TAXATION REFORM AND THE DIVIDEND POLICY OF AUSTRALIAN BANKS

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by

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TABLE OF CONTENTS

LIST OF TABLES

TABLE OF CONTENTS (cont)

LIST OF TABLES (cont)

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1.0 Introduction

A system of dividend imputation was introduced in Australia to take effect from 1 July 1987, to replace the Classical System of Taxation. The Classical System had levied tax on company profits twice. These profits were taxed once at the relevant company tax rate. The after tax profits were then distributed to shareholders and taxed a second time, at the relevant personal tax rate. The Imputation System continues to tax company profits at the company tax rate, however this tax is treated as a prepayment of the tax on which the shareholder will be required to pay on dividend income. A credit for the tax paid by the company, otherwise known as a franking credit, is passed on to eligible shareholders to be offset against tax payable.[1]

The introduction of the Imputation System raises new questions and issues for examination in Australia in the context of the existing academic debate over dividend policy. Similar reforms in both the U.K. and Canada prompted a new wave of empirical research. Porterba and Summers {1984} in the U.K and Amoako-Adu {1983} in Canada reviewed existing propositions using the tax reform as an 'event' around which observations about dividend policy and the market value of companies were made.

1. An eligible investor for the purpose of the imputation legislation is a 'resident' investor.

Two of the propositions arising from this lengthy debate are of interest for the purpose of the empirical research outlined in this paper. The first relates to the notion of tax induced dividend clienteles. Miller and Modigliani {1977} proposed the original clientele theory in response to criticism of their earlier works. Modigliani and Miller's {1961} propositions were founded upon the assumption of a perfect capital market[2] in which the dividend policy of a company was irrelevant vis a vis its market value. They revised their view in 1977 to accommodate a more realistic imperfect market situation, but nevertheless maintained the irrelevance of the dividend decision for pricing purposes. Modigliani and Miller proposed that in an imperfect market clienteles of shareholders would exist with a range of preferences for dividend policy emanating from the need to minimise taxation and optimise cash flow. These shareholders would invest in a company with a dividend policy which met these requirements. In equilibrium, the range of available policies would match shareholder needs, so that no company could offer a preferred policy which enhanced its value. These propositions provided the catalyst for research into the existence of dividend clienteles. Whilst a consensus does not exist a number of empirical studies, Pettit {1977} and Litzenberger and Ramiswamy {1979} & {1980}, support the view that dividend clienteles and more specifically 'tax-induced' dividend clienteles exist.

2. A perfect market comprises rational investors and the absence of taxes and transaction costs.

The second proposition of interest relates to 'dividend information effects'. This proposition focuses upon an efficient capital market[3] in which all available information is considered by shareholders and subsequently impounded into market prices in a timely manner. In this market, the announcement of a dividend, reflecting the company's dividend policy constitutes 'information'. This announcement has the capacity to convey good or bad news to shareholders regarding the company's future profitability and stability and ultimately influence its market price. Partington {1984} & {1989} suggested that a majority of Australian companies prefer and do pay a stable dividend in order to reduce uncertainty and hence negate unfavourable information effects.

The motivation for selecting these aspects of the dividend debate as a backdrop for post-imputation research relates to a theoretical proposition of an optimal post-imputation dividend policy[4], and the anticipated revised dividend requirements of shareholder clienteles. The Imputation System and the concept of franked dividends, in conjunction with the existence of a Capital Gains Tax provides the grounds for the notion of an optimal dividend policy. This policy would require companies intent on maximising shareholder wealth, to pass on all available tax benefits to their shareholders in the form of franking credits in

3. In an efficient market information is widely and cheaply available to investors, and all relevant and ascertainable information is reflected in share prices.
4. The 'optimal' dividend policy is discussed in detail in Section 4.1

a timely way to avoid further double taxation. A conflict arises as the implementation of such a policy would be at odds with a 'stable' approach to dividend policy noted by Partington. To achieve this optimal approach, a company would need to pay one hundred percent of its earnings as dividends. The company's dividend would therefore be founded upon its level of earnings, which may or may not be stable over time, rather than the dividend of previous years.

Furthermore, the Imputation System was not implemented on a 'level playing field' of shareholders, and thus introduced to the market additional taxation imperfections and as a consequence newly formed taxation clienteles. Post-Imputation the potential for a mismatch or disequilibrium between a company and its shareholders exists, where a company with the ability to pass on imputation benefits had clienteles of shareholders ineligible to take advantage of them. In this situation a company attempting to achieve the optimal dividend policy and at the same time optimise all of its shareholders tax positions would be forced to 'design' different dividend policies for different shareholder clienteles.

The situations described so far are considered as two potential problem situations for Australian companies in formulating post-imputation dividend policy. A study of the post-imputation dividend policy of Australian banks uses these issues as the focus for developing several hypotheses.

An outline of the dividend debate is presented in the second section of this paper. The third section describes the Australian dividend imputation system and in section four its potential impact upon post-imputation dividend policy and dividend clienteles is assessed. In section five a brief overview of the Banking Sector is presented. In sections six a study of the banks pre and post-imputation dividend policy and dividend plans is outlined. In section seven, some conclusions are drawn and recommendations made.

2.0 The Dividend Debate

The theoretical framework and related empirical research summarised in this section is the result of over thirty years of research into the dividend question. Whilst the questions which are raised in this paper utilise only aspects of this debate, the author considers that the reader will benefit from a summary of the 'whole picture' rather than the specific aspects which are referred to directly as part of the research.

One of the discretionary powers conferred by ordinary shareholders upon the board of directors, is the right to declare dividends. Assuming that the objective of management is to maximise the value of the firm or its return to shareholders,[5] then one question which must be resolved is whether the decision to payout a certain portion of earnings as dividends in any way influences the value of the firm or the return to shareholders.

There are two alternative views on this issue, and whilst both have been advocated by writers at one time or another no firm consensus exists today. The traditional view is, that the magnitude of the dividend payment does make a difference, in which case there may be a desirable or optimal dividend policy which

5. This assumption is widely employed in the finance literature. An alternative objective is profit maximisation.

will maximise the market value of the firm. The alternative neoclassical view is, that dividend policy is irrelevant, so that for any given dividend payout ratio the value of the firm and the return to shareholders remains unchanged. In 1961 in their paper **'Dividend Policy, Growth and the Valuation of Shares'**, Modigliani and Miller first proposed the notion of 'dividend irrelevance'. They suggested that under the assumptions of perfect certainty[6] and perfect capital markets a company's financing decisions in no way influenced its value. Central to their theory, was the assumption that in a perfect capital market the investment decisions of a company determined its value.

These propositions represented a challenge to conventional wisdom which maintained that preferences for a dividend policy did exist amongst shareholders. A decade earlier in 1951, Graham and Dodd had first proposed 'dividend relevance', by advocating that shareholders actually valued common stock by applying a greater multiplier to that proportion of earnings paid as dividends, than to retained earnings. This notion led to the suggestion that a company would be able to influence its value by adopting a policy which paid a higher proportion of its earnings as dividends.

6. With perfect certainty, the future is known with certainty i.e. all investors know the future investment programs and future earnings of the company. In perfect capital markets, all investors have equal and costless access to information about all aspects of their investment. No one shareholder can influence the market price of a share, and their are no transaction costs and no corporate or personal taxes.

A more sophisticated version of this proposition emerged in 1959 when Myron Gordon developed the 'bird in the hand' theory, suggesting that shareholders preferred a dollar 'in the hand', in the form of a dividend, rather than the uncertainty associated with a return in the form of a capital gain. He concurred with Graham and Dodd, that shareholders would discount a future stream of dividends at a lower discount rate than a capital gain, reflecting their view of the relative risk of the two income streams. As a result a share in a firm which paid a relatively higher future stream of dividends, would have a higher present value, than one which retained a higher proportion of its earnings. Whilst the notion of shareholders attaching a higher risk premium to a future cash flow because of its uncertainty was a logical one, the 'bird in the hand' argument was erroneous in the sense that it did not deal with the impact upon value of a current dividend, versus a current capital gain, which was essentially the crux of the dividend relevance debate.

At the beginning of the 1970's despite a well supported conceptual framework, the consensus amongst finance theorists was, that no strong conclusion about dividends and asset pricing could be drawn. The notion of irrelevance, proposed by Modigliani and Miller, was considered to be theoretically sound, however one which presented an idealised version of real world capital markets. Researchers questioned this notion, mindful of the fact that capital markets existed with a multitude of imperfections. Logic implied that if these imperfections could influence the

value of the dividend paid by a Company, then a preferred dividend policy must exist. Of particular significance in this debate was the 'taxation imperfection' whereby taxation legislation differentially treated dividends and capital gains.[7] It gave credence to the notion of 'dividend relevance', on the grounds that rational shareholders who sought to minimise their taxation liability, would prefer and hence value more highly a company which via its dividend policy, distributed its earnings in the most tax effective way.

In response to the emergence of arguments in favour of dividend relevance, generally based upon the notion of an imperfect market, Modigiliani and Miller advanced the 'clientele theory' to reinforce their view of the irrelevance of dividends. They suggested that as a consequence of market imperfections, clienteles of shareholders would exist with diverse preferences. Companies with differential dividend payout ratios would attract that group or clientele of shareholders, who were able to optimise their individual position. In equilibrium the total supply of dividend policies would match the demand, at which point no company would be able to affect its value by changing its dividend policy.

7. On the grounds of taxation imperfections, Steadman {1971} and Finn {1971} both subscribed to an 'anti-dividend' proposition. They proposed that due to the tax regime which existed at the time, the payment of dividends by a Company would actually have a negative impact upon its value. Taxation legislation in Australia favoured capital gains over dividends, therefore the rational shareholder would expect to receive higher pre-tax returns on 'high' dividend shares, to achieve the same after-tax returns available on 'low' dividend shares.

In 1974 Black and Scholes provided empirical support for the Modigliani and Miller clientele theory[8]. They constructed two equal portfolios of stocks which comprised all securities listed on the New York Stock Exchange for the period 1947-1966 in such a way that the divergence in dividend yields on each portfolio was a maximum and carried the same risk. They found that the difference in returns for each portfolio was immaterial. Companies with high-dividend payout ratios did not yield returns significantly different, from those companies, with low dividend payout ratios. Their main conclusion was that a dollar of dividends had the same value as a dollar of capital gain.

In 1979 Litzenberger and Ramiswamy published a study which presented a strong challenge to the Black and Scholes findings and the 'irrelevance proposition'. Litzenberger and Ramiswamy pursued similar arguments to those which had been advanced by Steadman and Finn, suggesting that given differential tax rates shareholders would place a lower value on a dollar of dividends, than on a dollar of capital gains, resulting in an aversion to dividends. As a result higher dividend share would sell at a discount to lower dividend stocks, and a company could substantially increase its market value by reducing its dividend payout ratio.

8. Earlier in 1970 Elton and Gruber, and later Elton Gruber and Rentzler {1984} Porterba and Summers {1984} and Booth and Johnson {1984} claimed that their findings were consistent with taxation clienteles. However Kalay {1982}, Eades, Hess and Kim {1984} and Lakonishok and Vermaelen {1983} suggested that taxation clienteles did not explain their results. These studies examined the ex-dividend day behaviour of share returns.

Litzenberger and Ramiswamy argued that the Black Scholes econometric method was not sensitive enough to detect a dividend 'tax effect' on share returns.[9] Their findings were quite significant. Over a forty-two year period (1936-1977) they concluded that a dollar of dividends was worth only seventy seven cents of capital gain. On the basis of their findings they suggested that companies could substantially increase their value by reducing dividends.

Miller and Scholes {1982}, challenged the findings of Litzenberger and Ramiswamy {1979} on the basis that they had failed to eliminate 'dividend information effects'. Miller and Scholes contended that dividend relevance 'per se', namely whether the level of dividends paid by the firm affects its value, could only be established when information effects, namely whether changes in a dividend policy convey information to the market about the future earnings prospects of the firm, were identified. They replicated the Litzenberger and Ramiswamy study, considering this 'information effect' and concluded that the 'tax effect' proposed by Litzenberger and Ramiswamy was not a reaction by investors to the dividend policy 'per se', but rather a response to the information which the announcement of the dividend conveyed to the market.

9. Their criticism of this method focused largely on the definition of dividend yields. In defining yields Black and Scholes had used the previous years dividend, and divided this annual dividend by the previous year's closing share price. By contrast Litzenberger and Ramiswamy updated these yields every month.

The concept of dividends and information effects was not a new one. In 1973 Pettit and Watts, in independent studies had investigated the marginal contribution of information contained in dividend announcements, whilst attempting to control for information conveyed through the announcement of earnings; the 'earnings effect'. Their results were almost diametrically opposed. Pettit concluded that substantial information was conveyed to shareholders by the announcement of a change in the dividend payout ratio. Watts concluded that once the 'earnings effect' was controlled, the information content of a dividend announcement was trivial. It was subsequently found however, that Watts' study failed to control properly for the effect of other information on share prices, and his assertions are considered suspect. Later in 1985 Miller and Rock suggested that investors draw inferences about the firm's internal cash flows from the dividend announcement, based upon the concept of asymmetric information, management know more about the company's earnings than do outside investors. Accordingly the price of the company's shares may react to changes in dividends.

2.1 Australian Research

In response to the issues raised overseas in relation to the dividend question, Australian authors have examined the propositions and carried out empirical research in the Australian market. The majority conclude that for various reasons the dividend policy adopted by a company is a relevant decision variable.

Early support for dividend relevance came from Qualls {1969} Hiley {1970} and Fargher {1972}. Later in 1977, Brown Finn and Hancock tested the information content of dividend and profit announcements made by a sample of Australian companies during 1963 to 1972. Their findings revealed that the Australian share market appeared to have been taken by surprise when these announcements were made. When profit and dividends changed in the same direction, there was a substantial adjustment to the share price during the announcement period of day 0 and day 1, however, where profits rose and dividends either did not change or were reduced the adjustment to the price was considerably less. They concluded that dividend and profit announcements have interactive information effects, whereby, dividend and profit changes reinforce one another, however when dividend and profit signals are in conflict their impact on share prices is considerably lessened.

In 1979 Ball Brown Finn and Officer conducted a version of Black Scholes experiment, using data from the Melbourne Stock Exchange.

They postulated the following four effects of dividend policy on post-announcement security returns; tax effects, transaction cost effects, information effects, and redistribution effects.[11] They found, as did Black and Scholes, that dividend yields and post announcement rates of return, were positively correlated over the sample period. However, they concluded that this relationship was not consistent with any of the postulated 'effects' but that their results were consistent with the dividend yield variable proxying for omitted variables, or a combination of this proxy-effect and a tax differential in favour of capital gains versus dividends.[12]

In the 1980's in three survey type studies Partington {1984,1985 and 1989} examined some aspects of the dividend policy decision process of Australian companies, and the actual dividend policies adopted by those companies. In particular Partington focused upon whether Australian companies chose to adopt stable[13] target dividend payout ratios in favour of a dividend which was determined by the amount of acceptable investments opportunities available to the firm.

11. Redistribution effects arise where the funds utilised to pay a dividend are subsequently replaced with debt financing, resulting in a change in capital structure. Black and Scholes (1974) argued that the post-announcement redistribution effect on security returns will normally be very small.
12. Ball, Brown, Finn and Officer suggested that the experimental problems which precluded them from drawing firm conclusions cast doubt on the validity of any conclusions based upon existing empirical studies.
13. A stable dividend is usually considered to be one which rises progressively in accompaniment to a firm's increasing earnings rather than one which is constant in dollar terms.

There are several reasons why shareholders may value stable dividends and pay a premium for the shares of a company providing such stability. Dividends may serve to resolve uncertainty in the minds of shareholders (information effects). When earnings drop and a company does not cut its dividend, the market's confidence in that company may be greater than it would be if the dividend were cut. The stable dividend may convey to shareholders management's view that the future of the company is brighter than the drop in current earnings suggests. A second factor favouring stable dividends is that shareholders who desire a specific periodic income may prefer a company with stable dividends to one with unstable dividends. Finally an uninterrupted and stable pattern of dividends may be advantageous in attracting certain institutional investors and trustees.

Partington {1984} found that sixty per cent of Australian companies surveyed used an explicit target dividend payout ratio, reflecting an objective of distributing a more or less fixed or stable proportion of profits in the long run. The most common payout ratio for companies was approximately 50% of its annual earnings. One third of the companies with an explicit payout target reported having changed the target materially over a ten to fifteen year period.

Partington {1989} investigated those variables which specifically influence the dividend policy decision. The results suggested that specific characteristics, such as a desire for dividend stability was a variable that occurred almost universally among Australian

Companies in determining dividend policy. A stable policy was perceived by managers as having beneficial effects on both the share price and shareholder confidence in the company's future profitability.

Partington {1985} conducted an examination of the dividend policy decision process. He examined the possible relationships between dividend and investment policies in the context of the notion that the dividend decision is not a residual one. The results demonstrated that managers claimed definite motives for adopting other than a residual dividend policy and that independent dividend and investment policies were common.

