

Disruption in the Capital Markets: What Happened?

INTRODUCTION

Today investors in the capital markets feel as though they are precariously crouching paralyzed on a rolling ship's deck in heavy seas beneath a huge convulsing octopus as they nervously await the octopus's next shoe(s) to drop. That is one way of looking at the "good news/bad news" of the current market – many new asset classes such as real estate finance are now fully integrated participants of the global capital markets granted unlimited access to international capital but also subjected to seemingly random extraneous events in the international arena. Unlike prior disruptions, this time there are two significant differences that have continued to drive recent events in the markets – the continuing trend toward globalization and enormous growth of securitization. Both have influenced the unfolding problems in the capital markets in ways that most participants failed to foresee or predict with any accuracy, despite their full knowledge of all of the accumulating factors. They missed that while dispersion of risk via securitization and globalization may be a good thing, it also spreads the potential losses from that risk throughout the global capital markets exponentially. With diverse investors crossing over from their traditional markets and their usual asset classes to invest in new asset classes and in newly developed structured finance products, liquidity grew enormously, but like any fully integrated system, so did the risk of loss permeate and eventually overrun the entire system. It is a two-way highway that is no longer limited to special classes of institutions or investors, but now includes hedge funds, opportunity funds, private equity, sovereign wealth funds, etc. Later we will discuss the impact on the capital markets of this unregulated investor class – a shadow banking system – operating beyond the purview of government supervision. To appreciate the full extent of these inter-relationships, a comparison of the current investor reaction to market turbulence with the earlier events that led to the development of a private label (non- government sponsored enterprises ("GSE")) residential securitization more than 20 years ago is instructive.

PRIOR MARKET DISLOCATIONS

Although the deregulation of thrift industries investment authority in the early 80s, the federal tax reform of 1986, and the 1987 stock market crash were significant capital markets events, they had no discernable immediate impact on the real estate finance activity of the traditional portfolio lenders across the United States. Real estate finance was still basically a local business albeit done by some national lenders and influenced on the residential side by the growing presence of FNMA and FHLMC. Information on mortgage loan performance (other than life insurance industry data) was limited and there was the lack of transparency in the real estate finance markets generally. After the 1987 crash, portfolio lenders continued to finance property for nearly two years into the worst national real estate depression since the 1930s. With its new broader investment authority, the savings and loan industry blindly led the boom market into significant overbuilding (and bust!). A later (overstated) Federal Reserve report predicted a twelve year absorption rate for CBD office buildings. The creation of the Resolution Trust Corporation, with its singular task of "resolving" the savings and loan crisis, quickly led to the development of a broader securitization market built upon the already developing nascent residential private label MBS market - by broadening the existing investor class for real estate finance beyond the traditional portfolio institutional

investor; broadening the asset classes beyond residential; “educating” the new players; and testing new securitization structures. Initially a Wall Street investment bank business, which the money center banks quickly joined, it eventually attracted insurance companies and most other institutional investors as well as a new class – the B-piece buyer who was the first loss position in the senior/subordinate structure adopted by the private label market to provide credit support in the absence of the RTC’s call on the full faith and credit of the US for its market issuance. Most of the new B-piece investors were former RTC contractors – who had the capacity and more importantly the desire to own the properties securing defaulting loans. From a jerry-rigged start based upon the existing residential securitization model, commercial securitization has grown into a dominant market participant – with an estimated 25% of all commercial mortgages outstanding, (nearly \$800 Billion) and in some years approximately 50 to 66% of the new originations (over \$230 Billion in 2007) being securitized.

