# Pension News

**UBC Faculty Pension Plan**
**Third Quarter 2008 Edition**

## The Financial Crisis – Part I

Future textbooks on finance will describe the last half of 2008 with tales of extraordinary events that took place in the financial system. Tales of how large banks and insurance companies failed, how governments attempted to re-energize lending by flooding the financial markets with trillions of dollars and how the stock markets, world wide, fell sharply. The final chapters to the tale are not yet known; this article discusses the beginning.

### U.S. Real Estate Bubble

Although subject to debate, much of the difficulty in the financial markets can be traced to a U.S. real estate bubble. After the technology bubble burst in 2001 and 2002, the U.S. Federal Reserve dramatically lowered interest rates to encourage Americans to borrow, buy and consume. And borrow, buy and consume they did. The percentage of the U.S. population owning houses rose to historically high levels as financial institutions offered mortgages (referred to as “sub-prime mortgages”) to prospective homeowners who did not need to demonstrate that they had assets, jobs, income or credit. Millions of homes were built and bought in the belief that housing prices were going to rise indefinitely, as they had in the past, that homeowner equity was going to rise, so that even if the homeowner defaulted on the mortgage, the value of the home was higher than the mortgage and the financial institution would be fully compensated on a forced sale of the home.

That was the theory.

In practice, as the housing market became saturated once most of the potential buyers had bought, the prices of homes did not increase, and as the escalating interest rates that were written into the original teaser mortgages kicked in, homeowners were unable to make their monthly mortgage payments. Homeowners that had re-financed their homes (using the so-called home ATM) to purchase new cars and other discretionary goods when housing prices escalated in the past, found that they no longer had equity in their homes. As the supply of new homes increased while the demand for new homes remained flat, housing prices fell, home equity became negative and homeowners no longer had any incentive to make their interest payments. They walked away from their homes, and the U.S. market became flooded with houses that no one wanted.

### The Financial Institutions

Much of the recent home lending process in the U.S. has been conducted by mortgage brokers who, in return for fees, arranged to place mortgages of new buyers with lending institutions. From the perspective of the mortgage broker, the more mortgages placed, the more fees earned; creditworthiness of the borrower was not an issue to them.

At one time, it was normal practice (as it still is in Canada and other places) for a lending institution to ascertain whether a potential borrower could make the interest payments and ultimately repay the loan. In more recent times, lending institutions have been able to sell blocks of mortgages to investment banks, so that the quality of the mortgages had no impact on the lending institutions. From the perspective of the lending institution, the more mortgages the lending institution placed, the more fees they earned from the investment banks; the creditworthiness of the borrower was not an issue to them.

The investment banks in turn packaged the mortgages into investment vehicles called structured investments, which the investment institutions sold to other financial institutions or pension plans for fees, or kept for their own account. From the perspective of the investment banks, the more mortgages they purchased, the more structured investments they could create and sell, and the more fees they could earn; the creditworthiness of the borrowers was not an issue to them.

In many cases, the investment banks would purchase credit insurance from an insurance company so that if in fact there was a problem with a structured investment, the insurance company would pay the shortfall. The investment bank would also retain the services of a securities rating agency who, in return for a fee, would evaluate the credit quality of the structured investment and report on its assessment. Because of the credit insurance, the rating agency could assign a very high rating to the structured investment.

Et voilà, the investment banks had created an investment product that provided more income than traditional fixed income investments in a vehicle that had close to the highest rating available. With traditional fixed income investments paying historically low interest rates, these new structured investments were especially attractive to a wide range of investors, including institutional investors such as insurance companies and pension plans and individual investors. As demand for structured investments escalated, more mortgages of ever-lower quality were sought, acquired and packaged into new structured investments.

## Leverage and Liquidity

Two concepts are important in understanding the events of the past year: leverage and liquidity.

Leverage is the use of borrowed funds to purchase assets greater in value than the initial amount of equity. A common use of leverage is by individual homeowners who might purchase a $500,000 home with $100,000 of equity and $400,000 of borrowed money. The leverage magnifies the rate of return so if for instance the value of the home increased by 20% to $600,000, the homeowner’s equity increased by 100% to $200,000; conversely, if the value of the home dropped by 20% from $500,000 to $400,000, the homeowner’s equity dropped from $100,000 to $0, a 100% loss. The leverage ratio in this example is 5:1 (five dollars of asset value for each dollar invested). Financial institutions use substantial leverage in their operations, with leverage ratios as high as $30 of assets for each $1 of equity. The opportunity for substantial gains is considerable, but declining asset values could and did eliminate all of the equity.