The research outlined in this section is a mere sample of the theoretical propositions and empirical research which have contributed to the dividend debate. Despite extensive research the relationship between a company's dividend policy and its market value is not one which can be predicted with any degree of certainty. However the debate is not yet stifled. The introduction of new or revised imperfections such as dividend imputation into the market provide the opportunity to test market response and hence perpetuate the debate.

3.0 A Summary of the Dividend Imputation System

On the 19th of September 1985 the Federal Treasurer announced the reform of the Australian taxation system. Part of this reform provided for the adoption of a system of full dividend imputation for resident company dividends. In a subsequent announcement on the 10th December 1986 the Treasurer substantially revised his position, to outline the current imputation system to be implemented from 1 July 1987.

The dividend imputation legislation which amended the Income Tax Assessment Act 1936, is outlined in Part IIIAA of the Income Tax Assessment Act (secs.160APA to 160ASE). It applies to the payment of dividends by resident companies to resident natural shareholders. The reform is intended to remove the double taxing of company profits, considered to give rise to various distortions in the Australian economy such as a preference for debt in favour of equity and a bias to structures other than the corporate form.

In July 1987 the company tax rate was increased to equal the highest marginal tax rate for resident individuals of 49 cents. However in May 1988 the corporate tax rate was reduced to 39 cents from July 1 1988. As part of the May 1988 reform a tax of 15 cents was imposed on superannuation funds complying with the occupational superannuation standards legislation and 49 cents for

'non-complying' superannuation funds. This new taxation on the funds and societies was offset by extending the benefits of the dividend imputation system to them.

The dividend imputation legislation applies to all dividends distributed by resident companies to resident shareholders on or after 1 July 1987. The system operates so that shareholders are taxed at their marginal tax rate on income received via dividends. However for 'qualifying' or 'franked' dividends, either full or partial credit is given or imputed to the shareholder for any company tax paid on their behalf. The imputation system extends to companies which are resident shareholders. Franked dividends received by one Australian resident company are generally freed from tax by virtue of the inter-corporate dividend rebate Sec 46(2)(b) Income Tax Assessment Act 1936. However from 1987/88 onwards the rebate is confined to resident companies. For imputation purposes the effect of the receipt of a franked dividend by an Australian resident company is that it gives rise to a franking credit equal to the franked amount of the dividend. This may be used by that company to frank dividends which it pays to its own shareholders.

In general all dividends paid by Australian resident companies, will be qualifying dividends or franked dividends, provided that they have been paid out of profits that have been subject to company tax, either in that company or another company which has distributed part or all of its after tax profits to the payor

company. Section 160AQF provides that a dividend is deemed to have been franked where a company; pays a 'frankable dividend' to its shareholders, is resident from the date of payment, and declares that the dividend is franked. A frankable dividend (Sec.160APA) is one which is paid after 1 July 1987 and, is a dividend with in the meaning of Sec. 6(1) of the Act. A resident company is one which is considered to have been 'sufficiently resident' during the income year (Secs. 160APK 160APW 160APG). To be sufficiently resident the company must be resident for more than one half of the year of income, or resident at all times during the income year when the company exists.

Non-resident shareholders are generally not entitled to imputation credits or rebates. However the imputation legislation effectively exempts franked dividends paid to non-residents on or after 1 July 1987, from dividend withholding tax payable at 15% for residents of countries with double-tax treaties with Australia, and 30% for residents of other countries. This means that fully franked dividends paid to such non-residents will be free of any Australian tax, at the shareholder level. However a dividend paid to a non-resident will continue to be subject to dividend withholding tax to the extent that it is unfranked.

The mechanics of the imputation system are as follows; assume a company earns $1 profit on which it pays 39 cents Company tax. The remaining 61 cents is paid to an investor as a qualifying or franked dividend, (as it has been subject to corporate tax). The

investor will be required, to gross up the amount of the dividend to its pre tax equivalent, in this case $1, and a rebate or credit of 39 cents is allowed against the income tax assessed representing the tax which has already been paid by the company. Therefore a resident shareholder who has a marginal tax rate lower than the company tax rate will be left with excess credits. These can be set-off against income tax payable on income from other sources. However excess credits do not give rise to cash refunds where franking credits exceed the total amount of tax payable for the year, and cannot be carried foward by the shareholder to be used against taxable income in future years. Further, where a resident shareholder has a marginal tax rate which is higher than the corporate tax rate the shareholder may be liable for a further tax payment on dividend income. Assume again that a fully franked dividend of 61 cents is paid to a resident shareholder, the shareholder will gross up the dividend payment to its pre tax equivalent of $1, and be required to pay 49 cents tax. The shareholder will use the imputation credit of 39 cents to offset part of this liability, but will still be required to pay 10 cents tax. If a dividend is paid which is either unfranked or only partially franked again the shareholder may be required to pay tax on dividend income.[14]

14. An interesting situation exists with the Commonwealth Bank franking account. The bank paid commonwealth income tax and was permitted to distribute franked dividends. However its only shareholder, prior to its partial privatisation was the commonwealth government which was not an 'eligible' shareholder for the purposes of dividend imputation. Sinceimputation the bank has accumulated valuable imputation credits which may now be passed on to its private shareholders. The franking account balance as at September 1991 is estimated to be $1000M.

As from 1 July 1987 every Australian company is required to maintain a Qualifying Dividends Account or Franking Account. The balance of franking credits determines the extent to which a proposed dividend can be franked. The account is increased or credited; when the company's tax liability is assessed or increased, when tax instalments are made, and when franked dividends are received the company. The franking account is reduced or debited if; the company's tax liability is reduced, when the company tax instalments paid are greater than its assessed tax, or when franked dividends are paid by the company. For example; if the franking account balance stood at $100 credit and the company resolved to pay a dividend of $150, then the company would be permitted to distribute dividends from the account in a number of ways. The distribution might consist of $100 of 'fully franked dividends would be distributed as 'unfranked dividends' and ultimately be taxed in the normal way. Alternately the distribution might consist of $200 worth of partially or 50% franked dividends, in this case the shareholder would be liable to pay the tax on the unfranked portion.

The account can also be reduced when dividends are 'underfranked'. Dividends are considered to be underfranked when the level of franking is less than the 'required franking amount'. The required amount is determined by the balance of franking credits as at the date the dividend payment is made. For example, consider a company which has made a company tax payment of $3900, the franking account balance is then credited with $6100. The company would

then be entitled to pay fully franked dividends totalling $6100 or a higher partially franked dividend. If the company elected to pay only $5,000 franked to only 50% or an equivalent $2,500 fully franked dividend, then the dividend would be underfranked by more than 10% of the dividend. In this situation the franking account balance would be reduced by the amount the dividend was underfranked. Furthermore, a dividend cannot be franked by more than 100% therefore if that same company had paid a $5000 fully franked dividend hence distributing less than 90% of available franking credits this would not constitute underfranking.

As an alternative to calculating the actual franking account balance immediately prior to making a distribution, companies are permitted to estimate their year end account balance and pay 'qualifying' dividends during the course of the year. If the amount of the qualifying dividends paid turns out to be greater than the actual amount in the account, a debit balance will arise in the franking account. In this situation, and any other where franked dividends paid exceed franking credits, the company is liable to pay a franking deficit tax to make up for the amount of company tax that has been imputed by the over-payment of franked dividends. This tax is determined pursuant to the Income Tax (Franking Deficit) Act 1987. Where a company over-franks dividends by an amount greater than 10 per cent of the franking account balance a penalty or franking deficit tax becomes payable. This penalty may be waived where the franking deficit arose from circumstances beyond the control of the company.

On the other hand a credit balance at the end of a financial year constitutes a non-refundable prepayment of company tax for later years. Such a prepayment can be carried forward indefinitely as long as it is not due to underfranking of dividends.

3.1 Taxation Reform and Dividend Policy - Overseas Research

By the 1980's the outcome of the lengthy dividend debate had yielded a series of theoretical propositions and empirical works, outlining conflicting conclusions. However this conflict and the duration of the debate was not enough to stifle further research and it continued, examining the impact of a major taxation reform such as dividend imputation upon the value of dividends.

Several studies examined the impact of Canadian tax reforms which occurred during the 1970's. In 1971 the revised Canadian Tax Code provided for partial dividend imputation. Dividends received by Canadian residents, from resident Canadian public companies were to be grossed up by one-third for tax purposes and a federal tax credit equal to 20% of the grossed up dividend deducted from the computed federal tax liability. The effect of the reform was to reduce the effective dividend tax, on low marginal tax rate shareholders while raising it on shareholders with high marginal tax rates. At the same time a capital gains tax paid on realisation was introduced for the first time. In 1977 the Federal Government increased the grossing up of dividends from one-third to one-half, and the dividend tax credit from twenty to twenty-five percent.

Amoako-Adu {1983} analysed stock price changes around the period of these reforms, suggesting that in the absence of a tax effect

there should be no significant difference between the behaviour of high-dividend and low-dividend stocks. The sample consisted of 140 Toronto Stock Exchange stocks, which had traded continuously from January 1965 to June 1978. The results suggested that at the period immediatly surrounding both the 1971 reform and subsequent amendment in 1977, there were significant increases in the value of high dividend stocks while the effect of the tax changes on low dividend stocks was trivial. The significant difference between the behaviour of high and low dividend portfolios led Amoako-Adu to conclude that shareholders took personal tax changes into consideration when pricing stocks.

A similar study conducted in 1983 by Lakonishok and Vermaelen examined ex-dividend day behaviour for all Canadian firms listed on the Toronto Stock Exchange which paid dividends during 1971 and 1972. Lakonishok and Vermaelen however examined not only 'tax-clientele hypothesis' but also the 'short-term trading hypothesis' originally proposed by Kalay in 1982.[15] Kalay argued that the tax-clientele hypothesis contained a major flaw as it had not considered the impact upon price of the activities of short-term traders around the dividend day. Traders with the objective of taking advantage of temporary deviations from 'equilibrium' prices around dividend day may have a significant effect on ex-dividend day behaviour. Kalay argued that the effects which had been attributed to tax effects were the effects of short-term trading

15. For further comment on the short-term trading hypothesis see Miller and Scholes {1981}.

in the market. Lakonishok and Vermaelen concurred with this view in concluding that their results were inconsistent with a simple tax interpretation of ex-dividend day behaviour.

Porterba and Summers {1984} used British data to examine the effects of Taxation Reform upon the value of dividends. The first event occurred in 1965 when the British Government instituted a capital gains tax at a statutory rate of thirty per cent. In theory this reform should have increased shareholders relative valuation of dividend income. A second change occurred in 1973, when a partial imputation system was introduced which substantially reduced the tax rate applicable to dividend income. Porterba and Summers used both daily and monthly data on British securities to demonstrate that changes in dividend taxation had a substantial effect on the premium which shareholders required to induce them to receive returns in the form of dividends. They concluded that, allowing for biases due to information effects and the problems of measuring risk common to studies of this nature, a 'genuine' variation due to tax effects existed.

3.2 Taxation Reform and Dividend Policy - Australian Research

Several theoretical propositions have been made in Australia by R.R. Officer in a series of papers published during the later part of the 1980's. Officer {1986 and 1987} made some preliminary observations about the effect of the imputation system on several basic classes of shareholders, in the context of the tax regime that existed at the time. This comprised a company tax rate of 49% and tax exempt status for superannuation funds. Officer concluded that Australian resident personal shareholders, with the exception of some high personal tax rate shareholders were likely to be the greatest beneficiary of the imputation system, provided that Australian companies set their post-imputation dividend policy such that the balance of the franking account was zero. Overseas shareholders would not be greatly disadvantaged by the introduction of an imputation system in place of a classical system, however relative to Australian resident personal shareholders, they would be significantly disadvantaged as they would not be in a position to offset imputation credits against their personal tax. Superannuation funds and similar tax exempt institutions would be relatively worse off. Officer {1988} modified his view and suggested that shareholders such as overseas shareholders unable to fully utilise franking credits, would set up mechanisms to sell the credits and effectively benefit from imputation in the same way as Australian residents.

Officer {1989} revisited the post-imputation dividend question for

the purpose of examining analytically (as distinct from empirically) the likely effect of the imputation system on companies dividend and financing decisions. The form of the analysis involved an assessment of a company's response to the changes in the tax system, by examining how it would go about maximising the disposable income of its shareholders under the new tax regime. Officer set about modelling shareholders' disposable income and dividend/retained earnings preferences under the classical tax system and the imputation tax system. He concluded that providing the top personal tax rate remained equal to the company tax rate, then it would pay companies to pay out as dividends their full after-tax assessable income. Further, the benefits from paying dividends relative to retention would increase as the personal tax rate fell, provided that a shareholder was in a position to utilise the credits.

At the time of writing only two published pieces of empirical analysis existed which had examined the post-imputation dividend question. Kirschke and Rosser {1989} carried out research which examined the post-imputation dividend policy of 188 listed public Australian companies reporting after-tax profits in 1986 and 1987. Using the 1986 interim dividend as the 'base dividend', Kirschke and Rosser reported strong growth in final dividends but negative real growth in interim dividends. However dividends per share for 1986 and 1987 actually declined. An examination of the extent to which post-imputation dividends were franked implied that companies had an abundance of unused franking credits at the end

of the 1987 year. Kirschke and Rosser concluded that this reflected an adjustment phase, after which Australian companies would adapt their dividend policy to transfer imputation credits to their shareholders in a timely way.

In addition Nicol {1991} conducted empirical research into the post-imputation dividend decision. His analysis involved an examination of the dividend payout ratios of 422 listed Australian companies across a sample period 1982-1990. His findings revealed that dividend payout ratios had risen significantly post-imputation, from a low of 31 percent in 1986 to 50 per cent in 1990. More specifically the median payout ratio of the top 100 companies had risen from 44 per cent in 1986 to a high of 63 per cent in 1990. A similar result was found for the second 100 while the third 100 showed a marked jump from 1986 to 1987 and then remained stable from 1987 to 1990, but at significantly lower levels compared to the payout for the first 200 companies.
In another aspect of the study Nicol specifically examined the dividend payout ratios of companies able to pay franked dividends compared to those paying unfranked dividends. He found that the payout ratio of companies paying franked dividends had changed, however a progressive decline in the median payout ratio for companies paying unfranked dividends had occurred post-imputation.

In addition Nicol examined other subsets of companies within the database. Those companies which had introduced dividend reinvestment and election schemes revealed a dramatic rise in the

median payout since dividend imputation was introduced. In addition the three major trading banks were of special interest. Nicol suggested that the banks had been quicker to introduce comprehensive dividend plans and were better placed than the management of the average company to understand the benefits which imputation offered to shareholders. Furthermore the banks were targeted as preferred investments by the major clienteles because of their perceived ability to pay significant franked dividends. He observed as expected significant increases in the dividend payout ratios of the three banks but concluded that they were not paying dividends to the limit of their franking account balance.

The provisions of the imputation system are such that a company will maximise its shareholders wealth by passing on imputation credits in a timely way. As a result some researchers have suggested that the 'imputation imperfection' causes the dividend policy of a company to be a relevant decision variable. The logic of this proposition is powerful and given a supportive body of empirical research then aspects of the dividend debate would be closed. However whilst the research conducted so far is generally supportive of this proposition the Canadian view suggests that it is not unanimous.

4.0 Dividend Imputation - Implications for Post-Imputation Dividend Policy and Dividend Clienteles

In section three the Imputation System was outlined and research into the dividend question in the context of taxation reform highlighted. In this section the impact of dividend imputation upon different clienteles of shareholders is discussed in detail in conjunction with the implications for the post-imputation dividend policy of Australian companies.

The table on page 33 provides a numerical example of the effects of dividend imputation, and tax rate changes upon a range of shareholder clienteles. (The application of the Imputation System is also presented in Tables 4.3-4.6 at the end of Section 4). A comparison is drawn for a company under the old classical system and the current imputation system. In addition figures are presented on post-imputation tax rates as if they had been imposed under the classical system, in order to derive a clearer picture of the effects of imputation upon shareholder returns. The example assumes that a company receives $1000 in cash profits before tax and pays out all after tax income as dividends. The effects of alternative policies are examined in more detail in section 4.1.

The combined effects of the changes in tax rates and the introduction of imputation makes all shareholder clienteles better off. However, the increases in shareholder returns is not due

entirely to imputation. If the middle column is considered, which reflects a hypothetical situation in which the current tax rates and the classical tax system coexist, it can be seen that changes in both corporate and personal tax rates account for some of the increase in shareholder returns. For example high tax individuals gain $314 ($530-$216) from the introduction of imputation however $107 of this ($323-$216) is due entirely to tax rate changes. It is apparent that the lower the marginal rate of tax of the shareholder, the greater the benefit to be derived under the imputation system. This assumes that the shareholder has sufficient 'other' taxation liabilities which excess credits from dividend income might be offset. In addition the position of foreign shareholders is analysed with the view that they will not be able to utilise the benefits of franked dividends, except to the extent that they offset their liability for withholding tax. Officer {1988} has suggested that this assumption is naive, as a secondary market for imputation credits does exist in Australia which enables non-resident shareholders and others who are potentially unable to benefit under the imputation legislation to trade excess credits. This assumption is relaxed in section 4.1 and the market for imputation credits examined in section 4.3.