The August 1998 market disruption for the so-called “Asian contagion” – Russian bond default and Thai currency devaluation – was a totally different event. The commercial securitization market was in its formative stages, but was growing geometrically. And even then the difference from 1989 was the speed at which global events in the capital markets affected local real estate finance business. It was almost instantaneous. A mortgage loan which closed in the morning could not be priced or sold later in the day. Issuers of mortgage backed securities (“MBS”) having retained their own B-pieces and having accumulated billions of dollars of mortgages to issue a single sponsor multi-billion dollars securitized pools were caught off guard and were severely and sometimes mortally punished by the market. Several major issuers, a major “b piece buyer”, and a number of commercial and residential originators who accumulated loans and financed their positions with warehouse and other financing strategies were subject to margin calls and liquidation of their positions by their lenders causing several players to exit the market involuntarily. It did not take 6 weeks or 6 months for real estate lenders to react to capital market events; they reacted quickly and daily. The lesson from that market disruption was duration – how long could an originator or issuer risk holding an asset before it was removed from its balance sheet? The long term effect of that disruption has been to significantly increase velocity of loan transactions and concomitantly reduce the accumulation period of assets for the securitization – in an attempt to mitigate the risk of sudden adverse market movements by holding fewer assets for a shorter period of time.

Another outgrowth of the 1998 dislocation was the deal partnering – several issuers joining together in branded programs to accelerate their ability to securitize their production in a single securitization trust while retaining the ability to issue larger deals in shorter time periods with the concomitant economy of scale benefits to the sponsors. Many of these “joint” ventures alternated the use of each participants MBS shelf registration and often further co-branded the joint issuance with some distinguishing feature such as perceived high quality underwriting (e.g. insurance quality – “IQ” or “TOPS” programs).

But later in 1999, however, the value of the mortgage positions which had been liquidated in the August 1998 margin calls were “in the money” (within 4 months). The market had recovered almost as quickly as it had seized up in that summer. The capital markets for real estate finance were again moving forward with a further slight disruption from the “Tech Bust” in 2000/01. However, the impact of 9/11 was a serious shock to the real estate structured finance business. Aside from the human tragedy, the

distribution of loans via securitization was changed forever. Suddenly, the risk of complete loss of a single asset – a building or development, such as the World Trade Center complex - required a significant shift in the way certain assets were to be deposited into securitization trusts. There would no longer be single “trophy” asset securitizations. There was no way to effectively mitigate or “tranche” the risk of a total loss if there was only one asset. But it was also too difficult to place a large single asset in a conduit pool of small assets or in a “fusion” pool which mixed many small conduit assets with a few larger assets - the elephant still stood out among the mice. The immediate solution was a variation on the earlier development of mezzanine debt as an antidote for the credit rating agencies perceived risk of the bankruptcy of a second mortgagee negatively impacting the timely payment of interest and therefore ratings. It was “Componentization” – that is slicing and dicing a single large mortgage loan into several disparate senior/junior component parts – A, B and C, etc. notes. Those notes could be further divided – the A notes into coordinate pari passu notes which could be deposited into different MBS securitizations as first mortgage loans while the B note and further subordinate notes – whether structured as colenders’ individual notes or pari passu or senior subordinate participations in a single B note – could be sold to capital markets investors outside of the MBS securitization in a growing subordinate debt market.

CURRENT MARKET CONDITIONS

With this adjustment to the structured finance capital stack and the continuing historically low interest rate environment, the real estate finance market continued its enormous growth trajectory over the last several years. The availability of capital continued to grow, spurred on by the appetite of capital markets investors for more high yield product. Yet most investors in these new capital markets products were not cash buyers but looked to finance their investments as part of their strategy of maximizing their yield. Although the typical term warehouse, repo and reverse repo lines were available to finance their acquisitions, they were floating rate loans and subject to mark to market and margin calls by the lenders.

