The subprime problem and its impact on the economy and global financial markets

Background

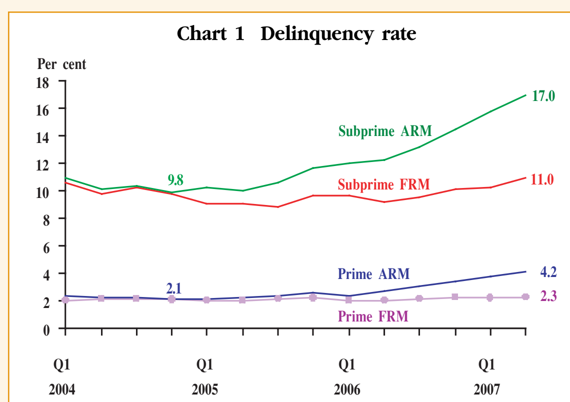
The subprime mortgage market refers to the market where borrowers with low credit scores or insufficient credit documents come to seek loans. The subprime mortgage market has grown significantly since 2004, after US monetary policy was eased to stimulate the economy. In addition, following the rising trend of house prices, lending criteria in the housing market were increasingly relaxed. A number of subprime borrowers received adjustable rate mortgages (ARMs), which accounted for approximately 60 per cent of total subprime mortgages, with a very low and fixed interest rate for the first 2-3 years. However, in subsequent years, these borrowers would then face a floating-rate interest payment.

The subprime problem in the US began to receive worldwide attention in 2007 Q1, given the rapidly rising delinquency rate of subprime ARMs, which increased from 9.8 per cent at the end of 2004 to 17.0 per cent in 2007 Q2. Despite initial concerns about the US economic slowdown, the market viewed that any impact was likely to be limited, as the subprime market was small compared to the total size of the US mortgage market. However, the repercussions from the problems in the subprime market have been felt throughout the global financial market, much more widely than previously expected. The reason for this was that a large portion of mortgage loans were securitized and transformed into more sophisticated debt instruments, such as collateralized debt obligations (CDOs) and credit default swap (CDS). At the same time, ample global liquidity and rising hedge fund activities have contributed to the widespread usage of these instruments, both inside and outside of the US.

Impact on the economy and on the global financial markets

Concern over the subprime problem was heightened towards the end of June 2007, when some hedge funds with subprime backed CDOs faced liquidity problems. Subsequently, financial markets witnessed a downgrade of bonds backed by subprime mortgage securitization and temporary suspension on the redemption of some securities backed by subprime loans. This series of events led to a fall in investor confidence and a sharp rise in financial market volatility across the globe. This resulted in a flight to quality, whereby investors sold off risky assets such as equities and switched to low-risk assets such as government bonds in an attempt to reduce their risk exposure. As a result, stock indices worldwide declined sharply and government yields dipped due to the sudden rise in demand for government bonds. Furthermore, emerging market credit

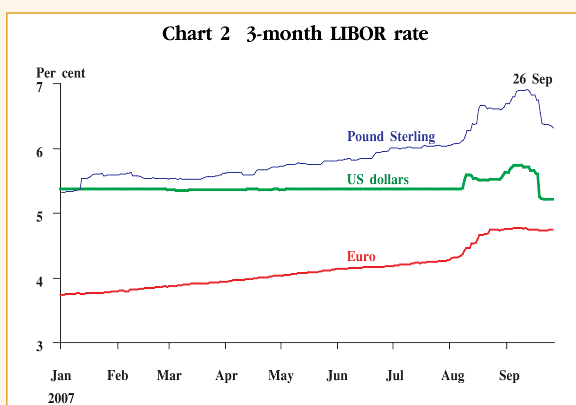
Chart 1 Delinquency rate



Note: FRM = Fixed Rate Mortgage, ARM = Adjustable Rate Mortgage
Source: Bloomberg

spreads widened significantly. Carry trades[1/] were unwound, causing the yen - a low interest rate funding currency - to strengthen against the US dollar, in stark contrast to the weakening trend from capital outflows experienced previously. Consequently, volatility in the foreign exchange market also increased.

Crucial factors which led to increased market volatility included the mispricing of subprime mortgage risks, and information asymmetry among asset backed financial instrument holders who were unwilling to lend to each other. In other words, the lenders preferred overnight lending to longer maturity lending, as they were unable to accurately assess and identify risk profiles and exposures of borrowers who held assets backed by subprime mortgages. Thus, a liquidity problem occurred, resulting in a rise in the interbank rate as well as a higher cost of issuing short-term notes, despite ample liquidity in the global market.



Source: Bloomberg

Several central banks, namely the Federal Reserve Bank, the European Central Bank, the Bank of Japan, and the Reserve Bank of Australia, helped to ease liquidity frictions by entering and injecting liquidity into their money markets in the beginning of August 2007 to avoid a credit crunch. In September 2007, the Bank of England also injected liquidity to ease market conditions. Furthermore, as the lender of last resort, the FOMC cut the Discount rate in August 2007 in order to reduce borrowing costs of financial institutions. This was eventually followed by a cut in the Fed funds rate, as well as another cut in the Discount rate in September 2007 in response to higher risks to US growth. The prompt response of the central banks helped to restore investors' confidence to a certain degree.

However, the International Monetary Fund (IMF) viewed that, at present, as a result of the subprime problem, credit and liquidity risks were significantly higher than in April 2007 while macroeconomic risks were only slightly higher. The subprime problem was expected to extend to next year, as a significant number of ARM loans would enter the floating rate period and house prices were expected to continue to decline further. Therefore, looking forward, it would take a longer time for the housing market to recover. This would contribute to a further economic slowdown in the US.

Regarding the subprime impact on other countries, the extent of the direct impact would depend on the amount of subprime assets held in each country and their export shares to the US. Asian countries' financial risk exposures were limited, given their relatively small holdings of subprime related assets, while their exports could be affected more significantly from the slowdown in US demand and foreign exchange instability. In addition, as financial markets became increasingly volatile, capital flows were likely to fluctuate and affect foreign exchange stability.

[1/] Carry trade investment refers to international investment through borrowing from source countries with low interest costs such as Japan at the present in order to invest in countries with high interest rates. This kind of financial transactions exerts currency depreciation pressures on the low interest rate countries. On the other hand, carry trade unwinding means withdrawal of funds from the high interest rate countries to repay debt in the source countries.