

The Impact of the Capital Crisis
of the Fall of 1998 on Construction Lending

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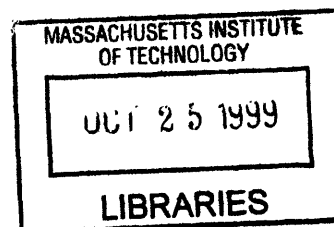
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By Steven P. Garuti & Ben A.C. Goodsir

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ABSTRACT

Over the last three years, the public debt markets in the real estate sector have grown at a rapid rate. As of June 1998, the Commercial Mortgage Backed Securities (CMBS) market was providing the majority of take-out financing for construction loans for commercial real estate. This dramatically changed in July 1998, when Russia defaulted on its government debt and investors withdrew their money from high-yield, high-risk investments in favor of safer investments. This “flight to quality” caused lending within the public real estate capital markets to come to a virtual standstill. While macro-economic turmoil was the catalyst of the capital crisis, it brought fears regarding underwriting practices to the surface.

The purpose of this paper is to briefly discuss the causes of the capital crisis of 1998 and to analyze its impact on underwriting standards for construction loans. The primary method of research for this paper, a survey of national construction lenders, was designed to provide a snapshot of underwriting standards prior to the capital crisis, at the height of the crisis, and today. These underwriting standards are contrasted against both property market fundamentals and development activity at these various times.

The results of the survey confirm that there was a dislocation between the public capital markets and property market fundamentals. While public capital markets are perceived to increase real estate market efficiency in the long term, there is a cost associated with the presence of the capital markets, namely increased volatility in the short term. As macro-economic shocks occur to the capital markets, property markets will be similarly affected.

As evidenced by the capital crunch of August 1998, the role of construction lenders has become more dynamic. Henceforth, construction lenders will have to quickly adjust underwriting standards to reflect the ever-changing risk characteristics present in the capital markets. The question remains: Will the long-term efficiencies gained by the presence of the public markets outweigh the short-term cost of increase volatility? The answer will largely depend on the ability of construction lenders to monitor the capital markets and price loans accordingly.

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CHAPTER 1

INTRODUCTION

1.1. Format

This thesis traces the evolution of commercial real estate construction lending in light of the capital market crisis of August 1998. It is intended to outline trends in construction lending since January 1998. In Chapter 2, general information on construction lending is provided. Traditional sources and risk of construction loans are outlined. Chapter 3 discusses our research methodology. Chapters 4 through 6 assess the construction lending market in the United States at three points in time, immediately before the capital crunch, during the capital crunch, and today (June 1999). These Chapters address the availability of take-out financing, underwriting standards, interest rates on construction loans, property market fundamentals, and development activity at each specified point in time. Chapter 5 also addresses the macroeconomic factors that contributed to the capital crunch of August 1998 and the immediate reaction of capital markets. Chapter 7 concludes with an assessment of the relation between capital markets and its future impact on construction lending.

1.2. Capital Markets Overview

The purpose of this section is to introduce the reader to various types of institutions involved in the capital markets. This introduction is not intended to be comprehensive, but instead is intended to provide background information so the reader can better understand issues presented in this thesis.

Conduits

In the 1990's, the commercial mortgage-backed securities (CMBS) sector was one of the fastest growing capital markets. Although this market was virtually non-existent at the beginning of the decade, it quickly grew to a multi-billion dollar industry. The growth of the CMBS market came about as a result of the distressed commercial real estate market in the early 1990's and the retrenchment of traditional lenders, such as tax shelter syndicates, commercial banks, life insurance companies, and thrift institutions. Borrowers and portfolio sellers turned to the capital markets to raise funds by issuing CMBS. The capital markets (coduits) serve as intermediaries, underwriting loans and structuring them into securities designed to appeal to investors who might not otherwise become involved in the commercial property market. These securities are backed by various types of collateral, including office, multi-family, retail, industrial and hotel properties.

Conduits, which are often investment banks, assume a highly leveraged position. In general, conduits take a 10% equity position, while borrowing the remaining 90% from large institutions, such as large commercial banks.¹ With these funds, they underwrite loans which are pooled together to originate commercial backed securities. In fact, the distinguishing characteristic of these securities is that they are typically a collection of individual assets which cash flows are aggregated, or pooled together. As a result of borrowing on a short-term basis from commercial banks in order to fund mortgages with long-term durations, conduits are exposed to interest rate risk while the loans are pooled

¹ It is ironic that the funds which are borrowed from commercial banks serve as the capital by which conduits are enabled to directly compete with these same lenders.

in preparation for securitization. Interest rate fluctuations during this warehousing period can result in substantial losses or gains to the conduit.

“The general economic principal driving securitization (and financial engineering in general) is that the value of the sum of the parts exceeds the value of the whole.”² Conduits create value by partitioning pooled cash flows according to exposure to default risk. Since default risk affects the timing and receipt of commercial mortgage cash flows, most CMBS structures are designed to shift default-risk down through the various security classes. “This is typically accomplished by prioritizing return of total pool principal payments, where ‘senior’ tranches have priority on principal that is returned through loan amortization or default/foreclosure recoveries. Lower priority tranches must wait until senior classes are fully repaid before they are eligible for return of principle. Moreover, although principal is allocated ‘top-down’, losses resulting from default/foreclosure realizations are allocated ‘bottom-up’, which means that the face value of the lowest-rated tranches decline by the realized default loss.”³ This process yields securities with very diverse risk characteristics. Senior tranches can be virtually risk-free, while junior tranches can be very risky.

Hedge Funds

Hedge funds come in many different forms and their strategies vary widely. Some hedge funds specialize in making money from particular expected events, such as mergers or

² Timothy Riddiough, *Commercial Mortgage-Backed Securities: A Primer*, Mimeo, 1996.

³ *Id.*

bankruptcies, or simply play the stock market. Other hedge funds, the macro funds, take a general directional view, betting on a particular bond market or currency movement. Many of these funds invest in low rated CMBS, in addition to mortgage REITs. “Such funds try to exploit perceived anomalies in the price of different bonds by buying under-priced ones and selling short over-priced ones. No matter what happens to the overall interest rates, as long as the spreads between the two narrows, the fund makes money.”⁴ The fund can, however, lose substantial amounts of money if the markets perception about the likelihood of default changes dramatically and the spreads widen.

Mortgage REITs

Mortgage REITs raise equity and debt capital through public markets and employ short-term sources of credit to fund asset ownership. The assets of mortgage REITs are typically low-rated CMBS and similar high-risk debt securities. In fact, mortgage REITs are the biggest purchasers of low-rated CMBS securities. These assets are exposed to both high interest rate risk and default risk given the low subordination level of the underlying CMBS position. These assets are highly illiquid and have medium term durations. The liabilities of a mortgage REIT are priced daily in relatively efficient markets. Give this capital structure, mortgage REITs do not have a market neutral asset/liability base. Fluctuations in interest rates can cause severe problems for mortgage REITs.

⁴ Anonymous, Hedge Funds: A Guide, The Economist, October 3, 1998.

Commercial Banks

Given their capital structure (short-term liabilities in the form of deposits), commercial banks have an incentive to underwrite short-term loans in order to guard against the risks associated with interest rate fluctuations. Additionally, commercial banks usually have a local presence in the markets that they service. This allows them to closely monitor outstanding loans. Accordingly, commercial banks provide the large majority of construction loans and have not become significantly involved in the permanent financing market.

In order to retain their customer base, banks often provide the most favorable underwriting standards on construction loans. Many banks are also attempting to enhance their product line by offering a variety of debt and equity services in order to maintain their competitive advantage and to retain customers. Many commercial banks are now providing a wide array of financing alternatives, including bridge financing and mezzanine debt. It is somewhat ironic that banks are also now providing financing to many of the institutions that compete for permanent financing, including conduits and REITs.

Insurance Companies

Insurance companies have been the traditional providers of permanent financing for commercial real estate. Investment in long-term assets, such as commercial mortgages, has however become less attractive recently because customer preferences have changed from long-term whole life policies to term insurance. By directly investing in real estate (a

long-term asset) and providing term insurance (a medium duration liability), insurance companies are increasingly becoming exposed to interest rate risk. Additionally, in reaction to past losses, insurance regulators have significantly increased risk based capital requirements for direct investment in real estate.⁵ Despite the dramatic change in their capital structure and capital requirements, insurance companies have remained one of the major providers of permanent financing in the 1990s.

⁵ Bowen McCoy, Real Estate Capital Markets: A New Paradigm?, Real Estate Issues, December 1997

CHAPTER 2

CONSTRUCTION LENDING – TRADITIONAL

SOURCES AND RISKS

2.1. Sources of Capital for Construction

Commercial Banks are the traditional source of construction loans. They account for approximately 85% of all construction loans.⁶ However, since the peak of the last real estate cycle, the commercial banking industry has undergone significant change. To attain efficiencies in operations, these and other lending institutions have consolidated over the last decade.⁷ This consolidation has decreased competition and limited access to capital. For example, the number of banks that make construction loans in excess of \$10,000,000 in Massachusetts has decreased from 15 to 4 banks.⁸ Consolidation within the commercial banking industry over the last decade has reduced competition and has most likely resulted in higher underwriting standards in general. With fewer banks competing for construction loans, lenders can be more selective, financing developers with established track records and sound reputations.⁹

⁶ Interview with Peter Goedecke, Goedecke & Company, April 1999.