Liquidity is the ability to access cash, investments or credit to finance transactions by individuals, businesses and governments. If the credit is not available, the ability to transact business becomes more difficult. As the financial soundness of individuals, companies (especially financial institutions) and even governments is questioned, vendors and lenders become increasingly reluctant to transact business because of the uncertainty of being paid. Business slows down, and companies that need credit to operate, but find it inaccessible, can fail.

## The Fall

The first hint of problems in the financial markets occurred in mid-2007 as it became clear that sub-prime mortgage default rates in the U.S. were escalating. Because sub-prime mortgages were only a small part of U.S. lending activity, there were few concerns about the impact on the economy.

Had the structured investments created by investment banks not had sub-prime mortgages as their base, the financial disruption caused by the escalating defaults of sub-prime mortgages would have been minor. Unfortunately, not only did some of the structured investments have sub-prime mortgages as their base, but they also had substantial leverage.

The first major consequence of the problems in the sub-prime mortgage market was the failure of Bear Stearns, an investment bank that held a substantial amount of structured investments. At the end of 2007, its leverage ratio exceeded 35; as asset values continued to fall, its equity was obliterated. Aided by a U.S. government bailout, JP Morgan Chase bought Bear Stearns assets at a bargain price.

In mid-September, Merrill Lynch, a Wall Street firm, with one of the world’s largest brokerage networks, was sold to the Bank of America at a deeply discounted price as a result of multi-billion dollar losses on structured investments.

Other failures occurred rapidly: Lehman Brothers, a venerable Wall Street investment bank, failed for substantially the same reasons as Bear Stearns, but did not attract a U.S. government bailout, and had to file for bankruptcy protection. The decision by the U.S. government to not support Lehman Brothers is considered to be one of the main reasons for today’s lack of liquidity – even big financial institutions can fail, but because there is no certainty of support from the government, transactions with them carry much greater risk.

AIG, the largest insurance company in the world, with $1 trillion of assets, needed an emergency loan of $85 billion from the U.S. government in September because a significant part of its business had been credit insurance on the structured products.

The Federal National Mortgage Association (“Fannie Mae”) and the Federal Home Loan Mortgage Corporation (“Freddie Mac”), are two publicly-traded U.S. government sponsored enterprises that were set up in the 1930s to facilitate homeownership. They were responsible for purchasing mortgages from mortgage lenders so that, as a result of these purchases, the lending institutions had continuous funding to lend to home buyers. Fannie Mae and Freddie Mac, in turn, packaged the mortgages into mortgage-backed securities that were then sold to investors with a guarantee that the principal and interest payments would be passed through to the investors in a timely manner. Fannie Mae and Freddie Mac ran into difficulties with their guarantees, and in September, Fannie Mae and Freddie Mac were put into conservatorship, and the U.S. government became substantial owners of the two entities.

Washington Mutual Savings Bank was the sixth largest bank in the U.S., and a substantial provider of sub-prime mortgages. In mid-September, its holding company received a credit rating agency downgrade because of the poor quality of the bank's loans. This was followed by depositors withdrawing substantial sums from the bank (a run on the bank) creating a lack of liquidity, which caused the regulator to close the bank and sell it to JP Morgan Chase.

And in early October, the governments worldwide were buying stakes in their banks, lending large amounts to them, guaranteeing deposits, and taking a wide variety of other actions to restore confidence in the markets so that normal commercial transactions could take place.

### The Future

Events are continuing to unfold. At the date of writing, governments worldwide have attempted to restore the liquidity in the market so that banks could transact with banks, borrowers could have access to credit, and confidence in the financial system is restored. The results of the government action remain to be seen.

Most financial commentators expect a global economic recession, led by the U.S, because with the decline in U.S. housing prices and the reduction of available credit, U.S. consumers will restrain their spending. The demand for goods and services will decline, production will slow and unemployment will rise. The extent of the recession as yet is unknown.

Please look for Part II of the Financial Crisis series, in the Pension News, Fourth Quarter 2008 Edition.