There was, however, a new technology which originally developed for the asset backed securitization market – the collateralized debt obligation (“CDO”). Wall Street now adapted CDOs for use in the real estate finance segment of the market. When a lender sells an asset, it does so to remove the asset from its balance sheet to free up capital and allow the institution to make a new loan as well as collect a new fee. Lending went from being a portfolio business to a fee business – from a storage business to a moving business. Yet, by financing the purchaser in the sale of an asset, the loan seller is removing the asset from its balance sheet as owner, but clearly reacquiring the risk of the asset as lender. Therefore, the prospect of being able to remove assets from the seller’s balance sheet without retaining the risk of the assets was a very appealing structure for asset sellers; the fixed interest rate and lack of mark to market requirements and margin call risk were big selling points for asset buyers looking for financing. Thus, the availability of CDO financing led to a further explosion of loan products, which could not otherwise be disposed of by depositing into an MBS structure – B notes, mezzanine debt, B-pieces, etc. The mortgage loan origination community was more than willing to accommodate this growing capital markets investor appetite for subordinate debt products by increasing loan production as the lenders were able to serially clear inventory that would otherwise have been retained. Thus, lending volume grew significantly,

supported by the growth of the commercial real estate CDO allowing CMBS issuance to reach record levels. But then what happened?

Unfortunately, the residential mortgage market had earlier made even greater use of CDO technology. Although there is no subordinate debt or mezzanine finance in the residential market, there were loans that, if originated, would never be eligible for deposit into a residential MBS issuance. These were loans to the so-called subprime borrowers whose credit (or underwriting) made them perfect candidates (in the asset seller's estimate) to be included with other unrelated, often non-real estate assets into CDOs. Driven by this accelerating ready availability of financing to subprime lenders, the subprime market exploded onto the scene financing otherwise uncreditworthy borrowers in the acquisition of the American dream – a home of their own.

In April, 2005, the then Federal Reserve Chairman remarked that CDO technology had changed lending

“...where once more-marginal applicants would simply have been denied credit, lenders are now able to quite efficiently judge the risk posed by individual applicants and to price the risk appropriately. These improvements have led to rapid growth in subprime mortgage lending.”

Ultimately, there may be subprime loans in upwards of 50% of the outstanding non-commercial real estate (“CRE”) CDO collateral pools. The subprime business began to unravel in early 2007 as subprime loan defaults began to increase and investors began to distrust the AAA rating of CDO structures now burdened by loans too risky to have been placed in a traditional RMBS structure which were similarly rated.

It would be rational to assume that the subprime loan “melt down” (as the media coined it) would be self contained event –as risky overleveraged residential loans to uncreditworthy individuals. But this is where securitization and globalization enter our analysis of the current problems in the capital markets.

“Connectivity” is the interconnected web of investors from all asset classes making common investments in an esoteric segment of the global capital markets. The investment risk of the common investor migrates and eventually infiltrates the entire system. As the investments became more diverse, so did the pervasion of any problem into seemingly unrelated or unconnected portfolios. It was akin to an uncontrollable (and invisible) “contagion”. Clearly, the investors had misperceived and mispriced an otherwise obviously risky investment because the credit rating agencies had rated the CDO transactions using the same ratings granted to MBS transactions in the longstanding residential and commercial MBS markets. With most American floating rate debt sold to European and other foreign investors or foreign subsidiaries of US companies, the contagion affected international as well as domestic investors. It is difficult to assess whether the foreign investors actually understood the collateral for the CDOs that they purchased or blindly relied on those published credit ratings. In any event, the subprime contagion could not be contained. The connectivity of the global capital market and its common investors went into overdrive. Suddenly, real estate was faced with a credit crisis created by an exogeneous market. Floating rate investors overseas went on strike (according to the *Financial Times*), refusing to purchase any real estate structured finance instruments – viewing all bonds secured by real estate – residential or commercial - as toxic in spite of continuing strong real estate fundamentals in the commercial real estate

markets generally. As a result of the turmoil, securitized lenders were unexpectedly caught with a "held for sale" inventory on their books (as opposed to their "hold for investment" books) of more than \$100 Billion which their usual investors would not buy. Suddenly, all MBS – commercial as well as prime residential - was viewed by investors with the same fear and suspicion as CDOs. Most investors did not appreciate or understand the difference in the structures or in the underlying collateral.

