

The Lam Group

Investment Management

The Lam Group Newsletter Vol. 7, No. 2 **Summer 2007**

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The Big Picture: The Credit Crunch of 2007

What a difference a few weeks make. If we had published our 2Q newsletter on time (usually the second week of July), there would have been little to write about that was not discussed in our 1Q newsletter. In early July, the markets were still awash in liquidity, the private equity buyer continued to drive the equity markets up and the overuse of leverage was commonplace.

Despite the overall strength of equity markets globally, many felt the markets needed to "deleverage" and given our Federal Reserve Bank's stated "concern" with inflation, the expectation was that this deleveraging would be initiated by global interest rate increases. As the Fed had been very clear about its concerns; market participants seemed to be prepared for the possibility of measured increases in interest rates.

What has happened in the last several weeks is that the markets have deleveraged, not by increasing interest rates, but by a significantly more challenging credit environment (making it more difficult to borrow) initially caused by problems in the subprime mortgage market. These problems precipitated a *credit crunch* for commercial banks around the world, requiring central banks, led by our Federal Reserve to act, and act decisively. In a very short period of time, credit availability vanished, and it was clear the markets were unprepared.

By late July evidence of a credit crisis was widespread: the inability of private equity firms to finance their deals in the corporate debt market, hedge fund managers experiencing capital calls on the falling values of their leveraged subprime, high-yield bond, and derivative holdings, and the average homebuyer finding mortgages more difficult to obtain or refinance. The confluence of these events created a "perfect storm" in the credit markets that illustrate the dependence of many types of investments on cheap debt.

While the effects of this perfect storm are significant in the near-term, it is likely they are temporary and the markets will eventually offer investment opportunities as some of the improperly leveraged investors are forced to leave the playing field.

How do problems in the subprime mortgage market affect seemingly unrelated markets?

The originators of subprime mortgage loans (the issuers of loans to homebuyers with poor credit) never expect to hold these loans; these loans are made to be sold to other investors. The profitability of originating subprime loans is enormous (the borrower has nowhere else to go) and the incentives to make these types of loans are in direct conflict with the requirements of making creditworthy loans. The *moral hazard* method of making subprime loans is hazardous to the ultimate end investor.

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As the majority of subprime loans are securitized (in what Wall Street calls CLOs and CDOs*), the end investor is varied; some investors don't even know they own investments that have exposure to subprime. Asset-backed securitization allows subprime mortgages to be pooled; and Wall Street bankers structure these pools into separate securities that are often differentiated by credit quality. The highest credit quality asset-backed securities are sold to money market funds, banks and insurance companies and the lowest credit quality securities are usually sold to hedge funds (and then leveraged for increased returns).

The higher credit quality securities tend to have investment grade credit ratings which are obtained at the expense of the lower credit quality securities. This transference of risk within an asset-backed securities deal makes the lower credit quality securities very volatile and difficult to value.

If we look at the range of investors who buy asset-backed securities investments with exposure to subprime, a lot can be learned from examining the investors at the extremes of the credit spectrum. Let's start with the riskiest securities:

Hedge Funds. In general, these unregulated investment funds tend to buy the lowest rated (highest yielding) securities and borrow the funds from their brokers (i.e. Bear Stearns, CitiGroup, etc.) to leverage these holdings to boost returns. If the value of these holdings decline, their brokers issue margin calls requiring the fund to put up more cash against the borrowing or else the security will be sold to repay the borrowing. If the security cannot be sold (i.e. no one is willing to make a market), a hedge fund is often required to sell other more liquid and easier-to-sell assets (such as publicly-traded stocks, bonds, commodities, etc.) to meet the margin call.

This subprime margin call-related selling has put pressure on all asset classes

It is important to note that the brokerage firms (such as Bear Stearns, Goldman Sachs, etc.) who have lent money to the hedge funds have generally borrowed this money from commercial banks (such as JP Morgan, Bank of America, etc.).