Table 4.1 - Dividend Imputation and Changing Tax Rates

System Tax Rate	**Imputation 39 cents**	**Classical 39 cents**	**Classical 46 cents**
Cash Profits	$1,000	$1,000	$1,000
Less: Company Tax	($390)	($390)	($460)
After Tax Profits/Dividend Paid	$610	$610	$540
Shareholders Grossed-Up Dividend	$1,000	$610	$540
Low Tax Individuals Tax (21%,25%)	($210)	($128)	($135)
Tax Credit	$390	$0	$0
NET RETURN	$790	$482	$405
High Tax Individuals Tax (47%,60%)	($470)	($287)	($324)
Tax Credit	$390	$0	$0
NET RETURN	$530	$323	$216
Super Fund Tax (15%,0%)	($150)	($92)	$0
Tax Credit	$390	$0	$0
NET RETURN	$850	$519	$540
Foreign Shareholder Withholding Tax (assumed 15%)	$0	($92)	($81)
NET RETURN	$610	$519	$459
Tax-Free Shareholder			
NET RETURN	$610	$610	$540

Source: Hamson, H., Ziegler, P., (1990) 'The Impact of Dividend Imputation on Firms' Financial Decisions', Accounting and Finance, Vol.30, 2, p. 35.

4.1 *Post-Imputation Preferences - Dividends v's Retained Earnings*

The analysis presented so far has highlighted the relative position of a range of shareholder clienteles assuming that companies post-imputation pay one hundred percent of after tax earnings as dividends. Whilst Australian companies differ in the level of earnings which are paid as dividends, it was not the 'norm' pre-imputation, for companies to adopt such a payout ratio. Partington {1984} concluded as a result of a study of the dividend payout ratios of Australian companies, that the average was around fifty per cent. The introduction of the imputation legislation provided the catalyst for Australian companies to review the dividend/retained earnings decision.

Prima facie the optimal post-imputation dividend policy is one where the company pays a dividend to the extent that it passes all available franking credits to its shareholders in a timely way. For example, assume that a company's shareholders are eligible to receive the benefits of imputation, have a personal tax rate which is 39%, are holding shares which are eligible for capital gains tax, and have invested in a company which is eligible to pass on the benefits of imputation to its shareholders.[16] These assumptions

16. It is important to note that after-tax accounting earnings in practice may not bear a perfect correlation to the balance of the franking account. The determinants of the franking account balance are described in Section 3. The example should not mislead the reader into thinking that a company which pays one hundred per cent of after-tax earnings as dividends, has necessarily passed on all available franking credits. After-tax earnings are considered as a proxy for the franking account balance. This issue is considered in more detail in Section 6.

are progressively relaxed as other scenarios are examined. In this situation if instead of paying a franked dividend the company retained earnings, then dividends would once again be taxed twice. Once as corporate profits, and again to the extent earnings were retained and reinvested, and resulted in improved share prices. Shareholders would be taxed on realisation on the real capital gains. This position is illustrated in the following example: Company XYZ has earnings of $100,000 for the period, and wishes to evaluate the implications of paying all of its tax-paid earnings as dividends or retaining some earnings and paying a lower dividend. Consider the Table 4.2:

Table 4.2 - Two Alternative Dividend Policies

DIVIDEND POLICY	(A) Part-retention of tax-paid earnings	(B) No retention of tax-paid earnings
Accounting income/ Taxable income	$100,000	$100,000
Company Tax (39%)	$39,000	$39,000
Net income	$61,000	$61,000
Dividends	$30,000	$61,000
Retained earnings	$31,000	nil
Dividends per share	30 cents	61 cents

Source: Van Horne, J., et al, 'Financial Management & Policy in Australia' 3rd ed., p 404.

The benefits arising from each policy are: (a) Part retention of tax-paid earnings would result in the following benefits to the shareholder where:

$$B = D + N + R\ (1-Mt) - Td \quad 17$$

B = Benefit to the Shareholder

D = Dividend

N = Nominal Capital Gain

R = Real Capital Gain After Tax (assumed to be 25 cents)

Mt= Marginal Tax Rate of Shareholder

Td= Tax Payable on Dividend Income (a negative represents a tax credit)

Therefore: B = 30 + 6 + .61(25) -0

Total benefit per share = 51.25 cents

(b) No retention of tax-paid earnings would result in the following benefits to the shareholder:

$$B = 61 + 0 + 0 - 0$$

Total benefit per share = 61.00 cents

The analysis highlights the 'optimal dividend policy' for a company wishing to maximise shareholder wealth is one where all after-tax income is paid as a dividend in a timely way. As retentions increase the shareholder's relative position declines.

17. This formula was used by Van Horne et all, 'Financial Management & Policy in Australia', 3rd ed., p. 405.

Therefore one might assume under these circumstances that post-imputation shareholders will exhibit a preference for high dividend payout ratios. However this shareholder clientele is not representative of the tax position of all shareholders post-imputation. The imputation legislation created distortions in the capital market in the sense that its impact varies across shareholder clienteles. Therefore it follows that each of these groups may benefit from a variation on the dividend policy described above. An analysis of the preferences across a range of shareholder clienteles is presented below:

(i) Resident Individual with a Marginal Tax Rate of 15 cents and Eligible For Capital Gains Tax

(a) Part retention of tax-paid earnings would result in the following benefits to the shareholder:

$$B = 30 + 6 + .85(25) + 11.8*$$

* The tax credit arises as follows: The shareholder receives a 30 cent dividend which is grossed up to its pre tax equivalent of 49.18 cents. The franking credit equals 19.18 cents. The shareholder would be liable for tax of 7.38 cents. The difference of 11.8 cents could be used as a tax credit against the liability arising from other income.

Total benefit per share = 69.05 cents

(b) No retention of tax-paid earnings would result in the following benefits to the shareholder:

$$B = 61 + 0 + 0 + 24*$$

* The tax credit arises as follows: The shareholder receives a 61 cent dividend which is grossed up to its pre tax equivalent of 100

cents. The franking credit equals 39 cents. The shareholder would be liable for tax of 15 cents. The difference of 24 cents could be used as a tax credit against the liability arising from other income.

Total benefit per share = 85.00 cents

As one might expect the benefits to this group of shareholders of a one hundred percent dividend payout are even greater, as the difference between their marginal tax rate and the company tax rate creates a greater 'opportunity loss' in the situation where the company retains a percentage of its earnings.

(ii) Resident Individual With a Marginal Tax Rate Of 47 cents and Eligible for Capital Gains Tax

(a) Part retention of tax-paid earnings would result in the following benefits to the shareholder:

$$B = 30 + 6 + .53(25) - 3.93*$$

Total benefit per share = 45.32 cents

* The tax payable arises as follows: The shareholder receives a 30 cent dividend which is grossed up to its pre tax equivalent of 49.18 cents. The franking credit equals 19.18 cents. The shareholder would be liable for tax of 23.11 cents. The difference of 3.93 cents represents tax payable on dividend income.

(b) No retention of tax-paid earnings would result in the following benefits to the shareholder:

$$B = 61 + 0 + 0 - 8*$$

Total benefit per share = 53.00 cents

* The tax payable arises as follows: The shareholder receives a 61 cent dividend which is grossed up to its pre tax equivalent of 100 cents. The franking credit equals 39 cents. The shareholder would be liable for tax of 47 cents. The difference of 10 cents represents tax payable on dividend income.

Whilst the benefit of the higher dividend payout ratio to this group of shareholders is relatively small, it is suggested that they will nevertheless exhibit a preference for a dividend policy with a high payout ratio.

(iii) Tax Exempt Bodies

(a) Part retention of tax-paid earnings would result in the following benefits to the shareholder:

$$B = 30 + 6 + 25$$

Total benefit per share = 61.00 cents

(b) No retention of tax-paid earnings would result in the following benefits to the shareholder:

$$B = 61 + 0 + 0$$

Total benefit per share = 61.00 cents

This group of shareholders will be indifferent to the dividend policy of the company except to the extent that they are able to trade franking credits. This is discussed in section 4.3

(iv) Australian Companies as Shareholders

(a) Part retention of tax-paid earnings would result in the following benefits to the shareholder:

$$B = 30 + 6 + .61(25)$$

Total benefit per share = 51.25 cents

(b) No retention of tax-paid earnings would result in the following benefits to the shareholder:

$$B = 61 + 0 + 0$$

Total benefit per share = 61.00 cents

Australian resident companies which are the ultimate recipient of a dividend are in much the same position as resident individuals with a marginal tax rate of 39 cents and likewise would prefer franked dividends to earnings retention.

Those companies which are part of a group of companies and are simply interposed between a parent and the shareholder will not directly benefit from the imputation system. As is the situation under the classical system, dividends passing between intra group companies will be exempt from company tax under Section 46 of the Income tax Assessment Act.

(v) Superannuation Funds

The analysis of the dividend preferences of resident individuals with a marginal tax rate of less than 39 cents, assumed a marginal

tax rate of 15 cents, and thus holds for an analysis of the dividend policy preferences of superannuation funds. It is clear from this analysis that the benefits to the superannuation clientele, of franked dividends are substantial when compared to a policy of earnings retention. The dividend policy preferences of superannuation funds was not an issue when the imputation legislation was introduced in 1987, as the funds at that time were not tax paying entities eligible to receive the benefits of the imputation system. However, in May 1988 the Treasurer announced that the corporate tax rate was to be reduced to 39 cents from July 1 1988 and simultaneously a tax of 15 cents was imposed on superannuation funds. Partially offsetting this tax was the extension of the dividend imputation system to superannuation funds and friendly societies.

Up until 1988 the reaction in the capital market to imputation had been described as 'moderate' in the sense that the imputation event had not prompted a significant re-rating of fully franked stocks. It was suggested that because the superannuation funds were representative of substantial portion of total investors and were not exposed to imputation benefits, that it was not being considered seriously by the market. As the analysis would suggest, following the May 1988 statement a re-rating of stocks of companies offering high fully franked yields occurred, reflecting the demand imposed by the superannuation clientele with preferences for a high payout dividend policy.

(vii) Non-Residents

Prima Facie it appears that the non-resident clientele would prefer earnings retention to franked dividends. The logic for this conclusion is demonstrated as follows: fully-franked dividends paid after 1 July 1987 are no longer subject to withholding tax, the rate of withholding tax is less than the Australian company tax rate, withholding tax is only 15% for residents of countries with double tax treaties with Australia and 30% for residents of other countries, while the Australian company tax rate post July 1988 is 39%. Logic would suggest that non-residents seeking to minimise their liability for taxation would prefer to invest in companies which pay unfranked dividends and face the 15% (30%) withholding tax liability. Further support is given to this suggestion by the fact that many foreign shareholders are not taxed on Australian sourced income to the extent that it has already been subject to Australian taxation. Withholding tax on dividends is treated as 'Qualifying Australian Tax', whereas company tax paid on behalf of the shareholder by the company may not qualify, depending upon; the circumstances in which the foreign shareholder receives the dividend payment, the country in which the foreign shareholder receives the dividend payment and the country in which the foreign shareholder is resident for taxation purposes.

An alternative view of the dividend policy preferences of non-residents does exist founded upon the existence of a market in which this clientele are able to trade franking credits. The

notion of a market in imputation credits is discussed in more detail in section 4.2, however assuming that such a trade is possible then the analysis of their dividend policy preference is as follows:

(a) Part retention of tax-paid earnings would result in the following benefits to the shareholder:

$$B = 30 + 6 + 25 + .75(19.18)*$$

Total benefit per share = 75.39 cents

* The excess franking credits arise as follows: The shareholder receives a 30 cent dividend which is grossed up to its pre tax equivalent of 49.18 cents. The franking credit equals 19.18 cents. The shareholder is not eligible to offset this credit against dividend income, however is excluded from withholding tax. The shareholder sells the credits and realises an assumed 75% of its value after transaction costs.

(b) No retention of tax-paid earnings would result in the following benefits to the shareholder:

$$B = 61 + 0 + 0 + .75(39)$$

Total benefit per share = 90.25 cents

Under these circumstances the non-resident would exhibit a preference for franked dividends.

(viii) Shareholders Holding Pre September 1985 Shares

Australian tax-paying shareholders who purchased their shares prior to 20th September 1985 are eligible to receive any capital gains arising from these shares free of tax. VanHorne, Davis,

Nicol and Wright {1990} have suggested that this clientele, despite having a capital gains tax free status will nevertheless prefer franked dividends to earnings retention. Consistent with the analysis presented so far , it may be demonstrated that a clientele of high marginal tax payers (49%) CGT exempt would actually improve their wealth by investing in low dividend stocks for example:

(a) Part retention of tax-paid earnings would result in the following benefits to the shareholder:

$$B = 30 + 6 + 25 - 4.92$$

Total benefit per share = 56.08 cents

(b) No retention of tax-paid earnings would result in the following benefits to the shareholder:

$$B = 30 + 6 + 25 - 10$$

Total benefit per share = 51.00 cents

However, VanHorne et al suggest that if a number of companies were to reduce their franked dividend payout to 'cater' to this particular clientele, then despite the analysis presented this clientele may actually be worse off. Their point can be demonstrated in the context of two scenarios. Under the first scenario the companies in which the shareholders of this clientele are already holding shares, adopt a low-payout policy. Assuming that the total number of investors with high dividend preferences

exceeds the others, (the analysis so far would indicate that this is the case) then the mismatch between the post-imputation demand and supply of these low dividend stocks would presumably result in a loss in their value. It is possible that the capital loss suffered by the CGT exempt clientele will exceed any additional wealth created, as outlined above by investing in a low dividend stock. It may then pay this clientele to adopt the majority preference and 'prefer' high dividend stocks.

Under the second scenario the CGT exempt clientele invest in 'other companies' which chose to adopt a low-payout policy. This group would clearly not benefit by the purchase of additional shares in these low dividend companies, as the purchase would by definition constitute a purchase after 19 September 1985 and the stock would be subject to capital gains tax.

4.2 The Emergence of 'Designer Dividend Policies'

Dividend Imputation provided the catalyst for Australian companies to review existing dividend reinvestment schemes, and introduce new ones, as they attempted to recover the drain on equity resulting from the payment of relatively higher levels of dividends to cater to the preferences outlined in the previous section. More importantly, companies became far more sophisticated about dividend planning, as they acknowledged that the ability of their shareholder clienteles to utilise the benefits of dividend imputation was not uniform. This resulted in complex new 'dividend packages' being presented by companies to Australian investors, post-imputation.

The five most common of these packages or schemes which emerged were; Dividend Reinvestment Plans (DRP), Bonus Share Plans (BSP), Dividend Selection Plans (DSP), Overseas Dividend Plan (ODP) and Scrip Dividend Plan (SDP). These plans enabled each clientele to choose the dividend plan which most suited their respective tax position.

(i) Dividend Reinvestment Plans

DRP's were first introduced in the United States in 1968 and in Australia over a decade later. Shares purchased under these plans have advantages for investors over those purchased in the market, as they are usually issued at a discount on the market price and incur neither brokerage or stamp duty. DRP's enable the Company to

attract further equity investment from its existing shareholders, and avoid an outflow of liquidity arising from the payment of a dividend.

Clayborn {1984} estimated that as many as nine hundred such plans, were in place in the United States, and Hansen {1985} revealed that DRP's represented seventeen per cent of externally raised capital by companies in the United States. A similar increase in the use of DRP's was experienced in Australia during the 1980s. In 1982 there were only five such plans in operation however by 1988 there were reported to be seventy.[18]

Wills {1989} conducted a pre imputation study of twenty two major Australian Companies using data from annual reports published between 1982 and 1987, to assess whether; DRP's had been successful in raising equity capital and conserving cash and, whether companies used a cum-dividend or an ex-dividend basis to establish the issue price of shares offered for reinvestment. Included in the sample were the three major trading banks. Wills concluded that Companies who wish to retain profits for reinvestment and satisfy shareholders who require dividend income, can achieve both of these objectives via the use of DRP's, greater participation in such plans can be expected where higher discounts on the issue price are offered to the shareholders, and

18. This information was published in the Australian Stock Exchange Journal (1982)

shareholders are attracted by a discount based on an ex-dividend as opposed to a cum-dividend market price.

Post-Imputation DRP's proved the most common of the dividend plans. Shareholders can usually elect partial participation in a DRP i.e. they may choose to receive cash dividends as well as DRP shares.

Shares issued under a DRP are deemed dividend income on the same basis as the cash dividend from which they arose. DRP shares carry the same dollar amount of franking credits as if the shareholder had retained the cash dividend. DRP's usually provide a discount to the deemed current market price in determining the reinvestment price. The discounts usually range from 5%-10%.

