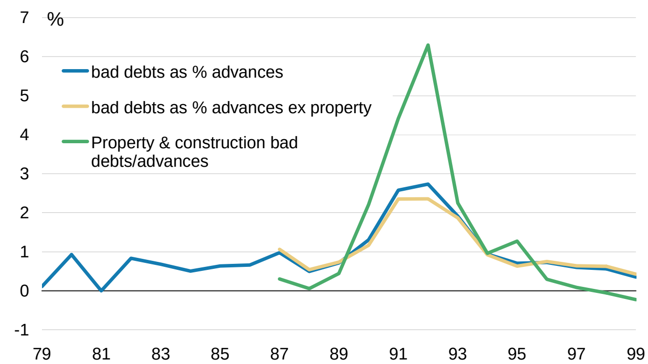
Pfandbrief issuance 2000-2011



Source: Dealogic

Exhibit 36

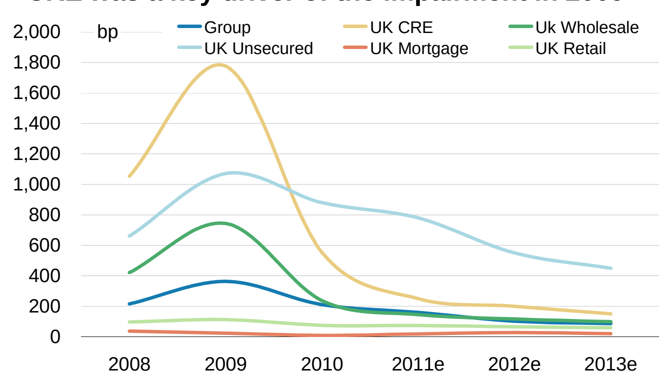
RBS/Natwest example: CRE losses in the early 90s were significant compared to corporate losses



Source: Company data, Morgan Stanley Research
Note: NatWest, influence of property and construction on domestic bad debt charge

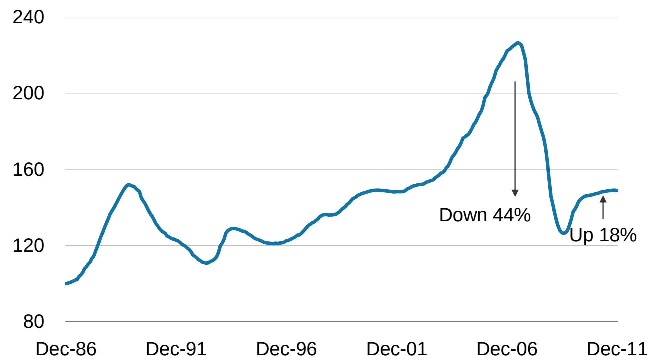
Exhibit 37

Lloyds example: Impairment charge (bp) by product – CRE was a key driver of the impairment in 2009



e = Morgan Stanley Research estimate
Source: Company data, Morgan Stanley Research

Exhibit 38
Commercial property prices have rebounded but are still 34% down from peak in the UK, for example



Note: Index Dec 1986 = 100
Source: IPD, Morgan Stanley Research

An article in the Financial Times (June 2010) gives interesting market colour on the issue:
De Montfort University research into real estate lending this month revealed that 57 per cent of the outstanding £228.3bn of property debt had interest rate hedging in place. Alex Price, chief executive of Palmer Capital, calculates that losses faced by the banks in the UK amount to more than £5bn, given this exposure, while Savills' William Newsom calculates it is closer to £10bn. Either way, these are huge numbers for the banks to swallow on top of the chunks being bitten off their debt positions by the steep drop in property prices. No wonder that many are choosing not to do so. Mr Newsom gave the example of one portfolio of 34 buildings, where there was a £850m senior loan and a 30-year swap put in place in 2006. The cost of the unwind in March 2010 was reported at £127.7mn. For some investors, these swaps have proved a saviour, having prevented properties from being repossessed. But there is no doubt that for the industry as a whole they are a hindrance, causing considerable extra constipation among the banks who would otherwise have been able to take more steps to clear the backlog of problem loans. Swaps are stopping properties from being put on the market by banks, much to the frustration of investors waiting for distressed property stock, a situation exacerbated by the fact that deals have also recently been pulled by owners owing to the movement of interbank lending rates. Some property owners found the cost of breaking swaps too great to justify any sale, leading them to withdraw from agreed deals.

Is ‘extend and pretend’ really over?

The BoE has highlighted the findings of DeMontfort University in relation to high levels of forbearance in the sector. At the end of 2010 about 12% of outstanding UK CRE loans were in breach of financial covenants or in default. Research by De Montfort University also suggests that up to 70% and 30% of the commercial property debt that should have matured in 2009 and 2010, respectively, was extended for between 1 and 3 years. The BoE, based on a this data, thinks that as much as one-third of UK CRE lending could be receiving some kind of forbearance.

However, we note that disclosure from RBS would suggest a far lower level of forbearance. In its FY10 accounts, it stated that £6.2bn (exposures of more than £5m) of corporate loans were restructured, of which £2.7bn was classified as impaired; CRE restructuring amounted to £2.4bn (~3% of group CRE) and manufacturing £2.1bn. There were various types of forbearance, as illustrated in Exhibit 39.

Exhibit 39
RBS: Corporate forbearance arrangements 2010

Type of arrangement (%)	of loans (by value)
Term extensions	54
Debt forgiveness	25
Debt for equity	23
Interest rate concessions / payment moratoriums	36

Note: The total exceeds 100% as the individual case can involve more than one type of arrangement.
Source: Company data, Morgan Stanley Research

CMBS loan maturities also increase the gap

Risks = €75bn

The European CMBS market is undergoing a structural shift. Originators' business models are changing, and so is the investor base. Our central case is that securitization will remain only a marginal provider of CRE capital over the medium term, due to regulatory challenges, prohibitive investor hurdle rates and conservative rating agency treatment.

CMBS may eventually prove to be most competitive in financing yieldy, secondary properties that are not suited for on-balance sheet lending by banks. However, with loan to value (LTVs) potentially limited to
50-60% and required spreads in excess of 500bp, it remains to be seen whether there is enough demand from borrowers.

In the meantime, we expect the CMBS market to remain in run-off mode through a combination of liquidations and some repayments. Maturity extensions should continue and will help reduce the pace of run-off, at least until the transactions draw closer to their legal final maturities.

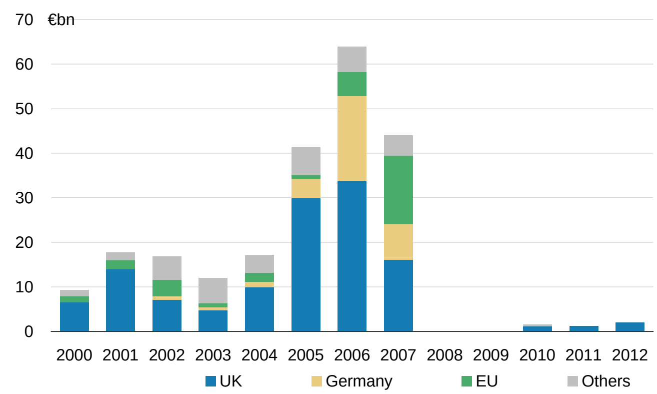
In all, the expectation that senior CMBS bonds will experience repayment in the coming years bodes well for these securities, as they already price in significant credit and extension risks. However, the lack of significant incremental issuance is likely to exacerbate the strain on scarce CRE capital.

Commercial Mortgages Back Securities (CMBS) are securities typically issued by special purpose vehicles and are secured on a specific portfolio of commercial mortgages originated by a bank. Banks use this instrument to provide themselves with funding and, on occassion, capital relief on the underlying loans. Following changes in prudential regulation, banks are required to retain a more significant risk exposure to the underlying portfolio. This, coupled with the need to give CMBS investors more attractive yields (which may not be sufficiently covered by the yields on the underlying portfolios), makes the use of CMBS less attractive for the originating bank.

CMBS was a meaningful contributor of capital before the financial crisis…
Historically, securitization through the issuance of CMBS played a small but meaningful role in funding European CRE. Starting as a UK-centric, fixed-rate market in the late 1990s, European CMBS issuance grew rapidly in 2004-06 (Exhibit 40) on the back of heavy conduit activity. Unlike balance sheet securitizations, which are funding or capital-motivated, the conduit model has an arbitrage angle to it. Investment banks that would otherwise not have been CRE lenders became active because tranching and securitization of residual cashflows created a funding arbitrage.

Gross annual issuance peaked at €64bn in 2006 before the crisis pushed the primary market into a state of dormancy. While activity in some portions of the European securitization market has since resumed, new CMBS transactions remain scarce. Since 2008, issuance in the asset class has been limited to two pure play transactions worth ~€500mn, and a few corporate securitizations contributing a further €4.2bn.

Exhibit 40
Primary activity remains very subdued



Source: Bloomberg, IFR, Morgan Stanley Research

… but the primary market has yet to recover
A number of structural challenges are impeding revival of the CMBS market:

1. **Regulatory hurdles.** Issuers face a major regulatory hurdle in the form of Article 122a of CRD 2, which came into effect in January 2011. Bank and insurance investors in all securitizations now need to ensure that the transaction originators retain 5% "skin in the game", meaning that they retain a 5% interest (first loss or vertical) in every CMBS transaction they bring to market. The retention rule has not prevented the resumption of primary issuance in funding-motivated products like prime residential mortgage backed securities (RMBS) and consumer asset backed securities (ABS) because originators typically retained equity interest even before the crisis. However, Article 122a has materially altered the economics of CMBS issuance, which was heavily reliant on a conduit "originate to distribute" model. Investment banks were the sponsors of these conduits,

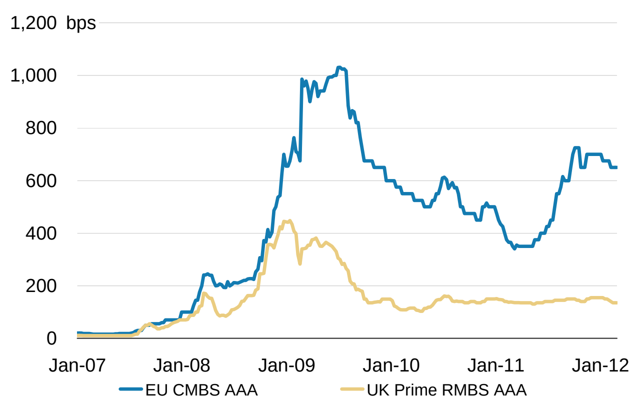
and retaining 5% exposure in every new transaction over its lifetime translates into a significant drain on capital.

2. **Yields remain prohibitively high for borrowers.** On the demand side, real money sponsorship of the asset class remains low, despite the attractive relative value on offer. The active investor base in CMBS is now dominated by hedge funds, and allocation is more tactical than strategic. As a result, bond spreads in the secondary market remain elevated (Exhibit 41), ranging anywhere from 400 to 700+bp for the senior tranches that were originally rated AAA. Primary transactions have been able to clear inside secondary levels because of better ratings and lower leverage. A case in point is the recent transaction from Deutsche Bank (DECO 2012-MHL), where the AAA tranche priced at LIBOR+300bp. However, depth of investor demand at these price points remains very limited. In short, higher spreads make CMBS-sourced new lending uncompetitive versus traditional financing sources, particularly for prime properties.

3. **Rating agencies have tightened their models.** Finally, even for the handful of new transactions that come to market, changes in rating agency methodologies impose stricter leverage limits and hence cap the overall financing that CMBS can provide.

The need for a paradigm change. For these reasons, we do not expect issuance to recover in a meaningful way over the medium term. Year to date, real CMBS supply (excluding corporate securitizations) totals €250mn, and we project total issuance in 2012 of just €2bn.

Exhibit 41
CMBS spreads have not normalized to the same extent as core ABS



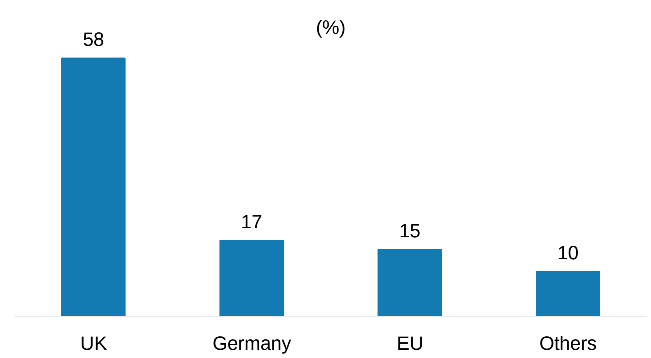
Source: Markit, Morgan Stanley Research

For activity to increase significantly, the market would have to reinvent itself, either by attracting more real money investors who can push spreads tighter, or by attracting a deeper hedge fund/private equity investor base that is not affected by the retention rules[3]. We are not sanguine about the former path, as unfavourable regulatory treatment under Basel III and Solvency 2 is a major challenge for increased real-money allocation to securitized products in general.

The competitiveness of CMBS funding may therefore eventually lie in financing yieldy secondary properties – assets that mainstream lenders do not have appetite for. In other words, CMBS could eventually become the equivalent of the high yield market for CRE finance. However, the shape of the demand curve (on the borrowing side) at wider margins charged on CMBS lending remains to be seen.

A shrinking asset class = net consumer of CRE capital
Absent a functioning new issue market and growing redemption pressures, European CMBS is likely to be a source, rather than a potential filler, of the CRE capital gap. The total outstanding volume of securitized loans stands at €102bn, made up of core CMBS transactions worth €74bn and vintage long-dated fixed-rate bonds worth €28bn[4]. In terms of geography, the UK and Germany together account for 75% of outstanding volumes (Exhibit 42). While the exposure to the core is encouraging, it is important to note that CMBS loans (particularly German loans) are often secured on secondary quality properties.

Exhibit 42
Outstanding CMBS volume – a UK and German-centric asset class

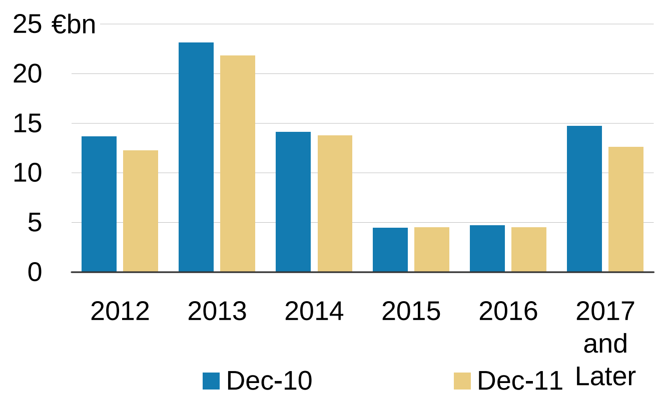


Source: Bloomberg, Morgan Stanley Research

[3] It is important to note here that the onus is on (bank and insurance) investors not originators to ensure the 5% retention.
[4] (see *European ABS Insights: European CMBS – The Wall and Beyond*, November 2, 2010, for more detail on this distinction

Exhibit 43

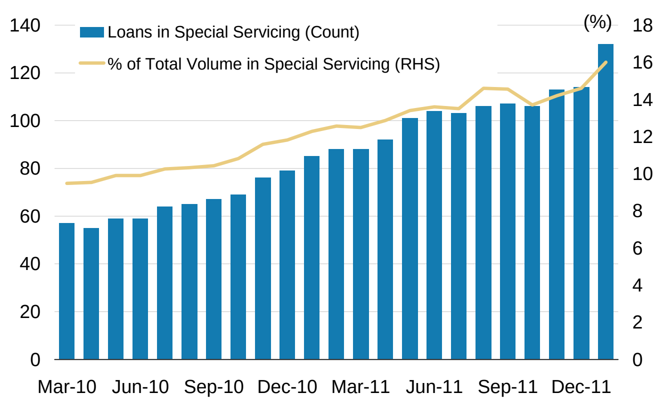
Some progress has been made on the maturity wall



Source: Bloomberg, Morgan Stanley Research

Exhibit 44

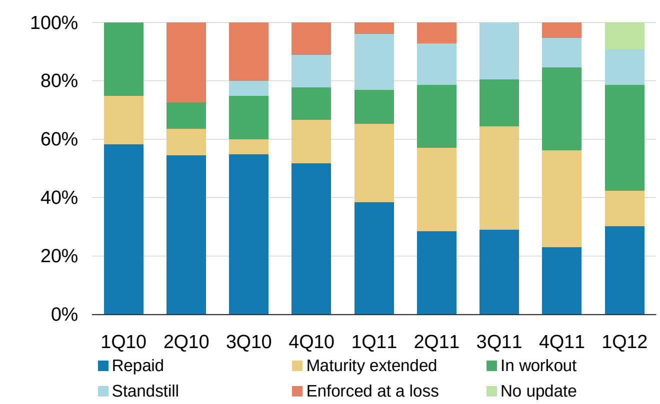
Loans in special servicing are on the rise



Source: Moody's, Morgan Stanley Research

Exhibit 45

Extensions are not the only maturity outcome



Note: % by loan count.
Source: Fitch, Morgan Stanley Research

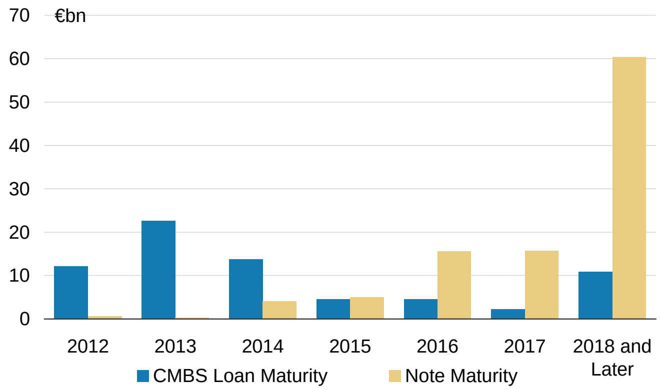
The maturity wall is not static. The refinancing challenge for CMBS loans stems not just from exposure to secondary properties but also from their front-ended maturity profile. As Exhibit 43 shows, loans worth €48bn (64% of the outstanding core CMBS market) are due to mature in the next 3 years. 2013 is an important year for German loans, with €13bn coming due, 72% of which are backed by multi-family assets. For UK loans, the refinancing demand is more evenly distributed, with total maturities of €3.5bn in 2012 and €4.8bn in 2013.

As can be seen from Exhibit 43, the wall of maturities has not been static over the past year. Through a combination of asset sales (voluntary and involuntary) and repayment, the 2012-14 maturities have come down from €51bn as at December 2010 to €48bn as at December 2011. The 3-year wall would have been lower but €3.6bn of 2011 maturities have now been extended into the 2012-14 window.

Extensions are still popular, but asset sales are rising… Shifts in the maturity wall over time are also a reflection of the servicing strategies adopted in CMBS transactions. Against the tight lending backdrop, it is no surprise that a majority of maturing loans are defaulting: in 2010, 46% (by count) of maturing loans failed to repay, while in 2011 this ratio increased to 71% (Exhibit 45). Correspondingly, the proportion of loans moved into special servicing is on the rise (Exhibit 44).

Maturity extensions were the most commonly adopted strategy in the past, but special servicers are becoming more proactive. Liquidations and voluntary sales have gathered pace, resulting in a reduction rather than a shift in the maturity wall. Beyond the large portfolio trades in White Tower 2006-3, Epic Industrious etc., there have also been a number of smaller asset sales translating into €290mn of redemptions since the beginning of this year.

Exhibit 46
Loan maturity versus legal final maturity



Source: Bloomberg, Morgan Stanley Research

…and are likely to rise further as legal final maturities draw closer

One aspect of CMBS structures that necessitates a more proactive servicing strategy is the concept of legal final maturity (LFM). Most European ABS bonds, including CMBS, have two different maturity dates – an expected maturity date and a legal final maturity (LFM) date. The former is based on the maturity profile of the securitized loans, while the latter is 2-3 years after the last loan maturity date. Correspondingly, there is a lag between the loan maturity wall and the LFM wall (Exhibit 46). The intuition here is that it is only after the last loan in a securitized pool has matured and has been worked out that losses can be fully determined, and an event of default can be declared on the outstanding bonds (if necessary).

Servicers, while working to maximise value and recovery for all debt-holders, have to be conscious of completing the workout process before the legal maturity. The recent default of Opera Uni-Invest serves as a salutary reminder for special servicers to be proactive (*see* *European ABS Tracker: Reading into Opera UNI's Default*, February 20, 2012).

As CMBS transactions approach their final maturities, the servicing emphasis shifts from extensions to asset sales. While both strategies ultimately translate into further strain on scarce CRE funding, one key difference is that the demand from asset sales is front-ended. Thus, in the context of the broader discussion on CRE markets, the relevance of CMBS LFMs is that it introduces a constraint on an important dimension – time.

Definitions

Securitisation: the process of converting a pool of cash-flow generating assets into tradeable securities. The motivation could be funding, capital relief, or arbitrage.

Tranching: the process of creating different classes of securities that meet the risk appetite of various groups of investors. Loss and cashflow allocation rules determine the allocation of risk across the various classes (tranches).

CMBS: Commercial Mortgage Backed Securities, which are securitisations of commercial real estate loans.

RMBS: Residential Mortgage Backed Securities, which are securitisations of residential mortgages.

ABS: Asset Backed Securities, which are securitisations of consumer loans, such as auto loans and credit card receivables.

Conduits: The term "Conduit", in the context of CMBS transactions, refers to securitisations of CRE loans that were originated with the sole purpose ot securitizing them – the "originate to distribute" model. Investment banks originate, warehouse and securitise these loans, earning the excess margin between the loans and the CMBS bonds in the process.

Residual Cashflow: Residual cashflows typically refer to excess spread/margin and prepayment penalities (if any) in securitisation transactions.

This section on CMBS was written by Srikanth Sankaran, a Fixed Income Research strategist.

Section 2: Indentifying alternative capital sources

Some €100-200bn of capital could become available to replace reduced funding from commercial banks, CMBS, and open-ended funds, we estimate, based on our analysis and communication with a wide range of potential debt and equity investors in European commercial real estate. These include CMBS and private capital players, insurance companies, public real estate companies and sovereign wealth funds.

In this section, we set out our views on each of these potential providers of debt or equity capital in turn.

Two key concerns
While this incremental capital availability is clearly good news, it raises two concerns:

1. Cost. A significant portion of this capital (the debt capital in particular) appears to be available at a much higher spread than legacy capital sources.

2. Shortfall. Our €200bn estimate of capital from alternative sources is well below the estimated €300-600bn shortfall we expect from bank deleveraging. Unless another unexpected capital source arises, this would suggest at least some price decline for European commercial real estate assets in order to 'make up' the gap. It remains unclear to what degree this decline will be absorbed by lenders (write downs) versus current owners (lower asset values).

Public market appetite is the biggest uncertainty in our central scenario
The greatest uncertainty in our central scenario and conclusions is the likely role of the public markets, which were a key source of capital during the 1990s US commercial real estate credit crunch. As we describe in detail below, moribund CMBS markets and the NAV discounts at which public European real estate stocks trade suggest that these two categories are unlikely to be robust funding sources in the near term. However, should borrowing rates rise sufficiently or NAV discounts narrow, it is quite possible that quoted equity market funding, and potentially even CMBS, emerge as a much more important funding sources (much as they did in the US in the early 1990s) than we assume in our central case.