As the risk associated with lending to hedge funds and brokerage firms increases, the commercial banks have to manage their credit risk exposure in other areas. Unfortunately, many commercial banks have also provided the bridge loan-financing for the private equity deals that are currently outstanding in the market. These bridge loans are typically replaced by the issuance of high yield bonds to other investors; however, the current subprime market problems have made issuing high-yield bonds virtually impossible. This inability to sell high yield bonds increases the amount of credit risk commercial banks are exposed to.

The problems for the commercial banks are not limited to their credit exposures to hedge funds and private equity deals. Even with the least risky asset-backed securities, there can be unexpected risks. Investors at the top of the asset-backed securities credit spectrum with exposure to subprime are money market funds.

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Money Market Funds: With the development of the asset-backed commercial paper (ABCP) programs, many money market funds have exposure to these investment grade commercial paper programs. While ABCP programs barely existed 10 years ago, the market is now over \$1 trillion.

Here is how these ABCP programs work: A holding company is formed to buy investment grade asset-backed securities. To finance these purchases, the holding company usually issues 30-day commercial paper using the asset-backed securities as collateral. Theoretically, as long as the cost (yield) of issuing the commercial paper is less than the income/yield generated by the asset-backed securities, the holding company makes money on the spread (known as the carry trade). A basic assumption is that investment grade asset-backed securities (AAA rated) can be sold for at least Par (100% of face value).

Every period when the commercial paper matures, it must be “rolled” to keep the asset-backed securities at the holding company properly funded. If the commercial paper cannot be rolled, the majority of ABCP programs are required to have a committed line-of-credit from a highly-rated commercial bank to insure funds are available to pay back the money market fund investors.

With the problems in the subprime market in late July and August, most money market funds stopped rolling their ABCP investments and it is likely that all the ABCP programs with committed bank lines-of-credit were required to draw down those lines to repay the ABCP investors. Despite the hysterical rantings in the media about the potential risk of money market funds “breaking the buck” (losing principal on money market investments), the risks of subprime exposure in ABCP was shifted from the money market fund investor to the already credit-burdened commercial banks that provided the line-of- credit. *It is worth noting again that there is over \$1 trillion in ABCP outstanding today.*

The difficulties in the subprime markets caused the end investor, whether it be hedge funds or money market funds, to stop buying, and in some cases required forced selling, of asset-backed securities-related investments. Ultimately this put the commercial banking system under unexpected stress.

While no one believes it is the Federal Reserve Bank’s job to bail out risky/over-levered/overly-aggressive investors; the Fed must intervene when the commercial banking system is in trouble.

The Fed’s actions in August make it clear that the commercial banking system was in serious trouble.

On August 17th, the Fed lowered the Discount Rate from 6.25% to 5.75% and opened their Discount Window and encouraged member banks to borrow for an indefinite term. Historically, these Discount Window borrowings are collateralized by a member bank’s US Treasury and Agency bond holdings, however the Fed also expanded the acceptable collateral to include certain investment grade mortgage-backed securities.

One week later, on August 24th, the Fed allowed member banks to use ABCP as collateral to borrow at the Discount Window and also lifted the restrictions on commercial banks lending to their own brokerage subsidiaries (i.e. JP Morgan can lend to JP Morgan Securities).

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This series of aggressive Fed actions is unprecedented and indicative of how large the credit problems were. Central banks of other developed countries provided similar liquidity to their member banks in August.

Follow the Fed

Historically, borrowing at the Fed Discount Window borrowing was a shameful admission of a given commercial bank's poor management/administration of its credit extending abilities. After the Fed's August 17th Discount Window invitation, the member banks borrowing at the Discount Window was an all-star list of the nation's largest and most well-known commercial banks. Clearly, no one was immune from this credit crisis.

As the Fed and other central banks are only responsible for their member commercial banks, it will take some time for this central bank-provided liquidity to work its way into other leveraged parts of the capital markets. Commercial banks will lend to brokerages, hedge funds, and finance companies, and these entities will further lend to their customers and so on. While some overleveraged firms will undoubtedly go under, many will be saved by the Fed's largesse.