⁷ Bowen McCoy, Tragedy of the Commons: Will It Be Different This Time?, Real Estate Issues, Summer 1998.

⁸ Interview with George Fantini, Fantini & Gorga, April 1999.

The consolidation that has occurred within the commercial banking industry over the last decade has apparently caused a relative tightening of underwriting standards for construction loans. With this background in mind, we will discuss the general risks associated with construction lending and analyze the impact of market events since January 1998 on the construction lending industry.

2.2. Risks in Construction Lending

There are essentially two traditional risks associated with construction lending; the risk of non-completion and the risk that the project will not be economically viable upon completion.¹⁰ First, the construction lender may advance funds that are insufficient to complete the development. The risk of non-completion is extremely high for construction lenders not only because of the numerous events that may lead to non-completion, but also because of the severity of the loss sustained in the event of non-completion. If the project is not completed, the construction lender may be left with an outstanding loan that far exceeds the value of existing collateral.

Funds advanced by the construction lender may be insufficient to complete the project for a number of reasons, including inaccurate cost estimates, failure of a contractor or subcontractor to perform, unavailability of materials, destruction of property, and unrelated financial problems of the developer. Lenders can reduce many of these risks by undertaking the following precautions:

⁹ Interview with George Fantini, Fantini & Gorga, April 1999.

Obtain Independent Cost Estimates - Lenders can overcome the risk of underestimating costs by obtaining independent estimates of construction costs, including hard costs, soft costs, and start-up costs associated with the project. Construction lenders should also assume and factor in the likelihood of cost overruns during the course of the development.

Secure a Loan Guarantee - It is essential that the lender obtain a construction loan guarantee from the developer or someone with a substantial net worth. The lender should review the financial statements of the guarantor prior to making the loan and periodically during the construction process. This review must include an analysis of all other obligations the guarantor has outstanding. Additional advances should be conditioned upon the guarantor having a net worth that significantly exceeds the aggregate obligations.

Make Periodic Progress Payments – Draws from the construction loan should always be based upon an architect's certification that work is acceptable and should include a holdback of at least 10%. The periodic release of funds enables the lender to monitor costs and quickly identify problems. The holdback provides the contractor with an incentive to complete the project at the required standard, in order to be eligible to receive the outstanding 10% of the construction contract amount.

¹⁰ Stuart M. Saft, Reducing the Risks of Construction Lending, The Real Estate Finance Journal, Spring 1999.

Obtain a Completion Guarantee and Performance Bond - The lender should ensure that the developer obtains and maintains performance bonds and payment bonds. Performance bonds provide assurance that the project will be completed. Payment bonds provide the lender with the comfort of knowing that mechanics liens will not be filed against the project because the insurer is obliged to pay subcontractors, suppliers and laborers who are not paid by the contractor.

Obtain Insurance Coverage - The lender should insist that the developer maintain an all risk builder's policy that will provide funds to reimburse the lender if the project is fully or partially destroyed by a fire or other casualty. The developer should also be required to maintain comprehensive general liability insurance and workers compensation insurance. The lender should insist on receiving a copy of the policy and not just a certificate of issuance.

Assignments - The lender should ensure that they have received an assignment of each of the construction contracts. It is essential that developers, contractors, professionals and suppliers acknowledge the lender's interests in the agreement and agree to recognize the lender in the event that the developer defaults. This ensures that the lender will be able to assume control of the contracts to complete the development if the developer defaults.

Despite these precautions, construction lenders ultimately bear the risk that the project will not be economically viable upon completion. There are two central reasons that a project may not be economically viable upon completion. The first reason is linked to the property market in which the project is being constructed. Upon completion the project may not be able to achieve rents sufficient to cover costs, including operating expenses and debt service.¹¹ This may occur if construction costs are underestimated or, more likely, because market conditions (rents) have changed since the project's inception. During construction, anticipated market rents for a particular project may fall for a myriad of economic reasons, the most simple of which are increased supply and/or diminished demand. Accordingly, the availability and pricing of construction loans will always be tied to the property market. During real-estate booms, underwriting standards are typically relaxed and the opposite holds true during busts.

The second reason that a project may not be economically viable upon completion is linked to the capital markets. Construction lenders occasionally advance funds without permanent financing in place. When a lender makes a construction loan without a permanent loan commitment, the construction lender could be left with a completed project and have no way of liquidating its loan. Permanent financing may not be available for several reasons that are unrelated to the underlying property markets, as discussed above. Due to fluctuations in or shocks to the capital markets, permanent lenders may completely stop all loan activity. Alternatively, the interest rates or other terms offered by permanent lenders may be so onerous

¹¹ Most permanent lenders condition their loans on a project being economically viable. This is generally assessed by way of a minimum debt-service coverage ratio. If minimum requirements are not met, permanent lenders may rescind. Accordingly, the construction lender is at risk if the developer cannot secure alternative permanent financing.

that the property cannot support them. The unavailability or limited access to take-out financing can dramatically influence construction lender's willingness to commit funds to development projects due to the perceived risks involved.

The market events that have occurred since January 1998 have primarily influenced the availability of take-out financing. Construction lenders have responded to this increased risk by adjusting spreads and underwriting standards. Accordingly, this will be the focus of our analysis.

CHAPTER 3

SURVEY METHODOLOGY AND RESULTS

The primary method of research for this paper was based upon a survey of the largest construction lenders within the United States. The survey was designed to accurately reflect changes in construction lending practices by assessing underwriting standards at three points in time; immediately prior to the capital crunch, during the capital crunch, and as of June 1999. The survey (a copy is contained in Appendix 1) attempted to identify changes in the following areas as a result of the capital crisis:

- Changes in Loan to Value Ratios (LTV);
- Construction loan spreads over LIBOR;
- Pre-leasing requirements for construction loans;
- Providers of take-out financing;
- Percent of permanent lenders issuing forward commitments.

The survey was also designed to assess lender's opinions of property market fundamentals during the crisis. These opinions were considered useful in trying to establish whether or not the capital crisis reflected property market fundamentals.

In selecting construction lenders to whom the survey would be sent we attempted to identify the largest construction lenders in the United States. These companies were

identified by referencing Fleets Guide, "*Income Property Debt and Equity Sourcebook*", (Spring/Summer 1997). Fleets Guide is an independent directory of all lenders in the United States and specifies the geographical areas in which they lend, the average loan size, the total volume of loans over the last two years, the types of loans originated, in addition to other information.

All lenders that undertook various types of construction loans were identified (i.e. construction with pre-leasing, construction with/without take-out financing, construction loans with/without guarantees). To ensure that a geographical balance of lenders was represented in our results, we generated a sample of geographically differentiated banks. We also surveyed lenders that originated loans throughout the United States.

In addition to construction lenders identified from Fleets Guide we also contacted all MIT Center for Real Estate Alumni's that were currently employed with companies that originated construction loans. This was done in the belief that the Alumni would be more likely to complete the survey (a very high percentage of Alumni did respond to the survey).

For data collection purposes all lenders were first contacted by telephone and the person who was most qualified to complete the survey was identified. We then attempted to speak to each relevant person and to provide them with a brief outline of our topic of research and to ask them for their cooperation in completing our survey. A voice mail

message was left in instances when we could not directly speak to the person. We then prepared a fax cover sheet on the MIT letterhead in an attempt to increase the likelihood of completion of the survey. The fax cover sheet gave a brief outline of our topic of research and also our phone numbers in the event that they had any questions.

Recognizing the fact that respondents would have limited time to complete the survey we realized that it had to be brief and easy to follow. With this in mind, we designed the survey with the intent of covering all relevant issues in a direct and succinct manner. The questionnaire was contained on two pages and included space for respondents to state their name, title and company. Given the above, the survey included a one page cover page and a two page questionnaire.

Many of the individuals contacted responded immediately. However, others required several follow-up calls in order to ensure that they did respond. Several of the companies contacted stated that they considered the information requested to be proprietary and therefore were, unwilling to complete the survey. However, many of these people did provide verbal opinions as to the impact of the capital crisis and some of these are contained within this paper. Of the 80 surveys that were sent, 21 responses were received.

CHAPTER 4

CONSTRUCTION LENDING PRIOR TO THE CRUNCH

4.1 Take-Out Financing Prior to Capital Crunch

In the late 80's and early 90's, commercial banks and insurance companies provided the vast majority of take-out financing for construction loans. A decade later, prior to the capital crunch, conduits successfully captured a substantial market share in the commercial real estate take-out financing arena¹². Conduits are lenders that originate loans with the specific intent of placing them into an asset pool for securitization. Through traunching, or separating the loan into various subordinated parts, conduits can effectively market these securities to a wide variety of investors according to their risk/return preferences. Recent market share growth and competitive pricing reflect the efficiency gains associated with the conduit program production process.¹³ Over the previous three years, conduits lending had steadily increased their market share. In 1997, conduits issued approximately 50% of all permanent financing for commercial real estate, up from 34% in 1996, and 25% in 1995¹⁴.