*The Financial Crisis and Market Commentary articles were prepared by Satanove & Flood Consulting Ltd. Comments should be sent to: fpp@hr.ubc.ca*

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## Staff Update

Ms. Diane Fulton, our Executive Director - Investments, has resigned from the Faculty Pension Plan to pursue her career in the investment management field. Diane was with the Plan for nine and a half years and provided an outstanding level of service and expertise, which will be missed. We wish her all the best in her new career.

After a long search and interview process, we are pleased to announce that Mr. Mike Leslie has joined the Faculty Pension Plan as our Executive Director - Investments, effective October 27, 2008.

Mike is a welcome addition to our administration team and brings over twenty years of investment experience to the Plan. He holds a Bachelors degree in Commerce and Business Administration from UBC and also has a CFA designation. In his role as Executive Director - Investments, Mike reports to the Board of Trustees. He is responsible for monitoring the performance of the investment managers on an ongoing basis and providing a link to the investment community by meeting with them regularly. Through this link, Mike reports on new investment ideas and current trends to the Board. He will also help to ensure that the managers' investment strategies are in compliance with their individual mandates and the Board's investment policy.

Once again, we are pleased to welcome Mike to our management team.

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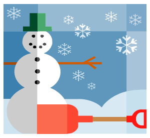


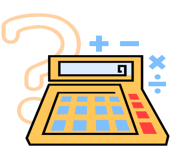
## Christmas to New Year Closure

The Pension Administration Office will be closed from December 25, 2008 to January 1, 2009, inclusive. All termination benefit payments and retirement benefit cheques will be calculated and sent before December 23, 2008. If you are planning to transfer funds in December or January, or to begin a retirement benefit in January, please send the forms to the Pension Administration Office by November 25, 2008. In case of an emergency during the closure, the general phone line (604) 822-8100 will be monitored daily.


## Trustee Updates

We are pleased to advise that Dr. Joy Begley has been re-elected, by acclamation, to serve another two-year term. The Board welcomes Dr. Kai Li, who was also elected by acclamation, to the Board of Trustees for the term January 1, 2009 to December 31, 2010.

It is with much regret that we announce that Dr. Patrick Walden decided not to stand for re-election due to his upcoming retirement. We would like to thank Dr. Walden for his valuable contributions to the Faculty Pension Plan over the past two years and wish him well in his future endeavours.



## FPP Workshops

The Faculty Pension Plan offers two regularly scheduled seminars – one provides general information about the Faculty Pension Plan, and is of interest to new and existing members. The other provides information about the Plan's retirement options and is suited to members who are approaching retirement. The next seminar, *You and Your Pension Plan*, is scheduled for Monday, November 24, 2008. To register or learn more about these seminars, please contact Jim Loughlean at (604) 822-8987 or jim.loughlean@ubc.ca

## Faculty Pension Plan Board Members



## Faculty Pension Plan Staff

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## Market Commentary

The third quarter of 2008 will be remembered as one of the remarkable quarters in financial history, as the credit crisis that originated in the U.S. real estate market spread into the broader financial markets (see feature article).

Virtually all of the world's stock markets declined in the third quarter. The Canadian market fell as a result of the decline in the price of commodities, with the price of oil dropping by 28% in the quarter to finish at just above $100 per barrel, and natural gas dropping by 44%. As a result, the S&P/TSX Canadian equity composite index, which had reached a new high earlier in the year, fell by 18.2% in the third quarter to finish the quarter with a year-to-date loss of 13.3%. Energy stocks lost 27% and materials stocks lost 34%. Two prominent stocks that had posted big gains in 2007 lost considerable value in the third quarter: Potash (-37%) and Research in Motion (-41%).

The U.S. stock market fared somewhat better than the Canadian market in the third quarter, but still had a negative return of 4.7% (in Canadian dollars), for a year-to-date loss of 13.1%. As in Canada, the losses were led by the energy sector (-25%). For a Canadian dollar investor, the losses in the U.S. were mitigated somewhat by the decrease in the Canadian dollar relative to the U.S. dollar from 98.3 cents to 94.0 cents, which reduced the loss by 4.4%. The MSCI EAFE international equity index also had a large decrease of 16.7% in Canadian dollars for a total decrease of 23.8% for the year to date.

The third quarter was a weak quarter for the fixed income portfolio as well, as concerns about the credit quality of corporate bonds caused them to lose value. The DEX Universe index lost 0.4%, but is still up 1.8% for the year. Within the universe, long-term bonds lost 3.1% in the quarter, but short-term bonds gained 1.2%. Real return bonds lost 9.0%.