All of structured finance was viewed by investors as a single bad asset class to be avoided at all costs. This was the definitive step in the "Perfect Storm" that was to develop from the confluence of a series of seemingly unrelated and disparate events. Soon financial institutions and institutional investors were taking unheard of write-offs for an esoteric asset class in the context of a spreading market contagion. It soon became apparent that much of the investment in CDOs was by so-called Structured Investment Vehicles ("SIVs") – bank sponsored off shore entities using short term commercial paper borrowings to make investment in long term CDOs, which were often populated with subprime loans. Borrowing short and lending long was the historic strategy of the American thrift industry which had been criticized by Wall Street in the 1980s as a basically flawed business model. But that did not prevent the creation of numerous SIVs to support the CDO market. This \$400 Billion bank-sponsored misadventure ran into trouble when the commercial paper markets dried up in conjunction with the subprime meltdown. To avoid wholesale failures of their sponsored SIVs, the banks simply began to fund the SIVs, importing their problems onto the banks' balance sheet – precisely what they had been created to avoid.

As this continued, market turbulence disrupted pending securitizations and purged buyers of certain bonds completely; and it became almost impossible (or at least extremely risky) to attempt to value an asset or to price a risk. Fearing all real estate collateral, investors demanded higher yields or withdrew entirely from the market. As uncertainty prevailed, pricing pre-existing commitments became increasingly problematic for those in the leverage finance business. Corporate mergers and acquisitions, unlike traditional real estate finance today, require hard commitments before the parties move forward with their transactions. The purchaser's acquisition financing must be in place before the merger process proceeds with the seller. Many of the commitments had CMBS financing components. Over the last several months, the \$330 Billion in outstanding leverage finance commitments held by the banks have begun to fund as such transactions close – delayed by discussions of "material adverse change" clauses in merger documents and/or financing commitments and the retrading of pricing of purchase prices and/or financing. As these loans close, the parties will take their losses – another negative factor for the markets as these loans eat away at required bank capital levels.

Looking for a culprit, the investors and the media began to focus on the national credit rating agencies, accusing them of becoming "toll takers" instead of "gate keepers" for the market place and suddenly seeing an inherent conflict of interest in issuers paying for the rating of their securitization pools. Historically, investors, not issuers, had paid for the rating process, but then the ratings were issued in private to the paying investor and not publicly. That would not work in a public market that relies on transparency. Others had taken the view that the rating agencies improperly applied the criteria for MBS structures to the very different CDO structures and collateral, especially with the case of subprime loans. Beginning in April 2007, however, the rating agencies

announced adjustment of subordination levels on commercial MBS. This new position of the agencies only confirmed the doubts of investors and exacerbated the problem.

Wherever the truth lies, the investors often did not look beyond the announced credit rating – not even to review the rating agencies published short Pre-Sale report on each MBS or CDO deal – which provides some rationale for the ratings based upon collateral, property type, borrowers, geographical diversity, etc. Many investors were relying almost entirely on letter ratings, deal sponsorships and the ever more attractive pricing and almost never read the offering disclosure documents or if they did, did not understand the risk.

Add to this turbulence the lingering concerns with Enron and its progeny. Under GAAP, assets held for investment do not need to be regularly marked to market but the issuers' and originators' assets were held for sale and required being marked to market. The fear of improperly marking an asset 'to model' instead of "to market", even when there is effectively no market, was chilling. Hence, many investors have marked their subprime related investments to zero, although there clearly will be substantially more value to the CDO assets when they are all finally resolved.

In the CMBS market, without any "cash" marks available from other traders, the participants turned to the newly created CMBX index – a derivative now based on five extant six month pools of CMBS issuance. Although some dealers and investors see this index as a hedge, it is often traded by non real estate traders and speculators who may be causing significant distortions of values and pricing for the cash market. It is widely believed now that this highly technical and thinly traded CMBX market actually makes it harder to determine the value of, or to establish the price for, an asset acceptable to the market participants and may be a major obstacle to the recovery of the markets today.

