- ***We have also been a little bit lucky.***

The markets have been generally favourable the last 10 years. There has been tremendous growth in the mutual fund industry, a major sector for us. There has been an accelerating trend to globalization of the capital markets, including increased complexity of financial instruments, and heightened requirements for reporting and transparency and real time information. These all play to our strengths. Not all of this was anticipated back in 1996. Over the past 10 years, we've had a good tailwind. You are better to be lucky than good, but we have been good.

2007–2008: From Tailwind to Headwind

The growth that had characterized the global financial sector up until 2006 began to materially change in 2007. A rapid series of problems began to either emerge or become more widely acknowledged. Fundamental differences that existed between the Canadian and U.S. banking sectors posed a unique set of concerns for financial institutions with operations on both sides of the border. Discrepancies in consumer debt and equity levels, divergent banking regulations and differences in the structure of each country's mortgage security industry comprised some of the most significant concerns.

The Canadian Financial Sector[1]

Canada as a whole was entering the crisis with a strong balance sheet and economic position. Consumers had lower debt and more savings than in the United States.

Mortgages were originated and held by Canadian banks, not packaged up and sold as securities. Canadian mortgages were generally five years or less, and mortgage interest was not tax deductible in Canada, so homebuyers were not encouraged to buy beyond their means. There were no 40-year terms, and buyers had to be able to have a down payment. Canadian Banks could not lend more than 80 per cent of the value of a house without mortgage insurance from the Canada Mortgage and Housing Corporation.

Canadian banks were large, stable and sophisticated national entities (an oligopoly). With branches across the country and often in other countries, Canadian bank risk was dispersed. Canadian bankers tended to be more risk-averse than their U.S. and international counterparts. Canadian banks were required to maintain a tier one capital ratio of seven per cent and generally exceeded it. They had to cap overall leverage at 20× capital.

Canadian banks were regulated by a single piece of legislation, the Bank Act, which was reviewed every five years, and one national body, the Office of the Superintendant of Financial Institutions (OSFI). OSFI had broad oversight—there was no "shadow banking system" that fell outside the regulations. Canada also had strong monetary policy set by the Bank of Canada and the Department of Finance.

In Canada, most investment banks were owned by commercial banks, providing them with access to capital during a crisis.

The U.S. Financial Sector

Despite the close geographic proximity, the nature of the United States banking and mortgage industry differed significantly from the system that prevailed in Canada.

Decades ago, the U.S. government launched two agencies to promote home ownership in the United States—the Federal National Mortgage Association ("Fannie Mae") and the Federal Home Loan Mortgage Corporation ("Freddie Mac"). These agencies were designed to increase the availability of funds for originating mortgages and to encourage the emergence of a secondary market for mortgages. Subsequently, mortgages could be traded without the involvement of either the original borrower or the original lender.

In the 1990s, to further encourage home ownership in the United States, policymakers lowered the amount of equity that homebuyers were required to invest in the purchase of a home. As a consequence of this policy shift, borrowers who were previously unable to secure a mortgage were able to enter the housing market. Further, the overall degree of leverage in the U.S. housing market increased substantially and a housing bubble emerged as homeowners began to speculate by moving into more expensive homes.

The coincident emergence of three financial innovations in the United States—interest-only mortgages, asset securitizations and credit default swaps—ultimately set the stage for the perfect storm that had converged over the U.S. financial system by 2007.

Unlike self-amortizing mortgages in which the mortgage principal was retired through regular payments of principal and interest over the life of a mortgage, interest-only mortgages were mortgages in which the borrower was given the opportunity to pay only the interest portion of a regularly scheduled mortgage payment. Interest-only mortgages were designed to open home ownership to low-income earners who demonstrated enhanced future earning potential, at which point their mortgage would be converted into a self-amortizing mortgage. Interest-only mortgages benefitted these low-income

[1]This section is from "You Can Take It to the Bank," *Ivey inTouch Magazine*, Fall 2009, p. 14.

homeowners by facilitating their entry into the housing market through payments which were lower than the payments under a self-amortizing mortgage. However, the emergence of interest-only mortgages also contributed to speculation in the housing market, as some investors purchased homes, made the interest payments while waiting for the value of their homes to increase and then sold the homes, paying back the mortgage principal with the proceeds from the home sale and pocketing the surplus.