Survey results indicate that as of July 1998 conduits originated 55% of take-out financing, insurance companies originated 30%, and commercial banks 15%¹⁵. As of August 1998,

¹² Jane Adler, It's Where the Money Is, *Journal of Property Management*, 63(5), September 1, 1998.

¹³ Tim Riddiough, *Real Estate Capital Markets*, Lecture Notes, MIT, Spring 1999.

¹⁴ Joe Rubin & Phoebe Moreo, *CMBS: Crossing the Bridge*, Mortgage Bankers Association of America, July 1998.

¹⁵ Survey Results, June 1999.

the volume of CMBS securitization had reached approximately \$50 billion and there was \$30 billion in the pipeline. The advent of CMBS in the commercial financing market led to increased competition. Many new conduits were created. “Commercial banks and investment banks vied with one another to control market share, and even some life insurers formed conduits to grab a piece of the action.”¹⁶ As a result of increased competition among lenders, borrowers were able to pressure conduits to lower rates, increase leverage and ease mortgage covenants. As a result, the spreads over Treasuries for permanent financing tightened and capital for construction was available at a relatively low cost. “Getting a loan [was] so easy, compared to a few years ago, it [was] the next best thing to bank robbery.”¹⁷

4.2 Underwriting Standards Prior to the Capital Crunch

Since early 1996, the percentage of FDIC-insured banks that frequently issued speculative construction loans, loans with no pre-leasing, had steadily increased (based on a large sample averaging around 1,000 institutions nation-wide). The ratio reached its peak in March 1998 at 31%.¹⁸ Similarly, other aspects of underwriting standards had progressively become more relaxed; the number of speculative developments financed, the deferral of interest payments during loan durations, the absence of alternative repayment sources, and the failure to verify the reliability of alternative repayment sources had all

¹⁶ Joe Rubin & Phoebe Moreo, CMBS: Crossing the Bridge, Mortgage Bankers Association of America, July 1998..

¹⁷ Jane Adler, Real Estate: It’s Where the Money Is, Journal of Property Management, September 1, 1998.

¹⁸ FDIC: Report on Underwriting Practices, September 1998.

increased¹⁹. For example, according to an FDIC Report on Underwriting Standards for the 6 month period prior to the capital crunch, 23% of FDIC insured banks made construction loans without considering sources of repayment other than the project being financed, up from 19% reported for the previous six month period.

In addition, underwriting practices were increasingly relaxed for commercial real estate take-out financing. According to a National Real Estate Investor's article, many commercial loans were provided with virtually no cushion against NOI fluctuations (Debt Service Coverage Ratio of 1 to 1) and LTV's up to 100 percent were awarded to non-investment grade tenants.²⁰

Immediately prior to the capital crunch, competition between construction lenders resulted in a relaxation of underwriting standards. Survey results indicate that, prior to August 1998, for investment grade projects, the average LTV ratio was 80%, the average equity contribution was 15%, the average mezzanine financing was 5%, and the average spread over LIBOR was 160 basis points.²¹

Observing high LTV ratios and substantial lending to non-investment grade developments, the Federal Deposit Insurance Corporation (FDIC) issued several warnings of "potential problems in construction and commercial real-estate lending." In the words of FDIC Chairman Andrew Hove, "currently there's no cause for alarm, but ...certain underwriting

¹⁹ FDIC: Report on Underwriting Practices, September 1998.

²⁰ Richard DiBernardo, The Last Word, National Real Estate Investor, December 1998.

practices, especially involving construction and commercial real estate loans, should continue to be monitored carefully”.²²

4.3 Property Market Fundamentals & Development Prior to the Capital Crunch

The U.S. has benefited from strong economic growth and generally favorable real estate markets since the early 1990”s. Driven by a recovering economy and the large-scale acquisition strategy pursued by REITs, property values have been steadily rising for the past six years. REIT’s lower cost of capital enabled them to bid up the prices of properties. In 1997, REITs accounted for 50% of all acquisitions of investment grade commercial property.²³

Due to the perception that REIT managers were overpaying for assets and the potential for overbuilding, REIT share-prices declined after January 1998. While an imminent real estate downturn was not predicted, concerns were raised regarding the substantial growth in real estate development and the related increase in construction loans in some markets. In fact, the rate of growth of newly issued building permits by early 1998, if projected forward on a straight-line basis, would have clearly created oversupply. The market reacted “to the presence of cranes”²⁴ or, more accurately, to the emergence of the developers. “REIT share decline was partly in line with the broad stock market decline, but also because of a perception that too much development may be taking place on a

²¹ Survey Results, June 1999.

²² Anonymous, FDIC Report Provides Early Warning of Potential Problems in Construction and Commercial Real Estate Lending, Press Release, November 24, 1997.

²³ Geoffrey Richards, Passing Cold Front for Developers, Shopping Center World, December 1998.

national scale.”²⁵ By the second half of 1998, REITs were in a period of contraction in terms of acquisitions. This partially averted the concerns of overbuilding. Perhaps for the first time, the capital markets had brought meaningful discipline to the real estate industry.

According to Torto Wheaton Research,²⁶ construction of office space had more than quadrupled between the last quarter of 1992 and the last quarter of 1997, and jumped by almost 50 percent between mid-1997 and mid-1998. Despite this growth, the new stock represented less than 50% of the volume that occurred during the boom of the 1980’s. By year-end 1997, office vacancy was running at only 10.5 percent nationally and many markets had shown double-digit increase in rent levels.²⁷ These numbers reflected a continued imbalance between supply and demand. Net absorption was approximately 70 million square feet for the year, while new supply was estimated at 30 million square feet for the year.

By July 1998, excess supply was at its lowest, 12 percent, since the late 1980’s, according to FDIC survey results.²⁸ Furthermore, 24 percent of the FDIC respondents characterized supply conditions in their local commercial markets as “tight”, the highest proportion since the survey’s inception in 1991. FDIC survey results also indicate that sales prices for

²⁴ Marilyn Evans, Next Stop – The Millennium, *Journal of Property Management*, January 1, 1999.

²⁵ Dale Ann Reiss, Capital Markets Turmoil Suggests Caution for New York Real Estate”, *Real Estate Weekly*, Third Quarter Review, October 7, 1998.

²⁶ CB Commercial /Torto Wheaton Research.

²⁷ CB Commercial/Toro Wheaton Research, *The Office Market Pendulum*.

²⁸ FDIC Survey of Real Estate Trends, Results of the July 1998 Survey (summarizing the results of 299 federal bank and thrift agency senior examiners and asset managers).

commercial properties had also increased significantly since 1997.²⁹ Despite the aggressive acquisitions made by REITs in 1997, property market fundamentals were strong prior to the capital crunch of August of 1998. The commercial real estate development environment was growing steadily, fueled by strong absorption, low vacancy rates and low unemployment.

²⁹ FDIC Survey of Real Estate Trends, Results of the July 1998 Survey (summarizing the results of 299 federal bank and thrift agency senior examiners and asset managers).

CHAPTER 5

THE IMPACT OF THE CAPITAL CRUNCH

ON CONSTRUCTION LENDING

5.1 The Capital Crunch

Global economic problems, culminating in Russia's announcement on August 17 that it would default on its debt obligations, dramatically increased volatility in global capital markets. As a result of the global economic turmoil, global hedge funds incurred substantial losses and, in need of liquidity, were forced to sell their large equity positions in mortgage REITs.

Investment banks also required liquidity and they were ready to call in their short-term lines of credit extended to mortgage REITs. According to one mortgage REIT asset manager, most of the problems face by mortgage REITs stemmed from a fear that their credit lines would be called. "Because of this fear, and the markets unfavorable view of mortgage REITs, we were unable/unwilling to invest more capital in CMBS."³⁰ Since mortgage REITs have traditionally been the largest purchasers of low-rated CMBS, mortgage REIT's withdrawal from the market significantly contributed to the illiquidity of the CMBS market. "Without the mortgage REITs, the CMBS market cannot compete

³⁰ Survey Results, June 1999 (Derek Johnson, Senior Asset Manager, Ocwen Financial Corporation).

with whole loan providers. This results in increasing debt costs and in the case of financing new development, development plans may be delayed or scrapped altogether.”³¹

In response to market volatility, risk-averse investors pulled out of high-yield, high-risk investments. In search of safe investments, investors made a “flight to quality.”³² Many investors moved to Treasury Bills. Demand for Treasury Bills increased exponentially, driving its yield down. The yield on ten-year Treasuries, against which CMBSs are benchmarked, fell to 4.8 percent, 80 basis points lower than rates recorded only two months earlier. The market was flooded with high-yield, high-risk investment. As a result, liquidity in the CMBS market virtually disappeared. The lack of CMBS buyers increased the spread of CMBS over Treasuries dramatically. When combined with the lowered yield on Treasuries, CMBS reached unprecedented spreads.³³

News from Russia immediately triggered a disruption in the CMBS market.³⁴ While macro-economic turmoil was the catalyst of the capital crisis, it brought many real estate fears to the surface. Investors shifted their money out of the CMBS markets as a direct result of their concerns over collateral and loan underwriting quality.

The sales of CMBS by hedge funds led to increased volatility in the CMBS market. According to an October 1998 issue of *Investment Property*, spreads on AAA securities

³¹ Tim Riddiough, *Real Estate Capital Markets*, Lecture Notes, MIT, Spring 1999.