Moreover, as hedge funds and other non-regulated investors began to replace insurance companies as the principal purchasers of senior CMBS bonds (by some estimates 40% in 2006), the benefit of transparency provided by public ownership disappeared and concern arose as to who owns the certificates. The memory of Long Term Capital dumping an enormous hoard of highly leveraged CMBS into the market still lingers with many investors. When will they take their losses? How much did they finance and with whom? What are they holding? What if they all dump at once into an already fragile market? Investors hesitate to purchase for fear that the next shoe will drop and they will have paid too much for an asset. They see a risk in every move they take – inaction seems preferable in a market that needs trades in order to move forward. Who can you trust? They already believed that they "misplaced" trust in credit ratings. Credit is about trust – by its etymology, it means "he believes". Hence, when there is no trust there is no credit. The question is how do you restart by market? You create trust between market participants – originators, issuers, rating agencies, senior investors, junior investors. Without trust we have a credit crunch – a loss of liquidity.

IS SECURITIZATION THE PROBLEM

But what about securitization? Is it actually a flawed model and destined to be consigned to oblivion? Before any portfolio lenders or other traditional investors rejoice at the prospect of reduced competition from the capital markets players, there are some basic points to consider. Since 1986, the US has lost a significant portion of the traditional lenders who financed 100% of the real estate market in that year. In 1992, a research study published by the housing finance institute of a major American university concluded that less than 65% of the traditional lenders were still in business, before the

impact was felt of capital requirements for banks and risk based capital for insurance companies, the liquidation and consolidation of the lending industry and the concerted shareholder and regulator push to reduce portfolio allocation to real estate (a result of the RTC debacle) and some significant insurance company failures. Today, many commentators believe that the number has declined significantly, to be about 50%. So what? Well, less capital available to finance acquisitions, etc. results in a depression in real estate values. Real estate values depend on the availability of credit. The insurance companies and regional banks combined (as well as those remaining money center banks with portfolio lending capacity) could not nearly replace the capital that would be lost if securitization were to end. Moreover, the regional banks which are providing substantially more capital to the commercial real estate markets than the insurance companies are more overexposed to real estate as an asset class - being multiples of their capital.

The problem is not with securitization, but with securitizers and investors almost incredible mispricing of risk. It is as though investors thought that somehow the securitization process had taken all of the risk out of real estate financing. A very wrong conclusion - ask any B-piece buyer who does due diligence on collateral. Too much capital, lower interest rates, increased leverage, increasing values, lower cap rates, etc. have taken down booming real estate markets before - securitized lending was no exception. The difference was that risk was not assessed for the term of the loan, but almost at the point of origination. Make it and sell it. The pressure to compete with other lenders - lower rates, more proceeds - simply overwhelmed the process. Volume was emphasized over pricing of risk. The issuers viewed themselves as exporting the risk - it was someone else's risk after it was securitized. But as we have seen, it does not always work out quite like that. Assets have a way of migrating back to a issuer's balance sheet through a term financing of asset sales or an investment in an asset by a subsidiary such as a SIV or other alternative investment unit. Thus, the seeds of the current turmoil have been planted over the last several years.

Since 1993, the securitized market has grown exponentially on the back of the strong and steady increase in leverage at all levels of the real estate capital stack. In the process, competition for loan products heightened because of relatively stable markets, availability of too much capital and the entrance of new players without a tradition of principal investment. Underwriters began to ignore refinance risk of balloons and rely on pro-formas of rising rents, as the process commoditized, investors looking to improve returns began to employ more leverage in the acquisition of assets. This required them to stray out of their traditional comfort zone and "down" the credit chain; cash buyers became, or were replaced, by more highly levered buyers; B-piece buyers were able to finance out of their position through use of CDOs encouraging more entrants into that market segment without traditional "loan to own" discipline of the original "cartel" of B-piece buyers and finally the synthetic market began to grow and distort the cash market.

