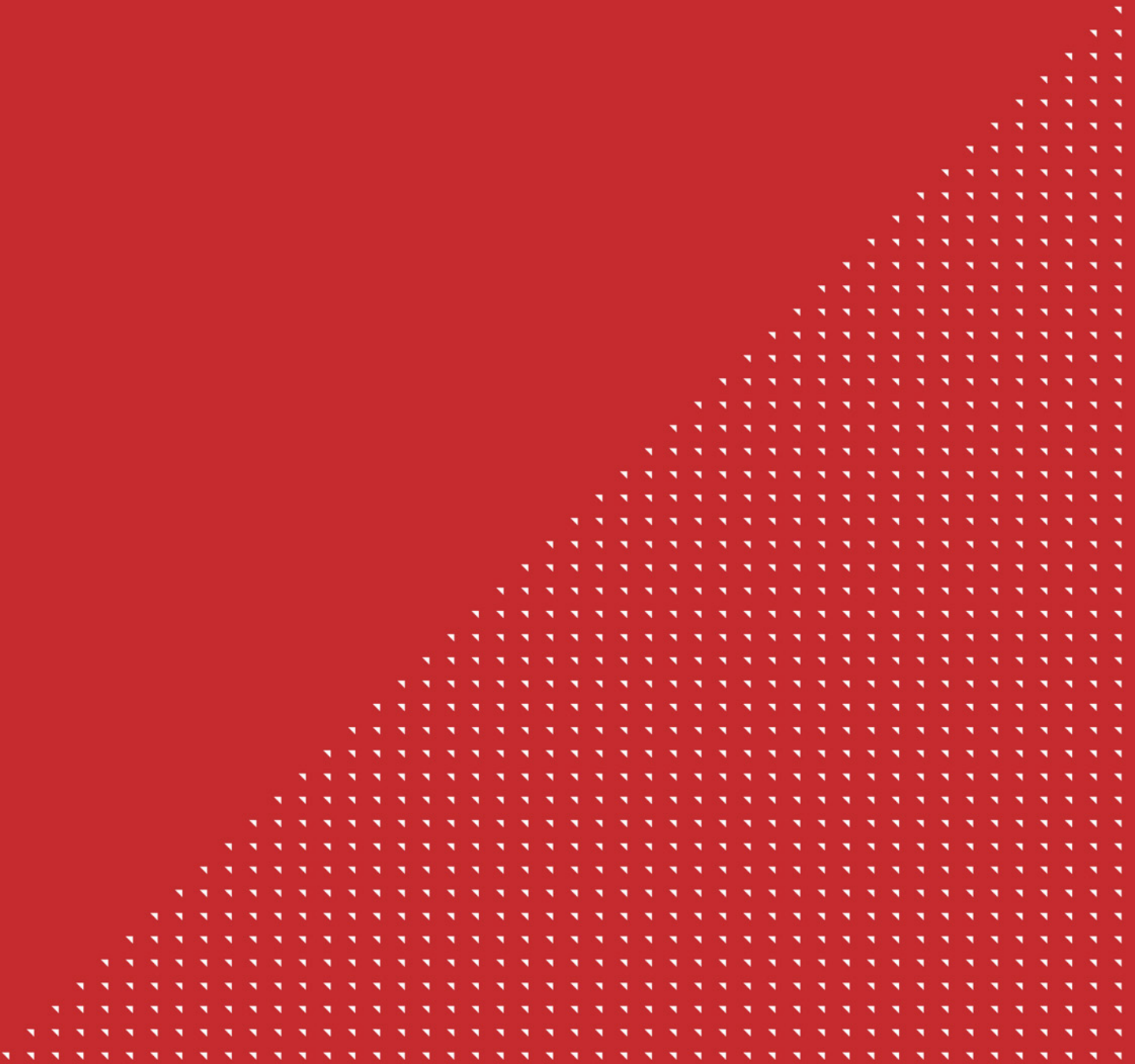


**Red Paper – Liquidity in
superannuation funds**
Effectively managing the risk of illiquidity

December 2008



Snapshot

- The continuous stream of inflows resulting from SG contributions has meant that many superannuation funds have not fully considered the risks associated with illiquidity.
- Recent market events have clearly illustrated the effects of paying too little attention to liquidity and risk management, with some funds now either facing liquidity issues and/or being forced sellers of securities.
- A range of factors in the current market environment contribute to the risk of illiquidity for superannuation funds.
- There are a number of strategies funds can put in place to effectively manage the risk of illiquidity.