³² Jun Han, *The Next Millennium Will Be Different*, *Mortgage Banking*, February 1, 1999.

³³ *Id.*

jumped from 85 basis points in July to 130 basis points in late September, while spreads on BBB securities rose from 150 to 215 basis points. As pricing deteriorated, buyers continued to leave the market and CMBS became more illiquid. “The debt market started a panic of sorts, even though there weren’t any obvious problems with the real estate market in the United States”.³⁵ As a result, the pendulum had swung from favoring borrowers to the lenders.

5.2. Change in Sources of Take-Out Financing

Reduced Competition: Conduits Withdraw

Through the securitization process, conduits are immediately linked to the capital markets. Unlike insurance companies, conduits do not hold loans on a long-term basis. Fluctuations in interest rates during the warehousing period can substantially affect profitability. Accordingly, when the market became volatile in August of 1998. The increase in the spreads made loans closed before the crunch unprofitable.³⁶ Conduits lost huge amounts of money on warehoused loans

Due to a dramatic reduction in the number of purchasers of CMBS securities, conduits with large inventories of loans were faced with two damaging solutions: hold the inventory with the risk of increased losses, or dispose of the inventory as whole loans to minimize losses. For example, WMF (a conduit) incurred a \$30 million pre-tax loss when

³⁴ Sally Gordon, A Lesson From the Capital Markets, Mortgage Bankers Association of America, February 1, 1999.

³⁵ Geoffrey Richards, Passing Front for Developers”, Shopping Center World, December 1998.

it sold whole loans amounting to \$900 million to Merrill Lynch³⁷. The conduit most negatively impacted by the crisis was Capital America, which had a \$6 billion inventory of warehoused loans.³⁸

Two of the largest players completely stopped lending. First Boston Credit Suisse halted its lending operations despite a \$8 billion origination record in the first half of 1998.³⁹ In addition, Lehman Brothers, the leading CMBS issuer, was reported to have stopped lending.⁴⁰ As of late August, many conduits re-negotiated and increased spreads on deals that were settled, in striking contrast with insurance companies which closed the deals unchanged.

Following the capital crunch, interest rates offered by conduits ranged between 7 and 7.75%, while rates offered by insurance companies averaged between 6.75 and 7.25%.⁴¹ Conduits had lost their competitive edge; they had been priced out of the market. Many borrowers opted out of the conduits that remained in business in the last quarter of 1998. Accordingly, conduits either stopped lending or increased rates to unreasonable levels: both scenarios resulted in conduits' withdrawal from the market.

³⁶ Steve Bergsman, *After the Fall: Commercial Mortgage-Backed Securities*, *Mortgage Banking*, 59(2), November 1998.

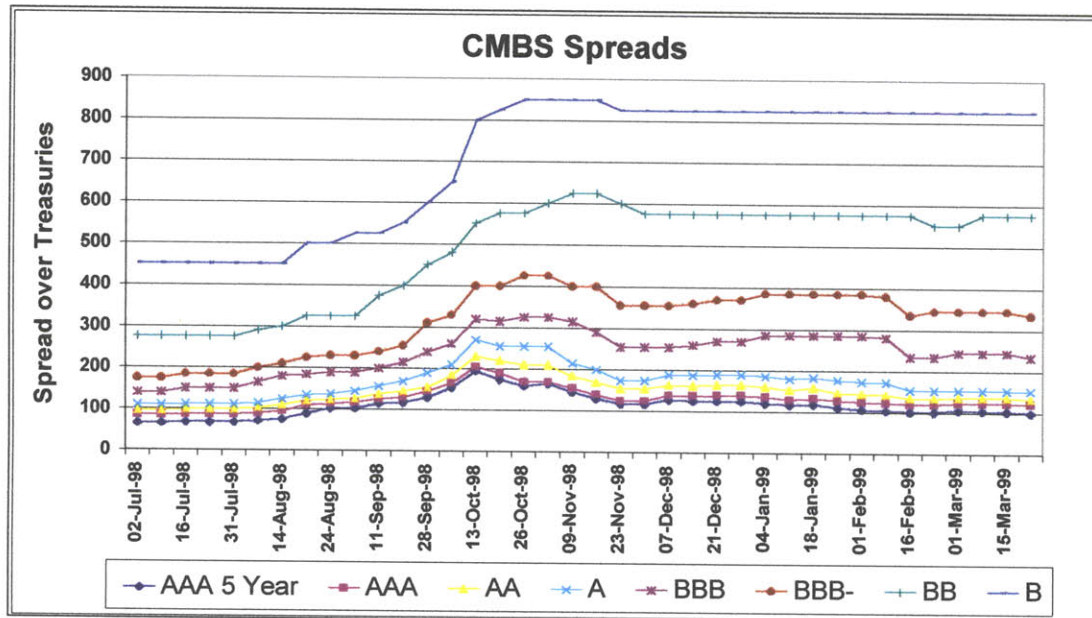
³⁷ *Id.*

³⁸ *Id.*

³⁹ Anonymous, *First Boston Suddenly Halts Lending Spree*, *Commercial Mortgage Alert*, September 14, 1998.

⁴⁰ Steve Bergsman, *After the Fall: Commercial Mortgage-Backed Securities*, *Mortgage Banking*, 59(2), November 1998.

Graph 2



Emergence of old players: Insurance Companies

As a result of conduits entering a temporary withdrawal phase, traditional commercial lenders were able to regain market share. The stability of property markets encouraged older players, with less captivity to the capital markets, to step in and fill the void. Mr. Brian Sopp, Executive Vice President of US Trust Corp stated that “The major impact of the capital crunch was a shift from Wall Street (conduits) to direct lenders (banks and insurance companies).”⁴²

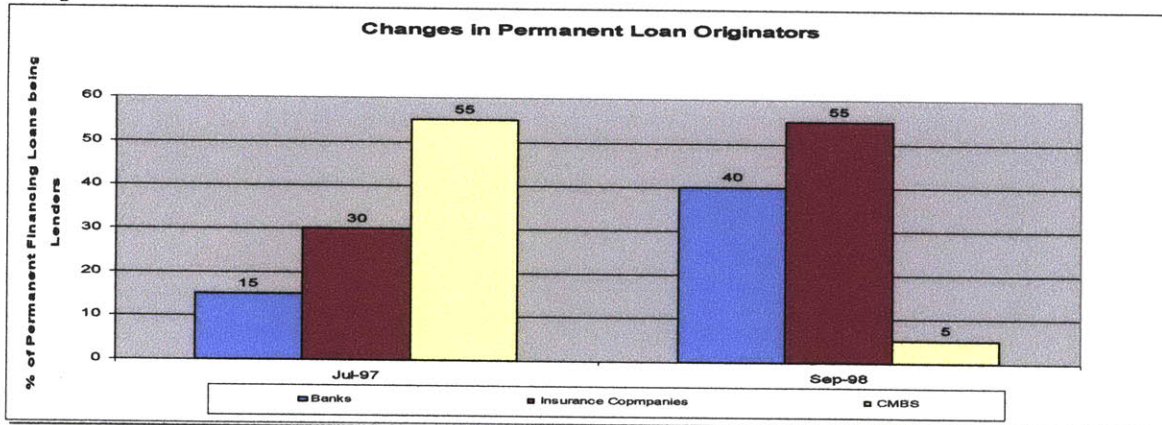
After August 1998, life insurance companies reclaimed market share that had been lost to conduits in recent years. Unlike conduits, life insurance companies have capacity to

⁴¹ Survey Results, June 1999.

warehouse loans for long periods of time and are, therefore, less affected by short-term capital market volatility. Life insurance companies can either originate whole loan mortgages for their own portfolio or securitize loans for third parties⁴³. Through their ability to hold loans for extended periods, life insurance companies were able to do business during the capital crunch. Insurance companies that had issued loans for securitization, such as John Hancock, bought them back to hold them in their portfolio⁴⁴.

Right after the crisis, insurance companies first followed the conduit market and increased spreads. Ultimately, life insurance companies lowered rates slightly and regained market share. By September 1998, insurance companies were providing 55% of the permanent financing in the market, while conduits market share dropped from 55% to 5%.⁴⁵ The market share held by commercial banks also increased, from 15% to 40%. “With conduits gone, life insurance companies returned with some banks”.⁴⁶ Graph 2 illustrates the market share for commercial loan originators as of July 1998, and September 1998.

Graph 2



⁴² Survey Results, June 1999.

⁴³ Steve Bergsman, Insurers and CMBS, Mortgage Banking, 59(5), February 1, 1999.

⁴⁴ Id.

⁴⁵ Survey Results, April 1999.

⁴⁶ Survey Results, April 1999 (W. Burnham, Vice President Commercial Real Estate, State Street Bank).

5.3 Underwriting Standards in the Aftermath of the Capital Crunch

The reduction of sources of take-out financing, whether in the form of temporary withdrawal of lenders from the market or excessively inflated spreads, has been the most significant factor that has affected construction lending. The lack of competition in the take-out financing market brought concerns of underwriting standards and over-building to the surface. This led existing construction lenders to impose more stringent underwriting standards. As a result, speculative construction lending declined substantially and development activity slowed down. For example, 40% of the planned office development in Boston was put on hold.