1) GOEFs and Unlisted Funds

Risk = €25bn

A large portion of investment in European real estate has historically come through a variety of unlisted funds. While there is a general expectation among industry participants that these funds will see increased inflows, we worry about a known wave of upcoming fund terminations in the next 5 years.

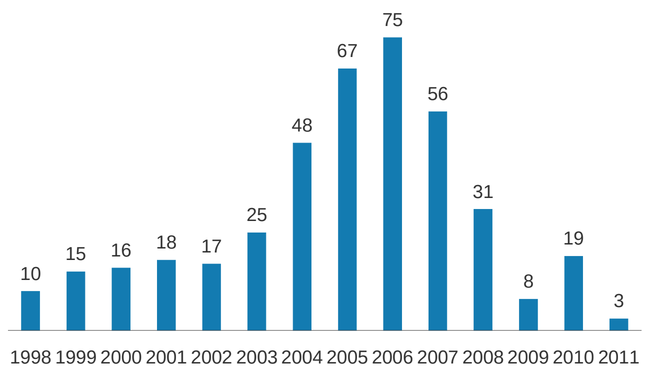
We also expect the German open-ended fund industry to be net sellers of assets for years to come, as several fund managers are facing forced liquidation.

We therefore doubt that increased demand from unlisted funds will absorb much of the shock from reduced availability of senior debt. On the contrary, we expect the availability of equity from German open-ended funds to contract by at least €25 billion.

Heterogeneous universe
Unlisted funds have been a primary avenue for pension funds and insurer investment in commercial property in Europe. As a result, trends in these funds' assets under management tend to follow the same trends as the underlying institutions (see Insurers on page 40 and Pension Funds on page 51). The universe of funds is diverse, comprising both open-ended and closed-ended structures, and is typically split between core, value-added and opportunistic investment styles.

Focus on two main types of funds
For the purpose of this analysis, we focus on two types of funds. First, we look into the unlisted closed-ended funds universe for which the European Association for Investors in

Exhibit 47
New fund origination has been limited in recent years



Source: INREV, Morgan Stanley Research
Planned terminations (Gross asset values) (€ bn)

Unlisted fund style jargon demystified

Core

Funds with a maximum loan-to-value ratio of 40%, less than 5% development exposure and less than 15% invested in non-income producing assets. Core funds aims to deliver at least 60% of their expected total return through income.

Value added

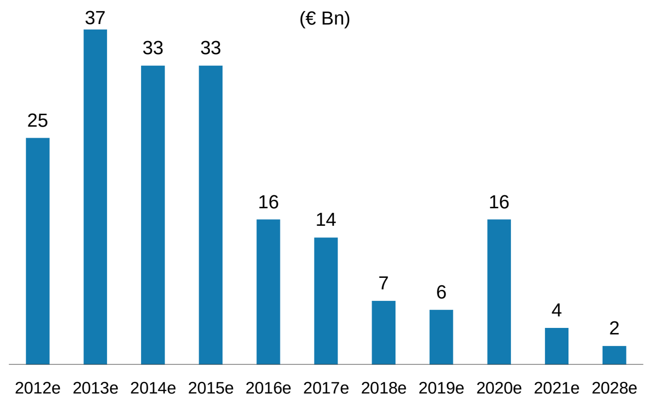
Funds with a loan-to-value ratio between 40% and 60%, between 5% and 25% development exposure, and between 15% and 40% invested in non-income producing assets. Value added funds are therefore more risky than core funds but also aim to deliver higher returns for investors.

Opportunity

Funds with a loan-to-value ratio in excess of 60%, that are allowed to have more than 25% development exposure, and potentially more than 40% invested in non-income producing assets. Opportunity funds are the riskiest in the spectrum and aim to deliver the highest returns.

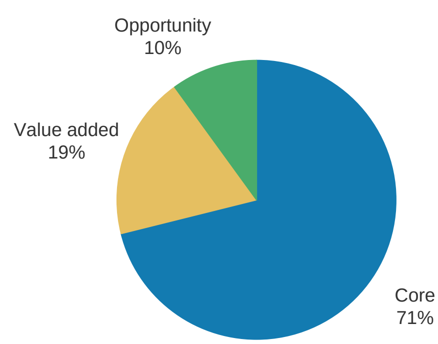
Non-listed Real Estate Vehicles (INREV) provides good data, and although not entirely comprehensive, it nevertheless monitors around €140 billion of real estate managed by its members. We also analyse the German open-ended funds industry, which has around €86 billion of equity assets under management. We analyse the private equity landscape in a separate section (see page 35).

Exhibit 48
Funds owning significant amounts of property are reaching the end of their life in 2012-2015



Source: INREV, Morgan Stanley Research
Fund launches (number funds)

Exhibit 49
Most unlisted funds are core funds



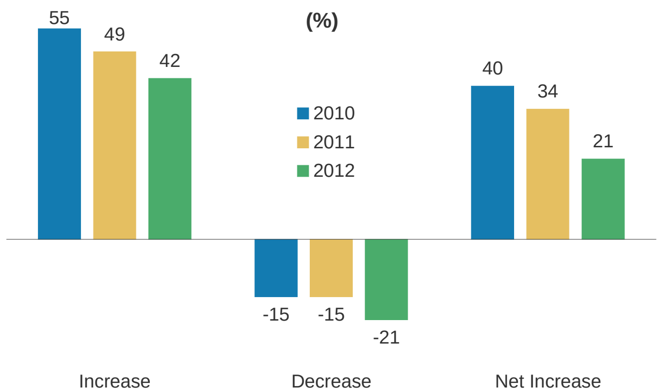
Source: INREV, Morgan Stanley Research Note: INREV universe

Limited public disclosure …
These unlisted funds share several key characteristics: public disclosure tends to be limited, and given a significant part of these funds is targeting sophisticated institutional investors only, regulation can be less stringent than for listed property.

… and smooth valuations versus volatile pricing
Often a significant attraction for investors in these funds is the relative smoothness of periodical valuations rather than daily share or unit price volatility, which enhances the performance of real estate as an asset class on a risk-adjusted basis, at least optically.

Exhibit 50

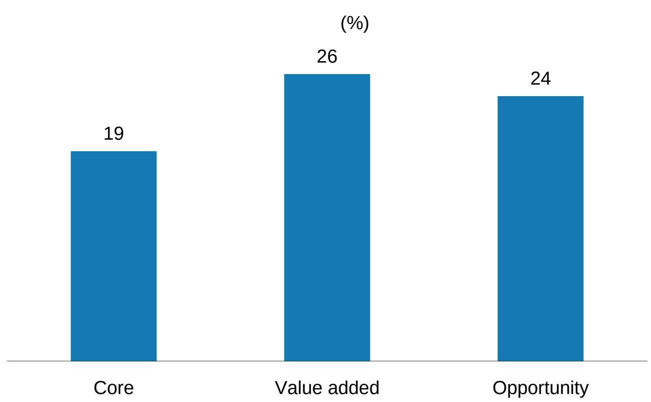
Allocations to unlisted real estate are still expected to rise, but the trend is decelerating



Note: based on the Investment Intentions Survey 2012, compiled by INREV, based on responses from 33 institutional investors, 16 fund of fund managers and 72 real estate fund managers.
Source: INREV, Morgan Stanley Research

Exhibit 51

These funds have a lot to refinance in 2012-13



Source: INREV, Morgan Stanley Research
Note: Proportion of debt maturing in 2012-2013

1. Institutional closed-ended funds

Origination of new funds has effectively dried up …
According to INREV, the origination of new funds has fallen sharply in recent years, from as much as 125 new funds in 2006 to only three new funds in 2011.

… in particular for value added and opportunity funds
The sudden origination boom from 2004 to 2007 saw an increase in all styles, but the increase was largest for opportunity and value added funds. Prior to 2004 most of INREV had a core focus. More than half of the funds raised in 2004-2007 were value added or opportunity funds, which reflected the risk appetite and availability of debt at the time.

A lot of terminations ahead
The majority of these funds have a limited life, and given the significant origination in recent years it is not surprising that a lot of these funds are terminating (see Exhibit 48). INREV estimates that as many as 130 funds with total gross assets under management of €128bn will be terminating in the next 4 years (2012-2015).

Significant firepower …
INREV estimates that its funds have as much as €29bn of dry powder for investment in Europe. It also estimates that a lot of investors' actual allocation remains below their targeted weighting to real estate. INREV believes this could account for as much as €95bn, all else equal.

… and allocations continue to rise
In addition, there appear to be more investors that aim to increase their allocations to real estate than aim to reduce their exposure, although the gap is narrowing rapidly (see Exhibit 50).

But demand differs significantly from funds' exposure
The two main problems are geographic allocation and gearing. The current capital available for unlisted funds is targeting mainly core funds (with low gearing) to be invested in (i) German retail, (ii) Nordic retail, (iii) Nordic offices and (iv) German residential, according to the Investment Intentions Survey 2012. Many of the funds that will be terminating own all types of assets located across geographies, and often with more leverage.

Asset rotation and deleveraging are concerns
Therefore, even if the unlisted fund industry remains a source of equity inflows for European property, we worry about the potential negative impact of asset rotation and deleveraging on certain European property markets.

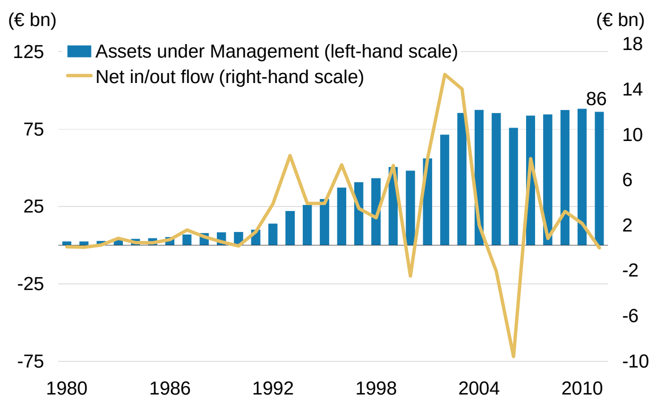
2. German open-ended funds

Mainly aimed at retail investors
GOEFs are a fund product mainly aimed at retail investors whose units can by law be redeemed on a daily basis. According to CB Richard Ellis, "German retail investors see the product as a secure pension-type investment", and "the ability to redeem their investment at any time has been an important factor in building investor confidence". GOEFs' assets under management grew significantly in the 1990s as part of a push for more personal pension products, and its AUM grew from €8bn in 1990 to €50bn in 1999 (see Exhibit 52). Today, the GOEFs have about €86bn assets under management.

Some different rules for institutional investors
Retail investors pay a 5% initial investment fee, whereas institutional investors are exempt from this. As a result, institutional investors are less disincentivised to redeem their units shortly after their initial investment; work we have done suggests that funds with a larger proportion of institutional investors are subject to more volatile inflows and outflows, as institutional investors use GOEFs effectively as a money market product. GOEFs with a larger proportion of institutional investors tend to be smaller funds that were initiated post 2000.

Restrictions on liquidity and gearing
By law GOEFs have to redeem units on a daily basis and therefore they need to have a net cash ratio of at least 5%, which is defined as the proportion of cash in the fund less any near-term liabilities. They are also required to keep their cash ratio below 49% and spend any cash on acquisitions within a year. Their maximum loan-to-value ratio is 50% (until new regulation comes in from January 2013) although in practice most funds' gearing is lower.

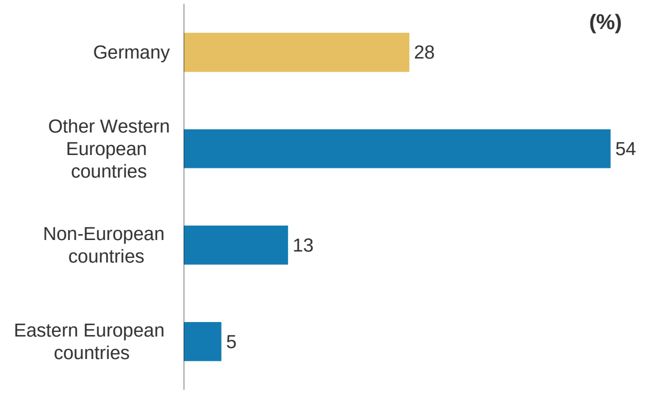
Exhibit 52
GOEFs have ~€86bn assets under management



Note: 2011 AUM and inflows as of May 2011
Source: BVI, Morgan Stanley Research,

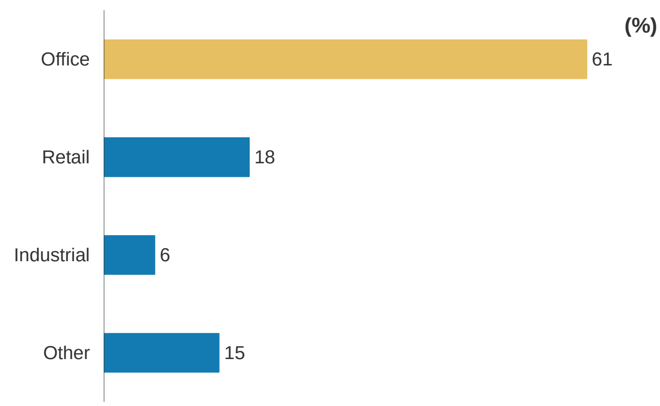
Large redemption pressure since Lehmans
The GOEF industry suffered large redemptions after Lehman, mainly because it was one of a few asset classes that offered daily liquidity. This led funds representing about a third of aggregate assets under management to halt redemptions. Under current legislation, funds can stop redemptions for a maximum of 2 years. Thereafter, they either have to start allowing redemptions again or they have to liquidate. In autumn 2010, three GOEFs announced they would liquidate.

Exhibit 53
GOEFs on aggregate: 28% of assets are in Germany



Source: BVI, Morgan Stanley Research

Exhibit 54
GOEFs on aggregate: 61% of assets are offices



Source: BVI, Morgan Stanley Research

Increase in trading volumes on secondary market…
Trading volumes of GOEF units on the secondary market increased significantly after funds managing about a third of the GOEFs' assets under management suspended redemptions in October 2008, and again in May 2010. The majority of units were traded at discounts to NAV. By law, GOEFs have to redeem at NAV.

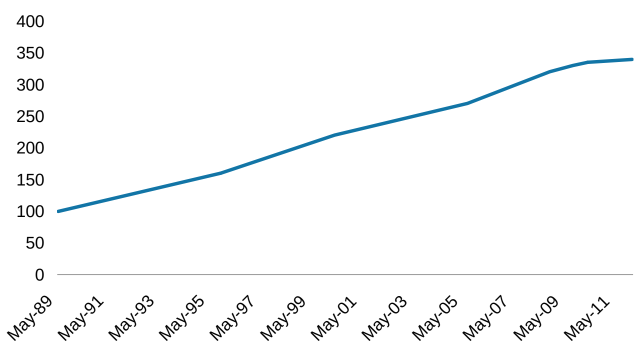
… prompted first GOEF to start liquidating in October 10
Aberdeen's decision to liquidate one of its two Degi GOEFs in autumn 2010 was partly driven by a quarter of its fund's units trading at a discount to NAV on the secondary market. Management expected that buyers of these units would have redeemed their units upon re-opening, and that its cash would have been insufficient to satisfy these redemptions.

New regulation to protect against large outflows
The German government's new regulation for GOEFs, which applies from January 2013, includes a minimum holding period of 24 months for new units, and a 12-month holding period for all existing units.

Funds that have to re-open pre-January 2013 are not protected
However, these new rules will not be in place when funds that have suspended redemptions have to announce whether to re-open or liquidate before May 2012, which represent about €20 billion of assets under management. According to BVI, a German fund management industry body, these funds have had negligible inflows in recent months, so there is a significant risk that they too will have to liquidate.

Regulation to trigger more disposals and redemptions
New regulation coming into force in January 2013 will require GOEFs to lower their loan-to-value ratios to 30% by January 2014. We think that this may mean further selling pressure for at least some funds. Moreover, lower gearing is set to affect returns negatively, therefore making GOEFs relatively less attractive. Furthermore, owing to the changes in regulation, insurance companies will no longer be able to invest in GOEFs, as they can only invest in products with a maximum notice period of six months.

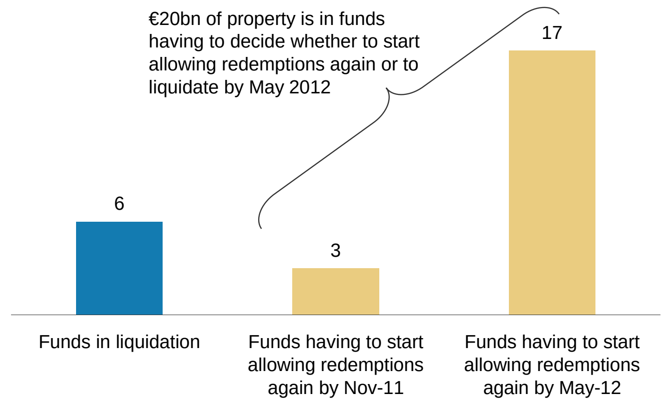
Exhibit 55
Example of GOEFs' NAV



Note: SEB ImmoInvest NAV performance/ indexed at 100 in May'89
Source: SEB, Morgan Stanley Research

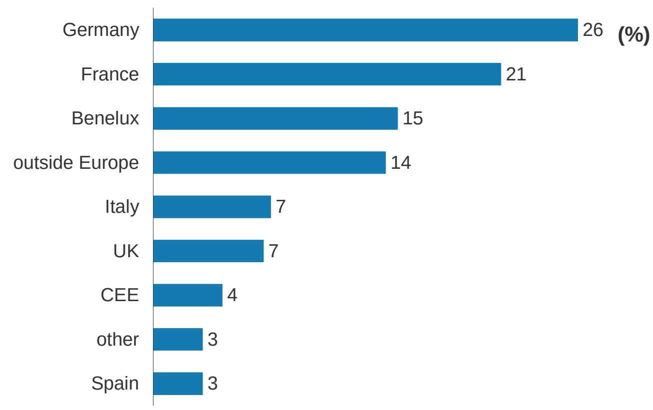
Disposals could mean significant valuation losses
The basis for the valuation of GOEFs is "sustainable long-term value" rather than the usual mark-to-market approach. Such valuations are often smoothed and can differ significantly from the achievable sale price in the market. By law GOEFs cannot sell properties below latest valuation. Therefore, funds may have to write down certain assets' valuations before selling them.

Exhibit 56
Funds with €24bn of AUM have suspended redemptions or are liquidating



Source: BVI, CBRE, Morgan Stanley Research

Exhibit 57
Funds having suspended redemptions and funds in liquidation



Source: BVI, Morgan Stanley Research
Note: Country exposure of funds having suspended redemptions or in wind-up

REIT conversion could be alternative to liquidations
We think that the conversion of GOEFs to quoted vehicles would allow the shares to find their own level, and avoid the fund in liquidation to be perceived as a forced seller. This is what happened in other countries (such as Australia or the Netherlands). A conversion of GOEFs is however currently not allowed by German law; the European Public Real Estate Association (EPRA) has been lobbying for a change in legislation, but is yet to make meaningful progress on this front.

But not in the interest of many stakeholders
We doubt GOEFs are set to close and list any time soon as this would not necessarily be aligned with stakeholders' interests; the fund managers and the distributors are making

attractive fees while many of the unit holders prefer the smoothness of valuations over the volatility of share prices.

We expect more liquidations

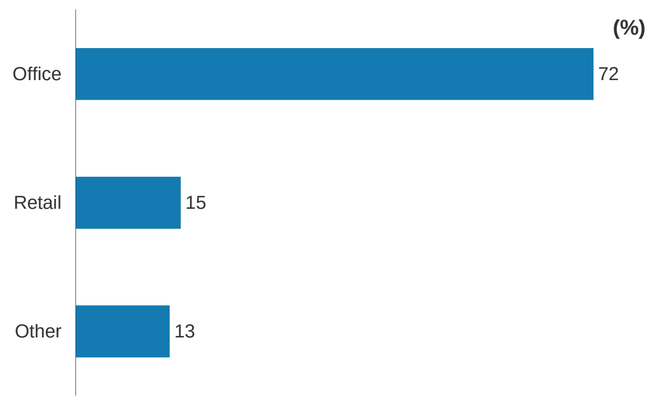
While the funds that are already in liquidation have a focus on Germany (24%) and France (20%), these are not the markets most affected by their liquidation, in our view. We estimate that these funds' holdings in German and French offices are the equivalent of about 0.6x and 0.5x these countries' average quarterly office trade volumes.

Dutch offices to be most affected

We estimate that the market that would be most affected by liquidations is Dutch offices. Dutch office holdings by funds that have announced liquidations already are the equivalent of 1.4x average quarterly trade volumes in Dutch offices. Other affected markets are Spain, Italy, Austria and Poland. When we include those funds that suspended redemptions but are yet to announce whether or not they will liquidate, we deduce that these funds own the equivalent of 4.6x average Dutch office trade volumes. Other office markets that would be affected by a liquidation of all funds that suspended redemptions are Germany (3.5x), Belgium (3.2x) and Italy (3.0x), (see Exhibit 59).

Exhibit 58

Funds that suspended redemptions and funds in liquidation together have 72% of assets in offices



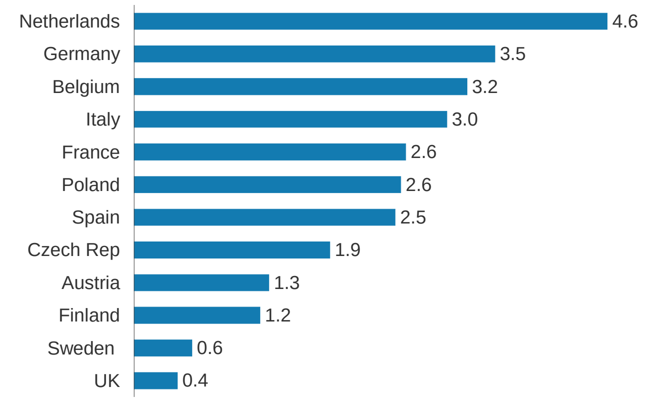
Source: Company data, Morgan Stanley Research
Note: Sector exposure of funds having suspended redemptions or in wind-up

Funds to liquidate over 3 years, or maybe more?

Under current German regulation, GOEFs have to liquidate within 3 years. We do not exclude that the German regulator would grant extensions to this deadline in order to prevent large valuation losses, as many of these funds are tightly held by German retail investors. So far, we are yet to see active disposals by these investors.