Asset securitization involved aggregating a series of future cash flows into a security which was then sold to investors. Mortgage-backed securities (MBSs) were a type of asset securitization in which the underlying asset backing the security was a mortgage which generated cash flows from the interest payments. A securitization was a structured finance product that was originally designed to distribute risk. In fact, when conceived, MBSs were regarded as low-risk investments because they were backed by mortgages and mortgage defaults were relatively rare occurrences.

Credit default swaps (CDSs) resembled insurance policies in the sense that one party paid a series of cash flows to a counter-party in exchange for the promise that the counter-party would reimburse the payer if the underlying asset defaulted. A significant portion of the market for CDSs was built around MBSs. Investors in asset-backed securities such as MBSs regularly insured their investments by purchasing CDSs. The premium revenue stream associated with a CDS on an MBS was considered particularly attractive due to the low level of perceived risk, again due to the relatively rare occurrence of mortgage defaults. Despite their resemblance to insurance policies, CDSs were traded as contracts in the derivatives markets and were free from insurance industry regulations. Consequently, the relative ease with which CDSs could be issued, coupled with the fact that it was not necessary to own the underlying asset in order to purchase a CDS, effectively fueled speculative behaviour in the CDS market.

Two phenomena associated with these three financial innovations further compromised the precarious foundation upon which the U.S. banking and mortgage industry was perched—subprime mortgages and individual compensation systems prevailing in the financial sector. While mortgages issued to creditworthy borrowers were known as prime mortgages, subprime mortgages were issued to borrowers with poor credit. MBSs based on subprime mortgages became particularly attractive investment vehicles due to their high returns and low levels of perceived risk (due to the assumption that widespread mortgage defaults were highly unlikely). At the same time, mortgage originators and derivative traders were being compensated on the volume of mortgages originated and derivatives sold (MBSs and CDSs). Increased trading volumes in these assets were fueled by the fact that compensation was rarely adjusted to the riskiness of either the borrower or the underlying asset.

By 2007, the robust growth in U.S. home prices slowed dramatically. As home prices began to decline, the value of mortgages began to exceed the market value of many homes. A flood of mortgage defaults ensued to the point that mortgage-backed securities began to decline in value. The complex nature of these securities further undermined their value. Given that it was not possible to link an MBS to specific properties, investors could not evaluate the risk of default on specific MBSs and, therefore, were unable to ascertain market values for these MBSs. The secondary market for mortgages was near collapse.

The difficulty associated with valuing these securities proved to be particularly problematic for financial institutions that owned the devalued MBSs and for financial institutions facing insurance-like claims on the CDSs they had written on the bet that widespread mortgage defaults would never occur. Consequently, these financial institutions were required to raise more capital to shore up their capital ratios. However, the increasing pervasiveness of uncertainty effectively turned off the taps in both credit and capital markets, making the task of raising capital almost impossible.

As the cost of capital skyrocketed and credit stopped flowing in the United States, financial institutions began to fail. Several "runs on the bank" were triggered in which customers lined up to fully withdraw their deposits. In June 2008, panicked customers of IndyMac Bank in the United States withdrew $1.5 billion in deposits (approximately 7.5 per cent of total bank deposits). Similarly, over the course of ten days in September 2008, customers withdrew more than $16 billion from Washington Mutual Bank (totaling nine per cent of total bank deposits). The uncertainty spilled over U.S. borders, triggering bank runs and failures overseas as well. Most notable was the bank run and subsequent failure of the U.K.-based Northern Rock bank, which was subsequently nationalized, in part, to subdue the panic.

Conclusion

The Challenge of Refining the Future Direction of the Joint Venture

As early as the summer of 2007, credit spreads for certain financial companies and instruments widened dramatically. In Canada, the marketplace for ABCP began to show signs of stress. The JV's ALCO