Immediately after the conduit's withdrawal, rates increased excessively because of insurance companies' relatively low volume of activity. Insurance companies and other providers took the opportunity to provide whole loans at record high spreads, with conservative underwriting terms. Many of them set floor rates averaging 7%.⁴⁷ Only investment grade developments with pre-leasing commitments from A-rated tenants were underwritten. As insurance companies increased volume, take-out financing became more readily available and construction lenders adjusted rates and underwriting standards to more accurately reflect the risks involved in development.

Loan-to-Value Ratios

A survey undertaken by the Boston based mortgage broker firm of Fantini & Gorga indicated that underwriting standards for construction loans had not reached pre-August

levels as of the last quarter of 1998⁴⁸ Prior to the capital crunch lenders were prepared to commit to loans representing 80% of construction costs. This maximum Loan to Value Ratio (LVR) reduced to 70% at the height of the capital crunch (September).⁴⁹

Construction Loan spreads over LIBOR

Spreads over LIBOR for construction loans have been dramatically affected by the capital crunch of last fall. Prior to the crunch, spreads were approximately 160 basis points. At the height of the capital crunch, spreads increased to 240 basis points.⁵⁰

Pre-leasing requirement for Construction Loans

The capital crunch resulted in construction lenders requiring greater levels of pre-leasing prior to committing to a construction loan. Prior to the capital crunch many lenders were willing to finance developments in which none of the space pre-leased. The FDIC Report on Underwriting Standards reported that 30% of FDIC insured banks issued speculative loans with no pre-leasing in the six-month period prior to the capital crunch.⁵¹ The average pre-leasing requirement increased to 50% in September 1998. “The capital crunch brought speculative lending to a halt. Construction lending now requires enough pre-leasing such that the leasing covers debt service at 1.00x with very few exceptions”.⁵²

⁴⁷ John Levy, Financing Today, National Real Estate Investor, December 1998.

⁴⁸ Fantini & Gorga, Rate Term and Letter, First Quarter 1999.

⁴⁹ Survey Results, June 1999.

⁵⁰ Id.

⁵¹ FDIC, Report on Underwriting Standards, September 1998.

⁵² Survey Results, June 1999 (Paul Nassar, Senior Vice President, Fleet Bank).

Percent of Loans with Forward Commitments

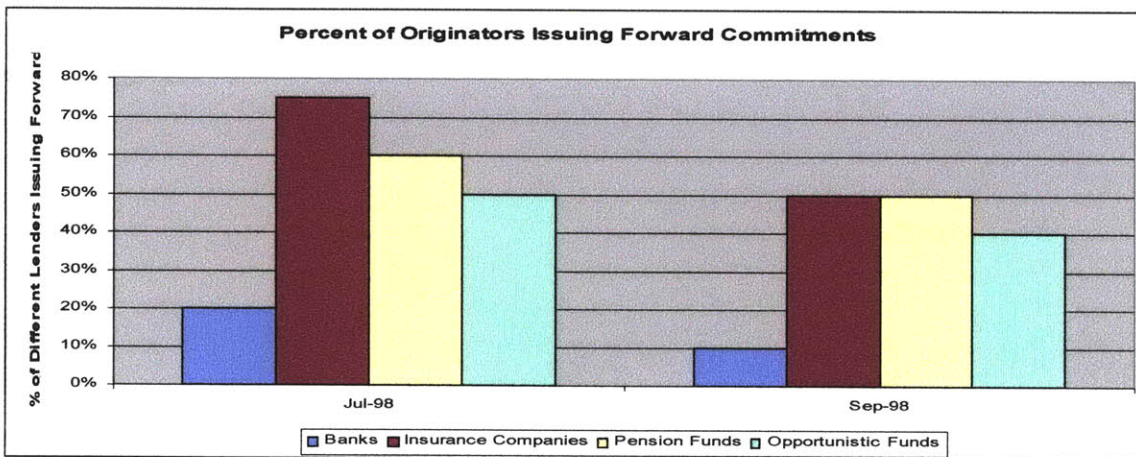
Some construction lenders require the developer to secure permanent financing prior to committing the construction loan. The capital crunch resulted in a temporary change in the percentage of lenders requiring forward commitments. Prior to the capital crunch only 10% of construction lenders required forward commitments. This percent increased to 20% at the height of the crunch.

Percent of Permanent Lenders Issuing Forward Commitments

As the capital crunch evolved, permanent lenders became hesitant to issue forward commitments due to the perceived risks involved. It is interesting to note that prior to the capital crunch, 85% of insurance companies were prepared to issue forward commitments. At the height of the capital crunch (September 1998), this percent dropped to 50%. Additionally, all other lenders reduced their willingness to make forward commitments.⁵³

This illustrated in Graph 3.

Graph 3



Source: Survey Results

5.4 Property Market Fundamentals and Development

The turmoil of the capital crisis happened when real estate fundamentals were strong. “In the year ending September 30, 1998, the NCREIF (National Council of Real Estate Fiduciaries) Property Index registered a 17.3% return, the highest since 1981”.⁵⁴ This high rate of return is considered to reflect the strength of the property market at the time of the capital crisis. These high levels of return were accompanied by very low commercial delinquency rates. In the third quarter of 1998, the delinquency rate of commercial mortgages held by member companies of the American Council of Life Insurance (ACLI) declined to 0.57%, the lowest in decades.⁵⁵

It is widely accepted that the capital crunch can largely be attributed to the capital markets rather than real estate fundamentals. “The dislocation of the capital markets had little to do with real estate and much more to do with international factors such as the collapse of the Russian markets and the spreading economic contagion in places such as Asia and Latin America.”⁵⁶ This opinion is supported by Stan Ross, vice chairman of E&Y Kenneth Leventhal Real Estate, who stated at a ULI conference in November: “For once, it not real estate’s fault, but we still get blamed.”⁵⁷

⁵³ Survey Results, June 1999.

⁵⁴ Jun Han, *The Next Millennium Will Be Different, Mortgage Banking*, February 1, 1999.

⁵⁵ Id

⁵⁶ Steve Bergsman, *US Forecast, National Real Estate Investor*, November 1998

⁵⁷ Mariwyn Evans, *Next Stop – The Millennium; Prospects of the Real Estate Industry*, *Journal of Property Management*, January 1, 1999.

The lack of competition among lenders and the increased loan pricing that resulted from the capital crunch negatively affected several developments. Indeed, one of the most severe negative impacts of the capital crunch on construction lending has been the inability of many development projects to secure permanent financing. Without permanent financing readily available, construction lenders were forced to increase spreads to compensate for the risks associated with having to hold a loan permanently.

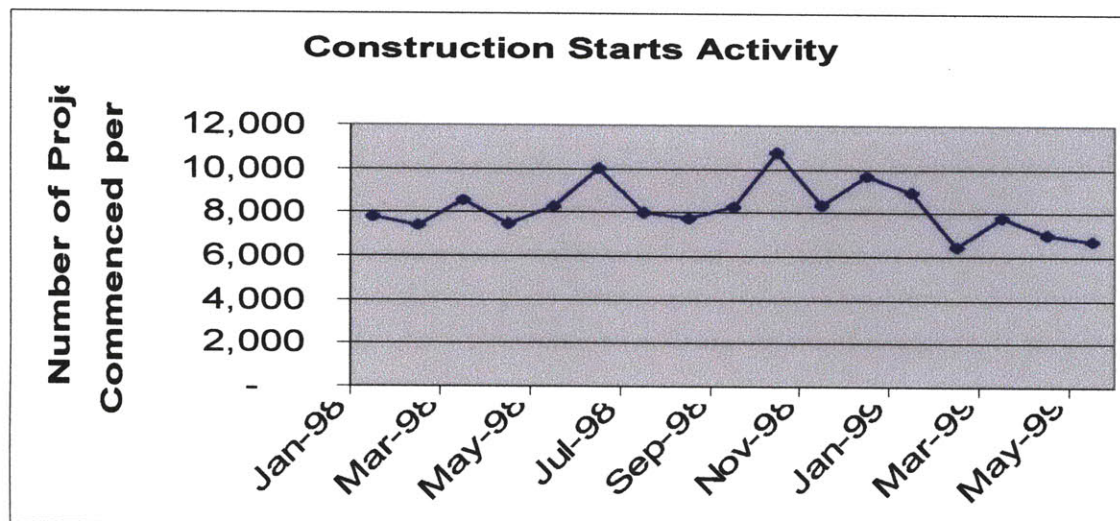
The capital crunch also resulted in the exodus of mezzanine financing and high leverage bridge debt.⁵⁸ Mezzanine financing is often used by developers to provide sufficient capital for developments to proceed and increases the Loan-To-Value (LTV) ratio. Mr. George Fantini, of Boston-based Fantini and Gorga, reiterated this viewpoint stating that “the capital crunch has resulted in this form of financing disappearing.” Accordingly, immediately after the crunch, developers were forced to put more equity capital into their development projects, which resulted in reduced development activity.

