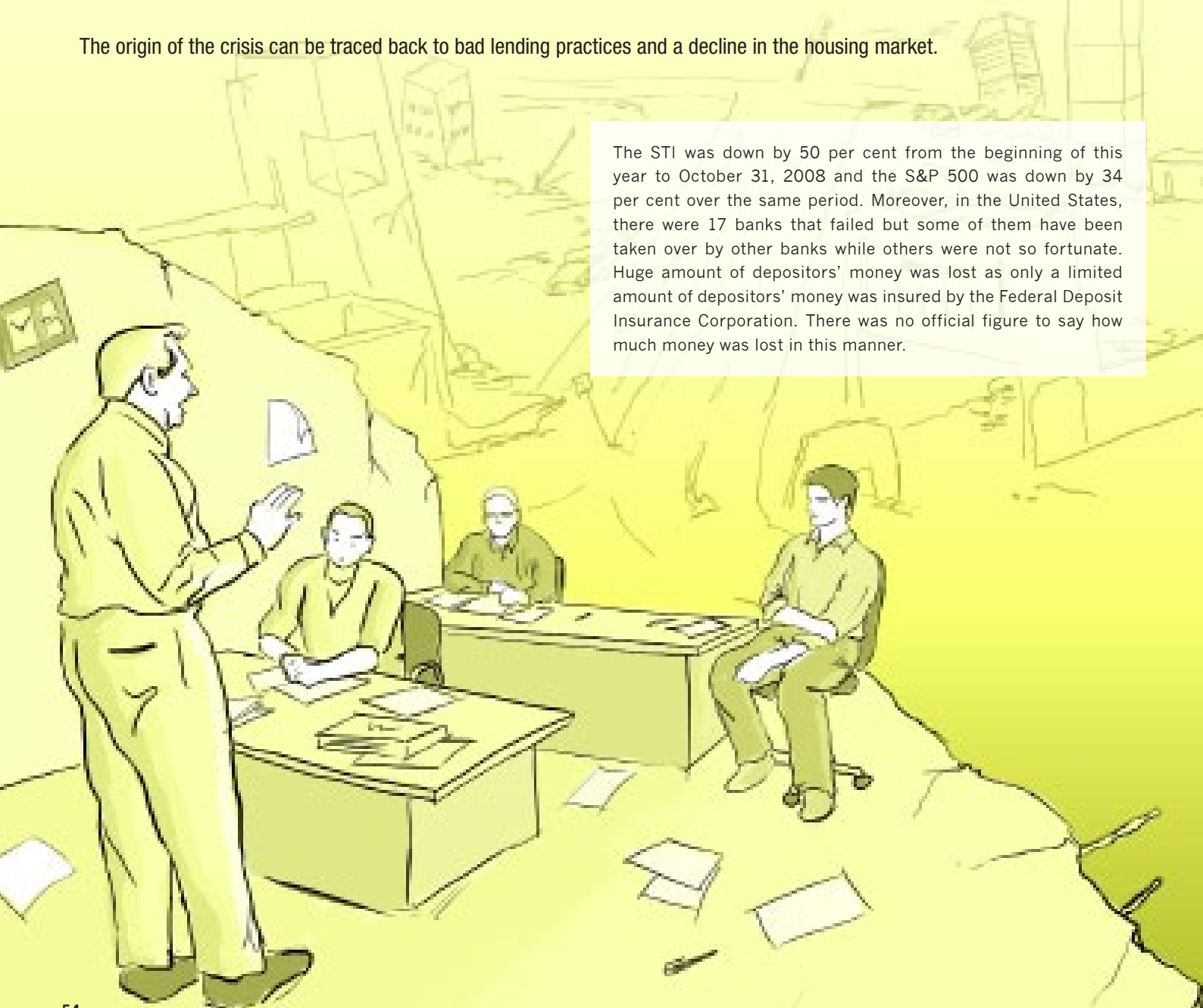


# Learning From This Crisis

By Wilfred Ling

The origin of the crisis can be traced back to bad lending practices and a decline in the housing market.

The STI was down by 50 per cent from the beginning of this year to October 31, 2008 and the S&P 500 was down by 34 per cent over the same period. Moreover, in the United States, there were 17 banks that failed but some of them have been taken over by other banks while others were not so fortunate. Huge amount of depositors' money was lost as only a limited amount of depositors' money was insured by the Federal Deposit Insurance Corporation. There was no official figure to say how much money was lost in this manner.



### Creating money from \$100,000 of excess reserve

	Reserves	Loan	Deposits (1)	Currency (2)	Money created (1) + (2)
Initial increase in reserve of \$100,000					
Loan \$100,000 to Mr A		\$100,000			
Mr B retains \$33,333 as currency and deposits \$66,667			\$66,667	\$33,333	\$100,000
Bank sets aside \$6,667 as reserve and lends \$60,000 to Mr C	\$6,667	\$60,000			
Mr D retains \$20,000 as currency and deposits \$40,000			\$20,000	\$40,000	\$60,000
Bank sets aside \$4,000 as reserve and lends \$36,000	\$4,000	\$36,000			
\$12,000 is retained as currency and \$24,000 deposits back to the bank			\$24,000	\$12,000	\$36,000
and so on and so forth (the above repeated infinitely)	...	...	...	...	...
<b>Total tally</b>	<b>\$16,667</b>	<b>\$250,000</b>	<b>\$166,667</b>	<b>\$83,333</b>	<b>\$250,000</b>

In Singapore, 500 investors protested at the Speaker's Corner for four consecutive Saturdays as many claimed to be misled by misrepresentation into purchasing Lehman Brothers linked structured products. It was estimated that \$375 million from the Mini-bond program was sold to 8,000 retail investors. In the meantime, the US had set aside a budget of US\$700 billion in a rescue package to prevent a collapse in the financial system.