*Pension News is a publication of the UBC Pension Administration Office and is produced four times per year. The publication provides current information about the Faculty Pension Plan, including topical financial and investment information. Pension News is distributed to each individual member and is archived at: http://www.pensions.ubc.ca/faculty/library.html*

***Editor/Production**: Rahima Nathoo, Pensions Communications*

### *Performance of Funds for period ending September 30, 2008*

| | 3 Months | 1 year | 3 years | 5 years | 10 years |
|---|---|---|---|---|---|
| Balanced Fund - gross | -7.75% | -6.83% | 4.17% | 7.19% | 6.49% |
| Balanced Fund - net | -7.85% | -7.39% | 3.71% | 6.72% | 6.05% |
| Composite Index 1 | -7.27% | -6.44% | 3.44% | 6.77% | 6.31% |
| Bond Fund - gross | -2.53% | 3.60% | 2.92% | 4.28% | 5.43% |
| Bond Fund - net | -2.63% | 3.28% | 2.68% | 4.03% | 5.17% |
| Composite Index 2 | -1.52% | 4.53% | 3.03% | 4.56% | 5.61% |
| Canadian Equity Fund - gross | -16.28% | -13.52% | 6.21% | 13.11% | 10.66% |
| Canadian Equity Fund - net | -16.37% | -13.89% | n/a | n/a | n/a |
| Composite Index 3 | -18.07% | -13.67% | 5.20% | 12.11% | 10.07% |
| Foreign Equity Fund - gross | -11.61% | -21.54% | -2.51% | 2.25% | 1.89% |
| Foreign Equity Fund - net | -11.72% | -21.87% | n/a | n/a | n/a |
| Composite Index 4 | -10.25% | -20.35% | -1.97% | 2.71% | 1.98% |
| Short Term Investment Fund - gross | 0.76% | 3.68% | 3.94% | 3.37% | 4.10% |
| Short Term Investment Fund - net | 0.74% | 3.56% | 3.77% | 3.18% | 3.84% |
| Composite Index 5 | 0.56% | 3.05% | 3.72% | 3.19% | 3.68% |

***Composite Index 1:*** *33% DEX Universe, 10% S&P/TSX Capped, 5% S&P/TSX, 5% S&P/TSX 60 Capped, 15% S&P 500, 15% MSCI-EAFE, 2% DEX 91-Day TB, 10% IPDCPI, 5% DEX Real Return Bonds*
***Composite Index 2:*** *86.8% DEX Universe, 13.2% DEX Real Return Bonds*
***Composite Index 3:*** *25% S&P/TSX, 50% S&P/TSX Capped, 25% S&P/TSX 60 Capped*
***Composite Index 4:*** *48% MSCI-EAFE, 48% S&P 500, 4% DEX 91-Day TB*
***Composite Index 5:*** *DEX 91-Day TB Index until August 2007, DEX 30-Day TB Index commencing September 2007*

### *Composition of Funds as at September 30, 2008*

| | Market Value ($ Millions) | % of Fund |
|---|---|---|
| **Balanced Fund** | | |
| Equities- Canada | 199.2 | 20.1% |
| Equities - U.S. | 137.1 | 13.9% |
| Equities - EAFE | 119.1 | 12.1% |
| Absolute Return Hedge Fund | 21.4 | 2.2% |
| Real Estate - Canada | 105.0 | 10.6% |
| Fixed Income - Canada | 355.4 | 35.9% |
| Real Return Bonds - Canada | 46.8 | 4.7% |
| Cash & Short term | 5.2 | 0.5% |
| **Total Balanced Fund** | 989.2 | 100.0% |
| **Bond Fund** | | |
| Fixed Income | 34.5 | 88.5% |
| Real Return Bonds - Canada | 4.5 | 11.5% |
| **Total Bond Fund** | 39.0 | 100.0% |
| **Canadian Equity Fund** | 71.0 | 100.0% |
| **Foreign Equity Fund** | | |
| Equities - U.S. | 14.5 | 51.2% |
| Equities - EAFE | 12.6 | 44.5% |
| Absolute Return Hedge Fund | 1.2 | 4.3% |
| **Total Foreign Equity Fund** | 28.3 | 100.0% |
| **Short Term Investment Fund** | 50.5 | 100.0% |