Figures obtained from F.W. Dodge (Graph 4) indicate that a relatively low number of projects were commenced during the three months (July – September) when the capital crisis was at its worst. This could be attributed to the high cost of debt and the burdensome underwriting standards that occurred at the height of the crunch. “The capital

⁵⁸ Oma Shulman, *Despite Credit Crunch, Demand Continues in 1999*, Real Estate Weekly, 45(26), January 27, 1999.

crunch eliminated financing ability on one project for approximately 90 days – spreads were extremely wide.”⁵⁹ “The capital crisis postponed several construction projects”.⁶⁰

Graph 4



Source: F.W. Dodge

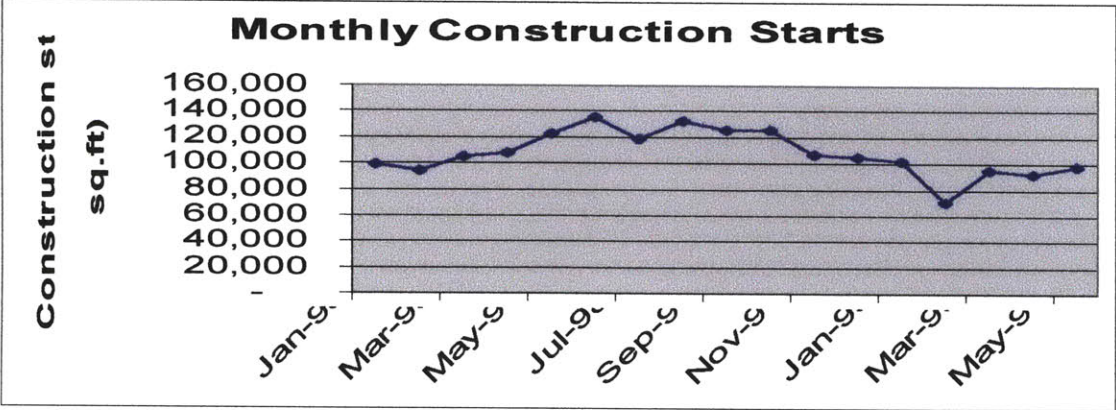
As the effects of the capital crisis abated, the level of starts dramatically increased in the month of November. Since November 1998, there has been a decline in starts that can be attributed to the more stringent underwriting standards that have ensued since the capital crunch.

⁵⁹ Survey Results, June 1999 (Adam Meinstein, Geometry Realty Inc.).

⁶⁰ Survey Results, June 1999 (W. Burnham, Vice President, Commercial Real Estate, State Street Bank).

Graph 5 illustrates that the amount of space constructed has declined since the middle of last year. This conforms with the previous graph.

Graph 5



Source: F.W. Dodge

CHAPTER 6

THE CONSTRUCTION LENDING ENVIRONMENT

TODAY (JUNE 1999)

6.1 Changes in Permanent Loan Originators

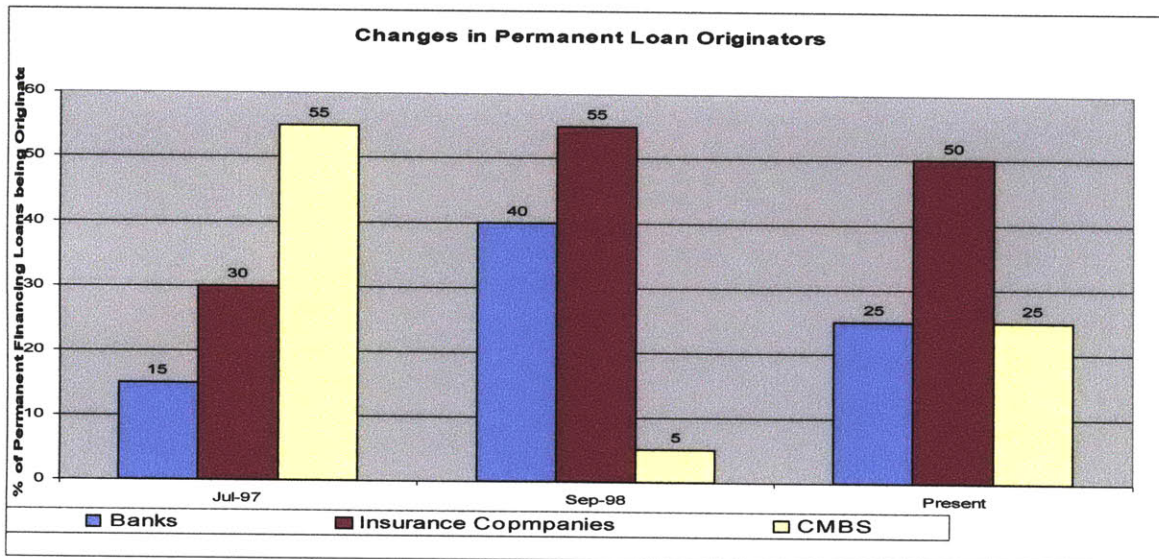
Ultimately, with the recess of the capital market crisis, investors and lenders became aware of the unchanged nature of property market fundamentals. Spreads over Treasury for permanent financing, and over LIBOR for construction lending, narrowed. Conduits gradually returned to the market. Securitizations were, however, smaller in size in order to warehouse less loan inventories at any moment in time and, thereby, reduce exposure to market risk.

The pendulum has now begun to swing back to pre-capital crunch. Since September of last year, CMBS (investment banks) originators have regained a significant portion of the permanent financing market that they lost as direct result of the capital crunch. Graph 6 illustrates that the CMBS share of permanent loans has increased from 5% of the market to 25% as of June 1999. This is, however, significantly less than the 55% share of the market that they held in July 1998, prior to the crunch. This reflects the opportunistic nature of the public capital markets. "It enters the market quickly when profitable opportunities are present and flees at the first sign of trouble."⁶¹

⁶¹ Jun Han, The Next Millennium Will Be Different, Mortgage Bankers Association, February 1, 1999.

It is interesting to note that both banks and insurance companies still account for a greater share of the market than they did in July of last year. Banks and insurance companies now account for the remaining 75% of take-out financing. Since investors have probably adjusted their risk assessment of CMBS in light of the capital crunch, it is expected that the present distribution of market share will remain unchanged in the near term.

Graph 6



Source: Survey Results

6.2 Underwriting Standards

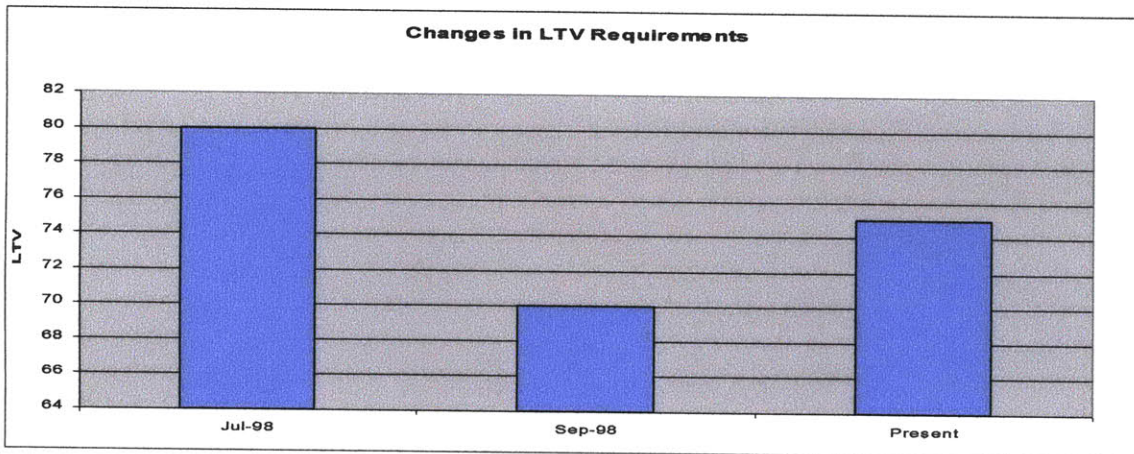
Given the relative stability of macro-economic factors and the increased availability of take-out financing since the capital crunch, construction lenders have once again eased underwriting standards. In the absence of global turmoil and aggressive lending practices undertaken previously undertaken by conduits, underwriting standards have found a "middle ground" that more accurately reflects property market fundamentals. A brief

synopsis of the change in underwriting standards from July 1998 to June 1999 is presented below in graphical form.

Changes in LTV Requirements

As of June 1999, the average LTV for construction loans was 75%.

Graph 7

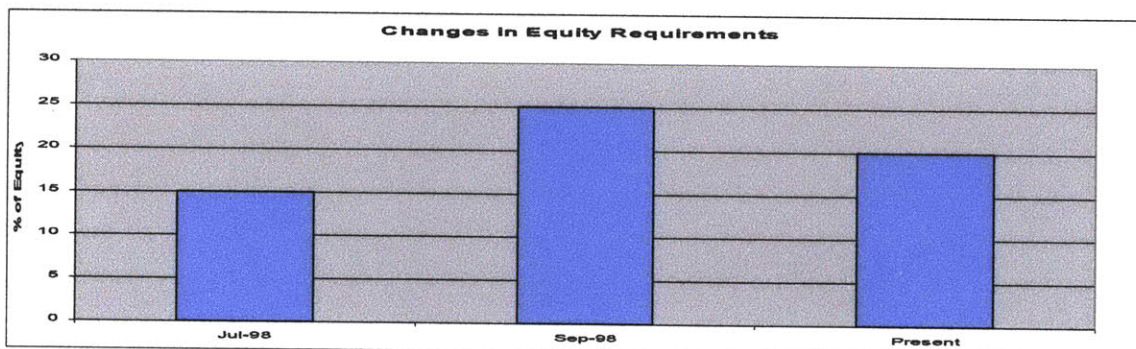


Source: Survey Results

Changes in Equity Requirements

As of June 1999, the average equity contribution was 20 percent. This is slightly down (5%) from the height of the capital crisis for the same reason that LTV ratios have changed. It can be seen that the total LTV ratios and equity requirements are 95% at all stages of the capital crisis. The remaining 5% would consist of mezzanine financing.