Exhibit 59

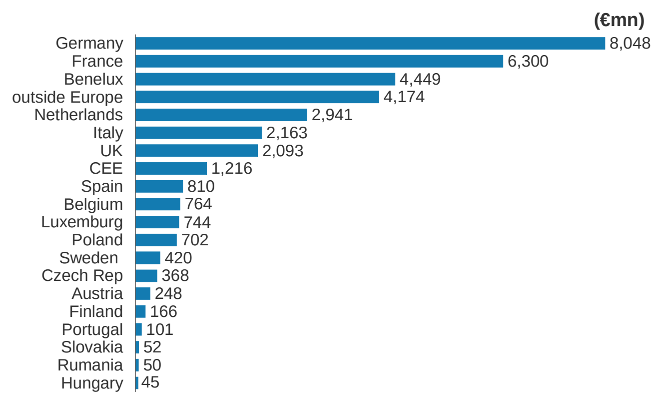
Funds that suspended redemptions and funds in liquidation: Big impact on Dutch office markets



Note: Office exposure as multiple of average quarterly trading volume (x)Source: Company data, CB Richard Ellis, Morgan Stanley Research

Exhibit 60

Funds that suspended redemptions and funds in liquidation: Absolute exposure



Source: Company data, Morgan Stanley Research
Note: Absolute Exposure of funds in liquidation plus funds having suspended redemptions

Long-term impact: Worry about style rotation and GOEF unwind

Unlisted funds will most likely remain the preferred vehicle for many institutional investors and high net worth individuals to gain exposure to real estate. As such, we expect continuing demand for this product. However, we worry about the impact of rotation in style (lower risk) and preferred geography (mainly Germany and Nordics) on assets that are out of favour. In addition, we are vey concerned about the fallout from the great unwind in the German open-ended fund industry, which could drive as much as €40 billion of equity out of European commercial real estate; unit holders of these funds have in many cases not made a conscious decision to seek exposure to real estate but merely wanted a relatively safe savings accounts with a moderately higher yield.

2) Private Equity

Opportunity = €25bn

Some €25bn of dry powder is available for European investments within private real estate funds, we estimate, out of a global pool of ~€120bn (Preqin estimate). The growing opportunities in Europe mean further fund raising for the region is likely in the next few years.

Most of the dry powder is committed to private equity real estate funds, but we believe there is also reasonable appetite for distressed and opportunistic debt. Many funds are unconstrained/opportunistic, allowing them to invest in real estate debt where opportunities are in line with their return expectations. Although senior debt funds are growing (for example, Starwood), we feel they are still a minority sport, and a significant supply/demand imbalance persists in this area.

Returns required by the private equity industry (~20% IRR for equity, mid-teens for mezzanine and opportunistic debt) could imply further portfolio write-downs for banks that wish to sell.

We believe the main winners from this process over the next few years will be Blackstone – which is almost uniquely well placed to benefit from the dislocation in the real estate space – and Partners Group.

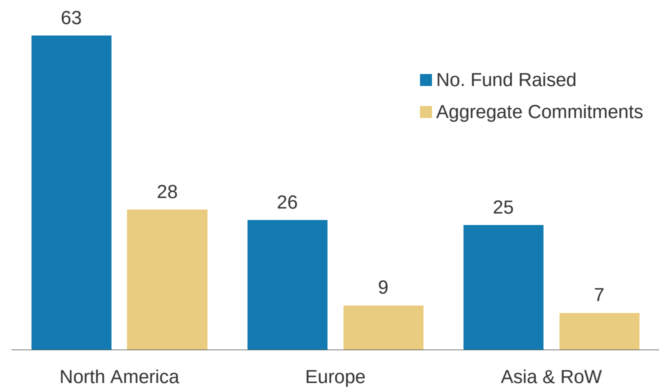
Clear opportunities for private equity to fill some of the CRE funding gap – but only for a few top-end players
We think the alternative asset managers could benefit from the European bank deleveraging trend[5]. Those with the liquidity and execution skills are well placed to take advantage of bank asset sales across private equity, real estate and credit.

We see clear opportunities for private equity managers to benefit from distress in CRE, but these are likely to accrue to a relatively small number of General Partners (GPs) who have delivered top quartile performance or returned at least the initial commitment level back to investors from recent vintage investments.

Although overall allocations to real estate funds are falling, there is increasing interest in Europe
Global private equity real estate fund raising was relatively slow in 2011 at US$48.7bn, according to Preqin. Of this, only US$9bn, or ~20%, was raised for European focused funds, but this was up from 13% in 2010. Interest in Europe looks set to grow again in 2012, with 33% of Limited Partners (LPs) surveyed by Preqin planning to allocate to Europe.

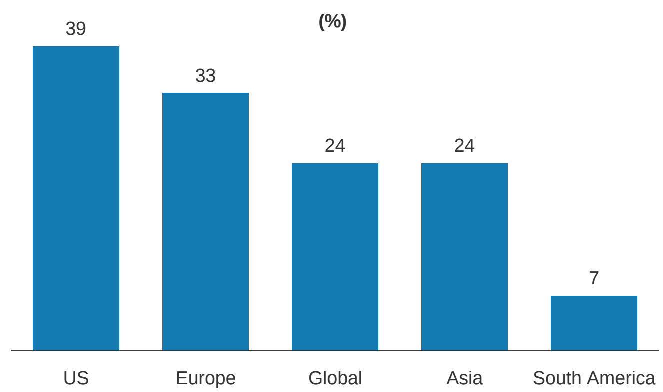
5 See *Global asset managers: How to grow in a low return world*, Nov 10th, 2011

Exhibit 61
Global real estate fundraising is subdued, but focus on Europe is increasing – US$9bn was raised in 2011, up 13% year on year



Source: Preqin, Morgan Stanley Research
Nlote: Closed-End Private RE Fundraising 2011

Exhibit 62
Further European allocations planned – 33% of investors surveyed are considering Europe for commitments in 2012



Source: Preqin, Morgan Stanley Research
Notes: Geographies Targeted by Investors in 2012 (%)

Overall fund raising for real estate remains challenging – investor appetite for fund commitments is lower than it has been for the past 2 years, with just 36% of Preqin's survey sample (180 institutional investors) planning to allocate to real estate funds in the next 12 months, down from 45% in January 2011 and 47% in January 2010.

The broader experience of returns suggests overall fund raising levels are unlikely to grow meaningfully. We expect fund raising to remain competitive in 2012: with more than 450 funds targeting commitments of over US$165bn globally for investment in real estate equity, many could be disappointed.

We estimate ~€25bn of existing firepower, and further fund raising will help to fill the funding gap

Overall dry powder available within private real estate funds was US$156bn as at December 2011, according to Preqin. Assuming around 20% of this (based on the geographical allocation intentions) could be allocated to Europe suggests ~€25bn of firepower. However, many of the largest primarily North America and globally focused funds can target investment opportunities in other regions, so this figure could be higher.

Given the increased focus of institutional investors on Europe, we expect more firepower to be available to deploy in the European market over the next few years. On the basis of a similar fund raising run-rate to 2011, and assuming increased allocations for Europe given the opportunity set (plus an ability of opportunistic funds to invest across geographies) we believe that the firepower available for European investment could roughly double (from the €25bn identified above over the coming 2-3 years).

Our conversations with leading industry participants indicate typical leverage levels in property deals are now ~60-70% LTV, down from ~75-85% pre-crisis, which suggests the equity contribution to the funding gap will be as much as double what it would have been previously.

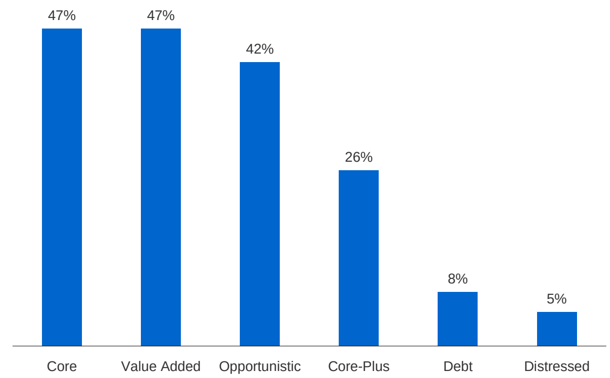
We would also note the sharp distinction in terms of capital available (both equity and debt) between core plus stable assets and the non-core opportunistic space. This implies potentially greater pricing dislocation for the latter.

There is interest in equity and opportunistic debt, but it is not clear that it will provide a senior debt solution

According to Preqin, allocation intentions to real estate funds skew very heavily in favour of equity, with more modest interest in senior debt for typical private equity investors. Of investors surveyed, only 8% plan to invest in debt and 5% in distressed debt funds. This compares to 47% intending to allocate to core and value add strategies (see Exhibit 63).

Exhibit 63

Investor interest skews heavily in favour of core value add and opportunistic real estate, with relatively limited interest in debt/distressed debt



Source: Company Data, Morgan Stanley Research Note: Strategies Targeted by Investors in 2012

We think the reality is more nuanced, however, since many private equity funds have the ability to invest opportunistically across the capital structure if they believe they can meet their return expectations. We believe that a number of these opportunistic funds, often raised as global funds, could potentially invest in European debt.

Survey data suggest that 156 funds are currently seeking to raise US$56bn in real estate debt and distressed debt (compared to the $165bn targeting equity investments in real estate). Exhibit 64 shows the ten largest funds seeking commitments. In general, the focus is on distressed or opportunistic, with limited fund raising focused on senior debt opportunities. Evidence of fund raising in senior debt (for example, Starwood) suggests a recent pickup in this space, but given the potential supply from banks, we believe that the demand/supply imbalance remains material.

Exhibit 64

Ten largest real estate debt and distressed debt funds currently raising equity

Fund	Manager	Strategy	Target Size (m)
Rockpoint RE Fund IV	Rockpoint Group	Distressed & Opportunistic	2,500 USD
Starwood Distressed Opportunity Fund IX	Starwood Capital Group	Debt, Distressed & Opportunistic	2,500 USD
AG Realty Fund VIII	Angelo, Gordon & Co	Debt & Opportunistic	1,125 USD
Fortress Japan Opportunity Fund II	Fortress Investment Group	Debt	100,000 JPY
Aetos Capital Asia IV	Aetos Capital Asia	Debt, Distressed & Opportunistic	1,000 USD
AG Core Plus Realty Fund III	Angelo, Gordon & Co	Core-Plus & Debt	1,000 USD
Fortress RE Opportunities Fund	Fortress Investment Group	Debt, Distressed & Opportunistic	1,000 USD
Greenfield Acquisition Partners VI	Greenfield Partners	Debt, Distressed & Opportunistic	1,000 USD
US RE Partners	AllianceBernstein	Debt, Distressed & Opportunistic	1,000 USD
Blackstone RE Special Situations Europe	Blackstone Group	Debt, Distressed & Value Added	1,000 USD

Source: Preqin, 2012 Global End Real Estate Report, Morgan Stanley Research

Private equity return requirements are high. Banks wanting to sell may face further portfolio write-downs
Following extensive discussions with leading industry participants, we set out below what we believe to be GPs' current expected returns on investment in real estate. This, of course, reflects in part the view that current supply/demand imbalances make for a decent buyers' market.

- **Equity** – ~20% IRR for real estate investments
- **Mezzanine and opportunistic debt** – low-to-mid teen IRR
- **Senior debt** – the private equity players we spoke to are focused on the equity and mezzanine tranches, but our conversations suggest a LIBOR+400-600bps range for senior debt funds and perhaps to 300bps at the lower end for prime real estate make sense.

To achieve mid-teen returns, we estimate opportunistic debt investors need to invest at ~20-40% of face value. These opportunities are therefore likely to be assets that require work. Clearly, the return profile for senior debt investors in "core" real estate assets is likely to be lower, as outlined above. We note there is a substantial difference between the core prime space, where senior funding sources are still available and hence the yield pickup may be 300bps or so over LIBOR, and non-core or secondary properties.

Who will be the main winners? Blackstone and Partners Group

We see Blackstone as almost uniquely well placed to benefit from the dislocation in the real estate space globally, given the significant firepower at its disposal – successful existing funds with ~US$42.9bn of AUM at December 2011 and US$10bn of dry powder. Our US colleagues expect this to be boosted by a US$12bn raising for the current fund. In the equity area, there are few if any players able to compete for scale deals unless as part of a broader syndicate, providing Blackstone with a clear competitive advantage.

We are equally positive on Partners Group in Europe, which has SFr3.9bn under management in real estate after growing rapidly over the past 3 years following acquisition of a team. Although it is a small player compared to Blackstone and focused on second-tier rather than prime properties, we see opportunities for investments in its real estate business, complementing a strong story in private equity and growing traction in infrastructure and mezzanine.

For both Blackstone and Partners we model >20% CAGR in earnings 2011-2013e, roughly double the growth we forecast for the more traditional asset managers, reflecting superior asset raising capabilities supported by strong investment opportunites.

3) Insurance Companies

Opportunity = €50-100bn

We expect further insurance sector lending/investment in the commercial real estate space, amounting to potentially €50-100bn over the next 5-10 years. However, exact timing and trajectory remains uncertain and much depends on the final rules on asset capital requirements under Solvency 2, suggesting little change in insurer investment in the next 2 years. Our estimate of additional long-term investment is based on an approximate 3-5% asset allocation by life insurers (with long-term liabilities) to this asset class, still well below US insurers' 10% allocation to CRE loans.

Solvency 2 will require insurers to hold significant capital against duration gaps between assets and liabilities. Long-term assets such as commercial mortgages could offer an attractive solution to cover the duration gap. However, the exact level of capital requirements on these assets are yet to be finalised, and until there is greater clarity on Solvency 2 rules, which may not come until 2014-2015, we would not expect insurers to make substantial changes to asset allocation approach. This may mean that the increase in near-term investment by insurers in CRE lending may be limited.

In assessing investments, the expected return per unit of capital requirement is most important. From this perspective, and especially given the possibility that capital scarcity generates higher spreads, mortgages clearly begin to look increasingly attractive to insurance companies – depending on final Solvency 2 rules.

Insurers need to find long duration assets to meet the duration of their liabilities and help minimise interest rate risk and capital requirements. Commercial real estate in concept meets these evolving requirements quite well. In addition, in a low yield environment, insurers need to find sources of spread above guaranteed rates to help maintain investment margins. With capital shortages arising from commercial banks reducing exposure, the higher available lending spreads may attract further insurance company investment in the sector.

Regulatory changes are key to driving insurance companies to expand CRE lending
Insurance companies in Europe are transitioning to an economic capital framework known as Solvency 2. The new regime has been much delayed and is now likely to be in

place as the guiding regulatory framework for the sector by the start of 2014 or 2015.

The implications are complex – and are still under discussion – but it is clear that they will require European insurers to hold significant amounts of capital against duration gaps between assets and liabilities.

Although the Solvency 2 capital charges are not yet finalised, based on the most recent draft document from the regulatory bodies drafting these rules (in October 2011) we understand that the asset charge (i.e. capital requirements as a percentage of assets) for a commercial real estate mortgage will be around 17-18%.

As we demonstrate in Exhibit 65, this compares favourably with the capital charges likely to be levied on other asset classes. It is particularly attractive when compared with long-term corporate bond assets, and, importantly, capital requirements on CRE lending are lower than for direct property investment.

One of the controversial aspects of the current draft Solvency 2 rules is that they penalise investment in long-dated credit versus short-dated credit.

This seems counterintuitive in the context of rules that encourage insurers to minimise duration mismatches between assets and liabilities. However, the capital requirements for corporate credit are proportional to the duration of the bond. Therefore, the new regulations encourage insurers to hold long-term debt to minimise interest rate risk, but require substantial levels of capital against this debt given that credit risk theoretically rises over time.

A search for duration and higher fixed income returns is a second key driver, as is diversification

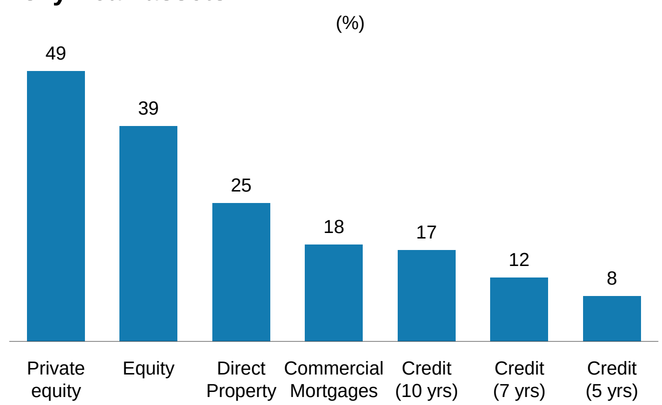
When assessing the attractiveness of an asset, insurance companies consider not only capital requirements but also expected return – the expected return per unit of capital requirement is most important. From this perspective, and especially given the possibility that commercial real estate capital scarcity could generate higher spreads, mortgages clearly begin to look more attractive to insurance companies.

In addition, many traditional insurance liabilities in Europe offer guarantees to policyholders that stretch a long time out into the future – given the lack of suitable long-term matching assets, many insurers currently run a significant duration risk. As interest rates and bond yields fall, this duration gap mathematically widens – increasing the incentive for insurance companies to find a solution, and thus potentially making them more open minded about new investment strategies like CRE lending.

Given the economic imperative to generate a spread over the amounts promised to policyholders, insurers are unlikely to seek to match these liabilities with long-term government debt; as this merely locks in a loss in many cases.

Exhibit 65

Draft Solvency 2 capital requirements (% of AUM): Commercial mortgages face capital requirements similar to corporate credit, and significantly lower than direct property investments and other more risky 'real' assets



Source: QIS5, Morgan Stanley Research estimates

In addition, the diversification benefit of holding a variety of asset classes helps to reduce capital requirements and, therefore, maximise returns on capital. Diversification benefit is quantified under Solvency 2 and will give insurers a tangible capital benefit.

Consequently, investing in a long-term asset such as a commercial mortgage offers a potentially attractive solution.

How do commercial mortgage loans compare with other asset classes?

In our view, the most attractive aspects of a commercial mortgage for an insurer would be:

- Long-term instrument – 20 years plus, longer the better; therefore providing a source of duration matching for long-term liabilities.
- Fixed rate returns in most cases, but also the potential in some cases to get inflation-linked returns.

- Over-collateralised – possibly with additional fixed and floating charges. This helps to limit the capital requirements on the asset.

- High-quality underlying tenants, ideally government or government-related entities.

- Insurers are also likely to want to invest in a diversified pool of commercial mortgage assets, with robust geographic diversification, a wide range of tenant industries and limited exposures to individual developers.

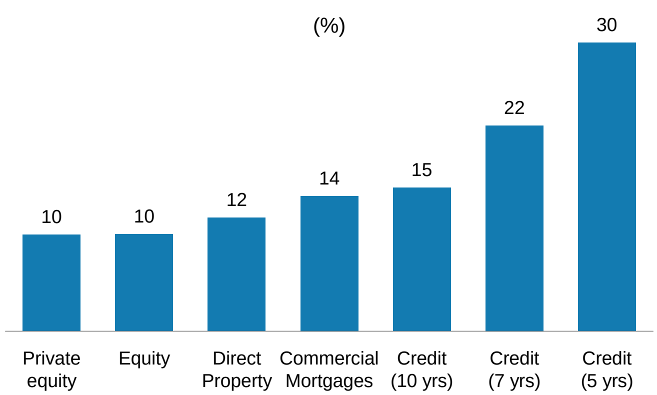
Exhibit 66 shows how commercial mortgage loans compare with other asset classes currently on a *return on capital* basis. This shows that they offer a similar return on capital to 10-year credit. However, they potentially offer longer durations, which make them more attractive in matching long-term life insurance liabilities.

We see a potential €50-100bn increase in insurance lending to CRE over 5-10 years

We estimate that the insurers in our European coverage universe have assets under administration of €4,003 billion – of which 83% or €3,455 billion is backing life or life reinsurance portfolios (which is where the duration matching issue is present). Taking into account the significant mutual and co-operative sector in Europe – we estimate that the total asset pool for European insurance companies is probably in excess of €6,000bn.

Exhibit 66

Estimated risk-adjusted returns on capital for different asset classes (risk premium / capital required) – commercial mortgages may provide better returns than direct property and equities



Source: Company Data, Morgan Stanley Research

We estimate that direct property investment by insurers currently amounts to only €600 billion– or 10% of industry assets. However, the potentially higher capital requirements on direct property investment versus CRE mortgages, as well as their better liability-matching properties, could mean that a substantial proportion of this asset allocation is shifted into commercial mortgages. We would also expect insurers to divert some of their existing corporate credit asset allocation into commercial mortgages.

In our view, this could expand to around 3-5% of life insurance assets, or between €50bn and €100bn over the next 5-10 years. Given the differences in business model between US and European insurers, we think it is unlikely that asset allocation to commercial real estate lending could increase up to 10% of life insurance assets under management, as is common with some US insurers. This is due to the illiquidity of this asset class, especially if assets are backing traditional life insurance portfolios in run-off.

Key limitations and risks to the magnitude and timing of further insurance company CRE lending:

- Compounding the organizational/execution issues, Solvency 2 regulations have yet to be finalized, meaning it is difficult for insurers to make decisions about significant changes in investment policy. General uncertainty over how Solvency 2 will shape up, and when it will become a hard regulatory requirement, is the greatest source of uncertainty.

- Organizational/strategic change: we believe changing key investment policies will take time, as will building up requisite infrastructure. The gap between deciding to increase lending and actual increased capital flow could well be measured in years, not months.

Several insurance companies active in property lending

Property agent DTZ estimates that there are around 10 insurers active in CRE lending in Europe, including Allianz, AXA, Aviva, Legal & General, MetLife, M&G (Prudential) and Canada Life.

Allianz – focused on larger, long duration CRE lending to help match insurance liabilities

Like many other insurers with large life insurance books, Allianz has very long-term guaranteed life insurance liabilities that are longer duration than their assets (on average) and relatively illiquid. Therefore, it is in a good position to provide liquidity to the market and invest in structured lending.

Allianz has a structured lending desk that looks at various long-term lending activities such as first lien residential mortgages, infrastructure loans, and corporate loans including commercial real estate lending. In its CRE lending book it is predominantly equity focused rather than taking a levered approach in this market. Allianz invests in a variety of mortgages, for example to developers, banks, owners, and sponsors.

Based on our conversations with the company, we believe that Allianz's niche in commercial real estate lending is in larger deals. In its German business, it feels that competitive pressure is too high (e.g. from savings banks) in lending deals in the €50mn-€75mn range.

Therefore it typically gets involved in larger deals, where it feels there is better relative value. Commonly it can then syndicate larger loans on different balance sheets within the Allianz group. Allianz is happy to look at relatively complex deals where a greater level of due diligence, structuring and analysis may be required – and it feels it may have some competitive advantages and skills in this area. Allianz targets a maximum LTV of 75%.

Allianz is looking for relatively long-duration loans to match its life insurance book. Allianz's weighted average liability duration is ~9 years and its appetite for CRE lending is ~7-25 years. It is not interested in loans of shorter duration than this. In addition, Allianz has a preference for fixed rather than floating-rate deals, again in order to best match insurance liabilities.

Allianz is willing to put more resources in this area, depending on the outcome of Solvency 2 rules. However, its desire to underwrite and originate loans by itself acts as a natural constraint (given the size of its team and internal resources allocated to this function).

Aviva – an established player in CRE lending in the UK

Aviva is a well-established player in the commercial real estate lending market in the UK, actively writing commercial mortgage business for the last 25 years. These assets are viewed internally by the company as an excellent match for Aviva's UK annuity product book.

We believe Aviva will continue to have a strong appetite in this area, although this is already a significant part of its asset allocation in the UK, and the company is likely to take an opportunistic approach in the near term. For example, Aviva wrote €1bn of commercial mortgage lending in 2011, but not very much in 2010.