DRP shares are subject to Capital Gains Tax (CGT) on disposal irrespective of when they were acquired. For CGT purposes the shares are deemed to have been acquired at the reinvestment price.

(ii) Bonus Share Plans

BSPs are the second most common of the dividend plans. BSPs should not be confused with other bonus shares which a company might offer to its shareholders from time to time.

BSP shares are issued from a company's share premium reserve. For tax purposes they rank as a capital item and not a 'dividend' and therefore do not attract personal income tax, and do not

participate in any franking and dividend imputation rebates. BSPs provide the ability for shareholders to convert current income/dividends into capital, in some instances capital gains tax free. For Australian residents, the general rule is that shares held prior to September 1985 are capital gains tax exempt. Bonus shares issued upon that pre September 1985 holding are also capital gains tax free. If the holding was purchased after September 1985 then the BSP shares are liable for capital gains tax on disposal. BSP shares like DRP shares allow partial participation, and are issued at a discount to the deemed current market price.

Bonus share plans appeal to the CGT exempt clientele, who can effectively acquire shares, which when sold, escape CGT. Furthermore, shares issued from a share premium account do not need to be franked to avoid personal income tax. If the company issued shares from a share premium to shareholders who had chosen to receive bonus shares instead of cash dividends it was not necessary to debit the franking account. This scheme enables the company to conserve franking credits and allocate them to other clienteles in a position to benefit from them.

(iii) Dividend Selection Plans

Dividend Selection Plans exist to provide investors with the choice of receiving franked or unfranked dividends. These DSP shares seek to allow those investors not able to use the franking benefits a cash dividend equivalent to the benefit of a franked

dividend. These plans were in particular targeted at overseas investors, who for example could not get the full benefit from dividend imputation, but could elect to take a higher dividend with no franking credits from an offshore subsidiary, thus allowing local investors to take full advantage of the local parent company's franking credits albeit at a lower dividend. This scheme also provides a benefit to a company whose tax payments do not provide sufficient franking credits to cover an entire franked distribution. This may occur for several reasons, for example, if a company is carrying forward previous tax losses, or part of its income is derived from overseas operations or from gold mining which is exempt from taxation. An example of such a plan occurred when the Western Mining Corporation paid its 1989 final dividends and its 1990 interim dividends. The company gave its investors the choice of either a franked dividend or a larger unfranked dividend on both occasions.

(iv) Overseas Dividend Plan

Overseas Dividend Plans (ODP's) are schemes employed by Australian companies with large earnings offshore, in particular the United Kingdom where similar legislation applies in respect of dividend payments.

The advantage of the ODP is that franking credits built up by British tax paying operations of an Australian company will benefit the companies British shareholders. This plan has no benefit for the Australian shareholder except that it improves the

company's capacity to frank dividends paid to Australian shareholders. There is less of a drain of franking credits that are unused in the hands of offshore shareholders.

(v) Dividend Scrip Plan

The range of 'dividend packages' which emerged post-imputation posed a problem for Australian companies. They would not be able to assess before the closing date for determining the dividend entitlement, just how much cash they would have to pay out as dividends, and to what extent available franking credits would be used up. This situation arose out of the choices made available to investors via these plans. To overcome this, some companies incorporated the payment of scrip as part of its dividend payment, this was especially common during 1988 as companies attempted to clear their franking accounts of credits valued at 49 cents. Under a SDP the shareholder does not have the choice of receiving a cash dividend payment. Although the payment of scrip will be quoted by the company as a dollar figure, the company will reinvest this amount into shares. The shares issued under this plan are deemed income and will be franked to the same extent as a cash dividend payment.

4.3 A Market for Excess Franking Credits

The impact of the imputation system across a range of clienteles had provided Australian companies with the impetus to package their dividend policy in order to distribute the benefits of imputation in the most tax effective way. In tandem with this initiative some investors were participating in an informal secondary market for the purpose of trading imputation credits. This market was conducted via several merchant banks and its participants were those clienteles either unable to use the credits or in possession of excess credits and those investors in a position to utilise additional imputation credits.

This market originated during 1988 when the Treasurer announced several taxation reforms. The corporate tax rate was to be reduced from 49 to 39 cents from July 1 1988 and a tax of 15 cents was imposed on superannuation funds. This event provided an incentive for companies to clear out their franking account and pass credits on to shareholders at the higher rate. Some companies paid special dividends to their shareholders however some elected to trade excess credits in exchange for cash. This trade was initiated between companies with policies of making low dividend payouts, companies making losses but having credits accruing from investments as sellers, and companies wanting to build up their level of credits and superannuation funds as purchasers. The trade in these credits is estimated to have amounted to as much as

$1billion in 1988.[19] The most popular instruments used to exchange franking credits was redeemable preference shares. These shares are redeemable, therefore carry no equity risk. They are non-voting and they are preferred for dividends. In practical terms they are debt instruments but are accounted for as equity. An exchange would operate as follows; assume that company A has for example, $7.5Million in excess credits and wants to raise cash. It could issue preference shares to the value of $100Million with a coupon of 15% and offer them to company B. If company B accepts the offer it pays $100Million for the preference shares and receives the $7.5Million in franking credits as a dividend or effective upfront interest payment ($7.5Million is the after-tax equivalent of the 15 per cent coupon).

Officer {1988} acknowledged the existence of a trade in imputation credits and was prompted to review earlier comments regarding the impact of imputation upon specific shareholder clienteles. Officer proposed that a trade in franking credits would enable tax exempt and overseas investors to benefit from the imputation system.

Amongst a variety of schemes designed to facilitate the trade Officer suggested that offshore investors might set up Australian companies specifically to hold shares eligible to receive franked dividends. These special purpose vehicles would then sell securities whose returns were in the form of franked dividends so

19. Business Review Weekly, September 16 1988 p 60.

that the value of the securities sold would be the capitalised value of the franked dividend including its tax credit. In theory, there would be adequate demand for such dividends to pay the full price including the credit, because the level of company tax **paid** (Officer estimated this to be around 30%) is a fraction of other income taxes in the community. The tax credits associated with company tax would be used against all these alternative sources of income tax. Assuming no transaction costs the full benefit of the tax credit could accrue to the tax exempt, the offshore shareholder and any others who were unable to utilise the benefits of the imputation credit via the sale of the security.

The current status of a trade in imputation credits is unknown. Officer {1988} commented upon the difficulty of testing empirically for such an effect due to the background 'noise' associated with sharemarket behaviour. In addition in unpublished comments Officer has suggested that the introduction of the Taxation Laws Amendment Bill (No. 2) (discussed in the next section) will to a certain extent have impaired the existence of such arrangements, making them even harder to detect and hence draw any conclusions in relation to the value of imputation to those clienteles which prima facie are not exposed to its benefits.

4.4 The 1990 Taxation Law Amendment Bill

As discussed, there was an inbuilt incentive post-imputation for companies to try to pay franked dividends to those of their shareholders who could make the most use of them and unfranked dividends to those shareholders who did not benefit.
The viability of dividend imputation schemes, devised to achieve this was put into question following the Treasurer's August 1989 Budget statement in which he announced that dividends paid after 30th June 1990 would be subject to new franking rules. In essence the legislation was designed to penalise companies by deeming them to have used franking credits, when they pay dividends under dividend schemes or dividend streaming arrangements. Several clienteles who had benefitted from the schemes were directly affected by these new rules. These included; firstly those with access to bonus share plans (BSP's) offering shareholders the right to take up bonus shares paid out of share premium accounts in lieu of their dividend entitlement, secondly those participating in dividend selection plans (DSP's) giving them the alternative of receiving unfranked or fully franked dividends at a lessor amount, finally those participating in overseas dividend plans (ODP's) enabling them to forego the right to receive a dividend from an Australian Company in which they had invested and instead receive a dividend from a non-resident subsidiary of that company. Those participating in dividend plans for Australian shareholders of a non-resident company (ODP's) giving them the right to receive a franked dividend from an Australian company that is related to that non-resident company instead of a dividend

from the non-resident company.

Whilst the outline presented in this section does not include a study of an empirical nature it is nevertheless possible to make some general observations about how the behavior of Australian companies and their clienteles of investors, post-imputation, fits in with the propositions raised in the dividend debate. It appears that tax-induced shareholder clienteles do exist in Australia. The behaviour of Australian companies in inventing schemes to cater to a number of shareholder groups by implication suggests that they exist. However, the notion that these clienteles simply shift around from equilibrium to equilibrium as explained by Modigliani and Miller {1976}, identifying and finding a dividend policy which suits their needs does not describe the post-imputation behaviour of the Australian capital market. Underlying their proposition, is the assumption that equal preferences for a range of dividend policies exists. This was not the situation which emerged post-imputation and was alluded to by VanHorne {1990}. In fact most shareholders prefer franked dividends to earnings retention and companies adopting a low-dividend payout would have suffered a loss of value. Therefore Australian companies appeared to try to cater for this majority preference and provide some schemes for the minority who could not utilise imputation benefits. The impact of the July 1990 reform has been to stifle this compromise. Empirical research into subsequent clientele behaviour will provide a very interesting update to this aspect of the dividend debate.

Table 4.3 Dividend Paid By Australian Resident Company Out of World-Wide Source Profits To An Australian Resident Shareholder

Category of Shareholder	Dividend Franked	Tax Treatment
Individual	Yes	. Assessable Income of Shareholder Sec 44(1)(a) . Franking Gross Up: Sec 160AQT (1) . Franking Rebate: Sec 160AQU
	No	. Assessable Income of Shareholder Sec 44(1)(a) . No Franking Gross Up . No Franking Rebate
Company	Yes	. Assessable Income of Shareholder Sec.44(1)(a) . Franking Credit: Sec 160APP(1) . Inter-Company rebate Sec 46
	No	. Assessable Income of Shareholder Sec 44(1)(a) . No Franking Credit . Inter-Company rebate Sec 46

Table 4.4 Dividend Paid By Australian Resident Company Out of World-Wide Source Profits To a Non-Resident Shareholder

Category of Shareholder	Dividend Franked	P.E in Australia	Tax Treatment
Individual	Yes	Yes	. Not subject to assessment under Sec 44(1)(b) as a result of Sec 128D; if the dividend had not been franked Sec 128B(3)(ga) would have applied. Dividend not subject to tax even if dividend could have been assessed because of P.E. Australia. . Not subject to withholding tax: Sec 128B(3)(ga) and Sec 160AQF, even if withholding tax could apply under a double tax treaty. . No franking gross up under Sec 160AQT(1) since shareholder is a non-resident.
	Yes	No	. Not subject to assessment under Sec 44(1)(b) as a result of Sec 128D; if the dividend had not been franked Sec 128B(3)(ga) would have applied. . Not subject to withholding tax: Sec 128B(3)(ga) and Sec 160AQF. . No franking gross up.
	No	Yes	. Not subject to assessment under Sec 44(1)(b) as a result of Sec 128D and Sec 128(b)(1),even if the dividend could have been taxed by assessment under a double tax treaty because of P.E. in Australia

Table 4.4 Dividend Paid By Australian Resident Company Out of World-Wide Source Profits To a Non-Resident Shareholder (cont.)

Category of Shareholder	Dividend Franked	P.E in Australia	Tax Treatment
			. Subject to withholding tax: Sec 128(b)(1) . No franking gross up
	No	No	. Not subject to assessment under Sec 44(1)(b) as a result of Sec 128D and Sec 128B(1). . Subject to withholding tax: Sec 128B(1)
Company	Yes	Yes	. Not subject to assessment under Sec 44(1)(b) as a result of Sec 128D; if the dividend had not been franked Sec 128B(3)(ga) would have applied. Dividend not subject to tax even if dividend could have been assessed because of P.E. in Australia. . Not subject to withholding tax Sec 128B(3)(ga) and Sec 160 AQF. . No inter-company rebate under Sec 46 since company not a resident. . No franking credit since company not sufficiently resident: Sec 160APK.
	Yes	No	. Not subject to assessment under Sec 44(1)(b) as a result of Sec 128D; if the dividend had not been franked Sec 128B(3)(ga) would have applied.

Table 4.4 Dividend Paid By Australian Resident Company Out of World-Wide Source Profits To a Non-Resident Shareholder (cont.)

Category of Shareholder	Dividend Franked	P.E in Australia	Tax Treatment
			. Not subject to withholding tax: Sec 128B(3)(ga) and Sec 160AQF. . No inter-company rebate under Sec 46 . No franking credit since company not sufficiently resident: Sec 160APK.
	No	Yes	. Not subject to assessment under Sec 44(1)(b) as a result of Sec.128D and Sec 128(B)(1), even if the dividend could have been taxed by assessment under a double tax treaty, because of P.E. in Australia. . Subject to withholding tax: Sec 128(B)(1) . No inter-company rebate
	No	No	. Not subject to assessment under Sec 44(1)(b) as a result of Sec 128D and Sec.128B(1) . Subject to withholding tax: Sec.128B(1) . No inter-company rebate

Table 4.5 Dividend Paid By Non-Resident Company To Australian Resident Shareholder

Source of Company's profit	Category of Shareholder	Tax Treatment
Australia	Individual	. Subject to assessment: Sec 44(1)(a). . Dividend cannot be franked. . Foreign tax credit available but no foreign tax credit for foreign tax paid by company since its income is not 'Foreign Income': Sec. 160AF(1).
	Company	. Subject to assessment: Sec 44(1)(a). . No franking credit. . No inter-company rebate since dividend does not come within definition of 'dividend' in Sec46(1). . Foreign tax credit available but no foreign tax credit for foreign tax paid by company since its income is not 'Foreign Income': Sec. 160AF(1).
Foreign	Individual	. Subject to assessment: Sec. 44(1)(a). . Dividend cannot be franked. . Foreign tax credit available
	Company	. Subject to assessment: Sec 44(1)(a). . No franking credit. . No inter-company rebate since dividend does not come within definition of 'dividend' in Sec 46(1). . Foreign tax credit available

Table 4.6 Dividend Paid By Non-Resident Company To Non-Resident Shareholder

Source of Company's Profit	Category of Shareholder	Tax Treatment
Australia	Individual	. Subject to assessment: Sec 44(1)(a). . Dividend cannot be franked. . No foreign tax credit for foreign tax paid by company or foreign tax paid by shareholder since its income is not 'Foreign Income': Sec 160AF(1).
	Company	. Subject to assessment: Sec 44(1)(b). . No franking credit . No foreign tax credit for foreign tax paid by shareholder since its income is not 'Foreign Income': Sec 160AF(1). . No inter-company rebate since shareholder is not resident: Sec 46(1).
Foreign	Individual	. No Australian Tax liability
	Company	. No Australian Tax liability

5.0 The Banking Sector In Australia - The Last Decade

The empirical research conducted in this paper involves a sample of Australian Banks. The author considered it appropriate to provide a very brief overview of the Banking Sector in Australia during the last decade as a prelude to the next section.

In the 1950s, 1960s and 1970s, Australian financial markets were heavily regulated. In the early 1980s deregulation of the financial system occurred, which predominantly resulted in the floating of the Australian Dollar, the dismantling of exchange and interest rate controls, and significant changes to the structure of the Banking sector.[20]

There were two major changes to the Banking Sector. Deregulation permitted new banks to enter the Australian banking scene, and existing banks to expand the size and the scope of their operations. The traditional boundaries between the banks and other providers of financial services were eroded. Banking licences were granted to several new entrants. Existing banks were permitted to expand their activities and to enter stockbroking, investment banking, insurance, leasing, trust and nominee services, securities trading and other services. In addition a restricted

20. In 1983 the new Hawke Labor Government set up the Martin Review Group to assess the Campbell Commitee's work in light of Labor policy. Martin supported the Campbell proposal for new banking entrants.

number of licences were granted to foreign banks.

In 1988 the regulatory distinction between trading and savings banks was removed, this reflected the blurring of the boundaries between their activities which had occurred during the 1980s. Prior to the 1980s, savings banks were restricted to taking deposits from the household and non-profit sectors and were subject to strict controls over their interest rates. They were required to invest over forty per cent of their assets in 'prescribed assets'. Trading Banks were afforded much greater flexibility.

In December 1990 there were 32 banking groups (excluding special and merchant banks) operating in Australia. This represents a substantial increase during the last decade. In 1981 only 18 banking groups existed. Banks operating in Australia can be classified as follows: Major Trading Banks, State Banks, New Australian Banks, Special Banks, Merchant Banks and Foreign Banks. Commercial or trading banking in Australia is concentrated in the hands of a few large banks, each supporting an extensive network of branches. There are four major trading banks holding almost seventy per cent of the banking sector's assets, and consequently accounting for the majority of trading bank business in Australia. These banks are commonly referred to as the 'major trading banks' and are;

. Australia and New Zealand Banking Group Limited;

. Commonwealth Bank of Australia;

. National Australia Bank Ltd; and

. The Westpac Banking Corporation.