Liquidity in superannuation funds

Background

For many years superannuation funds have benefited from a continuous stream of inflows as a result of Superannuation Guarantee (SG) contributions. At the same time, the steady appreciation of the Australian dollar for the previous three years has meant that additional cash liquidity has regularly been released from hedging overlays. These factors have meant that many funds have not fully considered the risks associated with illiquidity.

The liquidity of an asset relates to how quickly it can be converted to cash. Liquidity is critical for superannuation funds as they require significant levels of cash on a day-to-day basis to pay member benefits and to meet a range of ongoing expenses such as investment management fees, insurance premiums and tax.

Recent market events have clearly illustrated the effects of paying too little attention to liquidity and risk management. Equity markets have crashed, the Australian dollar has depreciated significantly, credit markets have imploded and hedge funds and commodities haven't provided the expected level of diversification. The situation is so serious that some funds are now facing serious liquidity issues and/or have been forced to sell assets at deflated prices to fund ongoing cash requirements, while others have been forced to make sudden and radical changes to their published investment policy.

How can a fund become illiquid?

Consider the example of the balanced option of a superannuation fund with total assets of \$1 billion at 1 September 2008. The following table shows how market returns for the month of September 2008 would have impacted the fund's asset allocation, assuming no cashflows:

Typical Fund Asset Allocation* (1 Sept)	Assets at 1 Sept (\$ million)	Sept Returns	Assets at 30 Sept (\$ million)	Asset allocation at 30 Sept (%)
Australian Equities	300	-9.9%	270	29.0%
International Equities (H)	250	-11.1%	222	23.8%
Direct Property	100	-0.2%	99	10.7%
Alternatives**	130	-6.6%	121	13.0%
Diversified Fixed Interest	170	0.1%	170	18.3%
Cash	50	0.6%	50	5.4%

* Approximated from SuperRatings SR50.

**Includes Private Equity, Infrastructure, Hedge Funds etc., but returns approximated using Hedge Funds.

While it appears the fund's cash position has not changed significantly, it now faces a number of issues which may not be immediately obvious:

- The fund may now be under its target weight in equities. Unless it rebalances, the fund will not realise the full benefits if the market rebounds. This also has the potential to significantly reduce the fund's ability to meet its investment objectives.
- The fund may be outside its allowable asset allocation ranges, causing disclosure problems and potentially breaching its investment policy.
- Due to the large losses across a range of asset classes and the resulting poor performance, the fund may be required to call on cash as members switch to less risky options. This is particularly likely following the introduction of the government guarantee on bank deposits.

Assume a modest 3% of the example fund is switched to a cash option (\$28 million). This leaves \$22 million of the original \$50 million in available cash.

- Large losses in equities mean that long equity futures positions will result in margin calls, which require cash.

Assume the fund's long futures positions were small and generated a loss of \$5 million. Now the fund only has \$17 million in available cash.

- Additional call payments may now be required to meet existing commitments in unlisted assets.

Assume a modest call payment of \$5 million is required at the end of September. There is now only \$12 million available cash left!

- The large fall in the Australian dollar means that a significant amount of cash is required to fund currency settlements.

The fund will require about \$40 million to fund its currency settlements, assuming 50% of its international equities are hedged. However, the fund does not have \$40 million in available cash. This means it will need to sell liquid assets in falling markets to raise the required cash. Furthermore, to prevent additional pain, the fund may need to allow the portfolio to become unhedged.

If it is forced to sell assets, the fund will likely receive below-market price for the assets in an already depressed market, which will further reduce the fund's portfolio value.

Allowing the fund to become unhedged may be contrary to investment policy and will expose the fund to the risk of an appreciating dollar, which could erode the value of the fund's unhedged assets.

What are the risk factors?

Any effective risk management program starts with a thorough understanding of the risks involved and requires strategic planning and diligence to manage those risks, even when those risks appear small.

There are a range of factors that contribute to the risk of illiquidity for superannuation funds:

Increased member movement

Choice of Fund (Choice) provides members with the ability to move their superannuation assets to other funds, while Member Investment Choice allows members to select an investment strategy appropriate to their risk preferences.