Aviva believes that the retreat of banks from this area could offer opportunities to pick up more business due to reduced competition. In addition, we believe it may consider buying debt from banks looking to delever their balance sheets; however, this is not an area it has been involved in historically, and any purchases would have to meet its criteria:

- Aviva lends up to 70-75% LTV on high-quality assets with a government tenant; for other assets and tenants, it looks for a 50-65% LTV.

- The purpose of investing in commercial mortgages is to get access to long duration assets. Aviva lends over 15-to-25-year terms and is not interested in anything shorter.

Aviva, like other insurers, is sensitive to the current uncertainty over the final rules for Solvency 2 capital requirements. The future interest in CRE lending will clearly depend on how the final capital requirements on this asset class compare to other 'risky assets' such as direct real estate ownership.

Aegon –-substantial US commercial mortgage portfolio provides a case study

Aegon is not involved in commercial property lending in its European business, but is a significant residential mortgage lender through its Dutch life insurance business. This is a common practice in this market given the use of life insurance endowment policies as savings vehicles to pay off the loan principal in a residential mortgage. Customers use this approach, with an interest-only loan, to maximise tax deductibility of interest payments in the Dutch mortgage market.

Therefore, we believe it is unlikely that Aegon will make significant steps to enter the commercial mortgage market in continental Europe.

However, like many of its US peers, Aegon is a significant commercial mortgage lender in its US life insurance business, which is also fairly common for life insurers in this market. Commercial mortgages have provided an attractive asset class for insurers selling long-term 'universal life' products as well as 'fixed annuities', to help insurers generate spreads above guarantee levels.

Although US life insurers are not facing a Solvency 2 regulatory regime, their reasons for investing in commercial real estate lending are essentially similar: the need to generate spreads in a low yield environment in a risk-efficient way.

Therefore, we believe US insurers' involvement in commercial real estate lending gives us some guide for the potential shape of the development of a similar trend in Europe.

We would highlight the following aspects of Aegon's book:

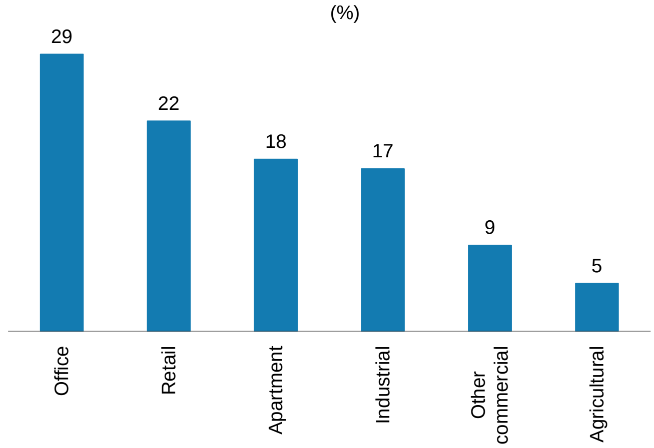
- The book consists entirely of own-originated lending. Aegon, like other US life insurers, has a separate significant asset allocation to CMBS. However, buying senior debt in real estate development companies has not typically been a means that US life insurers have used to get into this asset class. By building up in-house origination skills, Aegon feels it can better control the credit quality of these assets, as well as select assets that best fit its liabilities.

- Commercial mortgages account for 9% of Aegon's US life insurance assets, at US$10.5bn. This book has been performing very well through the crisis, with only 3% of assets considered non-performing or in foreclosure.

- As Exhibit 67 shows, Aegon holds a fairly diversified portfolio of loans across different real estate sectors in the US.

- The average loan-to-value of the portfolio is currently 65%, which is the type of level we would typically expect companies to target to help minimise Solvency 2 capital requirements in Europe.

Exhibit 67
Aegon's US commercial mortgage loan distribution



Source: Company Data, Morgan Stanley Research

4) Listed Property Companies

Opportunity = €25bn

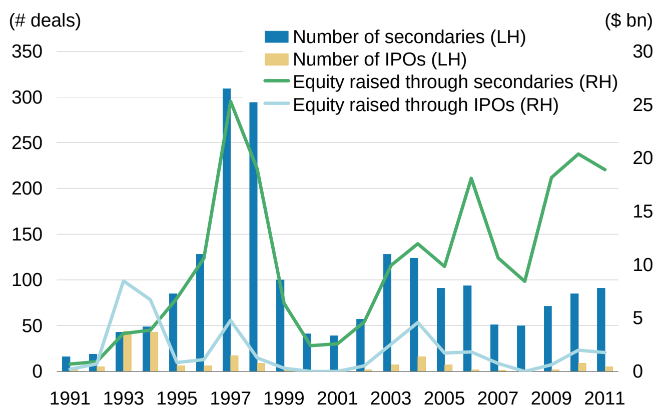
The European quoted property sector remains underdeveloped relative the US and Asia, and its holdings are only a small portion of the overall property market. The majority of listed stocks are well capitalised, well funded, have strong management teams and own good to very good quality assets. Historically, REITs have taken advantage of shocks to debt capital markets, gaining market share by recapitalising property markets (e.g. the US in the 1990s).

We do not expect European companies to buy a meaningful amount of assets on their current equity base; if anything many are in deleveraging mode. But we could see significant numbers of initial public offerings (depending on sellers' pricing demands, or availability of better, alternative options) and secondary offerings (if equity investors are willing to focus on earnings accretion rather than on potential NAV dilution).

However, our central case doesn't envisage initial public offerings or follow-on offerings amounting to more than €25bn of additional equity capital over the next 5 years. A meaningful, even if only temporary, change in equity valuations driving shares up to NAV premiums could drive significantly more issuance though.

Parallels with the US two decades ago
We think there are several parallels between European property markets now and the US property market in the early 1990s. In 1992, the US direct property market was nearing the end of what was in effect a depression.

Exhibit 68
US REITs issued around US$100 billion of equity in the early to mid-90s, recapitalising US property markets



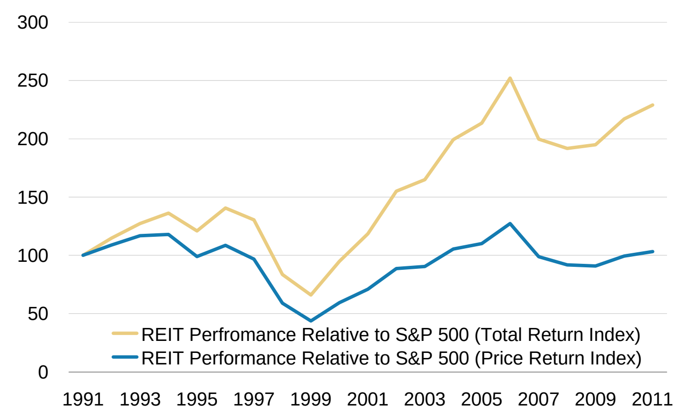
Source: NAREIT, Morgan Stanley Research
note: US REIT IPOs and Secondary equity offerings

Aggressive loan underwriting in the late 1980s resulted in too much debt. In addition, demand for space was weak, driving vacancies higher, which added pressure on capital values. Furthermore, many traditional lenders and other capital sources (such as the savings and loans industry) were in bankruptcy liquidation or simply no longer active.

1992 was the beginning of the modern US REIT era
Those circumstances, combined with the relaxation of US Real Estate Investment Trust (REIT) regulations, marked the beginning of what is generally referred to as the Modern US REIT Era. The creation of the Umbrella Partnership REIT, or UPREIT, allowed quoted property companies to acquire and expand in a tax-efficient way. At the same time, innovation in the public US debt markets, particularly Commercial Mortgage Backed Securities (CMBS), opened up sources of debt capital. We describe the potential role of CMBS in greater detail on page 24.

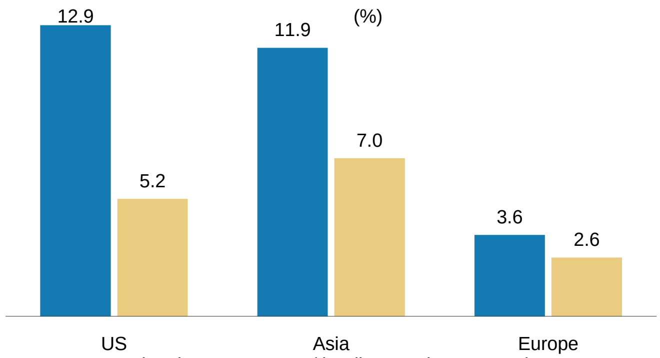
US public markets were a source of capital of last resort
US REITs issued vast amounts of equity, initially mainly through IPOs and subsequently mainly through secondary offerings (US$100 billion of equity alone in the 7 years after this regulatory change) effectively recapitalising the property market. Existing and new REITs grew significantly in size as they used their access to equity capital markets to acquire assets (see Exhibit 68). And, despite this huge issuance, the stocks outperformed the broader equity market (see Exhibit 69).

Exhibit 69
Despite significant equity issuance, US REITs outperformed the market on a total return basis



Source: Datastream, Morgan Stanley Research

Exhibit 70
The quoted property sector is still underdeveloped in Europe (%)



Source: EPRA, Morgan Stanley Research

Regulatory improvement in Europe looks unlikely
Unlike the US in the early 1990s, we see European real estate tax regulation as more static, and potentially moving in a more negative direction. The regulatory framework varies from country to country in Europe, with some countries recently stimulating REIT sector growth (e.g. the UK) while others are actually removing tax incentives (such as France) – see Exhibit 71. We do not think there will be a regulation-driven boost to the size (and the equity base) of the quoted property sector in Europe though.

Exhibit 71
French REITs are losing their tax benefit to acquire assets, while the UK has scrapped entry tax

Country	Enacted	REITs	MV (€ bn)	Comments
France	2003	43	50	Regulation tightening with less tax benefits from 2012
UK	2007	18	31	Regulation being relaxed (eg no entry tax)
Netherlands	1969	7	8	
Belgium	1995	14	6	
Turkey	1995	19	2	
Germany	2007	4	1	Limited to commercial property
Italy	2007	2	1	
Greece	1999	2	0	
Bulgaria	2004	19	0	
Finland	2009	0	0	
Spain	2009	0	0	

Source: EPRA, Morgan Stanley Research

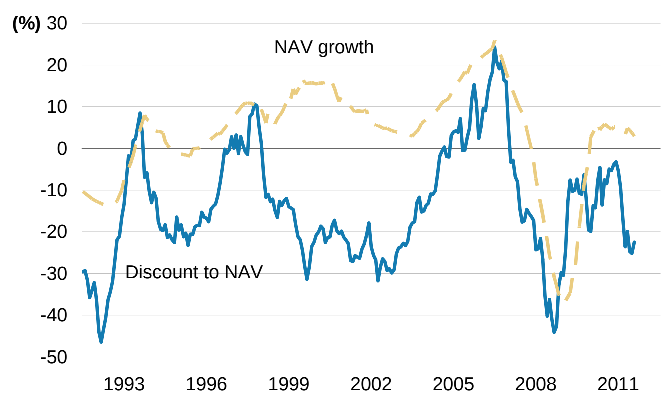
But regulation was not the only factor in the US
Two additional factors drove the US case: 1) REIT shareholders were attracted by the earnings accretion on offer from potential acquisitions; and 2) there was a significant rise in retail investor appetite for equities in general.

US REIT investors focus mainly on earnings …
US REIT investors have typically more of an earnings focus (US REITs do not disclose external appraisals for their portfolios and therefore do not publish NAV per share). The acquisitions these US REITs were able to make in the early 1990s were highly earnings accretive and therefore very much supported by shareholders.

… while NAV matters in Europe
While we think many investors focus on a variety of earnings metrics to analyse and value property stocks in Europe, NAV remains a primary valuation tool. Therefore, it is often perceived as challenging for companies to defend making NAV-dilutive equity issues.

We do not expect significant equity issuance while European property stocks trade at a discount to NAV
The quoted property sector in Europe (including the UK) is trading at around a 15% discount to current NAV (see Exhibit 72). Historically, equity issuance in Europe has happened mainly during times of rising property values, as the sector trades up to a premium when NAV growth is strong and trades down to wider than average discounts when NAVs are falling. We doubt many REITs will issue a significant amount of equity as long as their shares trade at a discount.

Exhibit 72
There is a strong correlation between European stocks' NAV valuation and NAV growth

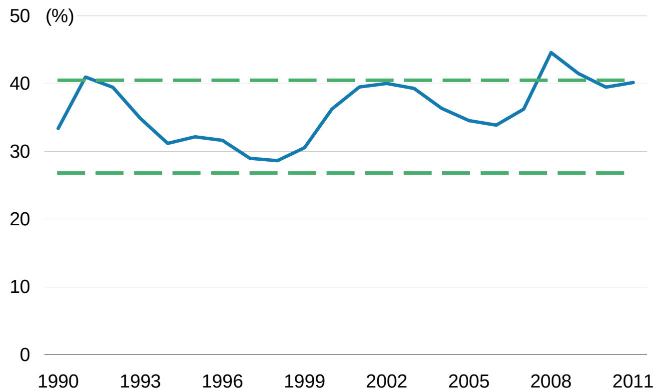


Source: Company data, Datastream, Morgan Stanley Research
NAV valuation and NAV growth (%), pan-European property sector

Most European property companies are deleveraging
In addition, we could argue that existing listed stocks will not be acquiring assets aggressively with their current equity base; most companies we cover are trying to delever or at best maintain current gearing ratios, which are relatively high in a historical context (see Exhibit 73 and Exhibit 74).

Exhibit 73

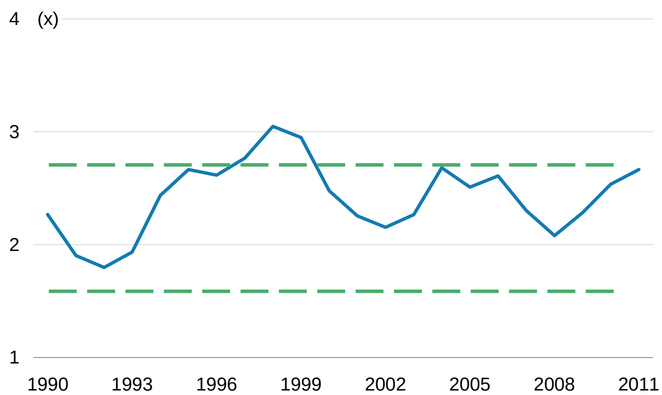
The quoted property sector's loan-to-value ratio remains high in a historical context …



Source: Morgan Stanley Research Note: Net debt/gross assets less cash

Exhibit 74

… and also on interest cover, which we think is even more significant for lenders



Note: Interest Cover (x) Source: Morgan Stanley Research

Portfolios often lack an 'equity story', which can be a deal breaker

We could see a wave of new property companies coming to the market. However, in many cases these are funds or portfolios rather than true companies; therefore, the lack of a management team, a track record and an equity story can in the best case command a deep discount, or in the worst case prove to be a deal breaker.

Investor demand is ultimately the main driver

Ultimately, demand for shares drives the amount of stock that will be issued. The US benefitted from significant retail investor appetite; REITs offered an attractive dividend yield that was growing through acquisitions. Other than in some markets (e.g. Benelux), Europe is not in that mindset. But arguably a low bond yield environment for longer could drive a change in investor appetite, we believe. In addition, the quality on offer by the listed sector (both from an asset and a management perspective) could attract a lot of the largely passive capital and therefore drive share prices closer to or above NAV, allowing these companies to raise equity more easily.

Valuations change – if the sector traded up to double-digit NAV premiums it could kick-start significant equity issuance

Also, even during previous 'workout' periods such as the mid 1990s, there have been years during which the quoted property sector traded up to double-digit NAV premiums. This could happen again and would allow many quoted property companies to raise equity at advantageous terms while benefitting from acquisition opportunities. In theory this could kick-start a protracted period of equity issuance similar to the US two decades ago. While not our central case, we recognise a more positive scenario could occur.

Long-term impact:
Quoted sector to grow steadily but no boom

We feel strongly that the quoted property sector has a larger role to play in providing capital to real estate, in a transparent manner and with professional management. Recent equity issuance in Germany (e.g. from Deutsche Wohnen and Alstria) suggests investors are increasingly open to earnings-accretive but NAV-dilutive acquisitions, as long as the underlying fundamentals and company set-up make sense. We expect significantly more issuance, but in our central case we doubt there will be an issuance boom similar to the US two decades ago. We think that could only happen if asset owners lacked alternatives and were willing to exit positions at very deep discounts, or if the sector traded up to NAV premiums.

5) Sovereign Wealth Funds

Opportunity = €50bn

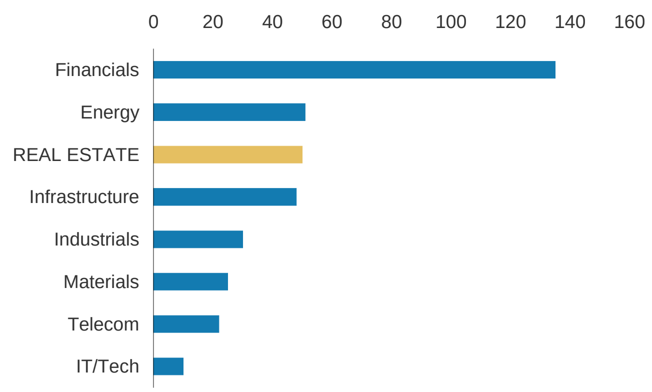
Sovereign wealth funds under management have been increasing rapidly (up more than 40% in dollar terms over the last 4 years), and a significant portion of these assets are being invested in real estate.

Most funds lack the asset management platform to manage real estate across the globe. As a result, they typically invest through unlisted funds or partner up with strong local management teams. Some have also started taking stakes in quoted property stocks.

We expect this trend to continue. However, even if SWFs were to double their historical investment in real estate, total additional equity available for Europe in the next 5 years would only be around €25 billion, which in combination with the €25 billion or so of allocated but yet to be invested capital could suggest around €50 billion of firepower.

Exhibit 75

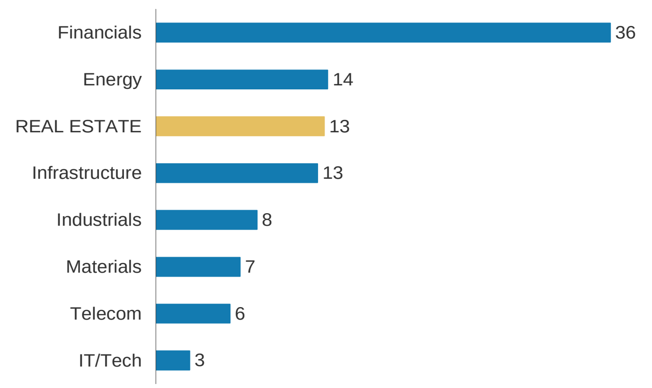
SWFs have invested around US$50bn in real estate globally during the past 7 years …



Source: SWF Institute, Morgan Stanley Research Note: 2005-2011 ($ bn)

Exhibit 76

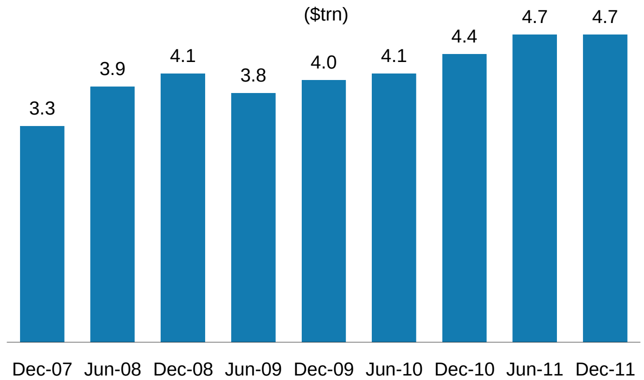
… or 13% of their overall investment volume



Source: SWF Institute, Morgan Stanley Research Note: 2005-2011 (%)

Exhibit 77

SWF assets under management have risen rapidly in recent years



Source: SWF Institute, Morgan Stanley Research
Note: SWF Assets under management ($ trillion)

Strong rise in foreign demand
2011 saw a marked increase in investment volumes for commercial property in Europe (including the UK) from non-European investors, some of which can be attributed to SWFs.

Real estate third most important sector for SWF flows
Real estate was the third most popular asset class for SWFs between 2005 and 2011, with around US$50bn of investments, according to the SWF Institute (see Exhibit 75), or 13% of all investment volume (see Exhibit 76).

Note that this does not include infrastructure, which is considered to be a separate asset class. However, this is a global number, so assuming Europe accounts for around a third of investment markets, this was only €12.5 billion.

AUM rising rapidly
The SWF Institute suggests that SWFs' assets under management have risen by as much as 42% in dollar terms over the last 4 years (see Exhibit 77). A significant part of this comes from oil and gas revenues, and is therefore likely to continue.

Two key constraints
We believe traditional SWF focus on asset quality and a lack of 'in-house' management and operations constrain these institutions' ability to expand in the commercial real estate arena:

(i) We see access to the right high-quality product as the most important constraint to SWF CRE growth. We have seen several cases in which a SWF deploys its capital allocated to real estate very slowly, often more slowly than the market had anticipated, as it struggles to find the suitable high-quality product. Many of these funds are looking towards real estate for diversification but also for capital protection; as a result they aim to invest in assets that offer true inflation-protection, hence 'prime' assets.

(ii) Few SWFs have the expertise to own and operate assets globally on their own, and therefore they typically invest through or alongside others. SWFs tend to be more 'passive' investors, serving primarily as capital allocators rather than advocates in the operation of the entities in which they are investing. From this perspective, few have built in-house real estate operational capacity, seeking instead operating partners for their investments. Given cultural differences and the various complications inherent in real estate partnership and minority structures, the use of this format typically adds an element of friction to the investment process, slowing both the volume and diversity of SWF commercial real estate investment. In addition to high quality assets, SWFs typically partner with only the highest quality operators, of which there is by definition a finite supply.

Opportunity for quoted sector

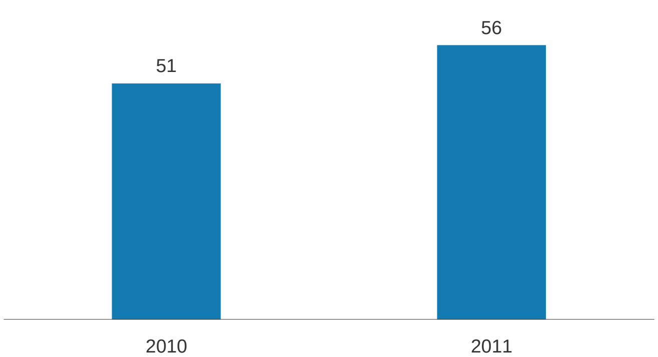
While the need for an operating partner is generally a negative in the context of filling the bank deleveraging capital gap, we highlight that it is likewise a significant opportunity for European REITs, which are generally regarded as ideal partners because of strong management teams and high quality assets. Partnerships between quoted property companies and SWFs could generate attractive profits for the REIT partners through the fee arrangements that these structures typically provide.

Long-term impact: Significant capital source, but no panacea

We think SWFs could be a significant source of (mainly) equity capital for the European real estate market as real estate investment picks up further, through rising AUM and with more funds targeting Europe. But, we think that at least in the next couple of years these capital flows will only target an extremely narrow part of the market, which ironically will already have abundant equity and debt capital available from other sources. We could envisage a doubling of recent investment volumes to €25bn for Europe, which if added to the €25bn or so of allocated but yet to be invested capital, could mean SWFs provide European commercial real estate markets with as much as €50bn over the next 5 years.

