

## Financial strategy: lessons from the US sub-prime crisis



**As a result of technology that integrates global financial markets, many believe finance to be no longer a national but a world phenomenon. For simply at the press of a button, billions of dollars may “e-cross” national boundaries.**

This is reinforced, for example, by the 1997 Asian financial meltdown. One of the probable causes of the Asian crisis was the upsurge of interest by US investors in diverting their funds to the emerging dot.com industry back home. That resulted in sudden, massive outflows of US\$ deposits from Asian-Pacific markets. The downward spiral was due to a deeply rooted belief in Asia of the viability of investing in housing.

More recently, it is essentially the same picture in the USA with the sub-prime crisis: the over-confidence in housing as investments. The fact that both crises, one in Asia and the other in the USA, are rooted in people's simple desires to own better homes suggests there may be deep wisdom to be shared across frontiers.

### Lesson one: “Do not put all bad eggs in one basket”

One of the most enduring concepts in finance lies in the traditional concept of having a well-diversified portfolio. Or as stated in a well-known saying: “Do not put all your eggs in one basket.” The innovators of the sub-prime mortgages did exactly the opposite. It was the process of bundling that eventually led to catastrophic blunders.

Beginning with less than fully qualified loan applicants, the individual mortgages came from ordinary US people. These individual mortgages were then sold as a bundle. The final purchasers then aggregated these bundles into a package with graded slices. The innovative breakthrough lay in converting what were still baskets of bad eggs into triple-A (AAA), investment-grade, mortgage-backed securities. Clearly, one major lesson from the sub-prime phenomenon is how enduring such ancient, many-centuries-old wisdom remains. Perhaps, post sub-prime, it should be rephrased for industry players: “Do not let others put all the bad eggs into one basket.” That is, if you want to prevent more future crises arising from these kinds of innovations.

### Lesson two: “Excessive demand outbalances risk and return”

One of the major problems that investors have with sub-prime derivatives is their perception of the inherent risks and returns. Even seasoned investors, including bankers, have failed to appreciate the very essence of the risk and return for this newly introduced (relative to stocks) financial product.

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One of the most telling signs of the hidden, underlying dangers is how the sub-prime industry within the USA had ballooned. In less than a decade and a half, it shot up 30 times from a base of only US\$20 billion in 1993 to US\$600 billion by 2007.

At that time, the then-newly appointed Federal Reserve Chief, Ben Bernanke, even expressed confidence in “advanced methods” for giving the banks much better tradeoffs. Or, to put it simply, US banks were to enjoy a higher return for the same level of risk. This could not be the case, at least for those heavily involved in sub-prime derivatives. The major lesson is that because of the higher returns wrought through the innovative use of the “AAA” sub-prime derivatives, demand had mushroomed and grossly outstripped supply.

In particular, the professional investors in sub-prime derivatives had failed to grasp that the risk-return relationship is contextually bounded. Whilst the borrowers of the earlier offers of sub-prime bundles were less than perfect, the latter bundles

were composed of many more fringe cases. These were thus far riskier. However, blinded by demand that had far outstripped available supply, the agents went in a wild hunt for mortgages, in ways that were later condemned. So long as housing prices were on an upward climb, there remained equity to be extracted from mortgages by the buyers; but not when the prices began to flatten and then headed downwards. That led eventually to the collapse of the housing market.

#### Lesson three: “Robustness of actions for resolving a crisis”

The Federal Open Market Committee (FOMC) lowered the rate by 50 basis points or 0.5 percent: exactly the same as the amount used by Fed on September 13, 2001 in the even more threatening 9/11 crisis. What were the psychological impacts of the FOMC's action on investors globally? It would be difficult to quantify this on any numerical scale.

There was, however, an alternative. Artificially intelligent (AI) models were used to assess the impacts of the September 2007 Fed decision, which was double the 0.25 percent that most economists had then anticipated. The results presented by the models revealed that almost all the currencies were predicted to strengthen vis-à-vis the US\$ in the forecast horizon. Across the Korean Won, Japanese Yen, Euro, Pound, and Swiss Franc the forecast trends all bend sharply around October. The direction is unidirectional towards a weakening of the US\$.

The interest here is not in predicting future trends of the US\$. Rather, to demonstrate how FOMC intervention may be seen logically to have certain impacts on the US\$. The forecasts are especially interesting because they are rendered objectively through machine intelligence. In the real world, however, perceptions of the future strengths or weaknesses of a currency are rarely objectively determined. As such, US regulators, despite their adherence to free-market principles, ought to realize the human dimension.

