ANNEX

2 Factors That Contributed to the Crisis According to IMF Staff

This annex is drawn from the IMF's own ex post analysis. According to IMF staff, the following factors contributed to the crisis:[35]

Macroeconomic forces. A long period of high growth, low real interest rates, and limited volatility led to excessive optimism about the future, pushed up asset prices and leverage, and prompted a search for yield and an underestimation of risks.

- **Monetary policy.** Short-term interest rates were low, reflecting accommodative monetary policy. Central banks and financial regulators largely focused on inflation and aggregate activity, thereby paying insufficient attention to the buildup of systemic risk associated with rapid asset price increases (particularly in housing markets) and growing leverage.
- **Global imbalances.** These too played a role in the buildup of systemic risk. High saving in Asia and oil-surplus countries had as their counterpart large capital inflows to the United States and Europe. This contributed to low long-term interest rates, underpinning the rise in asset prices, leverage, a search for yield, and the associated creation of riskier assets.

Global architecture. A fragmented surveillance system compounded the inability to see growing vulnerabilities/risks. Multilateral coordination and collaboration lacked sufficient leadership to achieve the needed response to systemic risks. On financial regulation, there were no ex ante rules governing cross-border resolution or burden sharing. The absence of broad liquidity insurance implied an inadequate international response when interbank markets around the world froze up.

Financial system. New structures and new instruments were riskier than they appeared. A presumption that these instruments dispersed bank risk ignored the larger fact that risk remained concentrated in entities linked to the core banking system. Market discipline failed amid the prevailing optimism, due diligence was outsourced to credit rating agencies, and a financial sector compensation system based on short-term profits reinforced risk-taking.

- **Regulatory perimeter.** A lightly regulated and generally unsupervised shadow banking system in the United States had grown as large as the formal banking system. Banks evaded capital requirements by pushing risk to affiliated entities in the shadow system. Regulation was not equipped to see risk concentration and the flawed incentives behind the financial innovation boom. There were shortcomings in consolidated supervision and underwriting standards.
- **Market discipline.** Due diligence—in assessing counterparties and collateral—failed. Supervisory and regulatory incentives led to too much reliance on credit ratings whose methodologies were inadequate and inappropriate when applied to complex structured products, and thereby failed to capture the risks. Ratings agencies were also subject to conflicts of interest. Market discipline was eroded by the "too big to fail" nature of the largest most interconnected institutions. The complexity and opacity of structured credit instruments undermined market discipline. Risk management practices of many financial institutions were deficient, reflecting shortcomings in judgment and governance: the users of risk management models used poor business judgment, and warnings by risk managers were sometimes ignored or underestimated by senior management.
- **Pro-cyclicality.** A constellation of regulatory practices, (fair value) accounting treatment of structured products, ratings, and incentives magnified the credit boom and exacerbated market turbulence. Some recent regulatory initiatives (such as Basel II) may have also intensified pro-cyclical behavior.
- **Information gaps.** Financial reporting was inadequate, understating the risks borne by the reporting

[35] IMF (2009c); "The Recent Financial Turmoil—Initial Assessment, Policy Lessons, and Implications for Fund Surveillance," April 9, 2008.

entities. There were extensive gaps in regulators' and markets' data and understanding of underlying risks. These included risks embedded in complex structured products, the degree of leverage and risk concentration in systemically-important financial institutions, the difficulty of assessing liquidity and counterparty risk, and on-balance-sheet risks and links with off-balance-sheet risks. Shortcomings in valuation models and practices played a role.

- **Crisis management.** Cross-border differences in emergency liquidity frameworks and inadequacies in crisis management frameworks, including deposit insurance, played a role in propagating the crisis.