A good example that the Federal Reserve's act of injecting liquidity to a distressed financial system is working was evidenced by the August 23rd announcement that Bank of America's made a \$2 billion investment (bail out) in Countrywide Financial, who was rumored to be on the edge of bankruptcy due to their overleveraged position as the nation's largest home mortgage originator.

In the face of this credit crisis, Fed Chairman Bernanke has acted quickly and prudently to allay market participant fears and instill confidence and support for the commercial banking system.

The current market environment is reminiscent of the autumn of 1998 when defaults in the Russian bond market, not problems in the subprime mortgage market, were the catalyst that ignited the market meltdown that resulted from too much leverage in the financial system. Market historians may remember that the crisis in 1998 led to the eventual failure of the Long Term Capital Management hedge fund and other overleveraged entities.

While it is impossible to predict how long the current credit crisis will last, it is worth noting that since the last credit crisis in late 1998, all asset classes, including Russian/emerging market bonds, have rebounded nicely.

The Fed's actions this month have provided the necessary liquidity to avert a greater crisis in our banking system, and it is possible that the Fed is likely to lower interest in the near future. These actions are not without consequence as this injection of this level of liquidity to the banking system can ignite inflationary pressures and can have negative implications on the value of the US dollar.

With so much going on, there is surprisingly little to do.

For market participants that do not have a solid capital markets framework, the lower market levels caused by this current credit crunch has introduced panic and fear to the investment decision-making

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process. In the short-term (usually in times of crisis), it can seem like all asset classes are going down. However, for those who have a long-term investment horizon and an adequate capital markets framework (hopefully this now includes readers of this newsletter), the recent market turmoil, while unwelcome, brings an opportunity to rebalance a diversified portfolio to its long-term asset allocation goals.

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This credit-driven correction has been significant and is probably not yet over. Given the strong performance of the global markets over the past several years, a correction of this magnitude, while unwelcome, should not be unexpected and is a reminder that markets have risk and can go down.

The unpredictability of markets and increased volatility in the financial system argue more strongly than ever for a diversified and globally-balanced investment approach. While our portfolios have not been immune from the market events of the last several weeks, it is important to stay committed to a long-term investment horizon and to remember that it is impossible to market-time investments especially when the corrosive effects of taxes and transactions costs are considered. That being said, these recent market gyrations will eventually lead to opportunities that can be captured as the portfolios are rebalanced in accordance with our overall client asset allocation guidelines.

The Lam Group continues to focus on designing and managing globally diversified investment portfolios and overseeing our client's risks by only including investment asset classes which have low relative correlation in the context of an aggregate portfolio. Our asset allocation approach employs a highly analytical process to determine the appropriate combination of asset classes to build investment portfolios and strategies that realistically and optimally reflect the needs, risk tolerances, and investment horizons of our clients.

The Lam Group is an independent, fee-only, SEC-registered investment advisory firm with over \$260 million in assets under management with clients in Oregon, Washington State, California, Connecticut, New York, and New Jersey. We offer both investment management and portfolio consulting services for taxable investors, family offices, foundations, and endowments.

The Lam Group will continue its policy of considering new clients on a referral-basis only with a \$5 million initial portfolio minimum.

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* CLO: Collateralized Loan Obligation, CDO: Collateralized Debt Obligation

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Asset Class Investment Results:

All portfolios constructed and managed by The Lam Group are designed for an individual client's specific risk tolerances, income requirements and investment horizon. Our investment management approach includes the design of a customized asset allocation plan, the research and selection of the most appropriate and cost-effective asset class investments for the client's specific investment policy, and the on-going monitoring and disciplined rebalancing of the aggregate portfolio to optimize return, manage risk and minimize taxes.

As different clients have different goals, risk profiles and investment horizons, it is not useful to publish a track record of specifically-managed portfolios. The investment performance data below illustrate the returns of some of the actual mutual funds utilized by The Lam Group for specific asset class allocations in the construction of investment portfolios we manage.