Exhibit 78

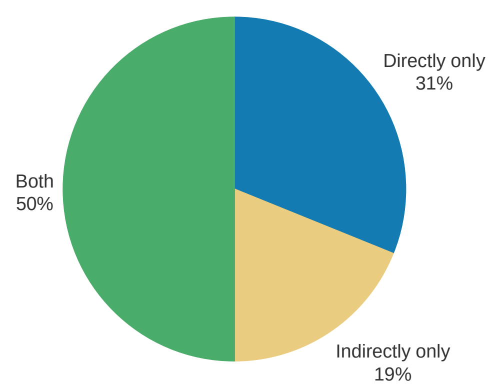
A larger portion of SWFs invested in real estate in 2011 than the year before (%)



Source: Preqin, Morgan Stanley Research
Proportion of SWFs that invest in real estate (%)

Exhibit 79

How SWFs invest in real estate



Source: Preqin, Morgan Stanley Research

Exhibit 80

Non-European investors accounted for most of the growth in transaction volumes in 2011

Source	2011 (€ bn)	2011 (%)	2010 (€ bn)	2010 (%)	Change (€ bn)	Change (%)
From Europe	83.6	73	79.6	81	4.0	5
From outside Europe	30.3	27	19.2	19	11.1	58
Total	**113.9**	**100**	**98.8**	**100**	**15.1**	**15**

Source: JLL, Morgan Stanley Research

6) Bonds

Opportunity = €20bn

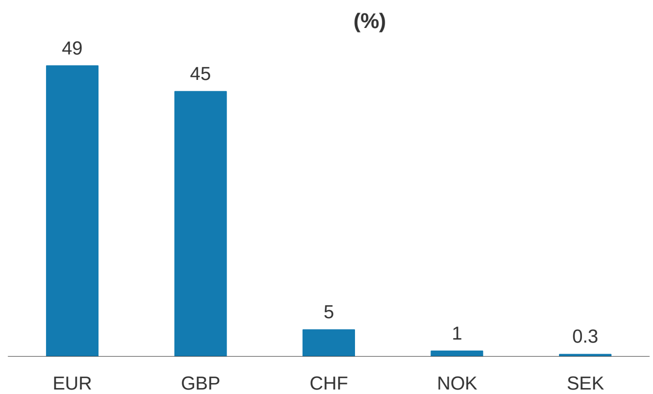
The corporate credit market for real estate companies remains extremely small, with very few companies perceived to have access. We expect this to change in the medium to long term; we think existing quoted property companies will increasingly look towards corporate credit for senior debt.

We therefore believe a doubling or even a trebling of corporate bond issuance by 2016 is possible given reduced bank lending. However, even in such a scenario, the size of the real estate corporate debt market will be constrained by the size and number of public real estate companies. Given our belief that public real estate companies are unlikely to expand materially in the next few years, we estimate the net increase in senior unsecured debt would only be around €20 billion.

The corporate bond market is tiny
The corporate credit market for European property is small, with a total outstanding par value of less than €30bn. This includes €7bn worth of convertible bonds, a quarter of the total (see Exhibit 82). Over the past decade, annual issuance has averaged just €3bn, including convertibles (see Exhibit 83).

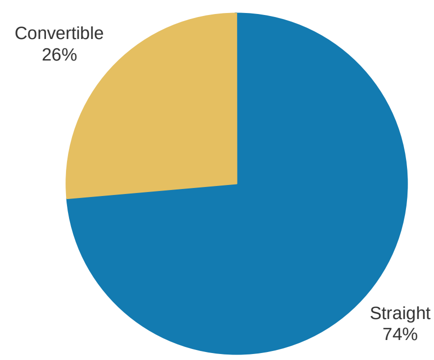
European real estate bond market is about a quarter the size of the US market
Over the same period, US REITs have issued around US$14bn worth of bonds a year, or around €12 billion – four times the European issuance level. A significant factor here is that there are more large US REITs and therefore more companies go this route.

Exhibit 81
Only €26bn of property bonds outstanding …



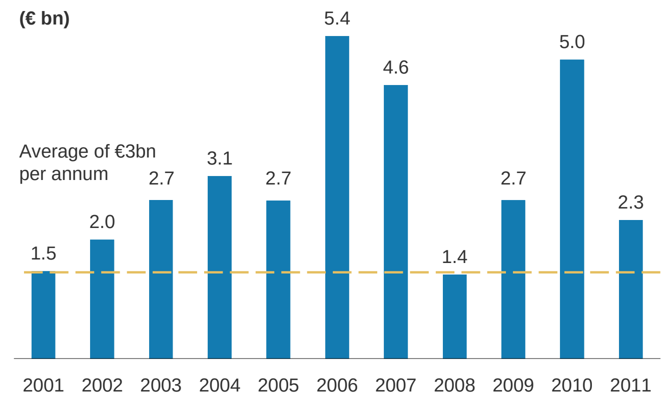
Source: EPRA, Morgan Stanley Research Note: Property Corporate Credit Outstanding

Exhibit 82
… of which a quarter are convertible bonds



Source: EPRA, Morgan Stanley Research
Note: Property Corporate Credit Outstanding

Exhibit 83
Average annual property bond issuance in Europe is only €3bn (including convertibles)



Source: EPRA, Morgan Stanley Research
Note: Bond issuance by European property companies

Good argument for increased issuance
Several quoted property companies are working hard to diversify their sources of debt, and are regularly quoted as aiming to lower their balance sheet gearing in an effort to protect their credit rating. This, combined with reduced bank lending, leads us to expect an increase in bond issuance.

Pricing not the issue
Whereas unsecured lending is perhaps relatively unattractive, recent bond issues did not command particularly high spreads (recent bond issues in Europe were priced at sub-200 basis points for 5-year money).

Very few companies are perceived to have access
The main issue we believe is that few European property stocks offer sufficient size and liquidity, and therefore few companies truly have access to this market.

Long-term impact: Higher spreads could do the trick

For the senior unsecured credit issuance level to break out to new heights, we need to see more large quoted property companies, either through consolidation or meaningful secondary equity issuance, similar to what happened in the US in the 1990s. Alternatively – and probably more likely near term – spreads on these bonds need to rise to such a level that the typical hold-to-maturity credit investor is compelled to invest in the credit of new issuers that are not that large. We think this could really trigger demand, as credit investors are increasingly focused on yield pickup in a low yield environment.

7) Pension Funds

Pension funds have historically increased weightings to real estate when inflation rises, and vice versa. As a result, it is not surprising that their weightings have fallen over the last three decades.

That said, the low bond yield environment is increasingly driving pension funds into alternative yield products, including real estate. However, many funds are experiencing asset/liability coverage ratio issues and therefore may not make material reallocations, we believe.

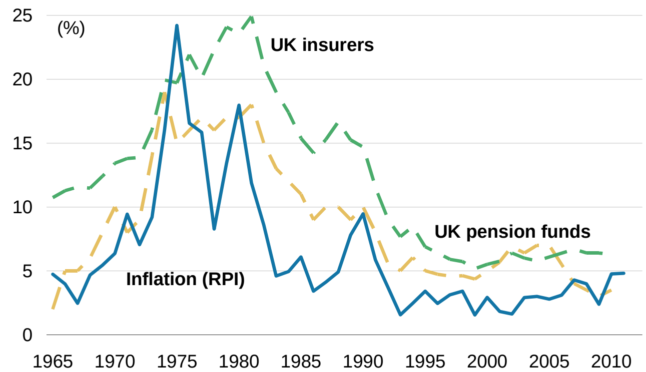
As a result, we think pension funds will remain net investors, but we doubt they will be a meaningful source of incremental debt or equity capital.

Inflation is a key driver of weightings to real estate …
Historically there has been a strong correlation between the rate of inflation and weightings to real estate by domestic institutional investors such as pension funds and insurance companies. This relationship can be seen in the UK in Exhibit 84, and although we lack similar data for all other geographies, we believe a similar relationship exists throughout Europe.

… partly though the 'denominator effect' …
The significant changes in weightings to property are driven partly by the 'denominator effect'; property values held up better than, say, fixed income investments when inflation was rising and underperformed when inflation fell. Expressed differently, some of the rise in real estate portfolio weighting occurred without investment of incremental capital in the assets by the pension funds.

Exhibit 84

UK institutional weightings to property increase in inflationary environments, and vice versa



Note: Weightings to real estate comprise direct and indirect investments
Source: WM Mercer, ABI, CEA, Datastream, Morgan Stanley Research

… and partly driving allocation decisions
Transactional data suggest changes in the inflation environment also had a significant impact as pension funds bought more real estate when inflation and inflation expectations were rising and vice versa.

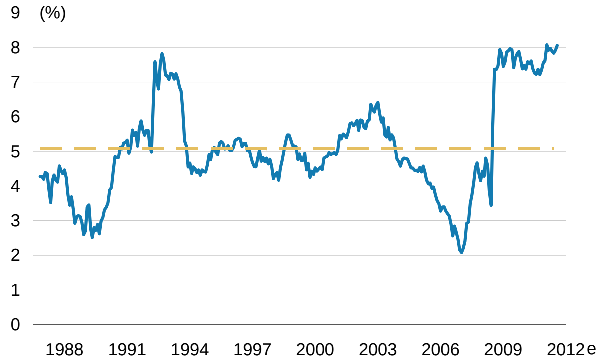
Focus on assets with secure and 'real' cash flows
Many pension funds seek to invest in quality assets that provide a very secure income stream, and that offer inflation protection near term (through rental indexation) or long term (through buying well-located assets, which tend to be more 'real', i.e. the rents tend to keep up with inflation). History therefore suggests a quality-defined limit to how much incremental capital pension funds might be willing to allocate to this asset class.

Valuation is also a key driver of allocation decisions
Pricing relative to other asset classes has also historically been a key factor in investment decisions. In that context we believe the significant yield spread on offer over (real) bonds is perceived as attractive by many of these institutional investors (see Exhibit 85). This should drive some incremental investment flows.

Regulatory changes ahead? Could be positive
Historically, these investors have mainly bought assets outright or invested through unlisted funds. However, current changes to regulation, such as Solvency 2, could drive a change in behaviour; many insurers are stepping up their commercial real estate lending efforts (see page 37 for more detail on Solvency 2)

Exhibit 85

Property offers a wide yield gap over real bonds



Note: Spread of property yields (equivalent yields as per the IPD UK All Property Index) over 10 year gilts minus inflation expectations implied by UK breakevens
Source: IPD, Datastream, Morgan Stanley Research

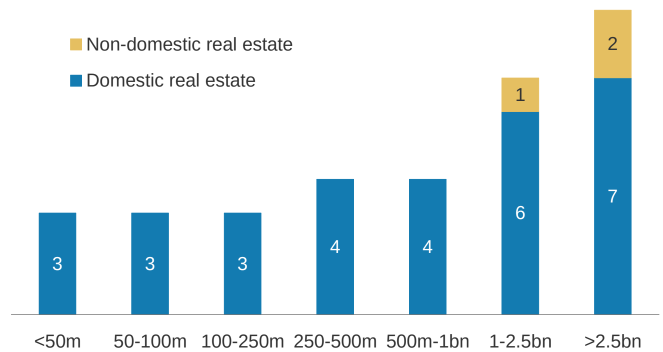
While it is still early days, Solvency 2 could at some point be rolled out to pension funds, which could drive more investment in debt rather than equity among pension funds. That would not necessarily change the total quantum of capital allocated to the asset class, all else equal, but it could provide more senior debt, which is the main bottleneck in the capital structure, in our view.

Long-term impact: Some allocation increase but not much

The perception of a loose monetary policy has brought the inflation debate back to the fore for pension funds in 2011. During the first half of last year, several CIOs increased or started considering increasing their allocation to inflation-linked assets (such as inflation-linked bonds or swaps) or inflation-sensitive assets (such as commodities, real estate and infrastructure). However, many pension funds have impaired coverage ratios (e.g. in the Netherlands there are 103 plans with 7.5 million members in total that may lower pension payments from 2013, according to the Dutch National Bank) and are therefore not inclined to make material changes in allocations. Mercer, the pension consultant, suggests that in many cases "*plans are unwilling to increase their exposure at current market levels and have instead established monitoring processes that will enable them to increase their exposure should markets fall back*."(Mercer Asset Allocation report, May 2011).

Exhibit 86

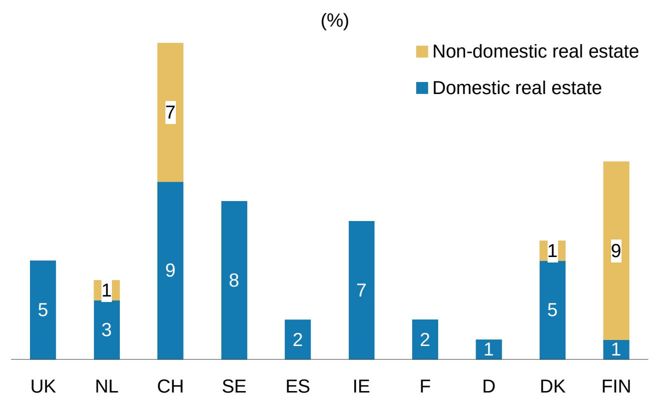
Large European pension funds allocate more to real estate and outside their domestic markets



Source: Mercer Asset Allocation Survey 2011, Morgan Stanley Research
Note: Pension funds allocations to real estate, by fund size (%)

Exhibit 87

Pension funds from smaller countries invest outside their domestic markets



Source: Mercer Asset Allocation Survey 2011, Morgan Stanley Research

8) Other

We doubt that there any sources of equity or debt capital that could play a meaningful role in recapitalising CRE markets in Europe. We expect more private placements, some investments from high net worth individuals and family offices (mainly in emerging markets) and perhaps some non-European banks entering the arena, but none of these sources are likely to be material.

UK REITs have raised debt through US private placements

During 2011, at least two UK REITs (US$480mn for British Land and US$256mn for Great Portland Estates) went over to the US and raised debt directly from institutional investors.

Demand was such that these issues were upscaled, but ultimately they remain very small.

US financing offers flexibility and speed, but only available to few
European quoted companies are attracted by the US financing terms, the flexibility and the speed on offer. We expect others to follow the example of British Land and Great Portland, but we do not expect a wave of such issues, as this remains an option only for a few high-quality companies.

Real estate is significant for HNWIs
High net worth individuals (HNWIs) typically have a relatively high weighting to real estate; Capgemini[6] estimates that in the last 5 years this has varied between 14% and 24%, comprising residential and commercial, directly held, unlisted and quoted exposure, developments and agricultural land.

European HNWI overweight direct commercial real estate
Capgemini estimates that around 26% of HNWIs' real estate holdings are commercial real estate, adding that this is higher in Europe, where HNWIs have around 30% of their real estate allocations tied up in commercial assets, versus only 20% in North America.

REIT exposure mainly in the US and Japan
As much as 15% of all HNWIs' real estate exposure is invested through REITs or other quoted property stocks, in particular in North America (24%) and Japan (23%), where REITS are more established, more liquid and genuinely considered to be one of the main ways to invest in the asset class.

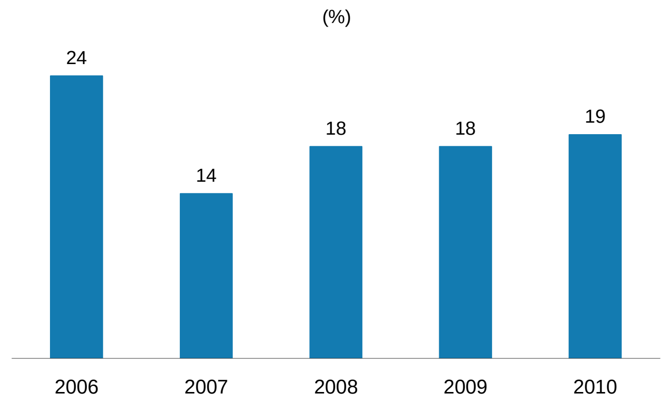
Weightings expected to fall
Global HNWI weightings to real estate have been rising gradually in recent years after a significant reduction in 2007 (see Exhibit 88). However, Capgemini estimates that this trend is set to reverse (see Exhibit 89) as "many HNWIs remain apprehensive about real estate given the sector's generally slow recovery from heft crisis-related losses."

Focus on emerging markets
Capgemini estimates that HNWIs will mainly increase or maintain their weightings to the sector in emerging markets, where the asset class "is still perceived to be an opportunity."

[6] World Wealth Report 2011, Capgemini

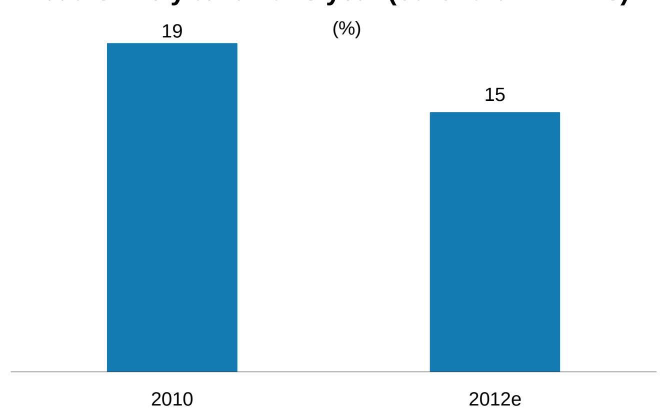
Non-European REITs to capitalise on deleveraging
We also expect more non European REITs (US REITs in particular) to take advantage of their relatively lower cost of capital and superior capital markets access to buy stakes in European quoted property stocks or buy assets directly. Examples are Simon Property Group, the US REIT, buying a 28.7% stake in Klepierre, the French REIT (8 March 2012), or Boston Properties, the US REIT, reported to be buying BlackRock's UK headquarters in the City (WSJ, dated 7 March 2012). For more detail on this trend, see our note *Global Property Compass: Capitalising on European Deleveraging* dated 24 February 2012.

Exhibit 88
High net worth individuals' weighting to real estate has been rising in recent years …



Source: Capgemini, Morgan Stanley Research Notes: High Net Worth weighting to Real Estate, Global

Exhibit 89
… but is likely to fall this year (other than in EMs)



Source: Capgemini, Morgan Stanley Research Note: High net worth weighting to Real Estate, Global

SECTION 3: Impact on Banks and Real Estate

Impact on real estate

The workout for European commercial real estate is unlikely to be as benign as in the US or indeed in Europe in the past for two reasons: (1) we estimate a significant mismatch between the size of the debt that European banks are seeking to reduce and the potential sources, as outlined in the previous section, and (2) European CRE is starting the deleveraging process at a much higher leverage level than in previous cycles.

Higher cost of debt is less of an issue than overall reduced availability. It looks increasingly likely that one of the main results of the reduced availability of senior debt capital is higher spreads. While that is significant, we feel strongly that cost of debt is less of an issue than the general availability of debt. As long as swap rates remain at or close to all-time lows, the all-in cost of debt is highly affordable for borrowers.

We expect values to fall on average 10% in the next 5 years. This is a larger average decline than in previous cycles, when asset prices over a similar workout period would have been stagnant or moderately positive in nominal terms.

It is difficult to pinpoint when negative revaluations will come through as initiatives such as the 3-year LTROs postpone price discovery.

We expect truly prime asset valuation levels to support prised (and rise further), but we expect up to 10% weakness in good quality institutional grade assets and up to 50% in secondary quality property.

Methodology
We attempt to estimate the potential impact of reduced debt capital availability by running a very basic and highly theoretical exercise. This involves assuming average acquisition yields that a variety of buyers could to afford to pay and which would allow them to make a certain internal rate of return (IRR) given varying loan-to-value ratios, financing costs and rental growth (see Exhibit 93).

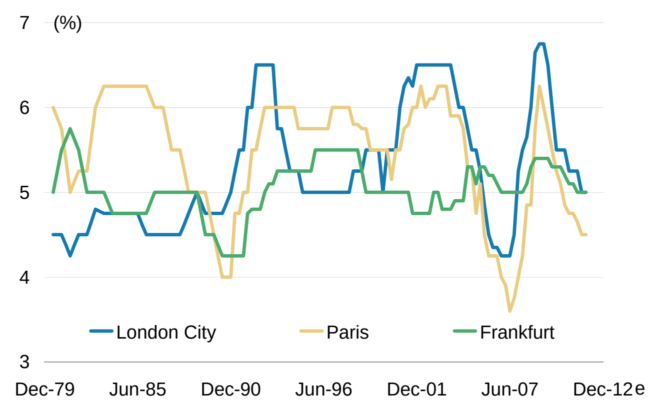
(i) 'Prime' property

Prime office yields at around 5% …
Prime office yields are around 5% in most major cities across Europe, which is broadly in line with the long-term average, with Paris looking relatively pricier based on this simple analysis (see Exhibit 90 and Exhibit 91).

… should be sustainable
We think this yield (or rent multiple) should be sustainable; it is not overly demanding in a historical context, while a significant part of the equity and debt capital targeting property in Europe will focus on exactly this type of asset. We estimate that equity buyers and conservatively geared buyers (such as REITs) should make a 5-year IRR of 6% and 9%, respectively (see Exhibit 93).

With some capital value upside potential
Based on these admittedly very basic assumptions, we see potential for values to go higher over the next 5 years, but the prospect of significant upside in capital values looks limited, unless rental growth picks up more than we expect – which could well be the case when demand starts recovering while supply remains constrained.

Exhibit 90
Prime office yields are broadly in line with the long-term average at ~5%



Source: CB Richard Ellis, Morgan Stanley Research

Exhibit 91
Prime office yields versus long-term averages

(%)	Dec-11	30yr average	Difference (bp)
London (City)	5.00	5.27	-27
Paris	4.50	5.46	-96
Frankfurt	5.00	5.03	-3
Average	4.83	5.25	-42

Source: CB Richard Ellis, Morgan Stanley Research

(ii) 'Good quality' property

We use IPD index as a proxy for institutional quality
The UK All Property Index offers a good proxy for good quality institutional grade property, in our view. Unfortunately, most

other European countries lack this type of long-term data and therefore we use the UK as a proxy for Europe.

Average initial yield of 6.2% is 50 bps above 25-year average

According to IPD, commercial property in the UK is valued off a 6.2% initial yield (or 7.2% equivalent yield), which is around 50 basis points above the average for the last 25 years.

Average downside to assets of 5-10% looks likely

Based on our simple IRR analysis (see Exhibit 93), we estimate investment demand should balance out when these assets are valued off around a 6.5% yield, which should provide investors a sufficiently attractive IRR in a low-return environment. As a result, we think an average 5-10% downside risk is likely, with some assets probably maintaining their value while others could be marked down in double-digits.

Derivatives are pricing a 6% fall in 2012, more afterwards

For what it is worth, IPD derivatives, which are total return swaps on the IPD index, are pricing in a 6% decline in capital values on average for 2012, followed by a small 2-3% decline in capital values for 2013, 2014 and 2015. However, it is worth flagging that liquidity in these derivative contracts is limited, while the market tends to be asymmetric, mainly used by owners of physical assets as a hedge.

