Portfolio Insurance Strategies by a Large Trader
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Due to the market imperfect liquidity in the presence of large traders, the usual continuous delta-hedging strategy may change the equilibrium price dynamics, as highlights the G10 report in 1993, emphasizing its destabilization role in the financial markets.

Market liquidity risk refers here to the degree at which transaction flows affect asset prices, separately from any change in the economic fundamentals. We suggest to analyse it through endogenous positive feedback effects from underlying asset prices to derivatives prices caused by the hedging portfolio strategy of large traders.

In fact, large traders hold sufficient liquid assets to meet joint liquidity needs of other traders, behaving as market makers, and so bearing the risk of their imbalanced derivatives portfolio. As a result of their dynamic hedging strategies, they buy and sell derivatives at prices shifted by an amount that depends on their derivatives net holding, directly and endogenously giving rise to empirically observed bid-ask spreads. But such behaviour may move derivative prices in an undesired direction, which requires specific partial hedging strategies, such as “feedback volatility” pricing and state-dependent strategies, illustrating a trade-off between maximizing expected gains and minimizing mis-hedging risk.

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