All data is as of 6/30/07

<u>Equity Asset Class Category</u>	<u>2Q2007</u>	<u>YTD</u>	<u>3 Year Annualized</u>	<u>Correlation w/ S&P 500*</u>
<u>Domestic Total Equity Market</u>				
-Wilshire 5000 Index (Total Dom. Eq. Market)	+ 5.99%	+ 7.56%	+12.82%	+0.99
US Total Market Fund	+ 6.08%	+ 7.52%	+12.64%	+0.99
<u>Domestic Large Cap Stocks</u>				
-S&P 500 Index	+ 6.28%	+ 6.96%	+11.68%	+1.00
Domestic Large Cap Value Fund	+ 6.76%	+ 8.90%	+17.27%	+0.94
<u>Domestic Small Cap Stocks</u>				
-CRSP 6 -10 Index	+ 5.09%	+ 7.52%	+14.03%	+0.85
-Russell 2000 Index	+ 4.42%	+ 6.45%	+13.45%	+0.84
Domestic Small Cap Value Fund	+ 3.89%	+ 7.08%	+16.47%	+0.81
<u>Real Estate Investment Trusts (REITs)</u>				
-Wilshire REIT Index	- 9.47%	- 6.19%	+22.29%	+0.39
REIT Fund	- 9.46%	- 6.30%	+21.41%	+0.39
Real Estate Fund	- 1.62%	- 1.79%	+21.84%	+0.56
<u>International Large Cap Stocks</u>				
-MSCI EAFE Index	+ 6.40%	+10.74%	+22.24%	+0.86
International Large Cap Value Fund	+ 7.82%	+13.24%	+27.29%	+0.81
<u>International Small Cap Stocks</u>				
-MSCI Small Cap EAFE Index	+ 4.22%	+11.63%	+24.82%	+0.67
International Small Cap Value Fund	+ 4.49%	+13.96%	+28.78%	+0.62
<u>Emerging Markets Equity</u>				
-MSCI Emerging Markets Free Index	+14.06%	+16.11%	+34.84%	+0.77
Emerging Markets Value Fund	+19.47%	+28.33%	+46.98%	+0.75

* 5 yr correlation using monthly data

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All data is as of 6/30/07

<u>Fixed Income Asset Class Category</u>	<u>2Q2007</u>	<u>YTD</u>	<u>3 Year Annualized</u>	<u>Correlation w/ S&P 500*</u>
<u>Domestic Investment Grade Bonds</u>				
-Lehman 1-3 year Govt Bond Index	+ 0.73%	+ 2.14%	+ 3.04%	-0.35
Short Duration Domestic Inv. Gr. Bond Fund	- 0.32%	+ 1.33%	+ 2.84%	-0.17
Short Duration Domestic Muni Bond Fund	+ 0.75%	+ 1.62%	+ 2.51%	-0.13
-Lehman Aggregate Bond Index	- 0.52%	+ 0.98%	+ 3.98%	-0.22
Domestic Investment Grade Bond Fund	- 1.33%	+ 0.35 %	+ 3.97%	-0.15
<u>Domestic High Yield Bonds</u>				
-CSFB High Yield Bond Index	+ 0.65%	+ 3.68%	+ 9.05%	+0.49
High Yield Bond Fund	+ 2.64%	+ 7.15%	+10.05%	+0.64
<u>Inflation-Linked Bonds</u>				
-Lehman TIPS Index	- 0.76%	+ 1.74%	+ 3.80%	-0.26
TIPS Fund	- 1.37%	+ 1.14%	+ 3.64%	-0.25
-DJ AIG Commodities Index	- 0.13%	+ 4.46%	+ 9.69%	-0.04
Commodities-Linked Fund	- 2.46%	+ 3.01%	+ 8.97%	-0.16
<u>International (non-US \$) Bonds</u>				
-Citigroup Non-\$ World Govt Index	- 1.84%	- 0.77%	+ 3.26%	-0.01
Non-\$ Bond Fund	-1.83%	- 0.68%	+ 2.40%	+0.03
<u>Emerging Markets Debt</u>				
-JP Morgan EM Global Bond Index	- 1.42%	+ 0.94%	+11.98%	+0.43
Emerging Markets Debt Fund	- 0.59%	+ 1.52%	+13.02%	+0.47

* 5 yr correlation using monthly data

Disclaimer:

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