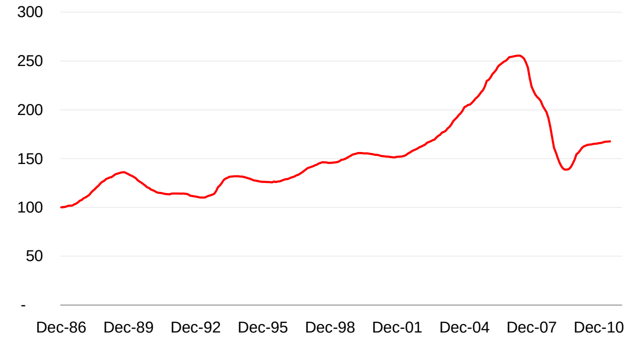
(iii) 'Secondary' property

All about cash flow protection

A significant part of banks' exposure relates to assets that are secondary in nature and for which the potential medium- to long-term pricing movement could be significant. We think the main question for such assets is whether cash flow can be maintained (or reinstated).

Exhibit 92

IPD UK All Property initial yields offer a good proxy for good quality institutional property valuation



Note: Index: Dec 1986 = 100
Source: IPD, Morgan Stanley Research

Valuation movement could be anything

In previous downturns, we have witnessed several assets trading at the net present value of the current lease payments with hardly any terminal value associated with the asset and the land once cash flow dries up. We think this is how a lot of these assets will be priced again. As a result, projected pricing changes are very much asset specific, and potentially up to 50% for some assets.

Conclusion: Differentiation is key

We think there will be an extreme difference in performance depending mainly on asset quality but also based on asset location. Below, we set out a very basic and highly theoretical exercise to determine the potential pricing impact. For what it is worth, EPRA estimates the total commercial real estate stock outstanding in Europe at around €5.5 trillion; simply assuming that any capital gap is taken out of asset valuation, a €300-600bn shortfall would also suggest around a 5-10% correction, all else equal.

Exhibit 93

Worked example: Basic IRR modeling for a variety of asset qualities, investors and strategies

	Equity buyer, Prime asset	Levered buyer, Prime asset	Levered buyer, good quality asset	Levered buyer, secondary asset, CF likely to be maintained	Levered buyer, secondary asset, CF likely to fall	PE buyer, good quality asset	PE buyer, secondary assets, CF likely to be maintained	PE buyer, secondary CF likely to fall
Assumptions								
Initial yield (%)	5.0	5.0	6.5	10.0	15.0	6.5	10.0	15.0
Initial value (ccy)	100	100	100	100	100	100	100	100
Assumed rental growth pa (%)	2.0	2.0	1.0	0.0	-5.0	1.0	0.0	-5.0
Assumed change in yield (bp)	0	0	0	0	0	0	0	0
Holding period (yrs)	5	5	5	5	5	5	5	5
Equity (%)	100	50	50	50	50	25	25	25
Debt (%)	0	50	50	50	50	60	60	60
Mezz (%)	0	0	0	0	0	15	15	15
Spread (bp)	NA	300	350	450	500	400	500	600
Swap rate (%)	NA	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Cost of senior debt (%)	NA	5.0	5.5	6.5	7.0	6.0	7.0	8.0
Mezz cost (%)	NA	NA	NA	NA	NA	10	12	15
Total cost of debt (%)	NA	5.0	5.5	6.5	7.0	6.8	8.0	9.4
IRR	6%	9%	10%	14%	16%	11%	18%	20%

Note: Basic levered IRR calculation; IRR would be lower in reality owing to transaction costs and other tax leakage
Based on this theoretical exercise, every percentage point increae in swap rates would also reduce capital values by around 5%, all else equal
Source: Morgan Stanley Research estimates

Direct real estate: Winners and losers

Differentiation is key
We are mainly concerned about any markets that:

(i) are not on the radar screen of the foreign equity that is investing Europe;

(ii) are not very liquid;

(iii) lack a strong domestic banking system; and

(iv) where German open-ended funds have effectively set the ‘prime’ yield over the last decade by dominating investment volumes.

All about London, Paris, Germany (and Nordics)
We think capital will remain available to finance good assets located in:

(i) London and Paris, which are very liquid and very much a priority for foreign investors;

(ii) Germany, which we think could be ‘flavour of the month’ for the next several years, as many institutional investors in real estate remain underweight Europe’s largest and strongest economy; and

(iii) parts of the Nordic region, such as Norway and Sweden, which have robust economies, strong domestic banking systems, are outside the eurozone, and where a lot of capital is looking to invest.

Southern Europe is a concern, also CEE and Benelux
We are concerned about the property value and rental development in:

(i) most of Spain and Italy, where other than for some truly ‘prime’ shopping centres and offices, many investors in property could have difficulty sourcing debt capital;

(ii) Parts of Central and Eastern Europe, which we think could suffer from the reduction in cross-border lending, unless domestic banking systems develop faster than expected; and

(iii) the Benelux, where underlying property fundamentals are weak, the strength of domestic banking systems has deteriorated, and where German open-ended funds own significant investments.

Focus on quality of assets …
We think the current polarisation trend is set to continue, with increasing differentiation between 'prime' assets and everything else. This is well understood but nevertheless highly significant. We think the scarcity of debt capital will drive a reclassification of assets, with investors becoming more demanding on what they consider 'prime'.

… and management
A lot of the foreign capital that is seeking exposure to good quality property in Europe is relatively passive. it often lacks direct property management skills, and therefore we think there will be a lot demand for partnerships and joint ventures with existing teams with a proven track record.

Opportunities and threats for the quoted sector

Some concerns about the near term ...
We think the near-term fallout from the structural reduction in debt capital availability (and/or rise in cost of debt) will weigh on most property values. The good news is that the quoted sector's average asset quality is vastly superior to the total real estate market average. But, while we do not expect the same level of pressure on capital values for the quoted sector, we doubt that the sector will come through unscathed in the near to medium term.

... but significant opportunities longer term
We think the high quality of assets and management teams, both of which have significant scarcity value, will prove attractive to debt and equity capital investors over the long term. This should provide a wide variety of opportunities.

(i) Cost of capital advantage
Conservative leverage, greater transparency, high asset quality and earnings visibility should afford quoted property companies superior access to a variety of sources of debt capital (bank debt, long-term fixed rate senior debt issued by life insurers, unsecured bonds, private placements, etc.) and at a lower spread relative to many unlisted funds.

(ii) Higher earnings through JVs
We expect increasing demand from institutional investors to partner up on specific assets or portfolios. This should allow property companies to bolster earnings from management fees.

(iii) Acquisitions at attractive pricing
Many of the assets that are expected to change ownership over, say, the next 5 years, are not of interest to REITs, owing to their quality, size or location. However, that does not mean there won't be any opportunities at all; we feel strongly that some attractive opportunities will arise.

(iv) Development opportunities
The lack of development finance will continue to favour well-funded and well-capitalised REITs with permanent pools of capital, which can exploit development opportunities in those property markets that remain supply constrained. This should drive returns further.

(v) Nursing assets back to health
A significant portion of assets owned by companies that are in financial difficulty are being under-managed; leases are shortening, while in many cases all cash generated from rents is used to service debt (so hardly any or no maintenance capital expenditure). That should offer a real opportunity for good management teams to create value.

We expect some, and potentially a lot of, equity issuance
The pan-European listed sector is significantly underdeveloped relative to the US and Asia. We could see a scenario in which the quoted sector catches up with other regions by becoming a source of capital of last resort. We also see a high likelihood that more private property companies choose a listing as a way to gain better access to alternative debt capital markets, such as corporate bonds.

A lot depends on how bad it gets
Investors in unlisted funds often prefer the smoothness of valuation to the volatility of share prices, and their managers/distributors prefer the fee income. As a result, we would only expect a wave of unlisted funds, including German open-ended funds, to seek a listing if there is no other alternative.

Impact on banks

The size of banks' deleveraging means it is likely to be a multi-year process, as alternative capital sources are insufficient to fill the gap
Given the material gap between the €300-600bn exposure we think banks may need to reduce and what can reasonably be absorbed by alterative sources banks may be forced to delever over several years.

This means recovery of equity capital will take longer than banks expect and/or banks may need to find alternative sources of equity
We estimate that banks are looking to recover €15-50bn of equity capital through reduction in real estate lending exposures. For example, we expect RBS, Lloyds and CBK to improve capital by c. 50bp, 80bp and 100bp each over time (before any possible loss absorption), thanks to the reduction in CRE loans.

Banks need much higher lending spreads to meet cost of equity
Our analysis shows that higher capital requirements and high funding costs (as regulators no longer allow funding maturity arbitrage) mean banks will have to reprice lending spreads well above the 200-250bp we see today, and by as much as 50% or more for RoE to meet CoE.

We think smaller/Tier 2 banks (i.e. those with higher funding costs) will find it harder to stay in CRE lending
Even after repricing lending substantially (50-70% more than today's prices) our analysis suggests that banks with higher funding costs would not be able to make sufficient returns to meet their CoE and therefore will be forced to reduce this business.

Low RoEs will require adjustment in loan values over time.
We argue that liquidity helps banks "delay the pain" and avoid disorderly deleveraging and defaults resulting in further "lumpy losses". However, low returns mean the loans' net present values are still declining and will require further value adjustments over time. CRE losses are not entirely over although "lumpy losses" likely are.

Banks with larger CRE loan books, exposure to lower quality borrowers, or to higher risk sovereigns, and higher funding costs are more at risk, we think. We are concerned about smaller banks in southern Europe (as they are affected by exposure to riskier countries and higher funding costs) and 'restructuring stories' that still have large CRE loans, as reducing loan portfolio at a time when may banks will be deleveraging will be more difficult and may depress loan valuations further. We see some risks in weakening Benelux real estate (potentially putting pressure on the banks exposed to this region)

The size of the gap and lack of alternative capital sources to fill it point to multi-year deleveraging

Deleveraging is likely to take longer than banks hope
There is a material gap between the €300-600bn exposure banks could aspire to reduce and what can reasonably be absorbed by alterative sources of funding. Banks may not be able to deleverage as much as they would like over the next 3 to 5 years. The process of deleveraging is likely to be a long one.

This means recovery of equity capital will also take longer than banks expect
We estimate that banks are looking to recover €15-50bn of equity capital through a reduction in real estate lending exposure. For example, we expect RBS, Lloyds and CBK to improve capital by c. 50bp, 80bp and 100bp respectively over time (before any possible loss absorption) thanks to a reduction in CRE loans.

Higher equity capital requirements and higher funding costs mean banks are not covering cost of capital on CRE – and may even be loss making

The economics of lending to CRE have changed materially; most banks may no longer be covering their cost of equity
In earlier chapters, we explained how capital requirements have increased in the last few years in general for banks and specifically for long-term transactions such as CRE lending. We think banks are no longer able to make a return (RoE) on CRE lending that covers cost of equity (CoE), and indeed in some cases they may be loss making.

A structural change in funding is now hurting profitability more than a high loss ratio
Until recently, banks were able to fund long-dated assets with short-term funds (which were cheaper than long-term funds) by running what is defined as a "duration gap risk", and this is what made long-term loans profitable.

As we indicated in earlier sections, regulators are now restricting banks from taking duration gap risk and indeed new funding regulations remain a key headwind to CRE lending (especially the Net Stable Funding ratio, which requires long-term loans to be funded with long-term funding and equity).

This means that if banks are unable to reduce exposure and unable to reprice the loans more substantially, they are exposed to an increasing funding cost, which erodes the profitability of the business.

How a double-digit RoE business becomes single-digit or even loss making
In Exhibit 94 we show how we think the economics of CRE lending have changed in the last few years and resulted in banks no longer making double-digit RoEs and some banks

evening turning to losses. Note that we are normalizing credit losses, so this is driven by changes in underlying economics rather than asset quality deterioration. We highlight the following issues:

1) Capital requirements have increased substantially – a few years ago a c.6% capital ratio was the norm; now most regulators require c. 10%.
2) We estimate that by cutting out duration gap risk, banks' funding cost has increased from a positive spread of c.10bp (in this we have attempted to incorporate the benefit of duration risk based on discussions with the banks) to a negative spread of 150-300bp (essentially the cost of 5-year senior funding) depending on the quality of the bank issuing the senior debt.
3) Note that we have used a 'through-the-cycle' level of provisioning of c.30-50bp on loans, with the intention of removing the cyclicality of credit losses and focusing on the structural issues of changing capital and funding.

In Exhibit 94, we show how the RoE of CRE lending business has declined for banks as capital requirements have increased from 6% to 10%, and as funding cost has also increased materially.

Note that the increase in lending spread from a range of 0.8%-1% to 2%-2.5% has not been sufficient to offset the decline in profitability.

Exhibit 94

Double-digit RoEs have fallen to low single-digits, and even turned negative for Tier 2 banks

		How it was		What it is today	
				Tier 1 bank	Tier 2 bank
	RWA %	60	80	60/80	60/80
higher capital	Capital %	6	6	10	10
	lending spread (%)	0.80	1.00	2.0/2.5	2.0/2.5
higher funding cost	funding spread (%)	0.10	0.10	-1/-1.5	-2.5/-3
	LLP (%)	0.10	0.20	0.30/0.50	0.30/0.50
equal lower RoE	**RoE (%)**	**11**	**9**	**4/0**	**-4/-7**

Source: Morgan Stanley Research estimates

To meet their cost of equity we think banks will have to reprice lending substantially as well as reduce their exposure

In Exhibit 95 and Exhibit 96 we have modeled the RoE for banks based on loan-to-value ratios and the lending spread (there is usually a direct relationship between LTVs and pricing). Given that we believe the banks' cost of equity is around 10%-12%, we think lending spreads will have to increase materially from the current level. For example, it is our understanding that for a loan with an LTV of 60% lending spreads are 2-2.25%; this implies an RoE of 1%-2.8%.

To make an RoE of 10-12% (thus in line with CoE) a bank would need to increase the lending spread to 3.25-3.5%. So far, we have no evidence that pricing is moving in this direction, but we think it will have to.

Exhibit 95

Tier 1 (banks with lower funding costs) will require more aggressive lending pricing for RoE to meet CoE

Tier 1 bank - RoE (%)					
	RWA %				
lending spread (%)	40	50	60	70	80
2.00	1.3	1.1	0.9	0.8	0.7
2.25	4.2	3.3	2.8	2.4	2.1
2.50	7.0	5.6	4.7	4.0	3.5
2.75	9.8	7.9	6.6	5.6	4.9
3.00	12.7	10.2	8.5	7.3	6.3
3.25	15.5	12.4	10.4	8.9	7.8
3.50	18.4	14.7	12.3	10.5	9.2
3.75	21.2	17.0	14.1	12.1	10.6
4.00	24.1	19.3	16.0	13.8	12.0

Source: Morgan Stanley Research estimates

Banks will try to issue more Pfandbriefe to reduce their funding costs

In the example above, we have used a funding cost for a Tier 1 bank of c.150bp, assuming senior bond issuance. If a bank were to issue a German covered bond (Pfandbriefe) it would reduce this cost to c.100bp. For this reason, we are seeing signs of more international banks trying to set up legal entities in Germany. Note that this, in general, restricts the LTVs of lending to 60% and also requires a larger proportion of the underlying loans to be Germany.

Tier 2 banks (those with higher funding costs) will likely be forced to exit this business substantially

We have run the same sensitivity for Tier 2 banks, but assuming a funding cost of 300bp. This category would include smaller banks, banks with a weaker sovereign and generally lower rated banks. As can be seen in Exhibit 96, even if lending spreads were to go to 4%, these banks would be unable to meet their cost of equity, and thus, in our view, will probably be forced out of this business.

Exhibit 96

Tier 2 (banks with higher funding costs) will be forced out of CRE lending

Tier 2 bank - RoE (%)					
	RWA %				
lending spread (%)	40	50	60	70	80
2.00	(15.75)	(12.60)	(10.50)	(9.00)	(7.88)
2.25	(12.91)	(10.33)	(8.60)	(7.38)	(6.45)
2.50	(10.06)	(8.05)	(6.71)	(5.75)	(5.03)
2.75	(7.22)	(5.78)	(4.81)	(4.13)	(3.61)
3.00	(4.38)	(3.50)	(2.92)	(2.50)	(2.19)
3.25	(1.53)	(1.23)	(1.02)	(0.88)	(0.77)
3.50	1.31	1.05	0.87	0.75	0.66
3.75	4.16	3.33	2.77	2.38	2.08
4.00	7.00	5.60	4.67	4.00	3.50

Source: Morgan Stanley Research estimates

Big lumpy losses in CRE are largely behind us, barring market dislocations, but loans will still require valuation adjustments

While we no longer expect big losses …

We believe that we have come to the end of large lumpy losses in most countries, although certain banks with lower quality assets will likely continue to require larger LLP for the next couple of years. One notable exception is Spain, where government-led restructuring is forcing banks to write down substantially their backlog of real estate.

As an example, we calculate that RBS and LLoyds took c.10-20% cumulative write-downs on their real estate portfolio in 2008-11. We estimate that LLP will remain relatively high over 2012-14e, but cumulatively will probably not exceed c.5% for both banks, as the exposure has declined by c.22-23% since 2008.

Similarly, we calculate that CBK probably took c.5% of cumulative provisions on its real estate portfolio in 2008-11. We estimate that LLP will remain relatively high over 2012-14e, but cumulatively will not exceed c. 2.5%, again as the exposure has declined by 34% since 2008.

… we think some write-downs will be required to reduce the price gap between buyers and sellers of portfolios

Further write-downs may be required to facilitate transactions and reduce the valuation gap between sellers of loan portfolios and buyers. Clearly, only stronger banks with better capital bases and profitability will be able to take write-downs with the view to reduce inventory more quickly. We have seen this in Spain, where the larger banks (Santander, BBVA) are able to accelerate loss recognition and thus restructuring. For example, in the recent results call, Santander management indicated that after increasing coverage in its real estate exposure to 50% (vs. the banking system at c. 30%) it would be able to start reducing stock already in 2012.

...and to adjust the Net Present Value of loans.

We argue that liquidity helps banks “delay the pain” and avoid disorderly deleveraging and defaults resulting in further “lumpy losses”. However, low returns mean the loans’ net present values are still declining and will require further value adjustments over time. CRE losses are not entirely over although "lumpy losses" likely are

What could go better?

Economic improvement with a consequent increase in property values would have a beneficial impact on collateral values. This would lower RWA and capital requirements, which in turn could improve returns for the banks. Additionally, funding costs and availability would benefit from a better economic backdrop.

Winners and losers – defining a heat map

It is hard to identify winners and losers accurately in a sector (such as the banking sector)) that is faced with wide and significant issues, of which lending to CRE is admittedly only one, representing just c.10% of the loan book.

However, we have tried to draw up a matrix that maps the banks’ exposure in CRE to more or less risky regions and their funding cost (expressed by their CDS, although we are conscious of the limitation of using CDS as indicator funding costs), as funding is one of the key factors driving profitability.

In Exhibit 97, we show the CRE exposure of banks under our coverage weighted for their geographical presence. We map the countries into red (high risk), yellow (medium risk) and green (low risk). We acknowledge that this is a somewhat arbitrary classification, which does not take into account the quality of the assets, LTVs etc., but in the absence of granular and consistent information, we think this is a sufficient approximation for an initial screening.

We then overlay the banks’ exposure thus ‘risk weighted’ and their CDS level (as a proxi of their funding cost) and plot them on a map (Exhibit 98). Note that the size of the bubble represents the size of CRE lending relative to the bank’s own equity base. Our findings show that:

1) Southern European banks (especially Spanish) unsurprisingly screen as weak in this context as a combination of riskier exposure and expensive funding

2) UK banks benefit from us attributing a medium-risk (yellow) mark to UK exposure. However in this context we note that their large domestic exposure is likely diversified across the whole country, where we see more concerning trends than in in larger cities.

3) ING's, KBC's and BNP's exposures look somewhat vulnerable in the context of our very cautious view on Benelux commercial real estate trends, and especially the Netherlands. In the case of ING, exposure is higher in relation to equity. BNP is also affected by its exposure to Italy.

4) CBK screens more positively thanks to a larger proportion of German lending (which is of higher quality) and relatively low funding costs, but we remain cautious on this name given the sheer size of the CRE exposure in relation to its capital base, as well as the fact that we see further risk in its books besides CRE.

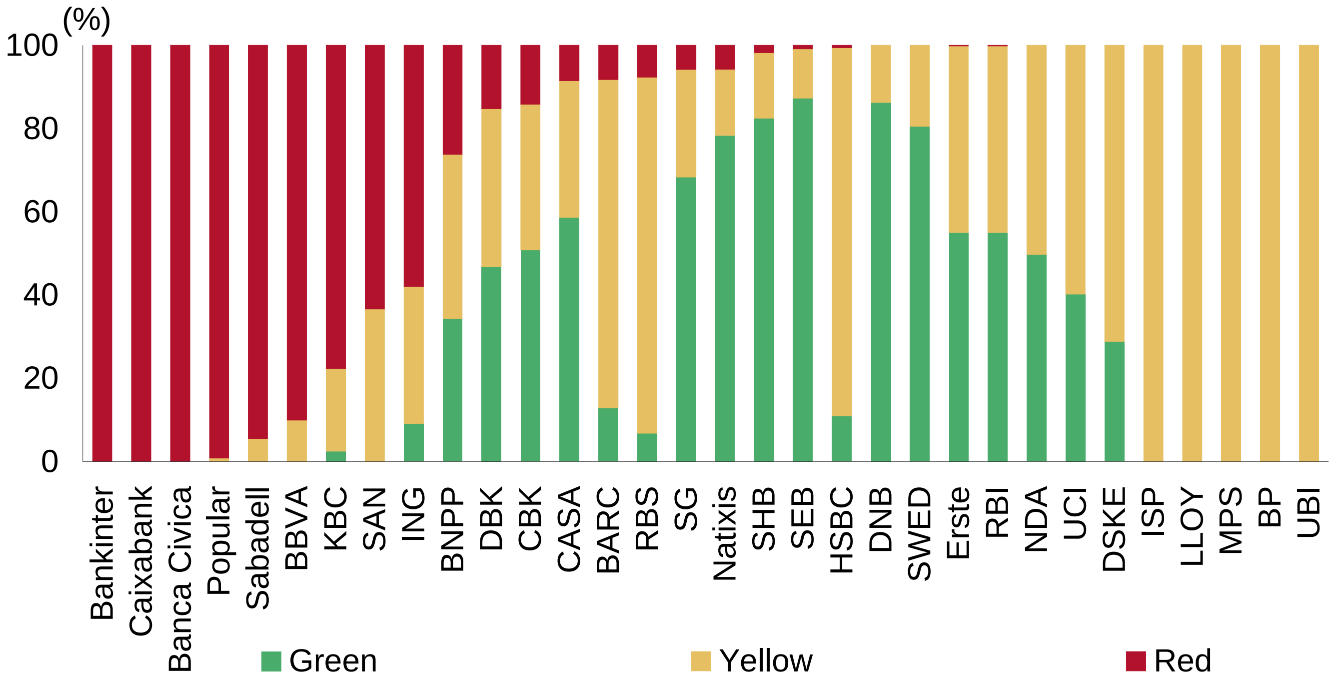
5) Deutsche Bank's CRE loans are extended to lower quality countries (as defined in our heatmap) than we had expected. However, this is consistent with the fact that the bank has classified such loans in their 'high risk bucket'.