All except for the Commonwealth Bank of Australia are wholly publicly listed companies. The Commonwealth Bank of Australia was established by Statute and until September 1991 was wholly owned by the Commonwealth Government. Subsequently thirty percent of its shares have been listed on the Australian Stock Exchange. All trading banks are subject to the Banking Act 1959, and are controlled by the Reserve Bank of Australia established in 1959 to administer The Banking Act. A fifth smaller trading bank is the Bank of Queensland which is also a wholly owned publicly listed company.

There are four State owned savings banks operating in Australia; which hold almost twenty per cent of the banking sector's assets They include:

. The State Bank of South Australia;

. The State Bank of New South Wales;

. The Rural an Industries Bank of Western Australia; and

. The Tasmania Bank.

The Tasmania Bank is a relatively new state bank, and was formed in September 1987 when the Launceston Bank for Savings amalgamated with the Tasmania Permanent Building Society. The State Bank of Victoria, previously the fifth State bank, ceased to exist as from the 1st of January 1991, when it was sold to the Commonwealth Bank

of Australia.

The remainder of the banking sector are relatively new entrants to banking in Australia. Six Australian owned banks and sixteen foreign owned banks were granted licences under special arrangements in 1985. (refer Table 5.1 -The Banking Sector in Australia at the end of this section). The Australian owned banks include:

- Advance Bank Australia Ltd;
- Australian Bank Ltd;
- Bank of Melbourne Ltd;
- Challenge Bank Ltd;
- Macquarie Bank Ltd; and
- Metway Bank Ltd.

Advance Bank, the Bank of Melbourne, Challenge Bank and the Metway Bank came into existence during the 1980s as banks. Advance Bank in June 1985 from a change in status from a building society the N.S.W. Building Society Ltd, Challenge Bank in April 1987 from the merger of, the Perth Building Society and the Hotham Permanent Building Society, the Bank of Melbourne in July 1989 from a change in status from a building society, Resi-Statewide Building Society, and the Metway Bank in July 1988 from a change in status from a permanent building society the Metropolitan Permanent Building Society.

The Macquarie Bank was previously a merchant bank. The Australian

Bank was formed in August 1981, and subsequently became a wholly subsidiary of the State Bank of Victoria from February 1989.

In addition Australia has several special banks. These include the Australian Resources Development Bank, an associated company of the National Australia Bank formed to finance large scale projects involved in the development of Australia's natural resources. The Australian Industry Development Corporation, is Commonwealth owned and borrows money overseas to lend to and take equity in development projects in tourism, mining and manufacturing. The Commonwealth Development Bank was established in 1959 to assist small business with advice and finance. The Primary Industry Bank is owned by the government, the major trading banks and the state banks. It refinances those banks to help them make long-term loans to farmers. The Australian Banks' Export Refinance Corporation, is also an associated company of the National Australia Bank, formed to provide export finance facilities to support Australian exporters of capital goods and services.

Table 5.1 The Banking Sector In Australia

MAJOR TRADING BANKS	FOREIGN BANKS
. Australia and New Zealand Banking Group Limited	. Bank of America Australia Ltd
. Commonwealth Bank of Australia	. Bank of China
. National Australia Bank Ltd	. Bank Of New Zealand
. The Westpac Banking Corporation.	. Bank of Singapore (Australia) Ltd
STATE BANKS	. Bank of Tokyo Australia Ltd
. State Bank of New South Wales	. Bankers Trust Australia Ltd
. State Bank of South Australia	. Barclays Bank Australia Ltd
. The Rural and Industries Bank of Western Australia	. BNP
. Tasmania Bank	. Chase AMP Bank Ltd
OTHER AUSTRALIAN BANKS	. Citibank Ltd
. Advance Bank Australia Ltd	. Deutsche Bank Australia Ltd
. Bank Of Melbourne Ltd	. Hongkong Bank of Australia Ltd
. Bank of Queensland	. IBJ Australia Bank Ltd
. Challenge Bank Ltd	. Lloyds Bank NZA Ltd
. Macquarie Bank Ltd	. Mitsubishi Bank of Australia Ltd
. Metway Bank Ltd	. National Mutual Royal Bank Ltd
SPECIAL BANKS	. NatWest Australia Bank Ltd
. Australian Resources Development Bank	. Standard Chartered Bank Australia Ltd
. Australian Industry Development Corporation	
. Commonwealth Development Bank	
. Primary Industry Bank	
. Australian Banks Export Refinance Corporation	

6.0 A Study Of The Pre & Post-Imputation Dividend Policy and Dividend Plans of a Sample of Australian Banks

In section two an outline of the dividend debate was presented. In summary, an accumulation of propositions and empirical works suggests that two contrary views still exist in relation to the dividend decision and the market value of the company. Those who advocate the 'relevance' argument suggest, that amongst other things the receipt of a dividend impacts upon an shareholders tax position, hence shareholders prefer and therefore value more highly, a company with a dividend policy which minimises this liability. Secondly, the announcement of a dividend conveys 'information' to the market which may be interpreted by shareholders to reflect management's expectations of the future profitability of the company. This information is ultimately impounded into the price of the company's shares.

Those who advocate the 'irrelevance' argument propose that groups of shareholders or clienteles exist in the market. These clienteles seek out a dividend policy by which they may optimise their wealth. In equilibrium companies will cater for the dividend requirements of all of these clienteles, so that no company is in a position to enhance its value by changing its dividend policy. Furthermore, to negate unfavourable information effects companies adopt stable dividend policies at a level which will suit the requirements of their clienteles. As a consequence the profit

announcement, rather than the dividend announcement will convey information to shareholders regarding the future profitability of the company and hence present market value.

In section four an analysis of the preferred dividend policy post-imputation across a range of shareholder clienteles was examined. The analysis suggested that shareholder wealth would be maximised when a company paid a dividend to the extent that all its available franking credits were distributed. Section four also considered the minority clientele groups, such as those holding pre CGT shares and overseas shareholders who in the absence of an ability to trade imputation credits might prefer earnings retention. The notion that companies might design their dividend polices to cater to a range of existing clientele preferences was discussed and the dividend schemes actually implemented by Australian companies outlined.

In this section, a study of the pre and post-imputation dividend policy of a select sample of Australian banks is presented. Given the nature of this research paper, the scope of the study needed to be restricted and as a result it is somewhat less ambitious in nature and size than most of the empirical work referred to so far. Its purpose, is to 'pick up' some aspects of this lengthy dividend debate, and use them as a theoretical premise from which assumptions regarding shareholder behaviour and a company's target dividend policy during the pre-imputation period can be made. These assumptions together with the some of the implications for

post-imputation dividend policy discussed throughout section four form the basis for the questions and propositions, from which the hypothesis of the study are developed.

6.1 Major Questions To Be Researched

The analysis presented in section four indicated that the majority of shareholder clienteles maximised their wealth when the company in which they had invested passed on all available franking credits. This implied using the simple cases outlined in section 4.0 that the optimal post-imputation dividend policy for these clienteles would be one where the entire after-tax earnings are paid as dividends.

The author acknowledges that the payment of tax and dividends are not the only variables which determine the franking account balance. However their impact is considered to be of such significance that after-tax earnings provides a proxy for the franking account balance. Hence the extent to which a company pays its earnings as dividends provides an indication of the extent to which it is passing on franking credits to its shareholders.

It is proposed that the banks will, post-imputation substantially increase their dividend payments in order to pass on all available franking credits. Following from this proposition the question to be examined is:

6.1.1 What proportion of after-tax earnings were distributed as dividends by Australian banks in, the pre-imputation period and the post-imputation period?

Whilst the issue of the information content of dividends has not been resolved empirically, it has been suggested that Australian companies aim to pay a consistent dividend per share to their shareholders so as not to convey 'negative information' to the market. It is proposed that this practice may be threatened, if post-imputation these companies chose to declare a dividend based on after-tax earnings per share which may or may not be stable over time. Following from this proposition the question to be examined is:

6.1.2 To what extent was the dividend per share based upon the banks earnings per share during the pre-imputation period and during the post-imputation period?

The next question arises as a consequence of the issues raised in 6.1.1 and 6.1.2. If the post-imputation dividend policy of the banks was to adopt a dividend policy which distributed a much higher portion of their earnings as dividends then it is proposed that post-imputation the banks would have found it necessary to implement or expand the scope of their dividend reinvestment schemes in order to recover adequate resources to fund the business and adequate equity to maintain the existing capital structure. The question which arises from this proposition is:

6.1.3 To what extent did the banks offer dividend reinvestment plans as part of dividend policy in; the pre-imputation period and, the post-imputation period?

Clientele theory suggests that companies will attract and maintain

a clientele of shareholders as a result of its dividend policy. As suggested the introduction of the imputation system provided the catalyst for Australian companies, including the banks, to review this policy in the context of the needs of its shareholders. Given that the imputation system had a differential impact across a range of clienteles it is possible that this review would have alienated some existing shareholders. It is proposed that the banks would have sought to design schemes similar to those outlined in section four to cater to a range of needs amongst their shareholders. The question which arises from this proposition is:

6.1.4 To what extent did the banks attempt to implement dividend schemes in order to distribute dividends in a tax effective way.

6.2 Hypotheses

Four hypotheses arise from the propositions and questions outlined above, these are formally tested in this study:

(i) That total dividend payout ratios of the banks were higher during the post-imputation sample period than during the pre-imputation sample period.

(ii) That total ordinary dividend per share of the banks was more closely related to earnings per share during the post-imputation sample period than during the pre-imputation sample period.

(iii) That banks introduced and/or increased the scope of existing dividend reinvestment plans post-imputation.

(iv) That banks implemented dividend schemes post-imputation designed to maximise the benefits of imputation for all of their shareholders.

6.3 Selection of The Sample

6.3.1 Selection Criteria

The banks operating in Australia (excluding merchant banks and bank subsidiaries) are presented in Table 5.1. In order for a bank to be included in the sample the following criteria was applied. The bank must be subject to the provisions of the Imputation Legislation, and the banks shareholders must be able to utilise the benefits of dividend imputation.

The following banks were excluded from the sample on the grounds that the Imputation Legislation did not impact upon their tax position. The Commonwealth Bank, the State banks, the foreign banks and the special banks.

. *The Commonwealth Bank*

The Commonwealth Bank of Australia is a tax paying entity in that like the major trading banks it is subject to the Commonwealth Income Tax Assessment Act 1936. The Imputation Legislation applies to 'dividends' paid by Australian resident Companies. A dividend is defined in Section 6(1) of the Income Tax Assessment Act to include 'any distribution made by a company to its shareholders. The payment of a dividend by the Commonwealth Bank to the Commonwealth Government does not qualify as a 'dividend' as per the Act as the Commonwealth Government is not classified as a

shareholder. For these reasons the Legislation does not apply to dividends paid by the Commonwealth Bank during the sample period and for this reason the bank has been excluded from the sample.

However in July 1991 the Commonwealth Bank issued a prospectus with the objective of raising $1.6Billion by issuing 30% of the bank's total capital to the public. The payment of dividends on these shares will be subject to Imputation Legislation.

. *The State Banks*

Under Section 23 of the Commonwealth Income Tax Assessment Act 1936 a variety of organisations and funds are specifically exempted from ordinary income tax on all their income. These include State Savings Banks conducted exclusively for the benefit of depositors, Section 23 (i). These banks are however required to pay an amount to their respective State Governments equal to the income tax which would have been liable under the law of the Commonwealth assuming that they were public companies. The State provisions which apply are as follows:

- State Bank of New South Wales, pursuant to Section 15 of the State Owned Corporations Act 1989 (pursuant to corporatisation);
- State Bank of South Australia pursuant to Section 22(1)(a) of the State Bank of South Australia Act 1983;
- State Bank of Victoria, pursuant to Section 38 of the State

Bank of Victoria Act 1980; (existed throughout the entire sample period however was sold on the 1st January 1991 to the Commonwealth Bank).

- Rural and Industries Bank of Western Australia pursuant to Section 28 of the Rural and Industries Bank of Western Australia Act 1987; and
- Tasmania Bank pursuant to Section 21 1(a) of the Tasmania Bank Act 1987.

These banks have been excluded from the sample as they are not liable for Commonwealth income tax and as such the Imputation legislation is not applicable to their operations.

. *The Foreign Banks*

The Imputation Legislation applies to the payment of dividends from resident Companies to resident shareholders. Whilst foreign banks operating in Australia **may** be considered as resident companies for the purpose of the Legislation their shareholders are predominantly non-resident and as such are unable to realise the benefits of imputation. For this reason they have been excluded from the sample.

. *The Special Banks*

As discussed in section 5.0 all of the special banks were either owned by the Commonwealth Government or were associated companies of a major trading bank. Therefore they have been excluded from

the sample.

6.3.2 The Sample

The final sample includes the following eight banks:

- Advance Bank Australia Ltd
- Australia and New Zealand Banking Group Ltd
- Bank of Melbourne Ltd
- Bank of Queensland Ltd
- Challenge Bank Ltd
- Metway Bank Ltd
- National Australia Bank Ltd
- Westpac Banking Corporation Ltd

6.4 Terms, Data & Estimation Procedures

6.4.1 Hypotheses 1 & 2

The purpose of the research undertaken in this section is to test two hypotheses. The first proposes that the dividend payout ratios of banks will increase as a result of the introduction of dividend imputation. Whilst the second proposes that the relationship between the dividend and the earnings per share will increase in strength post-imputation.

6.4.1.1 Definition Of Terms

. *The Banks*

Reference to the banks includes the sample of banks which are: Australian and New Zealand Banking Group, Advance Bank Ltd, Bank of Melbourne Ltd, Bank of Queensland Ltd, Challenge Bank Ltd, Metway Bank Ltd, National Australia Bank and Westpac Banking Corporation.

. *Reporting Period*

The Reporting period for the sample of banks are as follows:-

. Australia and New Zealand Banking Group Ltd	October 1 - September 30
. Advance Bank Ltd	June 1 - May 31
. Bank of Melbourne Ltd	July 1 - June 30

. Bank of Queensland	September 1 - August 30
. Challenge Bank Ltd	October 1 - September 30
. Metway Bank Ltd	July 1 - June 30
. National Australia Bank	October 1 - September 30
. Westpac Banking Corporation Ltd	October 1 - September 30

. *Sample Period*

The Post-Imputation Period is 1 July 1987 - 30 September 1990

The Pre-Imputation Period is 1 July 1983 - 30 September 1986

. *Dividend Payout Ratio*

The dividend payout ratio can be described as the percentage of earnings which are paid as a dividend. For the purposes of this study the dividend component of this measure is the total ordinary dividend paid and proposed, special dividends are included or excluded as noted. The earnings component is operating profit after tax including those extraordinary items subject to tax, net of tax. The purpose of defining the earnings component in such a way is to establish the extent to which the banks paid out earnings which had been subject to taxation and were therefore eligible to be paid out as franked dividends. To be consistent this measure was applied in both the pre and post-imputation periods.

. *Dividend Per Share*

The dividend per share can be described as the total dividend payment in relation to the number of ordinary shares. For the

purposes of this study the dividend component of this measure was again the total ordinary dividend paid and proposed for the period. The number of shares was the number of ordinary shares outstanding at the end of the reporting period. In some cases these shares were not fully paid usually representing shares issued to employees under various employee participation schemes. They were however eligible for the dividend.

. *Earnings Per Ordinary Share*

The earnings per share can be described as total earnings in relation to the number of ordinary shares. For the purposes of this study earnings were as described above for the dividend payout ratio, and the number of ordinary shares as described above for the dividend per share.

6.4.1.2 The Data

The data was collected from the relevant annual report of each bank across the sample period, and the company review service offered by the Sydney Stock Exchange.

6.4.1.3 Methodology

The method of establishing the information to be analysed utilised the following statistics:

. The mean of the total dividend payment pre and post-imputation. The mean of the total earnings pre and post-imputation and the mean of the dividend payout ratio pre and post-imputation. To test for the change in the dividend payout ratio.

. The standard deviation of the total dividend payment pre and post-imputation. The standard deviation of the total earnings pre and post-imputation and the standard deviation of the dividend payout ratio pre and post-imputation. To establish any change in the variability of the dividend across the period. Using the formula:

$$\sigma = \sqrt{\sigma^2} = \sqrt{\frac{\Sigma(x-\mu)^2}{N}} = \sqrt{\frac{\Sigma x^2}{N} - \mu^2}$$

where:

x = the observation

μ = the population mean

N = the number of elements in the population

Σ = the sum of all the values

σ = the population standard deviation

σ^2 = the population variance

. The Coefficient of Determination r^2 to establish the extent to which both the earnings and the earnings per share explained the variation in the annual dividend per share during the pre and post-imputation periods. Using the formula:

$$r^2 = \frac{a\Sigma Y + b\Sigma XY - n\bar{Y}^2}{\Sigma Y^2 - n\bar{Y}^2}$$

where:

r^2 = coefficient of determination

a = Y intercept

b = slope of the best fitting estimating line

n = number of data points

X = values of the independent variable

Y = values of the dependent variable

$\bar{Y}$ = mean of the observed values of the dependent variable

6.4.2 Hypotheses 3 & 4

The purpose of the research undertaken in this section is to test two further hypotheses. These propose that the banks will implement and/or increase the scope of dividend reinvestment plans post-imputation, and implement tax effective plans/schemes to enable the benefits of imputation to be distributed amongst those eligible to use them.

