

## Synopsis

This dissertation presents the results of three empirical studies on price formation and liquidity in financial futures markets. The research entails three related areas: the effect of taxes on the prices of Australian stock index futures; the efficiency of the information transmission mechanism between the cash and futures markets; and the price and liquidity impact of large trades in interest rate and equity index futures markets. An overview of previous research identifies some important gaps in the existing literature that this dissertation aims to resolve for the benefit of arbitrageurs, investment managers, brokers and regulators.

The first study estimates the impact of the debt tax shield, cash dividends and imputation tax credits on the prices of Australian stock index futures. Relative to futures payoffs, the cost of financing the set of shares of the underlying index provides a mild tax shield, cash dividends are incompletely valued and imputation credits are worth at least fifty percent of their face value. The values that investors place on cash dividends and tax credits implied by index futures prices are close to those estimated in ex-dividend date stock price drop-off studies of the Australian share market.

The second study examines the mispricing of Australian stock index futures. Exogenous and endogenous price volatility is confirmed to have a positive impact on the mispricing spread, after filtering out predictable time series components. More accurate pricing associated with surprise trading volume in the underlying stocks is consistent with arbitrageurs acting to narrow price disparities relative to the futures market. Ex-ante interest rate volatility is the primary source of risk faced by arbitrageurs and fluctuations in the market impact cost of opening index arbitrage positions influence the extent to which they drive prices towards theoretical fair values.

The third study examines the effects of the direction of trade initiation and trade size on the resiliency of financial futures markets by analysing quote prices, bid-ask spreads and depths. The price and liquidity reactions reveal the unexpected information content of large trades, together with the motivation for exchanging a futures contract. In the market adjustment process, the size of quotes posted by liquidity providers are shown to play a more important role in futures markets than in previous research for equity markets. The liquidity cost of a large futures trade is mainly a pecuniary externality borne by other traders by impairing their continued ability to trade.