The credit rating agencies began the long march of reducing subordination levels on MBS transactions despite more questionable loans, little or no amortization, no reserves, no recourse, lower DSCRs, higher LTV and enormous growth of subordinate debt (often financed), interrelated pools with pari passu A notes, exceedingly complex capital stacks with intercreditor issues and less hard equity. Although loan delinquencies remain low by historical standards, even multiples of 3 or 4 times would still be very low and not overly disruptive to the market. But much of the risk is in floating rate debt and loans with little or no amortization, all of which may have significant refinance risk. In

2007, over 80% of commercial loans had an interest only component while over 45% were interest only through maturity. With any perceived weakness in commercial real estate fundamentals, these loans upon maturity may not be able to be refinanced as underwriting standards tighten for new loans.

THE FUTURE

Yet, before the capital markets for real estate finance will be able to return to equilibrium, investors must see those markets as predictable and reliable before they will seek to participate. Investor trust must be renewed in the asset class, in the underlying collateral, in the rating agencies and in the other participants in the marketplace. This will require several things to happen before participants can “believe” in the market and credit can flow again.

To assure stability, investors currently holding assets, whether or not marked to market, must realize their losses on their balance sheets so that investors do not hesitate to invest because fear of further bad news. Once the losses are taken, the fear of unknown holders of undetermined assets with unknowable connections to other participants will dissipate from the market. The collateral for MBS transactions can only be rehabilitated once the pre-credit crunch excess is sold off and not buried in new post-credit crunch MBS. New stricter underwriting standards – higher DSCR, lower LTV, no interest only, amortization, reserves, recourse carveout guarantees, etc. will foster confidence in the commercial loan assets originated for sale. The rating agencies will need to regain the respect and trust of the market participants before anyone will be truly comfortable with relying upon their ratings of MBS. However, all of the origination and securitizer participants in the market have many significant obstacles to overcome before they can reenter the market and be viewed as trustworthy by investors. The leverage finance lenders will need to close and fund under their commitments and realize their losses. The SIV sponsor banks will likewise be expected to publicly disclose and realize their losses on their balance sheets. Moreover, the commercial banks and investment banks will have to continue the process of rebuilding their required capital to remain effective market participants. Yet all this affirmative action will be to naught if the subprime loan debacle is not effectively and quickly dealt with. Governmental intervention in the nature of a moratorium or other market controls will only serve to destroy the interest of foreign investors in our “free” markets. The unintended consequence of the foreclosure moratorium and other well meaning government controls of the real estate finance market during the depression was the effective exclusion of real estate finance from access to the capital markets and its broad range of investors for almost 50 years. Together with the dearth of traditional portfolio investment that would be a catastrophic result for real estate in this country.

Whatever route the capital markets take to eventual stabilization, the inevitable destination facing investors is the world of “de-leveraging”. Unlike the early 1990s, there has been no significant overbuilding in the last few years. As a result, there is no oversupply of existing properties or delayed absorption of newly built properties into the local real estate markets. The major default risk in the commercial real estate finance markets today is not so much borrower payment default but maturity default. After years of being discussed, the much feared balloon refinancing risk has finally arrived. The recent exponential growth in leverage at all levels of the property financing stack – pari passu and subordinate mortgage and mezzanine debt – must be “de-levered” in the new market as investors adjust their appetite for risk and pricing. The loss of leverage will not

be absorbed by the traditional portfolio lenders nor by the securitized lenders facing new underwriting criteria and more conservative investors. Enter new players to refinance the short fall between senior and subordinate debt. Migration of financing will be from pari passu senior to subordinate B to mezzanine but at new (more risk averse) terms and pricing.

Opportunity funds have been organized, funded and waiting in the wings for distressed assets to be offered for sale by investors. Unfortunately, the pre-credit crunch seller and post-credit crunch buyer will be in a stand off until each recognizes a stabilization of the markets. When participants begin to trust one another and begin to reach agreement on the value and price of assets again, the market will once again move forward. It may be a plain vanilla asset market with simpler structures but it will be a strong base upon which to continue to build an efficient capital market for real estate investment globally.