The review of the banks reinvestment plans will be carried out on a bank by bank basis by simply observing the availability and terms and conditions of dividend reinvestment plans in the pre-imputation period and comparing this to their availability and terms and conditions during the post-imputation period. A review of the dividend plans available during the post-imputation period will also be conducted.

The data was collected from the relevant annual report of the bank across the sample period and the relevant publication outlining the banks available dividend reinvestment and dividend plans. In addition the 'ANZ McCaughan Dividend Guide' published in 1989 and 1990 provided valuable information. The sample period is as

follows: The post-imputation sample period is 1 July 1987 -30 September 1990 and the pre-imputation sample period is 1 July 1983 - 30 September 1986.

6.5 Results - Hypotheses 1 & 2

6.5.1 Introduction

The first part of this section presents an analysis of the banks pre-imputation dividend policy. The analysis focuses upon the level of earnings paid as dividends, the earnings and earnings per share and the strength of their relationship with the dividend per share. The analysis is conducted on a bank by bank basis. The second part presents an identical analysis conducted during the post-imputation period. A comparative analysis provides the basis upon which the hypotheses are tested.

6.5.2 Analysis - Dividend Policy Pre-Imputation

Only four of the eight banks were included in the pre-imputation analysis. Advance Bank was excluded as it only commenced operations in the 1985/86 year and therefore did not provide a sufficient number of observations to analyse its dividend policy pre-imputation. The Bank of Melbourne was excluded as it did not commence operations until the 1989/90. Challenge Bank was excluded as it only commenced operations in the 1986/87 year and also did not provide a sufficient number of observations to analyse its dividend policy pre-imputation. Metway Bank was excluded as it did not commence operations until the 1988/89 year.
These banks however have been included in the post-imputation

analysis.

An analysis of the remaining four banks, Australia and New Zealand Banking Group Ltd, Bank of Queensland Ltd, National Australia Bank Ltd and Westpac Banking Corporation is presented below.

Table 6.1 - Australia and New Zealand Banking Group Limited

Year To Sept 30	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S cents
1983	$63,072	$194,304	32.5%	88.60	28.00
1984	$86,177	$263,644	32.7%	86.42	30.00
1985	$108,733	$320,202	34.0%	94.56	31.00
1986	$133,088	$305,386	43.6%	67.39	31.00
Mean	$97,767	$270,884	35.7%	84.24	30.00
Standard Deviation	$26,009	$48,835	4.6%	10.17	1.22
Correlation .. DPS		.9647		.0936	

During the pre-imputation period the bank adopted a policy of paying approximately one-third of its total earnings as dividends, ranging from a low of 32.5% in 1983 to a high of 43.6% in 1986. With a mean payout ratio of 35.7% and a standard deviation of only 4.6%. The dividend per share exhibited a gradual increase across the period from 28 cents in 1983 to 31 cents in 1986 with a mean of 30 cents and a standard deviation of only 1.22 cents. Earnings per share exhibited greater variability with a mean of 84.24 cents and a standard deviation of 10.17 cents. The r^2 of .0936

representing the correlation between the earnings per share and the dividend per share suggests that the relationship was very weak. The cause of the weakness in this relationship appears to be that the bank attempted to maintain a steady increase in the dividend per share in line with movements in earnings, rather than earnings per share. From 1983 to 1985 the dividend per share grew in line with earnings and remained constant when a decline in earnings occurred in 1986. The r^2 of .9647, representing the correlation between the earnings and the dividend per share, reinforces this suggestion.

Table 6.2 - Westpac Banking Group Limited

Year To Sept 30	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S cents
1983	$99,299	$246,504	40.3%	62.06	25.00
1984	$103,468	$334,025	31.0%	83.06	26.00
1985	$136,003	$389,158	34.9%	76.44	27.00
1986	$149,995	$408,205	36.7%	75.36	28.00
Mean	$122,191	$344,473	35.7%	74.23	26.50
Standard Deviation	$21,438	$62,780	3.3%	7.62	1.12
Correlation ..DPS		.9256		.2384	

During the pre-imputation period the bank adopted a policy of paying slightly more than one-third of its earnings as dividends, ranging from a low of 31% in 1984 to a high of 40.3% in 1983. With a mean of 35.7% and a standard deviation of only 3.3%. The

dividend per share exhibited a gradual increase across the period from 25 cents in 1983 to 28 cents in 1986, with a mean of 26.5 cents and a standard deviation of only 1.12 cents. Earnings per share exhibited greater variability with a mean of 74.23 cents during the period and a standard deviation of 7.62 cents. The r^2 of .2384 representing the correlation between the earnings per share and the dividend per share suggests that the relationship was a weak one. The cause of the weakness in this relationship appears to be that the bank attempted to maintain a steady increase in the dividend per share in line with a gradual increase in earnings, rather than the movement in earnings per share. The r^2 of .9256 representing the correlation between the earnings and the between the earnings and the dividend per share reinforces this suggestion.

Table 6.3 - National Australia Bank Limited

Year To Sept 30	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S cents
1983	$59,250	$153,666	38.6%	59.54	25.00
1984	$81,056	$249,109	32.5%	76.66	26.00
1985	$92,219	$301,304	30.6%	87.70	27.00
1986	$106,811	$303,600	35.2%	87.09	28.00
Mean	$84,834	$251,920	34.2%	77.75	26.50
Standard Deviation	$17,366	$60,769	3.0%	11.39	1.12
Correlation ..DPS		.8530		.8456	

During the pre-imputation period the bank adopted a policy of paying approximately one-third of its earnings as dividends, ranging from a low of 30.6% in 1985 to a high of 38.6% in 1983. With a mean of 34.2% and a standard deviation of only 3.0% during the period. The dividend per share exhibited a gradual increase across the period from 25 cents in 1983 to 28 cents in 1986, with a mean of 26.5 cents and a standard deviation of only 1.12 cents. Earnings per share exhibited greater variability during the period with a mean of 77.75 cents and a standard deviation of 11.39 cents. The r^2 of .8456 representing the correlation between the earnings per share and the dividend per share suggests that the relationship was a strong one. The cause of the strength in this relationship appears to be that the bank attempted to achieve a steady increase in the dividend per share in line with the growth in earnings across the period, however unlike the other banks this was matched with similar movements in the earnings per share.

Table 6.4 - Bank of Queensland Limited

Year To Sept 30	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S cents
1983	$989	$1,210	81.7%	14.81	13.00
1984	$1,143	$1,869	61.2%	22.89	14.00
1985	$1,225	$2,127	57.6%	26.04	15.00
1986	$1,695	$2,771	61.2%	22.62	15.00
Mean	$1,263	$1,994	65.4%	16.05	12.14
Standard Deviation	$625	$559	9.5%	4.14	0.83
Correlation .. DPS		.8334		.7976	

During the pre-imputation period the bank adopted a policy of paying approximately two-thirds of its earnings as dividends, ranging from a low of 61.2% in 1984 to a high of 81.7% in 1983. With a mean of 65.4% and a standard deviation of 9.5%, somewhat greater than the deviation in the payout ratio of the other three banks. The dividend per share exhibited a gradual increase across the period from 13 cents in 1983 to 15 cents in 1986, with a mean of 12.14 cents and a standard deviation of only .83 cents. Earnings per share exhibited greater variability with a mean of 16.05 cents and a standard deviation of 4.14 cents. The r^2 of .7976 representing the correlation between the earnings per share and the dividend per share suggests that the relationship was a strong one. The cause of the strength in this relationship appears to be that the bank attempted to achieve a steady increase in the dividend per share with the growth in earnings across the period which like the National Australia Bank was matched with similar movements in the earnings per share.

6.5.3 Summary -Dividend Policy Pre-Imputation

With the exception of the Bank of Queensland the banks appear to have adopted a pre-imputation dividend policy of paying a specific proportion of earnings as dividends. The three larger banks achieved average payout ratios of between 34.4% and 35.7%. The Bank of Queensland elected to pay a much higher proportion, the average payout ratio for the period was 65.4%. In addition all the banks attempted to achieve a steady increase in the dividend per share with the three larger banks paying a dividend per share of

between 25 and 28 cents in 1983 and 28 and 31 cents in 1986. The earnings rather than the earnings per share appeared to be a more important determinant of the dividend per share. The strength of this relationship reflected in the correlation coefficient ranged as follows .833 for the Bank of Queensland .853 for the National Australia Bank, .926 for Westpac and .965 for Australia and New Zealand Bank.

6.5.4 Analysis - Dividend Policy Post-Imputation - Excluding Special Dividends

All of the eight banks in the sample were included in the post-imputation analysis. The results are presented below:

Table 6.5 - Australia and New Zealand Banking Group Limited

Year To Sept 30	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S cents
1987	$129,217	$419,900	30.8%	59.57	26.00
1988	$246,400	$521,400	47.3%	61.85	34.50
1989	$367,900	$581,400	63.3%	63.45	44.00
1990	$354,500	$401,300	88.3%	41.13	38.00
Mean	$274,504	$481,000	57.4%	56.50	35.63
Standard Deviation	$96,203	$73,820	21.2%	8.98	6.51
Correlation ..DPS		.8996		.0035	

During the post-imputation period the bank steadily increased its total dividend payout ratio from 30.8% in 1987 to 88.3% in 1990. The payout ratio of approximately one-third of earnings which existed pre-imputation was replaced with a higher, steadily increasing one. The mean post-imputation payout ratio of 57.4% was significantly higher than the mean ratio pre-imputation of 35.7%. The total dividend per share progressively increased from 26 cents in 1987 to 44 cents in 1989, however it fell to 38 cents in 1990 in line with a fall in earnings. The mean of 35.63 cents demonstrated a material increase over the pre-imputation mean of 30 cents. A higher standard deviation of 6.51 v 1.22 cents pre-

imputation reflected the stronger growth in the dividend per share during the period. Contrary to expectations the relationship between the earnings per share and the dividend per share remained a weak one. The relationship between earnings and the dividend per share continued to be a strong one, however the correlation between earnings and the dividend per share declined from .9647 pre-imputation to .8996 post-imputation.

Table 6.6 - Westpac Banking Group Limited

Year To Sept 30	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S cents
1987	$156,684	$390,700	40.1%	70.01	28.50
1988	$268,800	$691,900	38.8%	70.77	33.00
1989	$515,000	$800,700	64.3%	75.68	52.50
1990	$546,700	$683,900	79.9%	60.51	52.50
Mean	$371,796	$641,800	55.8%	69.24	41.62
Standard Deviation	$164,302	$152,137	17.2%	5.49	10.99
Correlation ..DPS		.5699		.0399	

During the post-imputation period the bank steadily increased its total dividend payout ratio from 40.1% in 1987 to 79.9% in 1990. The payout ratio of approximately one-third of earnings which existed pre-imputation was replaced with a higher, steadily increasing one. The mean of 55.8% was significantly higher than the pre-imputation mean of 35.7%.

The total dividend per share gradually increased from 28 cents in 1987 to 52.5 cents in both 1989 and 1990. The mean of 41.62 cents was significantly higher than the pre-imputation mean of 26.5 cents. A higher standard deviation of 10.99 v 1.12 cents pre-imputation reflected stronger growth in the dividend per share during the period.

Contrary to expectations the relationship between the earnings per share and the dividend per share remained a weak one. The correlation between earnings and the dividend per share moved from an r^2 of .9256 pre-imputation to .5699 post-imputation. The cause of the change in this relationship may be partially explained by the fact that the bank experienced a decline in earnings from 1989 $800.7Million to 1990 $683.9Million however it maintained a consistent total dividend per share of 52.5 cents in both years.

Table 6.7 - National Australia Bank Limited

Year To Sept 30	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S cents
1987	$115,800	$328,000	35.3%	67.11	24.75
1988	$347,800	$569,400	61.1%	77.02	50.00
1989	$499,900	$791,600	63.2%	87.07	60.00
1990	$523,400	$755,500	69.3%	78.08	55.00
Mean	$371,725	$611,125	57.2%	77.32	47.44
Standard Deviation	$162,407	$183,927	13.0%	7.05	13.57
Correlation ..DPS		.9212		.8758	

During the post-imputation period the bank increased its total dividend payout ratio from 35.3% in 1987 to 69.3% in 1990. With the exception of the dividend in 1987 the bank appeared to have adopted a policy of paying two-thirds of its earnings as dividends, demonstrated by a payout of 61.1% in 1988, 63.2% in 1989 and 69.3% in 1990. The total dividend per share gradually increased from 24.75 cents in 1987 to 60 cents in 1989 and declined to 55 cents 1990 in line with a fall in earnings. The mean of 41.62 cents was significantly higher than the pre-imputation mean of 26.5 cents. A higher standard deviation post-imputation of 13.57 v 1.12 cents reflected the relatively stronger growth in the dividend per share during the period.

The relationships between the earnings, earnings per share and the dividend per share continued to be strong ones. However the correlation between the earnings per share and the dividend per share declined marginally from .8758 to .8456 post-imputation. Whilst the correlation between earnings and the dividend per share increased from .853 pre-imputation to .9212 post-imputation.

Table 6.8 - Bank of Queensland Limited

Year To Sept 30	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S cents
1987	$2,307	$3,456	66.8%	21.16	15.00
1988	$2,859	$5,004	57.1%	22.77	16.00
1989	$4,203	$7,221	58.2%	28.46	16.00
1990	$6,161	$9,234	66.7%	28.49	20.00
Mean	$4,408	$7,153	60.7%	26.57	17.33
Standard Deviation	$1,485	$2,191	4.6%	3.3	1.92
Correlation ..DPS		.7726		.456	

During the post-imputation period the Bank of Queensland actually marginally decreased its average total dividend payout ratio from 65.4% pre-imputation to 60.7%. However the bank appeared to be maintaining a dividend payout ratio of 55% - 65% of earnings. There was a greater consistency in the payout ratio post-imputation, with a standard deviation of only 4.6% from the mean of 60.7%, compared to 9.5% and 65.4% respectively during the pre-imputation period.

The total dividend per share steadily increased and became marginally more volatile post-imputation with a mean of 17.33 cents compared to a pre-imputation mean of 12.14 cents, and a standard deviation of 1.92 cents compared to a pre-imputation deviation of only .83 cents.

The correlation between the earnings per share and the dividend per declined from .7976 pre-imputation to .456 post-imputation. The correlation between the earnings and the dividend per share also declined from .8334 pre-imputation to .7726.

Table 6.9 - Advance Bank Australia Limited

Year To May 31	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S cents
1987	$5,998	$17,529	34.2%	30.00	10.00
1988	$9,114	$26,465	34.4%	38.99	14.00
1989	$14,056	$26,017	54.0%	37.99	21.50
1990	$17,145	$34,500	49.7%	50.13	26.00
Mean	$11,578	$26,128	43.1%	39.28	17.87
Standard Deviation	$4,311	$6,003	8.9%	7.17	6.25
Correlation ..DPS		.7978		.7743	

This bank was not included in the pre-imputation analysis as its operations only commenced in June of 1985 resulting in the opportunity for only limited pre-imputation observations. The payout ratio of the bank post-imputation suggests that during 1987 and 1988 it paid approximately one-third of its earnings as dividends, however during the latter years of the sample period this ratio increased quite significantly to 54.0% and 49.7% in 1989 and 1990 respectively.

The dividend per share also reflected this approach with 10 and 14

cents paid in 1987 and 1988 with a sharp increase to 21.5 cents and 26 cents in 1989 and 1990.

The r^2 of .7743 and .7978 representing the relationship between the earnings per share and the dividend per share and the earnings and the dividend per share indicates that fairly strong correlation existed amongst these variables.

Table 6.10 - Challenge Bank Australia Limited

Year To May 31	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S cents
1987	$2,583	$7,008	36.9%	16.28	6.00
1988	$7,663	$18,015	42.4%	37.64	16.00
1989	$10,497	$18,247	57.5%	31.14	18.00
1990	$11,087	$15,696	70.6%	25.73	18.00
Mean	$7,950	$14,741	51.8%	27.70	14.50
Standard Deviation	$3,363	$4,575	13.2%	7.82	4.97
Correlation ..DPS		.8976		.5657	

This bank was not included in the pre-imputation analysis as its operations only commenced in April of 1987. The payout ratio of the bank post-imputation rose steadily from 36.9% in 1987 to 70.6% in 1990. The dividend per share rose sharply from 6 cents in 1987 to 16 cents in 1988. The r^2 .5657 representing the correlation between the earnings per share and the dividend per share indicates that the correlation between these variables was

moderate. However the correlation of .8976 between earnings and the dividend per share was strong with earnings explaining .8976 of the variability in the dividend per share.