#### Lesson four: “Banks to stay respectable as banks”

The critical importance of taking quick, immediate, forestalling actions is clearly demonstrated by the case of Northern Rock (NR). The fault lines of the US sub-prime crisis had extended its reach across the Atlantic Ocean only days before September 18 2007. As one of the fastest growing and largest of British mortgage lenders, the “Rock” was under a severe threat of being pulled under by the enveloping US sub-prime turbulence.

The problem was not that NR's operations were unprofitable, but that it faced a liquidity crunch. NR found itself to be in difficult waters because other banks simply were no longer willing to extend their credit lines. Photographs began to appear in newspapers all over the world of NR depositors in a panic to withdraw their savings. What was the implicit message? A substantial and fast-growing bank in the well-regulated British financial industry could be very near the edge. Fortunately, the Bank of England acted speedily to ensure the necessary liquidity.

In a metaphorical analogy of the sub-prime crisis with the

avian flu epidemic, during financial crises, banks ought to perform the roles of “hospitals.” To fight the epidemic of the flu virus, the public looks towards the “hospitals” to stay healthy. If banks are by themselves badly “infected,” as in the case of NR, then public confidence will be deeply shaken. Imagine the downward spiralling effects: banks become endangered species as runs escalate into a pandemic when people become gripped with blind fear. Thus, the intervention by central banks, or the Federal Reserve in the USA, is clearly warranted. More than just to provide liquidity, it is to enable banks to stay respectable as banks.

#### Lesson five: “Outcome of innovation, greed, and politics”

The last lesson drawn from the sub-prime crisis comes from taking a gestalt perspective and focusing on the underlying drivers of innovation, greed, and politics.

A brief view of what happened to the sub-prime from 1993 to mid-2007 begins with a common scenario. It begins with the American dream of home ownership. From this there is the question of how the buyer may access the necessary funds. Typically, the bank evaluates the main sources of the buyer's income in formalizing the loan decision, in addition to taking the house purchased as security through a mortgage. In a rising home market coupled with extraordinarily low-interest rates, investors' appetites are whetted. The focus turns to demanding ever more of the “AAA” sub-prime slices. The bigger and faster-growing the institutional investors, the greater their insatiable demands.

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Such investor behaviour has been explained away as hedging, diversification, and keeping to strategic plans for meeting investment targets. What is clear, however, is that the primary cause was not the inherently cyclic nature of the housing industry per se, but the American innovative enterprise itself. For in an age that esteems innovation, especially of the get-rich variety, the spotlight was on sub-prime derivative products. Unlike other kinds of products that may be tested for reliability in laboratories, it simply was not possible to construct social laboratories to test the sub-prime derivatives. Not surprisingly, even the Federal Reserve, the regulators, were taken by surprise at the wider social impacts of the sub-prime turmoil.

#### Reviewing the five lessons

“Do not put all bad eggs in one basket” extends the traditional wisdom to sum up the root cause of the sub-prime turbulence. Should any such “innovative” products be banned in the future? At least a bigger lesson has been learned from this event: to think more deeply and critically

about new product innovations in the finance industry.

“Excessive demand outbalances risk and return” provides the insight of the inherently bounded nature of the risk-return profile of sub-prime mortgages bundled into asset-backed securities (ABS). When the load of demand turns excessive, the risk-return platform begins to give way and eventually collapses. This is a special breed of financial assets – one very little understood despite its pervasive popularity. Even so long-established a bank as the Hong Kong and Shanghai Bank faltered on the platform of sub-prime derivatives. Putting it differently, there were so many heavyweights looking for sub-primers that the market simply had to collapse!

Clearly, it was most fortunate that Dr Ben Bernanke acted in a timely fashion to bring some order to the possible chaos. That resulted in another useful lesson: “Robustness of actions in resolving a crisis.” This is tied to the other lesson for avoiding public panic and thus social turmoil, i.e. “Banks to stay respectable as banks.” For market liquidity in any society, money must flow like water among banks. However, that will come to a halt if banks no longer trust one another.

Finally, the lesson from the big picture of the sub-prime turmoil is the “Outcome of innovation, greed, and politics.” These elements are integral to any modern, striving human society's innovation.

Despite attempts to draw lessons from these events, it is anticipated that there will be yet another new crisis in the near future; even possibly, one engendered by sub-prime fears.

In the East, there was the Asian financial crisis; and now in the West, the sub-prime turbulence. Investors are on their toes, with many concerned about financial risks. They question not so much the why, what, or how, but are much more concerned about: “Who will be next – China?” ■

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