

22 December 1999

**Professor D.E.Allen School of Finance and Business Economics
Director of the Finance and Capital Markets Research Centre
(FICAMREG).**

Report for the activities of FICAMREG during 1999.

Key developments included the commencement of the SPIRT funded project on Managed Fund performance being undertaken collaboratively with Professor Tim Brailsford of ANU and Professor Robert Faff of RMIT. Mr Victor Soucik commenced as the APA funded Ph.D student on the project which involves collaborating with Assirt, which is a subsidiary of Sealcorp and a major Australian fund rating agency. This project got off to a rapid start and Victor has developed access to the Assirt library database which is the basis for the project and begun a number of analyses.

A major development from this project was a joint venture with SIRCA which is a university based, industry sponsored, financial markets research centre. It conducts applied research into the design of equities, futures, OTC markets and the market impacts of financial information. It currently consists of four research centres: equities, over the counter, futures markets and accounting. Professor Allen will be the Director of a fifth Centre which will conduct research into the Managed Fund Industry.

SIRCA is a consortium of 22 Universities from Australia and New Zealand.. It provides shared physical research infrastructure (super-computers, software, international data, programmers) to reduce the time it takes to deliver research outcomes. Second, it provides industry focused research centres (equities, futures, OTC, accounting and funds management) comprising teams of expert researchers to deliver targeted outcomes.

SIRCA's close relationship with the Australian Stock Exchange (ASX), the Sydney Futures Exchange, the Australian Financial Markets Association (AFMA) and other financial intermediaries in the region, places it in a unique position to assist the financial development and integration of regional capital markets. The extension of SIRCA's role from Australia to the region and eventually world financial markets is a key objective.

The linkage with Sirca is a key strategic development for FICAMREG and will lead to greatly enhanced access to data, opportunities for training Ph.D students and greater capabilities to raise research funds from government and industry sources.

Adjunct Professorship.

Professor Lyn Thomas of the Department of Business Studies, the University of Edinburgh accepted an offer of an adjunct Professor ship with the School of Finance and Business Economics and FICAMREG. He will continue collaborative work on a number of projects. Risk Spreads and Bond Pricing.

Recently models have been developed using credit ratings as a way of estimating the credit risk associated with commercial bond prices. This work continues this research by providing a Markov chain model for the term structure and credit risk spreads of bond process. It allows dependency between the stochastic process modeling the interest rate and the Markov chain process describing changes in the credit rating of the bonds by their mutual dependency on a hidden Markov chain. This Markov chain can be thought of as the underlying economic conditions. The calculations of the parameters of the model are based on historical information on the changes in credit rating of bonds and time series of economic indicators. These are fitted using U.S. data and the prices of bonds for U.S. industrial and financial organisation estimated. The model also allows a new definition of risk premia which allows a reinterpretation of the risk premia used in previous approaches. The idea is that the risk premia is when the market 's view of the future is more extreme than historical evidence suggests . Finally as part of the calculations we address the problem that previous attempts to strip the coupons from the price data on real bonds leads to zero-coupon prices that do not reflect the risk structure of the bonds. By using a linear programming approach to strip the bonds of their coupons we are able to guarantee there is no such mis-pricing. This work is being undertaken by D.E. Allen and Professor Lyn Thomas, of the Department of Business Studies, the University of Edinburgh.

Research Grant funded projects.

- **Managed fund performance**

A project on the measurement of managed fund performance is being developed with Professor T. Brailsford of Australian National University, Professor Robert Faff of RMIT and Assirt, the fund rating agency using data provided by Assirt. The work is supported by a SPIRT grant in 1999, 2000 and funding for an APA until 2001. Total support of \$120,000.