Table 6.11 - Metway Bank Australia Limited

Year To May 31	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S* cents
1989	$7,995	$13,051	61.3%	20.98	13.20
1990	$9,483	$15,018	63.1%	19.14	13.75
Mean	$8,739	$14,034	62.2%	20.06	13.47

* Per 50 cent share

This bank was not included in the pre-imputation analysis as its operations only commenced in July of 1988. In addition limited post-imputation observations limit the inclusion of some statistics. The payout ratio of the bank indicates that it has adopted a policy of paying approximately two-thirds of earnings as dividends and a dividend per share around 13 cents.

Table 6.12 - Bank of Melbourne Limited

Year To June 30	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S cents
1990	$9,009	$16,337	55.1%	26.50	17.00

This bank was not included in the pre-imputation analysis as its operations commenced in July of 1989. In addition post-imputation observations limit the inclusion of any statistics. The payout ratio of the bank in 1990 is somewhat lower than that of the other

banks included in the sample for the same year, however must be viewed in the context of the fact that this result reflects the banks first year of operation.

6.5.5 Analysis - Dividend Policy Post-Imputation - Including Special Dividends

In May 1988 the Treasurer announced that the corporate tax rate was to be reduced from 49 to 39 cents effective July 1 1988. As a result many Australian companies, including the banks, elected to pay a special dividend prior to the change which had the effect of passing on available franking credits a rate of 49 cents rather than after the change at 39 cents. Five of the eight banks paid a special dividend.

The analysis conducted so far has been extended to especially examine the relationship between the earnings, earnings per share and the dividend per share inclusive of these special dividends.

Table 6.13 Australia and New Zealand Banking Group Limited

Year To Sept 30	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S cents
1987	$129,217	$419,900	30.8%	59.57	26.00
1988	$246,400	$521,400	47.3%	61.85	34.50
1989	**$567,800**	$581,400	**97.7%**	63.45	**70.00**
1990	$354,500	$401,300	88.3%	41.13	38.00
Mean	$324,479	$481,000	66.0%	56.50	42.12
Standard Deviation	$161,501	$73,820	27.8%	8.98	16.67
Correlation ..DPS		.7033		.0776	

The payment of the special dividend of 26 cents per share in 1989 increased dividend payout ratio from 63.3% to 97.7%. The payment

reduced the correlation between earnings and the dividend per share from .8996 to .7033. The correlation between the earnings and the dividend per share remained very weak.

Table 6.14 - Westpac Banking Group Limited

Year To Sept 30	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S cents
1987	$156,684	$390,700	40.1%	70.01	28.50
1988	**$366,100**	$691,900	**52.9%**	70.77	**43.00**
1989	$515,000	$800,700	64.3%	75.68	52.50
1990	$546,700	$683,900	79.9%	60.51	52.50
Mean	$396,121	$641,800	59.3%	69.24	44.12
Standard Deviation	$154,141	$152,137	14.6%	5.49	9.82
Correlation ..DPS		.7355		.0233	

The payment of the special dividend of 10 cents per share in 1988 increased dividend payout ratio from 38.8% to 52.9%. The payment increased the correlation between earnings and the dividend per share from .5699 to .7355. The correlation between the earnings and the dividend per share remained very weak.

Table 6.15 - National Australia Bank Limited

Year To Sept 30	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S cents
1987	$115,800	$328,000	35.3%	67.11	24.75
1988	$347,800	$569,400	61.1%	77.02	50.00
1989	**$573,000**	$791,600	**72.4%**	87.07	**70.00**
1990	$523,400	$755,500	69.3%	78.08	55.00
Mean	$390,000	$611,125	59.5%	77.32	49.94
Standard Deviation	$179,061	$183,927	14.6%	7.05	16.30
Correlation ..DPS		.7826		.9812	

The payment of the special dividend of 10 cents per share in 1989 increased dividend payout ratio from 63.2% to 72.4%. The payment reduced the correlation between earnings and the dividend per share from .9212 to .7826. The correlation between the earnings and the dividend per share remained strong.

Table 6.16 - Bank of Queensland Limited

Year To Sept 30	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S cents
1987	$2,307	$3,456	66.8%	21.16	15.00
1988	$2,859	$5,004	57.1%	22.77	16.00
1989	**$6,233**	$7,221	**86.3%**	28.46	**25.00**
1990	$6,161	$9,234	66.7%	28.49	20.00
Mean	$5,084	$7,153	70.1%	26.57	20.33
Standard Deviation	$1,818	$2,191	10.6%	3.3	3.94
Correlation ..DPS		.4727		.7916	

The payment of the special dividend of 9 cents per share in 1989 increased the dividend payout ratio from 58.2% to 86.3%. The payment reduced the correlation between earnings and the dividend per share from .7726 to .4727. The correlation between the earnings and the dividend per share increased from moderate to fairly strong.

Table 6.17 - Advance Bank Australia Limited

Year To May 31	Dividend $000's	Earnings $000's	Payout Ratio	E.P.S cents	D.P.S cents
1987	$5,998	$17,529	34.2%	30.00	10.00
1988	$9,114	$26,465	34.4%	38.99	14.00
1989	**$16,671**	$26,017	**64.1%**	37.99	**25.50**
1990	$17,145	$34,500	49.7%	50.13	26.00
Mean	$12,232	$26,128	45.6%	39.28	18.87
Standard Deviation	$4,807	$6,003	12.4%	7.17	7.02
Correlation ..DPS		.6278		.5739	

The payment of the special dividend of 4 cents per share in 1989 increased dividend payout ratio from 54.0% to 64.1%. The payment reduced the correlation between earnings and the dividend per share from .7978 to .6278. The correlation between the earnings and the dividend per share declined to be moderate.

6.5.6 Summary and examination of hypothesis

These statistics in addition to the more detailed individual bank analysis presented above suggest that with the exception of the Bank of Queensland the average post-imputation dividend payout ratio was higher than the pre-imputation payout ratio, giving support to the hypothesis that the dividend payout ratios of the banks would be relatively higher during the post-imputation sample period. (Dividend Payout Ratios pre and post -imputation for all banks are presented graphically on pp.111-112).

All of the banks again with the exception of the Bank of Queensland steadily increased payout ratios during the post-imputation period to achieve ratios in 1990 of between 69% and 88%. The results suggest the banks got off to a fairly slow start in terms of implementing a revised dividend policy post-imputation. The dividend payout ratios in 1987 did not exhibit any marked change to those which had been observed pre-imputation. The reason for this is almost certainly due to the fact that the large clientele of institutional investors were not in the market at that stage for franking credits. The benefits of imputation were not extended to them until 1 July 1988.

Whilst it is clear that the banks have increased the payout ratio for the purpose of passing on valuable franking credits to their shareholders it appears that they have not increased the dividend payout ratio sufficiently to implement an 'optimal dividend policy' i.e. one which pays a dividend to the limit of the

franking account balance or one hundred per cent of earnings. This suggestion was confirmed from an examination of the disclosures pertaining to the franking account balance for several of the banks. The Bank of Queensland in both the 1988 and 1989 annual reports noted that prior to the payment of the final dividend the franking account balance was in 1988 $3,168,828 and 1989 $3,082,786. The final dividend however would have necessitated a debit to the franking account of only $668,919 in 1988 and $791,561 in 1989 leaving a substantial balance available for distribution. In addition the ANZ Banking Group noted in their published annual reports that after paying a fully-franked dividend of $364 million in 1990 that $115.1 million in unappropriated profits and reserves could be distributed as fully franked dividends. In 1991 this amount was $107.3M.

These findings are consistent with those of Nicol {1991} who concluded that the median payout ratio of the top 100 companies had risen from 44 per cent in 1986 to a high of 63 per cent in 1990. As a subset of his study Nicol observed even more significant increases for the three major trading banks.

A second hypothesis proposed that post-imputation the dividend per share would be more closely related to earnings per share as the banks adopted a policy of paying a dividend as a function of earnings in order to distribute valuable franking credits. The earnings 'per share' was considered more appropriate than earnings as it reflects the earnings available for distribution as

dividends on a per share basis. However the pre-imputation analysis suggested that earnings rather than the earnings per share determined the dividend per share. The relationship between these variables pre and post-imputation is presented below in table 6.18 for comparative purposes.

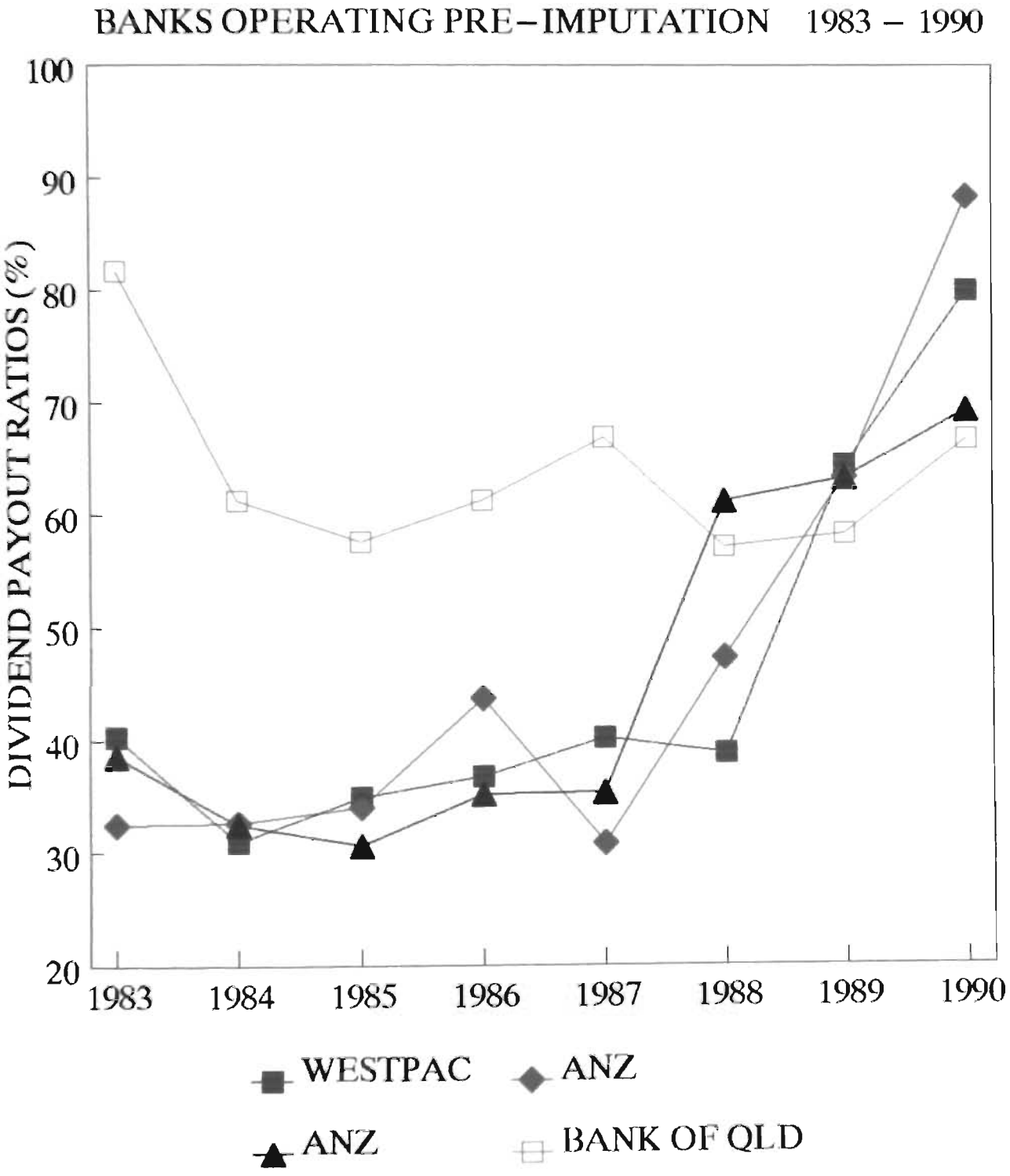
Table 6.18 Correlation Between Earnings, Earnings Per Share and Dividend Per Share - Pre and Post-Imputation (Excluding Special Dividends)

	PRE - IMPUTATION		POST -IMPUTATION	
	Earnings.. D.P.S	E.P.S.. D.P.S	Earnings.. D.P.S	E.P.S.. D.P.S
Australia and New Zealand Banking Group	.9647	.0936	.8996	.0035
Bank of Queensland	.8334	.7976	.7726	.4560
National Australia Bank	.8530	.8456	.9212	.8758
Westpac Banking Group	.9256	.2384	.5699	.0399

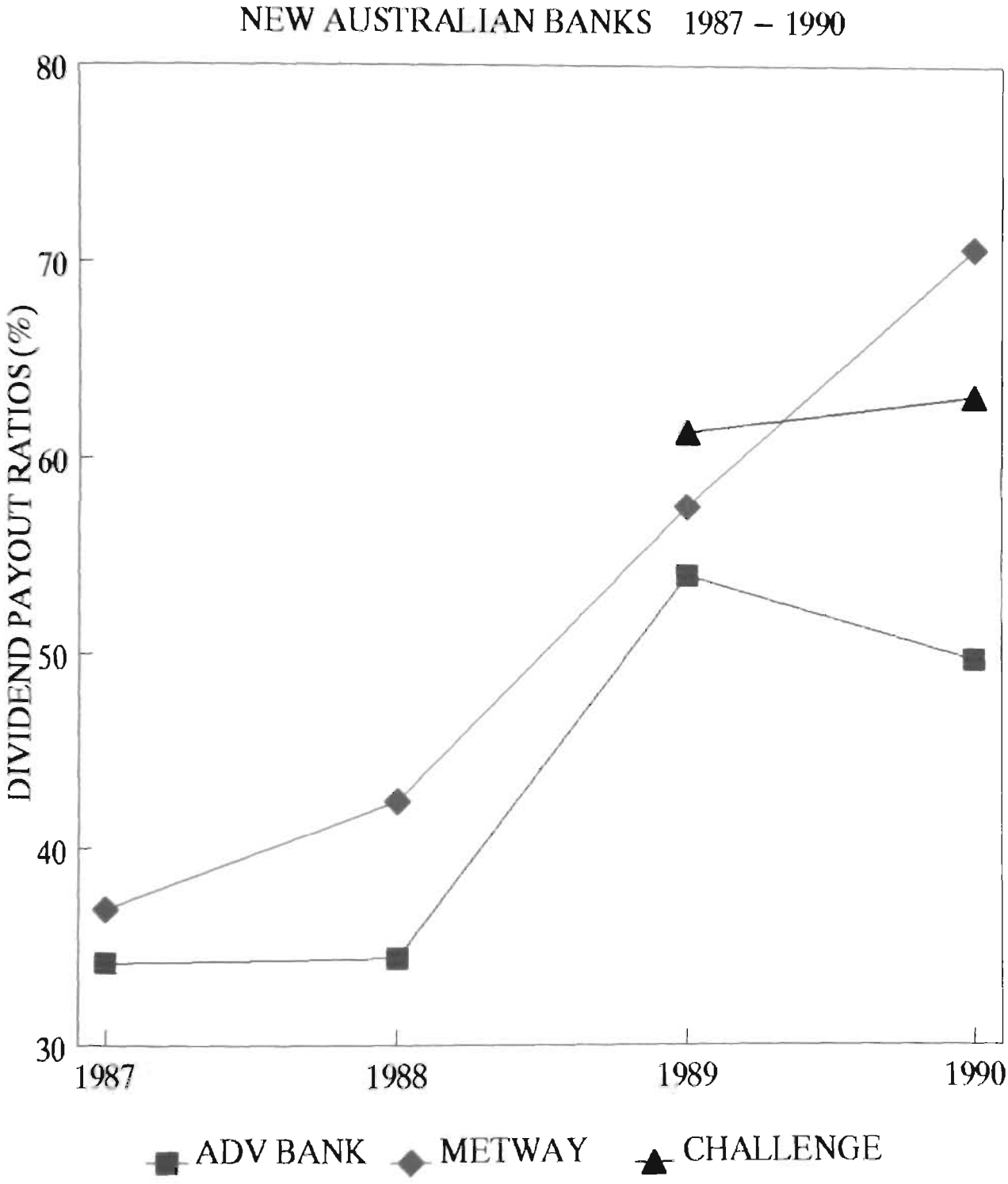
Contrary to expectations the strength of the relationship between the earnings and the dividend per share as measured by the correlation coefficient declined post-imputation for three of the four banks. With the exception of the Westpac Banking Group the correlation was fairly strong post-imputation.

Furthermore the strength of the relationship between the earnings per share and the dividend per share as measured by the correlation coefficient declined post-imputation for three of the banks. With the exception of the National Australia Bank the correlation was weak post-imputation.