Research conducted by Ernst and Young has found that over one million members have exercised Choice since it was introduced in 2005. This movement, together with members' heightened awareness of returns due to current market conditions, has led to an increased level of investment option switching in superannuation funds. There is also some anecdotal evidence that members are voting against the recent market volatility with their feet and are moving from default options to less risky alternatives.

These member switches require the availability of cash, and this can pose significant liquidity issues for funds in times of extreme market movements.

Meeting unfunded commitments

Many alternative or 'real' assets require an initial investment and a commitment to make further investments ("calls") when appropriate assets are found.

Private equity in particular requires a significant amount of cash to fund these future commitments. This may cause issues for superannuation funds if this cash is required in times of market illiquidity.

Maintaining hedging positions

International exposure through assets such as equities, infrastructure, private equity and property has increased and is likely to continue to do so, primarily for diversification reasons. Many superannuation funds hedge at least part of their international equity exposure, and there is also a growing trend for funds to hedge all international direct assets and emerging market and debt exposures to minimise valuation volatility. This is usually implemented through currency forward contracts, which involve an agreement to buy a certain currency at an agreed price at a future date. If the currency then depreciates significantly (as

the AUD recently did) the buyer is required to pay the counterparty the difference between the agreed price and the current market price. This can result in the need to provide a significant amount of cash on settlement, and this created significant issues for superannuation funds and fund managers in September and October 2008.

A number of hedge funds were unable to find sufficient cash to maintain their currency hedging programs, and this resulted in dislocation during the period of emergency financing, as well as counterparties removing hedging facilities. This then led to those funds holding an undesired exposure to currency markets.

Exposure to counterparty risk

Funds that enter into derivatives contracts while undertaking portfolio management activities such as currency hedging and the management of “over-the-counter” derivative securities create an exposure to counterparty risk. These contracts require the counterparty to be solvent when the contracts settle to ensure profits and losses can be delivered. While most funds are aware of this risk, its true significance has only been fully appreciated following the collapse of investment banks such as Bear Stearns and Lehman Brothers and questions surrounding the ongoing viability of other counterparties.

The illiquid nature of unlisted assets

Unlisted assets such as infrastructure and private equity are illiquid by nature. They are valued infrequently, take a relatively long time to dispose of and are typically large. A significant allocation to unlisted assets can place a serious strain on the liquidity of a superannuation fund, particularly in times of market stress.

Selling in a buyer’s market

Traditional listed assets such as equities and bonds are typically considered liquid because they can be bought and sold on an exchange. However, this assumes that there are buyers willing to pay the price the seller wishes to receive. Many listed assets, and in particular mortgages and fixed interest credit securities, became illiquid in September and October 2008.

It is therefore necessary to look deeper than just the listed nature of these assets to determine their true liquidity.

Managing liquidity risk

As recent events have highlighted, illiquidity is a risk that needs to be considered seriously. Funds can protect themselves and effectively manage the risk of illiquidity by ensuring they understand the issue and their exposure to the risks, and by putting appropriate strategies in place to manage those risks. In particular, funds should consider the following:

- Conducting sensitivity analysis around potential market scenarios and forming contingency plans to manage the impacts of member switching, currency settlements, margin calls, capital calls and other liquidity requirements.
- Implementing a frequent rebalancing program to ensure portfolios remain at target weights and do not breach strategic asset allocation limits. Frequent rebalancing also protects the fund during times of market illiquidity as smaller volumes of rebalancing trades are required. In addition trades are typically undertaken contrary to market movements (i.e. buying as prices fall and selling as they rise).

- Retaining discretion over the timing of trades for currency settlements and uncalled commitments to allow trading when markets are more liquid. This will allow the fund to benefit from more advantageous pricing and avoid potential liquidity traps such as month-end dates for currency hedge rolls.
- Using a range of banks and brokers to appropriately manage counterparty risk.
- Managing exposures using derivatives (in addition to physical asset holdings) to retain the flexibility to provide liquidity as required. Derivative holdings can generally be bought and sold more readily than physical assets, thus providing greater liquidity.

By implementing these strategies, funds can mitigate the risk of illiquidity and ensure they have sufficient cash to meet their financial obligations. Liquidity management should form a part of every superannuation fund's risk management plan.

For more information about how you can protect your fund from the risk of illiquidity, please contact Clayton Sills, Business Relationship Manager, Capital Markets on ph. + 61 2 9347 3344 email: c.sills@qic.com.

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