6) The Nordic banks' CRE exposure relative to equity is high, which partly can be explained by these numbers including lending to cooperatives to fund communal areas of residential developments. We note, however, that the risk profile of such loans, while higher than that of retail mortgages, is much lower than that of CRE loans. Still, given the large exposures even a small deterioration in underlying credit trends could hurt the profitability of the Nordic banks. On the other hand, Finland, Norway and Sweden continue to benefit from solid GDP growth, low bankruptcy rates and relatively resilient property prices.

.

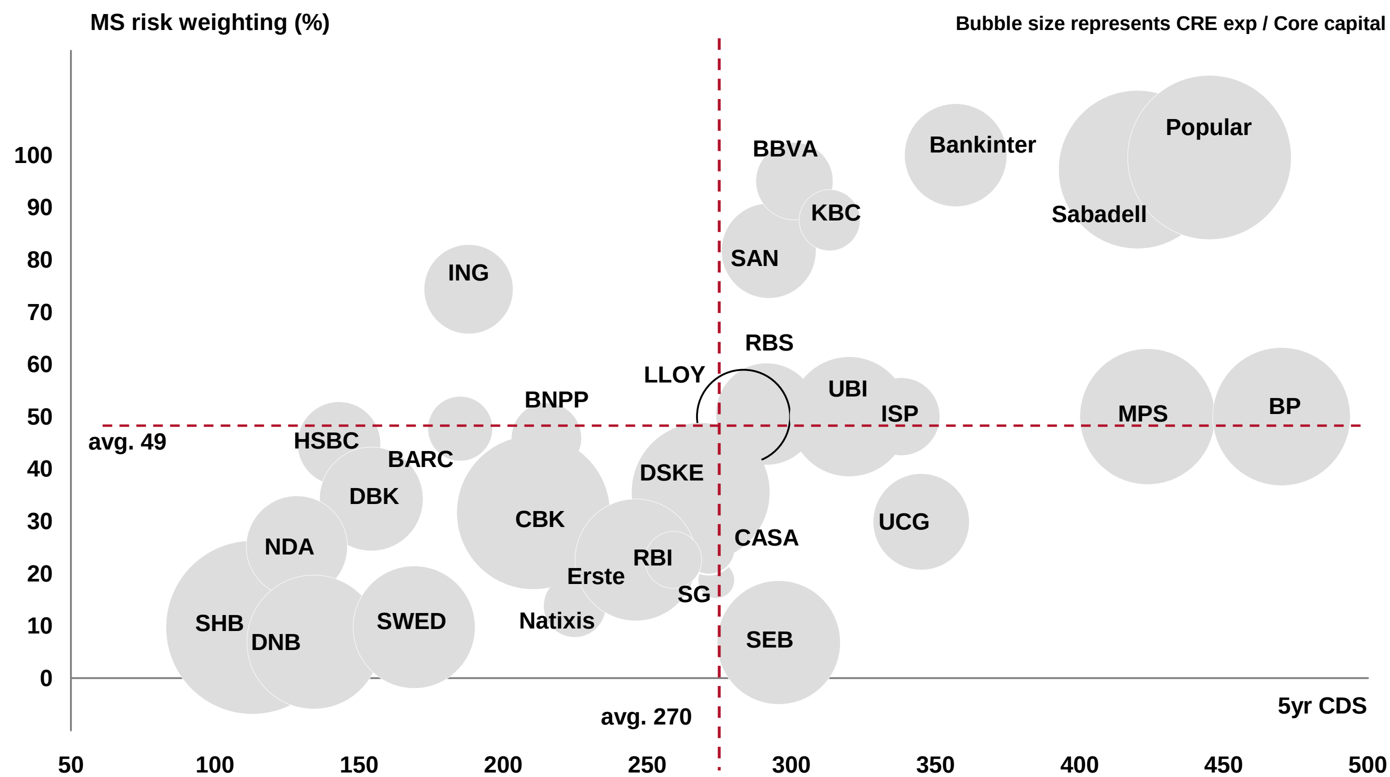
Exhibit 97

Heatmap of CRE exposure by geography



Red = Spain, Benelux, Greece, Portugal
Yellow = UK, Ireland, Denmark, Italy, All CEE, All exposure outside Europe
Green = Germany, Austria, France, Nordics except Denmark
Source: EBA, Morgan Stanley Research

Exhibit 98
Screening banks by geographical exposure and CDS as proxi for funding cost



Source: EBA, Morgan Stanley Research

Alternative Scenarios

This report is based on our central scenario of a slow recovery of the broader economy with low interest rates for longer and further liquidity stimulus. In this section, we set out two potential alternative scenarios

Benign real estate environment with negative real interest rates, some GDP growth and abundant liquidity

US-like scenario
Continued liquidity ultimately feeds through to lending markets and the real economy. Inflation expectations rise, while interest rates are kept low across the curve by policy makers.

Demand for real yield
Investment market demand for real estate is strong from a variety of sources, as alternative (real) yield investments are scarce.

Rental growth accelerates
The sudden pickup in GDP growth, albeit moderate, drives confidence among potential tenants. The small increase in demand more than offsets the limited supply of new space (real estate markets have been starved of development finance for several years, so new supply is at all-time lows). Developers try to kick-start development pipelines in most markets, but there is a 3-year lag before meaningful supply can be delivered. Meanwhile, rents are squeezed higher.

Quoted property stocks do well
Quoted property stocks trade up to NAV premiums, driven by improving fundamentals. The wave of equity issuance that follows does not hold back performance.

Conclusion: Other than secondary, most values hold up
'Prime' assets perform strongly, with significant mid-single digit annual capital growth (around 10% total return). Good quality assets avoid a correction. Secondary assets see weakness though, as demand for such assets remains weak.

Severe correction driven by forced sales

The day of reckoning
The scenario most real estate market participants have feared for the past 4 years materialises, triggered by forced liquidations from German open-ended funds, terminations from closed-ended funds and maturing CMBS. Values fall rapidly.

Loan disposals aggravate the situation
The significant amount of loan portfolios sold by banks end up in the hands of investors that are less flexible in offering loan extensions at maturity, other than at prohibitive terms.

The macro environment worsens
Further liquidity stimulus by central banks has diminishing benefits. Inflation expectations fall, triggering a reduction in real estate allocation for pension funds and insurers. Growth remains pedestrian at best, driving rents down.

Conclusion: Values fall, markets extrapolate
Property values fall across the board, even for 'prime' assets. Quoted property stocks see NAVs fall by 20-30%, while the discount widens further.

Appendix 1

Exhibit 99

Detailed CRE lending overview by EBA banks (1/2)

Bank	AUT	BEL	CYP	DEN	FIN	FRA	GER	GRE	ISL	IRE	ITA	LUX	MLT	NLD	NOR	POR	ESP	SWE	UK	Core Europe	CEE	Asia	US	JP	LATAM	ROW	TOTAL
Erste	11,802	-	-	-	-	2	418	-	-	1	104	-	-	38	-	-	-	-	14	12,379	7,058	-	4	-	-	2,788	22,228
RBI	312	-	2	-	-	58	7	-	-	-	2	5	-	-	-	-	-	-	80	465	2,749	230	-	-	-	80	3,525
OeVAG	478	-	-	-	-	-	154	-	-	-	-	-	36	3	-	-	-	-	7	678	534	-	-	-	-	47	1,260
Austria	12,592	-	2	-	-	60	579	-	-	1	106	5	36	40	-	-	-	-	101	13,523	10,341	230	4	-	-	2,916	27,013
Dexia	-	58	-	-	-	134	8	-	-	-	-	743	-	-	-	-	-	-	-	943	-	-	325	-	-	71	1,339
KBC	-	5,403	-	-	-	75	102	-	-	893	5	51	-	110	-	-	3	-	159	6,801	23	44	298	-	-	3	7,170
Belgium	-	5,461	-	-	-	208	110	-	-	893	5	794	-	110	-	-	3	-	159	7,744	23	44	623	-	-	75	8,509
Marfin	-	-	638	-	-	-	-	1,059	-	-	-	-	-	-	-	-	-	-	-	1,697	-	-	-	-	-	-	1,697
Bank of Cyprus	-	-	3,002	-	-	-	-	801	-	-	-	-	-	-	-	-	-	-	-	3,803	1,028	-	-	-	-	-	4,831
Cyprus	-	-	3,640	-	-	-	-	1,860	-	-	-	-	-	-	-	-	-	-	-	5,500	1,028	-	-	-	-	-	6,528
Deutsche	88	57	-	-	-	1,217	21,304	60	-	250	1,142	2,961	-	2,810	1	144	1,347	-	2,303	33,684	2,697	370	9,975	400	-	1,174	48,299
CBK	523	636	-	52	-	4,870	30,705	204	-	-	2,981	531	-	1,318	-	2,472	5,000	365	8,522	58,179	4,657	56	4,941	772	427	2,677	71,708
LBBW	93	107	-	16	-	551	12,704	-	-	-	14	692	-	647	-	-	32	85	224	15,165	-	31	5,044	138	-	1,098	21,476
DZ Bank	1	-	-	-	-	786	9,999	-	-	6	5	557	-	-	9	-	14	-	715	12,092	-	-	1,238	-	-	1,311	14,641
Bylan	24	182	8	30	31	367	5,107	7	24	41	196	214	1	338	7	21	222	15	692	7,527	371	134	954	6	215	608	9,815
NordLB	14	17	-	12	-	735	6,896	-	-	21	-	558	-	1,050	-	-	430	5	1,227	10,966	204	21	3,181	-	-	15	14,387
HRE	175	37	2	58	279	2,577	13,688	-	-	-	513	128	-	524	85	78	402	1,472	1,936	21,955	2,204	-	0	1,309	-	264	25,733
WestLB	87	191	-	55	33	1,088	6,052	-	-	-	341	655	-	508	-	30	812	196	442	10,490	1,195	302	2,540	610	100	725	15,962
HSH Nordbank	-	13	-	59	109	341	1,966	-	-	0	36	130	-	131	8	-	-	249	358	3,400	2	-	211	-	-	112	3,726
LBB	-	-	2	159	-	5	6,660	-	-	10	-	372	-	576	4	-	-	0	6	7,794	41	1	8	-	-	28	7,872
DekaBank	-	-	-	-	-	182	211	-	-	-	-	50	-	-	-	-	-	-	552	995	-	-	-	-	-	-	995
WGZ Bank	-	-	-	-	-	39	2,386	-	-	-	-	84	-	75	-	-	-	-	0	2,584	-	-	-	-	-	10	2,594
Germany	1,006	1,241	12	441	451	12,757	117,679	272	24	328	5,227	6,932	1	7,978	113	2,745	8,260	2,388	16,976	184,831	11,370	914	28,092	3,235	742	8,022	237,207
Danske	-	-	-	30,714	858	3	76	-	-	2,012	-	1	-	-	4,589	-	-	7,957	274	46,486	3	-	30	-	-	157	46,675
Jyske Bank	-	-	-	881	-	-	8	-	-	-	-	-	-	-	14	-	-	-	0	903	-	-	-	-	-	40	943
Sydbank	-	-	-	605	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	623	-	-	-	-	-	5	628
Nykredit	-	-	-	39,918	186	-	1,063	-	-	-	-	-	-	-	198	-	-	1,553	440	43,358	-	-	-	-	-	-	43,358
Denmark	-	-	-	72,118	1,044	3	1,165	-	-	2,012	-	1	-	-	4,801	-	-	9,510	714	91,370	3	-	30	-	-	202	91,604
Santander	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	342	35,682	-	4,091	40,115	-	-	8,366	-	7,882	452	56,814
BBVA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	278	21,401	-	-	21,679	-	-	1,540	-	848	-	24,068
BFA-Bankia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55,304	-	-	55,304	-	-	-	-	-	-	55,304
La Caixa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38,573	-	-	38,573	-	-	-	-	-	-	38,573
EFFIBANK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,520	-	-	11,520	-	-	-	-	-	-	11,520
Banco Popular	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	506	24,207	-	-	24,713	-	-	-	-	-	206	24,919
Banco Sabadell	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,050	-	-	13,050	-	-	-	-	-	763	13,813
Catalunya Caixa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17,605	-	-	17,605	-	-	-	-	-	-	17,605
Nova Caixa Galicia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,675	-	-	14,675	-	-	-	-	-	-	14,675
Banco Mare	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,971	-	-	13,971	-	-	-	-	-	-	13,971
Bankinter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,936	-	-	2,936	-	-	-	-	-	-	2,936
CAJA ESPAÑA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,150	-	-	9,150	-	-	-	-	-	-	9,150
Banca Civica	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,801	-	-	13,801	-	-	-	-	-	-	13,801
Ibercaja	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,599	-	-	5,599	-	-	-	-	-	-	5,599
Unicaja	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,933	-	-	3,933	-	-	-	-	-	-	3,933
Pastor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,721	-	-	6,721	-	-	-	-	-	-	6,721
BBK Bank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,726	-	-	4,726	-	-	-	-	-	-	4,726
Unnim	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,490	-	-	5,490	-	-	-	-	-	-	5,490
Caja SanSebastian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,293	-	-	2,293	-	-	-	-	-	-	2,293
Grupo Caja3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,137	-	-	4,137	-	-	-	-	-	-	4,137
Banca March	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,189	-	-	1,189	-	-	-	-	-	-	1,189
Caja Vit. y Alava	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,542	-	-	1,542	-	-	-	-	-	-	1,542
Caja Ontinyent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	93	-	-	93	-	-	-	-	-	-	93
Colonya	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72	-	-	72	-	-	-	-	-	-	72
Caja Mediterraneo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,831	-	-	14,831	-	-	-	-	-	-	14,831
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,127	322,501	-	4,091	327,718	-	-	9,906	-	8,730	1,420	347,775
Pohjola	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Source: EBA, Morgan Stanley Research

Exhibit 100

Detailed CRE lending overview by EBA banks (2/2)

Bank	AUT	BEL	CYP	DEN	FIN	FRA	GER	GRE	ISL	IRE	ITA	LUX	MLT	NLD	NOR	POR	ESP	SWE	UK	Core Europe	CEE	Asia	US	JP	LATAM	ROW	TOTAL
BNP	0	7,772	0	-	-	13,572	51	41	-	9	5,369	1,411	-	233	21	49	908	18	1,762	**31,219**	**348**	**1,263**	**5,202**	**0**	**13**	**1,730**	**39,775**
CredAg	-	144	-	-	-	11,105	123	531	-	-	2,773	10	-	23	-	-	920	23	565	**16,217**	**479**	**-**	**795**	**1,275**	**-**	**416**	**19,182**
BPCE	0	54	0	22	14	13,798	491	0	0	0	1,271	290	0	135	1	28	552	-	612	**17,270**	**21**	**0**	**736**	**0**	**0**	**241**	**18,269**
SocGen	-	-	-	-	-	3,260	498	-	-	-	299	-	-	-	-	-	321	-	182	**4,560**	**282**	**93**	**172**	**-**	**-**	**393**	**5,500**
France	1	7,970	0	22	14	41,734	1,163	572	0	9	9,714	1,711	0	390	22	78	2,701	41	3,121	**69,267**	1,130	1,356	6,905	1,275	13	2,779	82,726
RBS	2	276	136	17	117	1,816	3,347	3	-	5,978	595	2,246	-	1,532	106	21	2,296	307	50,771	**69,568**	**145**	**104**	**9,168**	**568**	**3**	**4,780**	**84,336**
HSBC	-	-	-	-	-	8,947	141	63	-	-	-	-	262	-	-	-	452	-	15,144	**25,010**	**253**	**38,252**	**8,606**	**738**	**2,349**	**10,511**	**85,718**
BAR	53	76	-	90	8	423	2,512	-	-	80	161	53	-	215	-	457	1,474	536	12,028	**18,168**	**-**	**193**	**3,487**	**268**	**1**	**5,340**	**27,456**
Lloyds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47,870	**47,870**	**-**	**-**	**23**	**-**	**-**	**8,345**	**56,238**
UK	56	353	136	108	125	11,187	6,000	66	-	6,058	756	2,299	262	1,747	106	478	4,222	843	125,813	**160,615**	397	38,549	21,284	1,574	2,353	28,976	253,748
EFG	-	-	60	-	-	-	-	3,650	-	-	-	-	-	-	-	-	-	-	-	**3,710**	**1,794**	**-**	**-**	**-**	**-**	**-**	**5,504**
NBG	-	-	19	-	-	-	-	2,062	-	-	-	-	-	-	-	-	-	-	15	**2,096**	**2,427**	**-**	**-**	**-**	**-**	**4**	**4,527**
Alpha Bank	-	-	28	-	-	-	-	2,206	-	-	-	-	-	-	-	-	-	-	231	**2,464**	**99**	**-**	**-**	**-**	**-**	**-**	**2,563**
Piraeus Bank	-	0	15	-	-	-	-	4,290	-	0	0	-	-	-	-	0	-	-	1	**4,306**	**559**	**-**	**217**	**-**	**-**	**12**	**5,094**
ABG	-	-	0	-	-	-	1	1,181	-	-	-	-	-	-	-	-	-	-	0	**1,182**	**144**	**-**	**0**	**-**	**-**	**1**	**1,326**
TT Hellenic	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-	**21**	**-**	**-**	**-**	**-**	**-**	**-**	**21**
Greece	-	0	122	-	-	-	1	13,410	-	0	0	-	-	-	-	0	-	-	246	**13,779**	5,022	-	217	-	-	16	19,034
OTP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
AIB	-	0	-	6	6	258	46	-	-	9,737	-	48	-	9	-	-	389	-	6,706	**17,206**	**91**	**-**	**1,096**	**-**	**6**	**179**	**18,578**
Bank of Ireland	-	170	-	4	-	347	142	-	-	6,259	-	-	-	63	-	-	52	52	11,022	**18,109**	**10**	**-**	**1,290**	**-**	**-**	**168**	**19,577**
Irish Life	-	-	-	-	-	-	-	-	-	1,273	-	-	-	-	-	-	-	-	439	**1,712**	**-**	**-**	**-**	**-**	**-**	**-**	**1,712**
Ireland	-	170	-	10	6	604	188	-	-	17,269	-	48	-	72	-	-	441	52	18,166	**37,026**	101	-	2,386	-	6	348	39,867
ISP	-	0	-	-	-	-	0	-	-	-	26,823	-	-	0	0	0	-	-	14	**26,838**	**895**	**-**	**0**	**-**	**0**	**57**	**27,790**
UCG	3,174	-	-	-	-	-	15,793	-	-	-	20,837	-	-	-	-	-	-	-	-	**39,803**	**102**	**-**	**-**	**-**	**-**	**7,270**	**47,176**
BMPS	-	-	-	-	-	-	-	-	-	-	20,483	-	-	-	-	-	-	-	-	**20,483**	**-**	**-**	**-**	**-**	**-**	**-**	**20,483**
BP	-	-	-	-	-	-	-	-	-	-	16,061	-	-	-	-	-	-	-	-	**16,061**	**-**	**-**	**-**	**-**	**-**	**1**	**16,062**
UBI	-	-	-	-	-	-	-	-	-	-	14,349	-	-	-	-	-	-	-	-	**14,349**	**-**	**-**	**-**	**-**	**-**	**37**	**14,387**
Italy	3,174	0	-	-	-	-	15,793	-	-	-	98,552	-	-	0	0	0	-	-	14	**117,534**	997	-	0	-	0	7,366	125,898
Banque D'Epargne	-	-	-	-	-	-	4	-	-	-	-	759	-	-	-	-	-	-	-	**763**	**-**	**-**	**-**	**-**	**-**	**-**	**763**
Valetta	-	-	-	-	-	-	-	-	-	-	-	-	188	-	-	-	-	-	-	**188**	**-**	**-**	**-**	**-**	**-**	**-**	**188**
ING	-	630	-	-	-	2,500	890	-	-	-	1,700	-	-	17,913	-	1,100	1,800	-	1,000	**27,533**	**120**	**-**	**4,460**	**-**	**1**	**4,891**	**37,005**
Rabobank	6	172	-	37	-	1	389	-	-	953	-	-	-	29,026	-	-	-	-	6	**30,588**	**-**	**299**	**1,848**	**-**	**202**	**412**	**33,349**
ABN Amro	-	-	-	-	-	-	-	-	-	-	-	-	-	2,298	-	-	-	-	-	**2,298**	**-**	**-**	**-**	**-**	**-**	**-**	**2,441**
SNS Bank	-	80	-	40	-	226	561	-	-	-	109	185	-	7,700	-	-	90	-	103	**9,093**	**-**	**-**	**176**	**-**	**-**	**142**	**9,412**
NLD	6	882	-	77	-	2,727	1,839	-	-	953	1,809	185	-	56,936	-	1,100	1,890	-	1,108	**69,512**	120	299	6,484	-	203	5,446	82,207
DnB Nor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21,267	-	-	-	-	**21,267**	**-**	**-**	**-**	**-**	**-**	**3,396**	**24,664**
PKO Bank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	**1,522**	**-**	**-**	**-**	**-**	**-**	**1,522**
Caixa Geral	-	0	-	-	-	2	-	-	-	-	-	0	-	0	0	1,749	51	0	1	**1,803**	**0**	**-**	**47**	**-**	**1**	**97**	**1,948**
BCP	-	0	0	-	-	2	0	522	-	-	-	0	-	32	-	6,227	79	-	5	**6,867**	**505**	**1**	**5**	**-**	**0**	**5**	**7,384**
ESFG	-	-	-	-	-	269	-	-	-	-	-	-	-	-	-	5,204	433	-	3	**5,909**	**-**	**12**	**56**	**-**	**-**	**5**	**5,982**
Banco BPI	-	0	-	-	-	3	0	-	-	0	-	0	-	-	-	1,096	3	-	0	**1,103**	**-**	**0**	**1**	**-**	**0**	**4**	**1,109**
Portugal	-	0	0	-	-	275	1	522	-	0	-	1	-	32	0	14,276	566	0	9	**15,682**	505	13	109	-	1	112	16,423
Nordea	-	-	-	10,818	4,021	1	10	-	-	2	-	-	-	0	4,016	-	3	5,787	-	**24,658**	**2**	**-**	**1**	**-**	**-**	**3,150**	**27,810**
SEB	-	-	-	84	909	2	5,841	-	-	-	-	24	-	150	929	-	-	10,242	8	**18,192**	**1,915**	**3**	**96**	**-**	**-**	**327**	**20,532**
SHB	-	-	-	622	1,696	302	169	-	-	-	-	-	-	637	5,199	-	-	21,743	4,303	**34,671**	**-**	**-**	**4**	**-**	**-**	**626**	**35,301**
Swedbank	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	12,510	-	**12,513**	**3,023**	**-**	**-**	**-**	**-**	**-**	**15,537**
Sweden	-	-	-	11,526	6,626	305	6,019	-	-	2	-	24	-	788	10,143	-	3	50,282	4,312	**90,033**	4,940	3	100	-	-	4,103	99,180
NLB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**	**-**	**-**	**-**	**-**	**0**	**0**
NKBM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total	**16,834**	**16,077**	**3,913**	**84,303**	**8,266**	**69,861**	**150,540**	**16,702**	**24**	**27,526**	**116,169**	**12,760**	**488**	**68,093**	**36,453**	**19,804**	**340,588**	**63,116**	**174,831**	**1,226,353**	**37,500**	**41,409**	**76,140**	**6,084**	**12,049**	**65,178**	**1,464,855**

Source: EBA, Morgan Stanley Research

Exhibit 101

Detailed CEE CRE lending overview

Bank	BUL	CZ	EST	HUN	LVA	LTU	PL	ROM	SVK	SVN	Other CEE	CEE
Erste	-	2,387	-	667	-	-	214	2,914	580	295	-	**7,058**
RBI	138	278	-	124	-	-	375	54	547	1	1,232	**2,749**
OeVAG	-	193	-	107	-	-	22	121	34	57	-	**534**
Austria	138	2,859	-	898	-	-	611	3,088	1,162	353	1,232	**10,341**
KBC	-	-	-	1	-	-	-	11	12	-	-	**23**
Belgium	-	-	-	1	-	-	-	11	12	-	-	**23**
Bank of Cyrpus	-	-	-	-	-	-	-	10	-	-	1,018	**1,028**
Cyprus	-	-	-	-	-	-	-	10	-	-	1,018	**1,028**
Deutsche	-	-	-	-	-	-	2,697	-	-	-	-	**2,697**
CBK	-	-	-	641	-	-	1,568	-	-	-	2,447	**4,657**
Bylan	21	33	-	166	-	-	19	19	13	14	86	**371**
NordLB	-	-	-	1	-	-	48	-	-	-	155	**204**
HRE	-	291	-	414	-	-	1,048	300	33	81	37	**2,204**
WestLB	-	121	-	157	-	-	767	95	-	-	55	**1,195**
HSH Nordbank	-	-	2	-	-	-	-	-	-	-	-	**2**
LBB	-	-	-	41	-	-	-	-	-	-	-	**41**
Germany	21	445	2	1,420	-	-	6,147	413	46	95	2,780	**11,370**
BNP	0	3	-	5	-	-	296	-	-	-	43	**348**
CredAg	10	206	-	69	-	-	29	85	81	-	-	**479**
BPCE	-	0	0	0	-	-	17	-	0	0	3	**21**
SocGen	-	11	-	-	-	-	-	-	-	-	270	**282**
France	10	221	0	74	-	-	343	85	81	0	316	1,130
RBS	1	48	-	-	-	-	65	6	-	-	24	**145**
HSBC	-	8	-	-	-	-	-	-	-	-	245	**253**
UK	1	56	-	-	-	-	65	6	-	-	269	397
EFG	374	-	-	-	-	-	363	507	-	-	550	**1,794**
NBG	602	-	-	-	-	-	-	294	-	-	1,531	**2,427**
Alpha Bank	83	-	-	-	-	-	-	-	-	-	16	**99**
Piraeus Bank	545	-	-	-	-	-	-	14	-	-	-	**559**
ABG	-	-	-	-	-	-	-	144	-	-	-	**144**
Greece	1,603	-	-	-	-	-	363	958	-	-	2,097	5,022
ISP	-	-	-	893	-	-	-	-	-	-	2	**895**
UCG	-	-	-	-	-	-	-	-	-	-	102	**102**
Italy	-	-	-	893	-	-	-	-	-	-	104	997
Nordea	-	-	0	-	1	-	0	-	-	-	1	**2**
SEB	-	-	587	10	437	850	30	-	-	-	-	**1,915**
Swedbank	-	-	1,055	-	870	630	-	-	-	-	468	**3,023**
Sweden	-	-	1,643	10	1,308	1,480	30	-	-	-	469	4,940

Source: EBA, Morgan Stanley Research

Appendix II: Glossary of Terms

ABS
Asset backed security; a security whose value and income payments are collateralised (or 'backed') by a specified pool of underlying assets.