An analysis of the linkage between accounting earning, dividends and share prices

This work is supported by a small ARC grant of \$17,499 in 1999. A first stage of the project has been completed by D.E.Allen, S. Cruikshank and N. Morkel-Kingsbury . This involved a study of the linkages between accounting earnings and stock price movements in a VAR framework of a sample of some US firms drawn from the S&P 500 Index. Ms. Wenling Yang, a Masters of Finance student is working as a part-time Research Assistant on this project. A time series analysis of linkages between accounting earnings, dividends and stock prices in various markets is being undertaken with Dr. G.

MacDonald of Curtin University, Professor A.M. Masih of Edith Cowan and Mr. R. Masih of Goldman Sachs.

Other Research Projects:

The hedging effectiveness of the Sydney Futures exchange

Research into the hedging effectiveness of the Sydney, London and Singapore Futures Exchanges applying time-series modelling techniques supported by Small ARC Grants of \$15,000 in 1997 and \$17499 in 1998.

- **Rationality in equity markets**

This work undertaken with Dr Gary MacDonald of the School of Economics and Finance, Curtin University, involves tests of market efficiency and analysis of whether price overreaction phenomena occur in equity markets in the Asia-Pacific Region. The pricing efficiency of equity markets has also been analysed using applications of the theory of cointegrated vector autoregressive models. A Var approach is applied to tests of the present value relationship between prices and dividends in various markets. Related work on the efficiency of key markets is underway and includes tests of contrarian investment strategies and the long-run performance of initial public offerings (IPOs).

- **The determinants of returns in the Malaysian and Thai Stock Markets**

This work involves tests of the efficacy of the Capital Asset Pricing Model in the Malaysian and Thai Markets and examines whether there is a linear relationship between return and beta. Tests for the existence of various anomalies in price behaviour such as the ‘small firm’ effect, the impact of book equity to market equity values, own variance etc., will be undertaken.

- **Purchasing Power Parity in the Asia-Pacific.**

This project involves the application of time series econometric testing to exchange rate theory of the Asian region. This will include applying standard unit root and cointegration testing as well as panel data procedures to data retrieved from the Datastream Database and the International Monetary Fund. Special areas of interest include testing the ability to forecast exchange rates, the differences in adjustment speeds of cross national and cross continental PPP, the dynamics of PPP relationships over time and the influence of other variables (e.g. interest rates, prices and fiscal balances) on such

relationships. It will be undertaken by D.E. Allen, S. Cruikshank and G. MacDonald.

The equity premium in Australia.

Mr Lurien Demello joined the activities of FICAMREG during the year. He works in a variety of capacities within the School of Finance and Business Economics. He has been busy work on a project using Datastream data to model and predict the size of the equity premium in Australia.

Making Superannuation Choices: An Analysis of SSAU Investor Choices

The project undertaken by Paul Gerrans, Marilyn Clark-Murphy and Brian Ducie is examining the choice offered to SSAU members to choose between a defined benefit scheme and a range of investment accumulation funds. This choice that faced SSAU members was arguably one of the more important financial decisions they would have faced. The motives and influencing factors in making this decision is one of considerable interest to academcis, practitioners and fund members. A survey of 10000 members is currently under way.

Refereed Journal Publications:

D.E.Allen and M. L. Tan “A Test of the Persistence in Performance of UK Managed Investment Funds”, *Journal of Business Finance and Accounting*, (1999), Vol 26, Nos 5&6, pp.559-593.

D.E. Allen and N. Morkel-Kingsbury and W.Piboonthanakiat, “The long-run performance of initial public offerings in Thailand”, *Applied Financial Economics*, (1999), No 9, pp.215-232.

D.E. Allen, Commonwealth of Australia, Official Committee Hansard, Senate Foreign Affairs, Defence and Trade References Committee, AGPS Publishing Service, Canberra, reference "Examination of developments in contemporary Japan and the implications for Australia", (1999) FAD&T pp.176-190.

Also available on the WWW at <http://www.aph.gov.au/hansard>

Forthcoming:

D.E. Allen, J. Hill and L.C. Thomas, “Expert’s Estimates of Task Durations in Software Development Projects”,

International Journal of Project Management, (2000) Vol 18, No 1, pp.13-21.