On October 16, 2008, the Monetary Authority of Singapore (MAS) and Ministry of Finance announced that the government would guarantee all deposits in banks, finance companies and merchant bank licensed by the MAS until end of 2010. This guarantee was achieved by setting aside a reserve of \$150 billion.

All these bad news are really troubling. To the man in the street, it seems that the foundation of the economy has been shaken. So much money has been lost and so much money has to be spent by the various governments in rescue packages. To understand these events and make better future decisions, we need to ask ourselves this simple question – what is money and why so much has been lost?

The economist defines money as a

commodity or token that is generally accepted as a means of payment in settlement of a debt. But how is money actually created?

The process of creating money can be explained by an example. Let's assume that the entire market has only one bank and one central bank. We begin by the bank having excess reserve. A reserve is the total amount of coins and notes in the bank's vault plus the bank's deposits with the central bank. An excess reserve is the amount of reserve over and above the desired reserve amount. Desired reserve ratio is the amount of reserve to deposits it wants to hold. Excess reserve occurs when central bank purchases government securities from the bank or when the minimum required reserve ratio is lowered by the central bank.

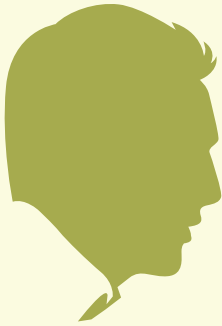
Let's say that we start with an excess reserve of \$100,000 for this bank. This amount is lent out to Mr. A to purchase a house from Mr. B. Mr. B receives this money and retains a portion as currency (defined as coins and notes). The balance amount is deposited back into the bank. For this example, we assume that the currency retained versus deposit is 1:2 or 50 per cent. This ratio is called the currency-drain

ratio. Therefore, \$33,333 is retained by Mr. B as currency and \$66,667 is deposited into the bank. A portion of this new deposit is set aside as reserves by the bank.

Assuming a desired reserve ratio of 1:10 or 10 per cent, \$6,667 is kept as reserve while the balance \$60,000 is loan out to Mr. C to purchase a car from Mr. D. Mr. D retains \$20,000 and deposits \$40,000 into the bank (assuming currency drain ratio of 1:2 as well). Now the bank will set aside 10 per cent of the new \$40,000 deposits as reserve while lending out \$36,000 to someone else. The entire process repeats itself until there is no excess reserve left to lend. From the accompanying table, it can be seen that a \$100,000 excess reserve creates \$250,000 of currency and deposits. The reverse process occurs when loans are repaid. Money is created and destroyed in this manner. As the interest charge for lending is above the interest paid to depositors, a profit can be made by the bank.

Here are a few observations:

Money is created from debts. As it can be seen, money is backed by these flimsy assets. To the bank, deposits are short-term liabilities. These are short term debts because a depositor can demand payment



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Loans given out are considered bank's assets; there has always been a mismatch in risk characteristics between a bank's short-term debt obligations in deposits and its assets in long-term loans; Due to this mismatch, a simultaneous withdrawal by all depositors will create a cash flow crisis since only actual reserve (which is a small fraction of the depositors' money) is available to meet such withdrawal. Indeed the greatest risk to a bank is a bank run.

In this modern age, a bank run does not necessarily mean long queue at the bank's branches. Fortis and Wachovia were victims of a silent bank run in which much of the deposits were withdrawn through internet banking.

Why are banks and its related institutions incurring such major losses? It was not too long ago that financial innovation has permitted these loans to be securitized and sold off to the capital markets. When these loans are removed from the balance sheet, they are replaced with "cash" from the sale. This makes the bank's balance sheet look healthier. Other institutions and banks who had desired a greater yield to their investments have bought these securitized loans. As we know now, these securitized assets or better known as mortgage-backed securities have been causing great problems in the market due to bad lending practices and a decline in the housing market.

In many countries, various governments have recently provided a blanket guarantee for their respective country's bank deposits. This guarantee is limited in time frame and is meant to calm the market. However, no government will guarantee all deposits on a perpetual basis. This is due to the moral hazard associated with such a guarantee. The moral hazard is that banks could be tempted to engage in a more risky business practice knowing that if all else fail, the government would protect the interest of its depositors.

With so much loss of money taking place, here are my suggestions:

- As it is almost impossible for anyone to "predict" the happening of such crisis in advance, the lesson here is never put all assets into one basket. Having an asset allocation plan is too important to ignore. It is a common practice for a financial salesperson to introduce a single investment product without due regard to the principle of diversification. This is a wrong practice that should be avoided.
- Asset allocation applies even for those who do not do any investment. With massive losses in deposits in other parts of the world, it is prudent to have an asset allocation even if the basket consists of cash or near cash. It is not entirely necessary to hold all cash as deposits.
- Asset allocation also applies to the institutions you place your investment

and cash with. There is no diversification if the custodian of all your wealth is a single entity.

- Diversification applies even for those who purchase insurance policies. Never put all insurance policies with one insurer as well. Finally, if formulating an asset allocation is too troublesome, engage a trusted professional to formulate the asset allocation plan. This usually involves a nominal professional fee.

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