Basel I, II, III
Basel Accords are recommendations on banking laws and regulations issued by the Basel Committee on Banking Supervision. Basel guidelines aim to provide the national regulators with a set of requirements to ensure that banks have adequate capital for the risk they expose themselves to through their lending and investment practices. The number (I, II, III) refers to revised version of the Accords.

COE
Cost of Equity.

CMBS
Commercial Mortgage Backed Securities; a type of mortgage backed security backed by mortgages on commercial real estate, typically structured as multiple tranches.

EBA
European Banking Authority. Established in January 2011 by the European Parliament; it has taken over all existing and ongoing tasks and responsibilities from the Committee of European Banking Supervisors (CEBS). It is responsible for EU-wide stress testing and EU Capital Exercise.

EPRA
European Public Real Estate Association; an industry body for quoted property companies and investors in quoted property stocks.

GOEF
German Open-Ended Funds; indirect real estate investment vehicles that are of particular importance in Germany. Shares are directly backed by properties and liquid assets held by the fund; as an open-ended vehicle, a fund can create new shares on demand, and investors buy shares at net asset value.

INREV
Investors in Non-listed Real Estate Vehicles; the European industry association for investors in non-listed real estate funds.

IPD
Investment Property Databank; a provider of performance data and analysis for owners, investors and managers of real estate.

IRR
Internal Rate of Return; a rate of return used in capital budgeting to measure and compare profitability; it is the discount rate that makes the net present value of all cashflows from a particular project equal to zero.

HNWI
High Net-Worth Individual; used to denote an individual or family with a high net worth. There is no precise definition of how wealthy somebody must be to fit into this category.

LLP
Loan Loss Provisions; an expense set aside as an allowance for bad loans (when a customer defaults, or terms of a loan have to be renegotiated, for example).

LTRO
Long Term Refinancing Operation. The ECB controls liquidity in the banking system via Refinancing Operations, which are basically repurchase agreements. Banks put up acceptable collateral with the ECB and receive a cash loan in return. In December the ECB extended the time frame to borrow to allow banks access to relatively inexpensive funding for up to 3 years.

NAMA
National Asset Management Agency; a body created by the Government of Ireland in late 2009, to function as a 'bad bank', acquiring property development loans from Irish banks in response to the Irish financial crisis.

NPL
Non-performing loan; a loan that is in default or close to being in default. Many loans become non-performing after being in default for 3 months, but this can depend on the contract terms.

NSFR
The Net Stable Funding Ratio has been proposed within Basel III. It measures the amount of longer-term, stable sources of funding employed by an institution relative to the liquidity profiles of the assets

funded and the potential for contingent calls on funding liquidity arising from off-balance sheet commitments and obligations.

REIT
Real Estate Investment Trust; a tax designation for a company that invests in real estate. Requirements for REIT status vary across national boundaries, but most enable the avoidance of corporation tax in return for a high (normally 90%) distribution of rental-based earnings.

RMBS
Residential mortgage-backed security; a type of mortgage-backed security backed by mortgages on residential real estate.

ROC
Return on Capital.

ROE
Return on Equity.

RWA
Risk Weighted Assets. Banks are required to hold equity against loans or other assets in their balance sheet according to ‘weightings’ that vary depending on the riskiness of the loans or assets in question. Assets thus weighted are called Risk Weighted Assets or RWA.

Solvency 2
Solvency 2 is a fundamental review of the capital adequacy regime for the European insurance industry. It aims to establish a revised set of EU-wide capital requirements and risk management standards that will replace the current solvency requirements.

SWF
Sovereign Wealth Fund; a state-owned investment fund composed of financial assets derived from a country's reserves that have accumulated from budget and trade surpluses, often from revenue generated from the export of natural resources.

Appendix III: Research Reports

We have written extensively on the topic of Banks Deleveraging, on a sector and individual banks basis. We list here the most relevant reports.

8 March 2012
BNP Paribas (BNPP.PA): 70% through its deleveraging plans - stay OW

21 February 2012
Italian Banks: Loan repricing effort continues in January

13 February 2012
Spanish Banks: Inflection Point in Sight; BBVA Top Pick

10 February 2012
Credit Suisse Group (CSGN.VX): Rebasing costs and assets for opportunities

7 February 2012
UBS (UBSN.VX): Cleaner sheet should drive longer-term value; EPS flat(pdf)

2 February 2012
Banks/Economics/Rates: LTROs underestimated, but Great Deleveraging ongoing

1 February 2012
Santander (SAN.MC): Real estate clean-up accelerated in 4Q11(pdf)

25 January 2012
French Banks: Looking beyond the beta rally

24 January 2012
EU Banks/Rates/FX: Don't underestimate the impact of the LTROs(pdf)

12 January 2012
Royal Bank of Scotland (RBS.L): GBM restructuring: difficult but necessary steps

9 December 2011
European Banks: EBA keeps focus on banks' capital & deleveraging

6 December 2011
European Banks: 2012 Outlook - Deleveraging remains the key theme

28 November 2011
Large Cap Banks: 2012 Outlook: In-Line as Deleveraging Accelerates

25 November 2011
European Banks: Stress in European bank funding highlights odds of EUR1.5-2.5 deleveraging

21 November 2011
Lloyds Banking Group (LLOY.L): Deleveraging to present a further revenue challenge

18 November 2011
Italian Banks: Exploring risk of recession & higher bond yields on earnings

16 November 2011
Spanish Banks: Implications of a 'bad bank'

13 November 2011
European Banks: What Are the Risks of EUR1.5-2.5tr Deleveraging?

27 July 2011
UK Banks will CRE be the next drag on Capital?

Morgan Stanley Blue Papers

Morgan Stanley Blue Papers address long-term, structural business changes that are reshaping the fundamentals of entire economies and industries around the globe. Analysts, economists, and strategists in our global research network collaborate in the Blue Papers to address critical themes that require a coordinated perspective across regions, sectors, or asset classes.

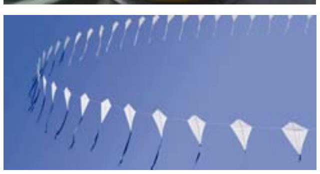
Recently Published Blue Papers

The China Files
China's Appetite for Protein Turns Global
October 25, 2011

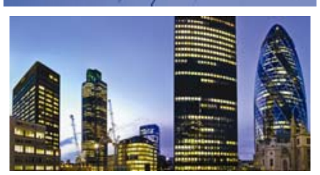
The US Healthcare Formula
Cost Control and True Innovation
June 16, 2011

Cloud Computing Takes Off
Market Set to Boom as Migration Accelerates
May 23, 2011

China High-Speed Rail
On the Economic Fast Track
May 15, 2011



Asian Inflation
Consumers Adjust As Inflation Worsens
March 31, 2011



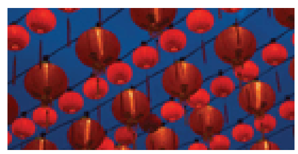
Wholesale & Investment Banking
Reshaping the Model
March 23, 2011

Global Gas
A Decade of Two Halves
March 14, 2011

Tablet Demand and Disruption
Mobile Users Come of Age
February 14, 2011

The China Files
Chinese Economy through 2020
November 8, 2010

The China Files
Asian Corporates & China's Megatransition
November 8, 2010



The China Files
European Corporates & China's Megatransition
October 29, 2010

Petrochemicals
Preparing for a Supercycle
October 18, 2010

Solvency 2
Quantitative & Strategic Impact, The Tide is Going Out
September 22, 2010

The China Files
US Corporates and China's Megatransitiont
September 20, 2010

Brazil Infrastructure
Paving the Way
May 5, 2010

To find downloadable versions of these publications and information on Other Morgan Stanley reports, visit www.morganstanley.com

Disclosure Section

Morgan Stanley & Co. International plc, authorized and regulated by Financial Services Authority, disseminates in the UK research that it has prepared, and approves solely for the purposes of section 21 of the Financial Services and Markets Act 2000, research which has been prepared by any of its affiliates. As used in this disclosure section, Morgan Stanley includes RMB Morgan Stanley (Proprietary) Limited, Morgan Stanley & Co International plc and its affiliates.
For important disclosures, stock price charts and equity rating histories regarding companies that are the subject of this report, please see the Morgan Stanley Research Disclosure Website at www.morganstanley.com/researchdisclosures, or contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY, 10036 USA.
For valuation methodology and risks associated with any price targets referenced in this research report, please email morganstanley.research@morganstanley.com with a request for valuation methodology and risks on a particular stock or contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY 10036 USA.

Analyst Certification

The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: Bart Gysens, Bruce Hamilton, Jon Hocking, Srikanth Sankaran, Francesca Tondi.
Unless otherwise stated, the individuals listed on the cover page of this report are research analysts.

Global Research Conflict Management Policy

Morgan Stanley Research has been published in accordance with our conflict management policy, which is available at www.morganstanley.com/institutional/research/conflictpolicies.

Important US Regulatory Disclosures on Subject Companies

As of February 29, 2012, Morgan Stanley beneficially owned 1% or more of a class of common equity securities of the following companies covered in Morgan Stanley Research: Banco Popular (ES), BBVA, BNP Paribas, Credit Agricole S.A., Deutsche Bank, ING, Santander, Societe Generale, The Blackstone Group L.P., UniCredit S.p.A..
Within the last 12 months, Morgan Stanley managed or co-managed a public offering (or 144A offering) of securities of Banca Civica SA, Banca Popolare di Milano S.c.a.r.l., BNP Paribas, Commerzbank, Danske Bank, Deutsche Bank, HSBC, ING, Intesa SanPaolo S.p.A., Lloyds Banking Group, Nordea, Royal Bank of Scotland, Santander, SEB, Societe Generale, Svenska Handelsbanken, UniCredit S.p.A., Unione di Banche Italiane SCPA.
Within the last 12 months, Morgan Stanley has received compensation for investment banking services from Banca Civica SA, Banca Monte dei Paschi di Siena S.p.A., Banca Popolare di Milano S.c.a.r.l., Banco Popular (ES), Barclays Bank, BBVA, BNP Paribas, CaixaBank SA, Commerzbank, Credit Agricole S.A., Danske Bank, Deutsche Bank, DNB, Erste Bank, HSBC, ING, Intesa SanPaolo S.p.A., KBC Group NV, Lloyds Banking Group, Natixis, Nordea, Royal Bank of Scotland, Santander, SEB, Societe Generale, Svenska Handelsbanken, The Blackstone Group L.P., UniCredit S.p.A., Unione di Banche Italiane SCPA.
In the next 3 months, Morgan Stanley expects to receive or intends to seek compensation for investment banking services from Banca Civica SA, Banca Monte dei Paschi di Siena S.p.A., Banca Popolare di Milano S.c.a.r.l., Banco Popolare, Banco Popular (ES), Banco Sabadell, Bankinter, Barclays Bank, BBVA, BNP Paribas, CaixaBank SA, Commerzbank, Credit Agricole S.A., Danske Bank, Deutsche Bank, DNB, Erste Bank, HSBC, ING, Intesa SanPaolo S.p.A., KBC Group NV, Lloyds Banking Group, Natixis, Nordea, Partners Group, Raiffeisen Bank International, Royal Bank of Scotland, Santander, SEB, Societe Generale, Svenska Handelsbanken, Swedbank, The Blackstone Group L.P., UniCredit S.p.A., Unione di Banche Italiane SCPA.
Within the last 12 months, Morgan Stanley has received compensation for products and services other than investment banking services from Banca Civica SA, Banca Monte dei Paschi di Siena S.p.A., Banca Popolare di Milano S.c.a.r.l., Banco Popolare, Banco Popular (ES), Banco Sabadell, Bankinter, Barclays Bank, BBVA, BNP Paribas, CaixaBank SA, Commerzbank, Credit Agricole S.A., Danske Bank, Deutsche Bank, DNB, Erste Bank, HSBC, ING, Intesa SanPaolo S.p.A., KBC Group NV, Lloyds Banking Group, Natixis, Nordea, Partners Group, Raiffeisen Bank International, Royal Bank of Scotland, Santander, SEB, Societe Generale, Svenska Handelsbanken, Swedbank, The Blackstone Group L.P., UniCredit S.p.A., Unione di Banche Italiane SCPA.
Within the last 12 months, Morgan Stanley has provided or is providing investment banking services to, or has an investment banking client relationship with, the following company: Banca Civica SA, Banca Monte dei Paschi di Siena S.p.A., Banca Popolare di Milano S.c.a.r.l., Banco Popolare, Banco Popular (ES), Banco Sabadell, Bankinter, Barclays Bank, BBVA, BNP Paribas, CaixaBank SA, Commerzbank, Credit Agricole S.A., Danske Bank, Deutsche Bank, DNB, Erste Bank, HSBC, ING, Intesa SanPaolo S.p.A., KBC Group NV, Lloyds Banking Group, Natixis, Nordea, Partners Group, Raiffeisen Bank International, Royal Bank of Scotland, Santander, SEB, Societe Generale, Svenska Handelsbanken, Swedbank, The Blackstone Group L.P., UniCredit S.p.A., Unione di Banche Italiane SCPA.
Within the last 12 months, Morgan Stanley has either provided or is providing non-investment banking, securities-related services to and/or in the past has entered into an agreement to provide services or has a client relationship with the following company: Banca Civica SA, Banca Monte dei Paschi di Siena S.p.A., Banca Popolare di Milano S.c.a.r.l., Banco Popolare, Banco Popular (ES), Banco Sabadell, Bankinter, Barclays Bank, BBVA, BNP Paribas, CaixaBank SA, Commerzbank, Credit Agricole S.A., Danske Bank, Deutsche Bank, DNB, Erste Bank, HSBC, ING, Intesa SanPaolo S.p.A., KBC Group NV, Lloyds Banking Group, Natixis, Nordea, Partners Group, Raiffeisen Bank International, Royal Bank of Scotland, Santander, SEB, Societe Generale, Svenska Handelsbanken, Swedbank, The Blackstone Group L.P., UniCredit S.p.A., Unione di Banche Italiane SCPA.
Morgan Stanley & Co. LLC makes a market in the securities of Barclays Bank, BBVA, Deutsche Bank, HSBC, ING, Lloyds Banking Group, Royal Bank of Scotland, Santander, The Blackstone Group L.P..
The equity research analysts or strategists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality of research, investor client feedback, stock picking, competitive factors, firm revenues and overall investment banking revenues.
Morgan Stanley and its affiliates do business that relates to companies/instruments covered in Morgan Stanley Research, including market making, providing liquidity and specialized trading, risk arbitrage and other proprietary trading, fund management, commercial banking, extension of credit, investment services and investment banking. Morgan Stanley sells to and buys from customers the securities/instruments of companies covered in Morgan Stanley Research on a principal basis. Morgan Stanley may have a position in the debt of the Company or instruments discussed in this report.
Certain disclosures listed above are also for compliance with applicable regulations in non-US jurisdictions.

STOCK RATINGS

Morgan Stanley uses a relative rating system using terms such as Overweight, Equal-weight, Not-Rated or Underweight (see definitions below). Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold and sell. Investors should carefully read the definitions of all ratings used in Morgan Stanley Research. In addition, since Morgan Stanley Research contains more complete information concerning the analyst's views, investors should carefully read Morgan Stanley Research, in its entirety, and not infer the contents from the rating alone. In any case, ratings (or research) should not be used or relied upon as investment advice. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations.

Global Stock Ratings Distribution

(as of February 29, 2012)

For disclosure purposes only (in accordance with NASD and NYSE requirements), we include the category headings of Buy, Hold, and Sell alongside our ratings of Overweight, Equal-weight, Not-Rated and Underweight. Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold, and sell but represent recommended relative weightings (see definitions below). To satisfy regulatory requirements, we correspond Overweight, our most positive stock rating, with a buy recommendation; we correspond Equal-weight and Not-Rated to hold and Underweight to sell recommendations, respectively.

	Coverage Universe		Investment Banking Clients (IBC)		
Stock Rating Category	Count	% of Total	Count	% of Total IBC	% of Rating Category
Overweight/Buy	**1120**	**38%**	**461**	**44%**	**41%**
Equal-weight/Hold	**1229**	**42%**	**449**	**42%**	**37%**
Not-Rated/Hold	**105**	**4%**	**24**	**2%**	**23%**
Underweight/Sell	**464**	**16%**	**124**	**12%**	**27%**
Total	**2,918**		**1058**		

Data include common stock and ADRs currently assigned ratings. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months.

Analyst Stock Ratings

Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.
Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.
Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.
Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.
Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.
In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.
Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.
Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index.
.

Important Disclosures for Morgan Stanley Smith Barney LLC Customers

Citi Investment Research & Analysis (CIRA) research reports may be available about the companies or topics that are the subject of Morgan Stanley Research. Ask your Financial Advisor or use Research Center to view any available CIRA research reports in addition to Morgan Stanley research reports.

Important disclosures regarding the relationship between the companies that are the subject of Morgan Stanley Research and Morgan Stanley Smith Barney LLC, Morgan Stanley and Citigroup Global Markets Inc. or any of their affiliates, are available on the Morgan Stanley Smith Barney disclosure website at www.morganstanleysmithbarney.com/researchdisclosures.

For Morgan Stanley and Citigroup Global Markets, Inc. specific disclosures, you may refer to www.morganstanley.com/researchdisclosures and https://www.citigroupgeo.com/geopublic/Disclosures/index_a.html.

Each Morgan Stanley Equity Research report is reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval is conducted by the same person who reviews the Equity Research report on behalf of Morgan Stanley. This could create a conflict of interest.

Other Important Disclosures

Morgan Stanley & Co. International PLC and its affiliates have a significant financial interest in the debt securities of Banca Monte dei Paschi di Siena S.p.A., Banca Popolare di Milano S.c.a.r.l., Banco Popolare, Banco Popular (ES), Banco Sabadell, Bankinter, Barclays Bank, BBVA, BNP Paribas, CaixaBank SA, Commerzbank, Credit Agricole S.A., Danske Bank, Deutsche Bank, Erste Bank, HSBC, ING, Intesa SanPaolo S.p.A., Lloyds Banking Group, Natixis, Nordea, Raiffeisen Bank International, Royal Bank of Scotland, Santander, SEB, Societe Generale, Svenska Handelsbanken, Swedbank, UniCredit S.p.A., Unione di Banche Italiane SCPA.

Morgan Stanley is not acting as a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Morgan Stanley produces an equity research product called a "Tactical Idea." Views contained in a "Tactical Idea" on a particular stock may be contrary to the recommendations or views expressed in research on the same stock. This may be the result of differing time horizons, methodologies, market events, or other factors. For all research available on a particular stock, please contact your sales representative or go to Client Link at www.morganstanley.com.

Morgan Stanley Research does not provide individually tailored investment advice. Morgan Stanley Research has been prepared without regard to the circumstances and objectives of those who receive it. Morgan Stanley recommends that investors independently evaluate particular investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of an investment or strategy will depend on an investor's circumstances and objectives. The securities, instruments, or strategies discussed in Morgan Stanley Research may not be suitable for all investors, and certain investors may not be eligible to purchase or participate in some or all of them. Morgan Stanley Research is not an offer to buy or sell any security/instrument or to participate in any trading strategy. The value of and income from your investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices, market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in securities/instruments transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. If provided, and unless otherwise stated, the closing price on the cover page is that of the primary exchange for the subject company's securities/instruments.

The fixed income research analysts, strategists or economists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues (which include fixed income trading and capital markets profitability or revenues), client feedback and competitive factors. Fixed Income Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

The Americas
1585 Broadway
New York, NY 10036-8293
United States
Tel: +1 (1)212 761 4000

Europe
20 Bank Street, Canary Wharf
London E14 4AD
United Kingdom
Tel: +44 (0)20 7425 8000

Japan
4-20-3 Ebisu, Shibuya-ku
Tokyo 150-6008
Japan
Tel: +81 (0)3 5424 5000

Asia/Pacific
1 Austin Road West
Kowloon
Hong Kong
Tel: +852 2848 5200