Conference proceedings:

D.E. Allen, Econometrics Society Australasian Annual Meeting (1999), UTS, Sydney, D.E. Allen, G. MacDonald, D. Walsh and K. Walsh, "Using Regression Techniques to estimate Futures Hedge Ratios: Some results from alternative approaches to Australian Treasury Bond Futures"(July, 1999).

Conference papers:

D.E. Allen, European Financial Management Association EFMA 1999 Annual Meeting, Paris, France, (June 23-26 1999) "The term structure of interest rates: a multi-country study

ESAM99, Australasian Meeting of the Econometric Society, University of Technology, Sydney, "Using regression techniques to estimate futures hedge ratios, some results from alternative approaches applied to Australian 10 year treasury bond futures", (7 July 1999).

Eleventh Annual PACAP/FMA Finance Conference, Pacific Basin Financial Management Society Annual Meeting, Pan Pacific Hotel, Singapore, "Using regression techniques to estimate futures hedge ratios, some results from alternative approaches applied to Australian 10 year treasury bond futures", (8-10 July 1999).

Eleventh Annual PACAP/FMA Finance Conference, Pacific Basin Financial Management Society Annual Meeting, Pan Pacific Hotel, Singapore, "The term structure of interest rates: a multi-country study", (8-10 July 1999).

D.E. Allen, Financial Management Association Annual Conference Meeting, The Marriott Hotel, Orlando, Florida, USA, "Interest Rate Term Premia and Purchasing Power Parity: the Missing Link?", (8 October 1999).

D. E. Allen, 12th Annual Australasian Finance and Banking Conference, The University of New South Wales, Sydney, "A Comment on 'The Information Content of Earnings and Prices: A Simultaneous Equations Approach' by W.H. Beaver, M.L. McAnally, and C.H. Stinson (1997)", (16 December 1999).

V. Soucik, 12th Annual Australasian Finance and Banking Conference, The University of New South Wales, Sydney, "Long Run Underperformance of Seasoned Equity Offerings: Fact or an Illusion?", (16 December 1999).

S. Cruickshank, 12th Annual Australasian Finance and Banking Conference, The University of New South Wales, Sydney, "Backward to the Futures: A Test of Three Futures Markets", (16 December 1999).

V. Soucik, 12th Annual Australasian Finance and Banking Conference, The University of New South Wales, Sydney, "Performance of Seasoned Equity Offerings in a Risk Adjusted Environment", (17 December 1999).

Working papers:

D.E. Allen, G.D. MacDonald, D. Walsh and K. Walsh, "Using regression techniques to estimate futures hedge ratios, some results from alternative approaches applied to Australian 10 Year Treasury Bond Futures", Working paper, School of Finance and Business Economics, (January 1999)

D.E. Allen, M.H. Manzur and N. Morkel-Kingsbury, "The term structure of interest rates: a multi-country study", Working paper, School of Finance and Business Economics, (January 1999)

D.E. Allen, V. Soucik, "Long Run Under-performance of Seasoned Equity Offerings: Fact or an Illusion", Working paper, School of Finance and Business Economics, (July 1999).

D.E. Allen and V. Soucik, "Performance of Seasoned Equity Offerings in a Risk-Adjusted Environment", Working paper, School of Finance and Business Economics, (July 1999)

D.E. Allen, S. Cruickshank, N. Morkel-Kingsbury and N. Souness, "Backward To To the Future: A Test of Three

Futures Markets'' Working paper, School of Finance and Business Economics, (August 1999)

Reports:

D.E. Allen submitted a report to the Senate and Foreign Affairs and Defence Committee on matters relating to the current situation of the Japanese economy and its likely implications for Australia. (19 February 1999).

D.E. Allen gave verbal evidence to the Select Committee on for Defence and Foreign Affairs, Australian Senate, Canberra on matters relating to the current state of the Japanese economy and its likely implications for Australia, Committee hearings held in Perth at 1110 Hay Street (25 February, 1999).