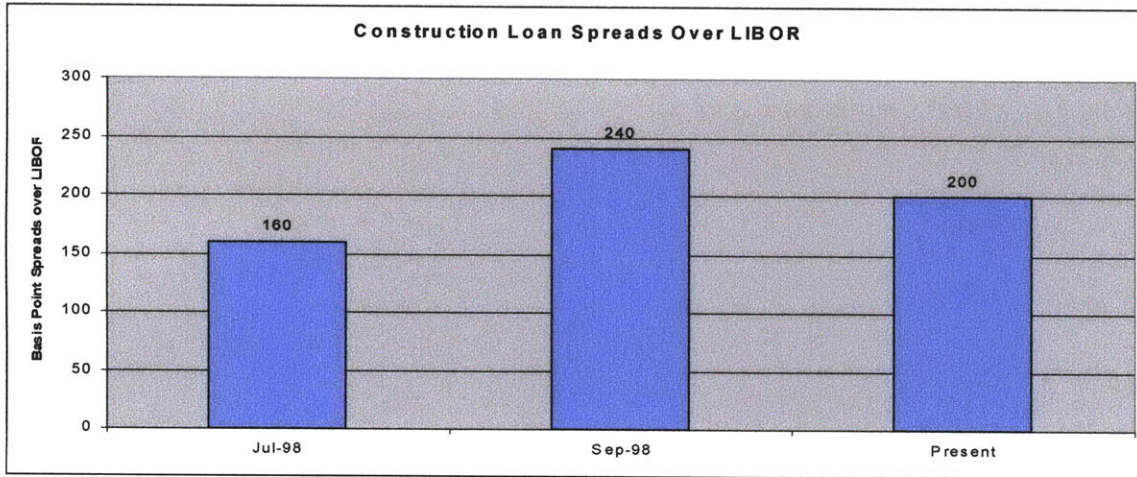
Graph 8



Spreads Over LIBOR for Construction Loans

Since the capital crunch, spreads over LIBOR for construction loans have decreased to 200 basis points, the midpoint between pre-capital and capital crunch spreads. This reflects lenders concerns that they do not want the property market to experience the dramatic oversupply of buildings as occurred in the early 90's.

Graph 8

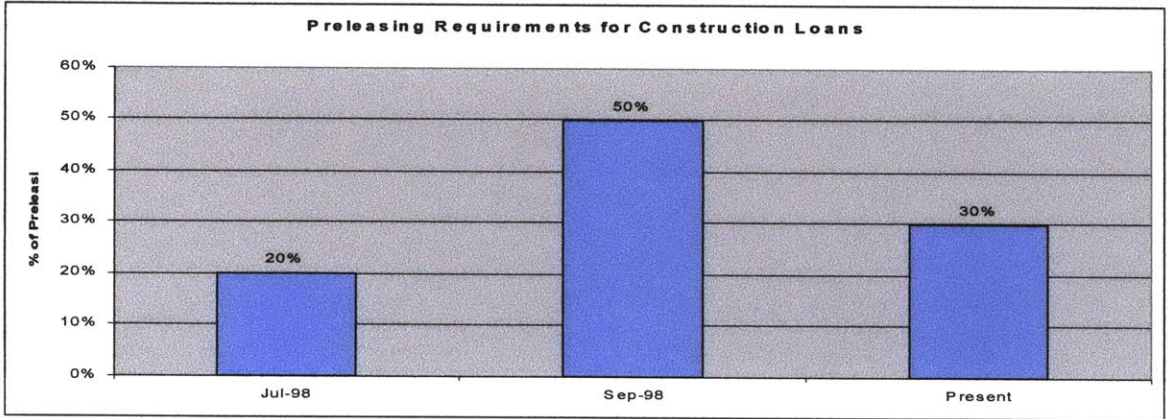


Source: Survey Results

Pre Leasing Requirements for Construction Loans

Since the capital crunch, the amount of pre-leasing required has reduced to approximately 30%. This represents a 20% reduction to the pre-leasing required at the height of the capital crunch and a 10% increase in pre-leasing requirements prior to the capital crisis.

Graph 9

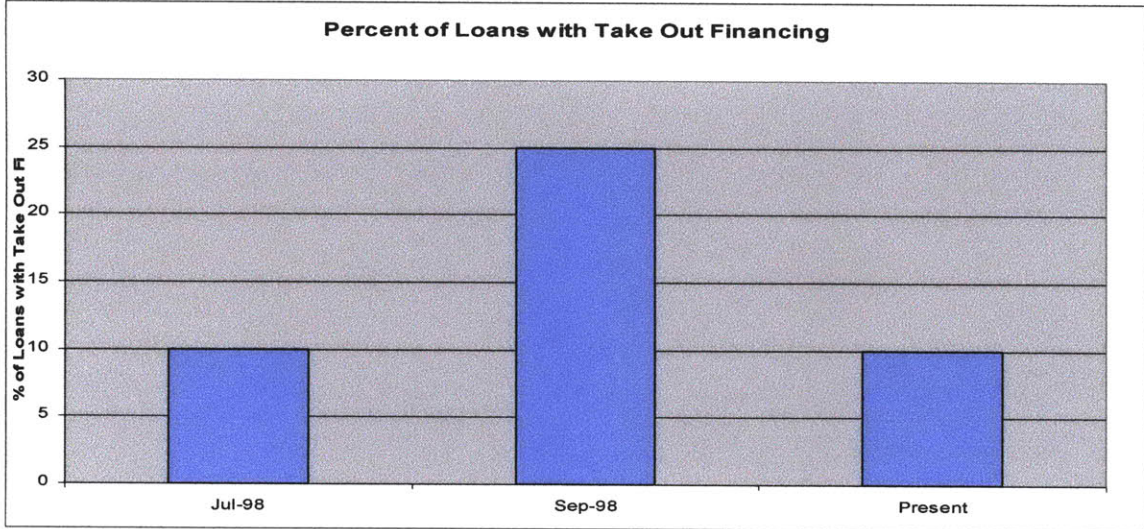


Source: Survey Results

Percent of Loans with Forward Commitments

The percent of construction loans that require forward commitments has returned to pre-capital crisis levels. As of June 1999, 10% of construction loans required forward commitments.

Graph 10

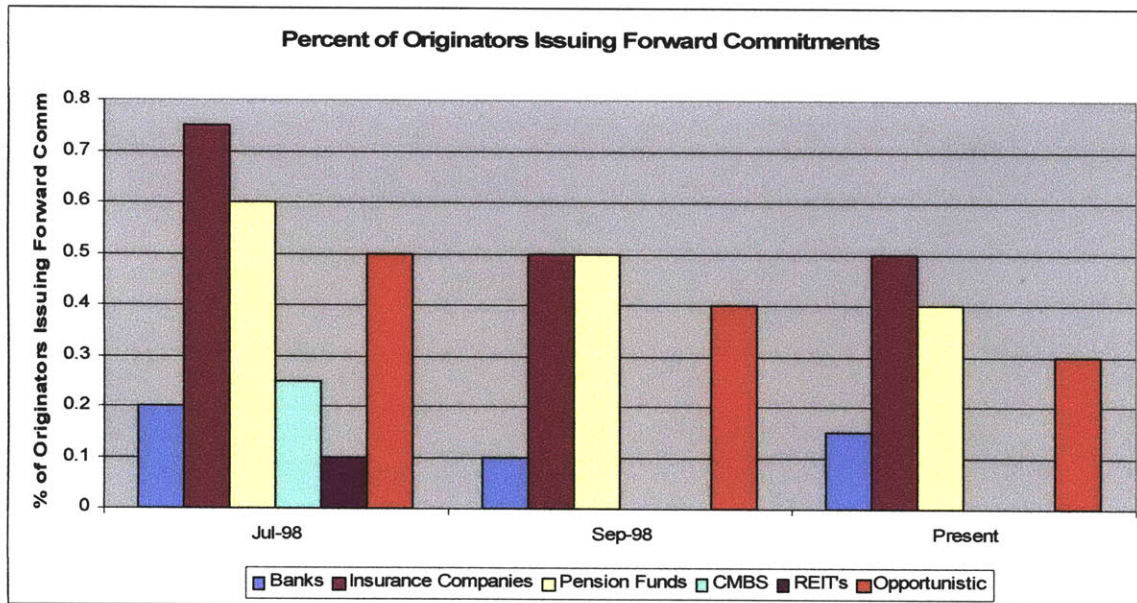


Source: Survey Results

Percent of Lenders Issuing Forward Commitments

Graph 11 shows that all lenders are less willing to issue forward commitments. While the percent of banks willing to issue forward commitments has remained steady since the height of the capital crisis, all other originators (except banks) have reduced their forward commitments. Conduits have completely dropped out of the forward commitment market.

Graph 11



Source: Survey Results

6.3 Property Market Fundamentals and Development Activity Today

Today, most markets in the US are still enjoying strong market fundamentals - rising occupancies, rising rents and increasing values. After finding it difficult to finance projects immediately after the capital crunch, developers are once-again finding the capital they need. Any fears of a capital crisis have subsided. "The worst is over and a definitely

improving borrowing climate has quickly emerged.”⁶² The dissipation of the fear of overbuilding and the stability of property market fundamentals effectively overcame the effects of the capital crunch.

The capital crunch ultimately acted as a warning signal against the relaxation of underwriting standards in commercial lending. As a result, while financing remains available, more emphasis has been put on the ‘quality’ of the development. “The good deals that make a lot of economic sense are still going to get done.”⁶³ Some developers and investors are, however, finding loans on some types of deals difficult to secure. Real estate companies attempting to finance hotel and some health-care facilities must often pay significantly higher interest rates than deals involving office buildings or apartment complexes.⁶⁴ This higher cost of financing reflects broader industry concerns that these sectors are over-built. In fact, “the only good news to come out of the capital market mess is that the turmoil immediately shut down the spigot on lending to real estate, and the sectors that were overheating were built no more.”⁶⁵ According to Mr. Jacques Gordon, Director of Investment Research at LaSalle Advisors Capital Management, “It’s all working like it’s supposed to.”⁶⁶

⁶² Interview with George Fantini, Fantini & Gorge, April 1999.

⁶³ Barbara De Lollis, Would-Be Building Boom Stifled by Credit Crunch, The Miami Herald, November 26, 1998 (quoting Lisa Hillier, real estate analyst, E & Y Kenneth Leventhal).

⁶⁴ Interview with George Fantini, Fantini & Gorge, April 1999.

⁶⁵ Steve Bergsman, US Forecast, National Real Estate Investor, November 1998.

⁶⁶ Steve Bergsman, US Forecast, National Real Estate Investor, November 1998.

According to Lend Lease Real Estate Investments' Emerging Trends in Real Estate, the recent curtailment of capital has transformed the real estate business. "1999 promises to be a market environment that recent generations have never experienced – equilibrium."⁶⁷

According to Donald Noland, assistant director of research for Cushman and Wakefield, "office vacancy rates are among the lowest in history, which suggests that we are seeing an equilibrium that bodes well for the industry."⁶⁸

The roiling of the real estate markets in 1998 may mean a significant and long-term change going forward. Hugh Kelly, chief economist of Landauer Real Estate Counselors in New York, predicts the next five years are going to be slower than the past five years.⁶⁹

However, "property markets across the country are tight at the present time, with demand outstripping supply."⁷⁰ In such an atmosphere, funding construction projects appears to be a viable option. According to Matthew E. Galligan, managing director of Boston based Fleet Financial Group, "there are very few cranes up in major metropolitan areas yet. In fact we are at the beginning stages of the development cycle."⁷¹

According to the interview results, capital availability in 1999 will likely be reduced.⁷²

However, lenders and investors must distinguish between swings in the capital markets,

⁶⁷ Emerging Trends in Real Estate 1999, Lend Lease and Price Waterhouse/Coopers.

⁶⁸ Mariwyn Evans, Next Stop – The Millennium, Journal of Property Management, January 1, 1999.

⁶⁹ Steve Bergsman, US Forecast, National Real Estate Investor, November 1998.

⁷⁰ Maria Wood, Where Has Public Money Gone?, Real Estate Forum: Annual Debt and Equity Capital Survey, April 1999 (quoting Matthew Galligan, Managing Director of Fleet Financial Group).

⁷¹ Id.

⁷² Emerging Trends in Real Estate 1999, Lend Lease and Price Waterhouse/Coopers.

like CMBS volatility, and the underlying real estate fundamentals, which are really quite good.⁷³

Though development is underway in most sectors and markets around the country, observers tend to be cautious rather than worried. The markets are behaving quite differently than in the overheated eighties, when unrestrained development continued in the face of rising vacancy and slowing demand. In fact, aggregate commercial construction is below the average for the last 18 years, even with recently stepped up activity. A survey conducted by Lend Lease/PriceWaterhouseCoopers indicates that real estate professional's near term concerns center around potential exogenous shocks rather than real estate fundamentals. "Today, what happens in Tokyo, Beijing, or Moscow is more important to real estate than what happens on Main Street."⁷⁴

⁷³ Emerging Trends in Real Estate 1999, Lend Lease and Price Waterhouse/Coopers.

⁷⁴ Id.

CHAPTER 7

CONCLUSION

Many real estate market participants strongly believe that the introduction of public capital markets will introduce greater levels of efficiency to a market that has traditionally been very inefficient. In the long run, the public markets will improve the efficiency of the real estate market through greater disclosure and dissemination of information. They suggest that the presence of public capital in commercial real estate will introduce discipline, as capital will only flow to projects supported by sound real estate market fundamentals. A more responsive supply of capital will reduce the risk of over-building and, thereby, result in a less extreme cycle.

This positive influence of the capital markets was clearly demonstrated by the markets correction of REIT share prices in early 1998. In response to REIT managers paying unprecedented prices for assets and to the potential of overbuilding in the future, the capital markets reduced available capital and adjusted pricing to accurately reflect potential market conditions. Through the foresight and efficiency of the capital markets, discipline was quickly injected into the property markets.

The events surrounding the disruption in the CMBS market in August of 1998 demonstrated an entirely different phenomenon, an arguably negative affect of the capital markets. Despite sound property market fundamentals, capital funding of commercial development was temporarily cut-off due to global economic problems. The sudden volatility in CMBS spreads had a severe impact on the real estate market. Underwriting standards were tightened, demonstrating that the property market is not solely dependent on real estate fundamentals, but on external market factors as well. As long as the presence of public capital remains significant in the real estate market, risk premium changes in the global market will be very disruptive to the pricing of capital necessary to finance both public and private real estate. Accordingly, the capital markets may add volatility to the real estate market, at least in the short run.

We acknowledge that the capital crisis came at a period when underwriting standards were declining slightly and acted as a catalyst to bring those standards into conformity with property market fundamentals. However, such a crisis could have occurred when both property market fundamentals *and* underwriting standards were sound. In that instance, the associated benefits of the capital markets (foresight, efficiency and discipline) would have come at a high cost, dramatic short-term volatility.

As market professionals consistently praise the benefits of capital markets influence on commercial real estate (which are significant), it is important to keep in mind the related

costs. The link between public capital markets and property markets will undoubtedly increase volatility and, thereby, risk over the short-term.

As evidenced by the capital crunch of August 1998, the role of construction lenders has become more dynamic. Henceforth, construction lenders will have to quickly adjust underwriting standards to reflect the ever-changing risk characteristics present in the capital markets. The question remains: Will the long-term efficiencies gain by the presence of the public markets outweigh the short-term costs, namely increase volatility? The answer will largely depend on the ability of construction lenders to monitor the capital markets and price loans accordingly.

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Appendix: The Survey Questionnaire

We are currently writing a thesis on Construction Lending at Massachusetts Institute of Technology, Center for Real Estate. Our thesis will focus on the capital markets impact on construction lending. It would be greatly appreciated if you could take the time to complete the following questionnaire providing relevant market insight.

Please fax the completed questionnaire to (617) 253-8074 by June 5, 1999. We can be contacted at the following number if you have any questions: (617) 374-6545.

Many thanks from Steve Garuti (M.S. '99) and Ben Goodsir (M.S. '99).

Name:

Position:

Organization:

1. For each of the given time periods, approximately how many construction loans did your organization originate?

	July 1998	September 1998	Present
Number of Loans			

2. What were the typical underwriting standards that your company required at the stated times?

Underwriting Requirements	July 1998	September 1998	Present
Loan to Value Ratios			
Percent of pre-leasing required			
Percentage with Guarantees			
Percent with take-out financing			
Spread over LIBOR			

3. Of the loans that were originated by your company, what percentage contained mezzanine financing?

	July 1998	September 1998	Present
Percent with Mezzanine			

4. Of the total property value (properties containing mezzanine financing), on average what percentage was mezzanine financing?

	July 1998	September 1998	Present
Percent of Mezzanine			

5. Of the construction loans originated by your company, which type of institution provided take-out financing for those loans at the stated times (by percentage)?

	July 1998	September 1998	Present
Banks			
Insurance Companies			
Pension Funds			
Conduits			
REITs			
Opportunistic Funds			
Other (please specify)			
TOTAL	100%	100%	100%

6. What percentage of the above companies issued forward commitments for permanent financing at the stated times?

	July 1998	September 1998	Present
Banks			
Insurance Companies			
Pension Funds			
CMBS (Wall St)			
REITs			
Opportunistic Funds			
Other (please specify)			

7. As of August 1998 (at the height of the capital crisis) what was your opinion of underlying property fundamentals?

8. What impact did the capital crunch of the fall of 1998 have on construction lending?