DIVIDEND PAYOUT RATIOS



DIVIDEND PAYOUT RATIOS



6.6 Results - Hypothesis 3 & 4

Section 6.5 provided an overview and analysis of the banks dividend payout ratios during the pre and post-imputation period. The results as proposed indicated that dividend payout ratios of the banks were higher in the post-imputation period. In this section the banks associated dividend plans are outlined. These include pre and post-imputation dividend reinvestment plans, and post-imputation the more complex 'dividend packages' which emerged as companies attempted to distribute dividends to clienteles of investors in a tax effective manner.

6.6.1 Dividend Plans and Packages Pre-Imputation

The following banks were not included in the pre-imputation analysis:

- Bank of Melbourne as its operations commenced in July of 1989.
- Challenge Bank as its operations commenced in April of 1987.
- Metway Bank as its operations commenced in July of 1988.

An outline of the DRP's of the remaining banks is as follows:

Advance Bank DRP was first approved by shareholders on the 11th of September 1986. The plan provided that dividends may be reinvested automatically in shares. The price of the new shares issued under the plan is at a discount of 7.5% on the weighted average of the

shares sold on the Melbourne and Sydney Stock Exchange three days following the books close date.

Australia and New Zealand Banking Group Limited

The Australia New Zealand Bank DRP was first approved by shareholders on the 1 July 1985. The plan provided that dividends may be reinvested automatically as a subscription for new shares. The price of the new shares issued under the plan is at a discount of 7.5% on the weighted average ex-dividend market price for all the Australia and New Zealand Bank shares sold on the Melbourne Stock Exchange five trading days following the books close date.

Bank of Queensland

During the pre-imputation period there was no DRP available for the banks shareholders. The shareholders first approved a plan in November 1988. Details are outlined in the post-imputation analysis.

National Australia Bank

The National Australia Bank DRP was first approved by shareholders on the 5th May 1983. The plan provided that dividends may be reinvested automatically as a subscription for new shares. The price of the new shares issued under the plan is at a discount of 5.0% on the weighted average ex-dividend market price for all the National Australia Bank shares sold on the Melbourne and Sydney Stock Exchange five trading days following the books close date.

Westpac Banking Corporation

The Westpac DRP was first approved by shareholders on the 27th January 1984. The plan provided that dividends may be reinvested automatically as a subscription for new shares. The price of the new shares issued under the plan is at a discount of 7.5% on the weighted average ex-dividend market price for all the Westpac shares sold on the Sydney Stock Exchange during the five days immediatly preceding and including the books close date.

The three major trading banks and Advance Bank had DRP's in place during the pre-imputation sample period, the Bank of Queensland did not introduce such a plan until post-imputation. These banks introduced the plans between May 1983 and July 1985, consistent with the general trend by large Australian companies during that period. The shares were issued at a discount of between 5% for the National Australia Bank to 7.5% for the other three banks.

6.6.2 Dividend Plans and Packages Post-Imputation

Dividend Plans and Packages - 1987

The analysis of the first two hypothesis included 1987 as the first post-imputation period as banks became eligible to pay franked dividends on or after 1 July 1987. A review of the dividend plans during that period revealed that none of the existing banks introduced new plans during 1987. However Challenge Bank, which commenced operations in that year did introduce a DRP.

The Challenge Bank DRP was first approved by shareholders at the first annual general meeting of Challenge Bank Limited. The plan provided that dividends may be reinvested automatically as a subscription for new shares. The price of the new shares issued under the plan is at a discount of 7.5% on the weighted average closing market price of the Bank's shares sold on the stock market conducted at the Perth Stock Exchange during the five days immediatly following the books close date.

Dividend Plans and Packages - 1988

In August 1988 Westpac introduced a Bonus Share Plan (BSP). The plan provided that bonus shares be allotted in consideration of a dividend from the bank's share premium reserve. For tax purposes bonus shares rank as a capital item and not a 'dividend' and therefore do not attract personal income tax and do not participate in dividend imputation rebates. Where existing shares, upon which the bonus shares are allotted were acquired before 20th

September 1985, no capital gains tax is payable upon disposal of the new bonus shares. Shares issued under the plan are allotted at a discount of 7.5% on the weighted average market price per share of all shares sold on the Sydney Stock exchange during the five days immediatly preceding and including the books close date. No brokerage, stamp duty, or other transaction costs are payable by participants in respect of any allotment of shares under the plan. Shareholders are permitted either partial or full participation in this scheme for all shareholders except those resident in the U.S. Shares allotted under the plan rank equally with existing shares.

In 1988 & 1989 the National Australia Bank declared a 'Scrip Dividend' in accordance with a plan approved at an annual general meeting on the 28th September 1988. A scrip dividend is a dividend paid in the form of fully ordinary paid shares. In declaring the dividend the Directors nominated a proportion to be paid in cash, in cents per share and a proportion in cents per share to be satisfied by the issue of fully paid shares or scrip. These shares are not applied for, but automatically allotted. The 1988 final dividend was 35 cents per share, of which 18 cents was scrip, the 1989 dividend was also 35 cents per share of which 10 cents was scrip. The scrip component of the dividend was treated as income and carried franking credits in the same way as a cash dividend. In its 1990 annual report the Bank announced that the introduction of the 1990 Taxation Law Amendment Bill would unfavourably impact scrip dividends paid after 30th June 1990. The bank did not consider it appropriate to declare a scrip dividend in that year.

The ruling imposed an additional capital gains tax liability upon disposal of shares received in the form of a scrip dividend. The Bank made the point that it did not share the Commissioners view on this matter and had made representations to the Government to have the Income Tax Act amended in respect of the taxation of scrip dividends. To date no such amendment has been made.

The National Australia Bank BSP was also approved by shareholders on the 29th September 1988. The plan provided that bonus shares be allotted to shareholders in consideration of a dividend from the banks share premium reserve. The taxation of these shares as outlined above made them attractive to shareholders holding shares acquired before 20th September 1985. Shares issued under the plan are allotted at a discount of 10% (during 1988 & 1989 however this was reduced to 7.5% in 1990) on the weighted average ex-dividend market price for all the National Australia Bank shares sold on the Melbourne and Sydney Stock Exchange five trading days following the books close date. No brokerage, stamp duty, or other transaction costs were payable by participants in respect of any allotment of shares under the plan. Shareholders were permitted either partial or full participation in this scheme. Shares allotted under the plan rank equally with existing shares.

The Australia and New Zealand Banking Group first approved a BSP in February 1988. The taxation advantages of this type of plan have already been discussed in relation to the other banks. Shares issued under this plan were issued at a discount of 7.5% on a

market price calculated as per the Bank's DRP and allotted from the Bank's Share Premium Reserve. No brokerage, commission or stamp duty is charged on shares issued under the plan. All shares issued under the plan rank equally with other fully paid shares on issue. Participation in the plan is optional. Legal constraints however preclude shareholders with USA or Canadian registered address from participation.

Dividend Plans and Packages - 1989

The Bank of Queensland DRP was first approved by shareholders on the 23rd November 1988. The plan provided that dividends may be reinvested automatically as a subscription for new shares. The price of the new shares issued under the plan is at a discount of 10% on the weighted average ex dividend market price for all of the shares sold during the five days trading immediatly following the books close date.

The Bank of Melbourne adopted a DRP in July 1989. The plan to operate in broadly the same way as those already considered provided that shares issued under the plan be allotted a maximum discount of 10% on the weighted average sale price of fully paid shares in the 5 days preceding the 'books close date'. A maximum entitlement was specified as 10% of the issued capital per shareholder.

The National Australia Bank United Kingdom Dividend Plan (UKDP) was approved during the 1988/89 financial year. The plan enables

U.K. shareholders to receive dividends effectively from a U.K. subsidiary of the group as an alternative to Australian sourced cash dividends. Under the UKDP dividends may be received in cash or reinvested via the DRP. Participation in the UKDP entitles shareholders resident in the U.K. to obtain the benefits of the U.K. equivalent of the imputation system, the Advanced Corporation Tax Credit. Under the plan the shareholder forgoes entitlement to a dividend in favour of receiving a franked dividend (these shares carry U.K. not Australian franking credits) declared by a subsidiary on shares held by a trustee. The payment of the dividend is discretionary however should the subsidiary not pay a dividend then the participant becomes eligible to receive the dividend from the Bank paid in Australian currency.

Dividend Plans and Packages - 1990

In February 1990 the Australia and New Zealand Banking Group introduced a UKDP to operate in much the same way as the plan implemented by the National Australia Bank. The plan enables U.K. shareholders to receive dividends effectively from a U.K. subsidiary of the group as an alternative to Australian sourced cash dividends. Under the UKDP dividends may be received in cash or reinvested via the DRP. Dividends paid pursuant to the plan are distributed from the tax-paid income of a subsidiary in the U.K. and distributed via a special purpose company, the 'Dividend Company' incorporated in the U.K. Franked dividends are distributed as 'Dividend Company' dividends instead of ANZ dividends. Entitlement is calculated on the basis of shareholding

in ANZ.

The Metway Bank approved a DRP in October 1989. The plan to operate in the same way as the DRP's already considered provided that shares issued under the plan should be issued at a discount on 10% on the weighted average sale price during the five days trading immediatly following the books close date. The Directors reserved the right to alter the percentage discount but it was not expected to exceed 10% or fall below 5%.

6.6.3 *Examination of Hypothesis*

The third hypothesis proposed that Australian banks would introduce and/or improve the conditions of existing dividend reinvestment plans post-imputation to make them more attractive to shareholders in the post-imputation environment. The three major trading banks and Advance Bank all had dividend reinvestment plans in place prior to the introduction of dividend imputation. The banks as a group did not make material changes to the plans post-imputation. The only notable change arose as the National Australia Bank increased the discount on shares available under the plan from 5% pre-imputation to 7.5% post-imputation. The conclusion to be drawn in the context of the hypothesis is that these banks did not amend these plans in order to encourage a greater degree of dividend reinvestment from their shareholders.

The Bank of Queensland which did not have a plan in place pre-imputation introduced one in November of 1988. The other three banks, Challenge Bank, Metway Bank and the Bank of Melbourne all introduced plans soon after they commenced operations. Challenge Bank and the Bank of Melbourne approved DRP's at their first annual general meeting, and Metway Bank which commenced operations in July 1988 introduced a plan in October 1989.

The fourth hypothesis proposed that Australian banks would implement dividend schemes or plans post-imputation designed to maximise the benefits of imputation for all of their shareholders. There were two such schemes BSP'S and UKDP's, implemented by only

the three major trading banks. These banks introduced BSP's designed to benefit that clientele of shareholders holding CGT exempt shares. The banks did not implement these plans until 1988. The extent to which they were utilised by shareholders can be assessed from the following data. In 1989 the National Australia Bank disclosed that out of a dividend provided for of $573Million $41Million was actually paid from the share premium reserve in accordance with the BSP. In 1990 the relative amounts were $523Million and $48.7Million. This information was not disclosed for the 1988 financial year.

In 1988 the Australia New Zealand Bank disclosed that out of a final dividend of $157.7Million $12.7Million was exercised under the BSP. From a total dividend in 1989 of $567.8Million (including the special dividend), $41Million was exercised under the BSP. From a total dividend in 1990 of $354Million $29Million was exercised under the BSP. In 1988 Westpac disclosed that out of a dividend of $272.4Million $15,2Million was exercised under the BSP. From the 1989 total dividend of $515Million 33Million was exercised under the BSP. For the 1990 year $546.7Million 35.4Million was exercised under the BSP. The extent to which shareholders participated in this plan suggests something about the size of the clientele who were holding pre CGT shares and were in a position to benefit from such a plan. Whilst one would expect this clientele to diminish over time the analysis demonstrates that the three major trading banks allocated a material portion of the dividend in bonus shares to accommodate these shareholders.

Only two of the three banks introduced UKDP's designed to preserve Australian franking credits for Australian resident shareholders. These plans were introduced several years after the introduction of dividend imputation by the National Australia Bank in 1989 and the Australia New Zealand Bank in 1990. Unfortunately the National Australia Bank does not disclose in its annual report the extent to which dividends were paid in accordance with the plan. However the Australia New Zealand Bank disclosed that in 1990 and 1991 the AUD equivalent of $9.8Million and $6.2Million respectively was paid in dividends under the plan.

It is possible to conclude that tax effective dividend plans or schemes were introduced post-imputation by the major banks. The smaller banks did not offer such a benefit to their shareholders. The schemes were not available until at the earliest 1988. This action supports earlier comments that a post-imputation review of dividend policy did not occur until 1988 although the banks were eligible to pay franked dividend in 1987.

7.0 Summary and Conclusions

During the past three decades the dividend debate has raised a number of issues and conflicting propositions regarding the relevance of a company's dividend policy. The purpose of this paper has been to examine some of these propositions in the context of the introduction of a system of dividend imputation in Australia.

Underlying the formulation of post-imputation dividend policy there existed two potential conflicts for companies. Firstly, the imputation system and the concept of franked dividends in conjunction with the existence of a capital gains tax provided the grounds for the notion of an 'optimal dividend policy'. This policy would require companies to pay a substantial portion of earnings as dividends in order to pass on all available tax benefits to their shareholders in the form of franking credits in a timely way to avoid further double taxation. As a result post-imputation dividend policy would be one formulated on the basis of earnings. It was proposed that the implementation of such a policy would be at odds with the traditional approach of stable dividend payments designed to minimise unfavourable information effects.

Secondly, the imputation legislation was not implemented on a 'level playing field' of investors, and thus introduced to the market additional taxation imperfections. The imputation system

provided the potential for a new range of tax-induced shareholder clienteles to emerge, classified according to their ability to utilise the benefits of dividend imputation. It was proposed that a mismatch or disequilibrium between companies and their existing shareholders would emerge post-imputation. This would arise whenever companies were in a position to pay fully franked dividends but had clienteles of investors ineligible to take advantage of them. In this situation a company wishing to pay a dividend to all shareholders and distribute the maximum imputation benefits would be forced to 'design' different dividend policies for different shareholder clienteles.

Four hypothesis were formulated around these propositions and tested on a small sample of Australian banks during the period 1983-1990. They proposed that the banks dividend payout ratio would be relatively higher across the post-imputation sample period as the banks distributed a higher proportion of after tax earnings. The dividend payment per share would exhibit a stronger relationship with earnings per share during the post-imputation period as the banks moved to develop a dividend policy based upon earnings. The banks would increase the availability of dividend reinvestment plans to their investors to recover the drain on equity arising from an increased portion of earnings being paid as dividends, and dividend plans would be introduced to accommodate the new inequities imposed by the imputation system across a range of shareholder clienteles.

The pre-imputation dividend policy of four banks was analysed. These included the three major trading banks and the Bank of Queensland. With the exception of the Bank of Queensland the banks appear to have adopted a pre-imputation dividend policy of paying a specific proportion of earnings as dividends. The three larger banks achieved average payout ratios of between 34.4% and 35.7%. The Bank of Queensland elected to pay a much higher proportion, the average payout ratio for the period was 65.4%. In addition all the banks attempted to achieve a steady increase in the dividend per share. The earnings rather than the earnings per share appeared to determine the dividend per share.

An analysis of the post-imputation dividend policy of the three major trading banks lent support for the first hypothesis. During the post-imputation period these banks progressively increased their payout ratios from an average of approximately one third of earnings to an average during the post-imputation period of approximately 55% (excluding special dividends) and between 69% and 88% in 1990. The payout ratio for the Bank of Queensland appeared not to vary significantly from its pre-imputation level. Whilst the smaller banks which emerged post-imputation also progressively increased their payout ratios, they tended to be lower than those of the three major banks.

The results did not support the second hypothesis. The pre-imputation dividend per share exhibited weak correlation with the earnings per share. The strength of this relationship did not

improve post-imputation. In addition the correlation between earnings and the dividend per share actually declined for some of the banks post-imputation and only increased marginally for one bank.

Whilst the results indicate that dividend imputation was the catalyst for the banks to review the level of their dividend payout ratio they do not appear to have implemented an 'optimal dividend policy' i.e. one which pays a dividend to the limit of the franking account balance or a substantial portion of earnings. Two of the banks actually disclosed the fact that they maintained quite substantial franking account balances and further unappropriated profits could have been paid as franked dividends. These results were consistent with those of Nicol {1991} who concluded that post-imputation listed Australian Companies had significantly increased their dividend payout ratios to a range of around 65-75 per cent, however they had chosen not to distribute all the franking credits potentially available to shareholders.

An analysis of the available dividend reinvestment plans and packages revealed that pre-imputation all of the existing banks except for the Bank of Queensland had dividend reinvestment plans established. The terms and conditions of these plans were not modified significantly post-imputation. However imputation did appear to provide the catalyst for the bank of Queensland to implement a DRP and it was interesting to observe that the banks which commenced operations post-imputation considered the

implementation of a DRP a high priority and such plans were put in place either immediately or soon after these banks commenced operations.

Only the three major trading banks introduced dividend plans. A Bonus Share Plan was introduced by all of these banks and the participation in the plan demonstrated that each bank was providing a benefit to a material portion of its shareholders via the introduction of tax effective plan. An Overseas dividend plan or UKDP was introduced several years after the introduction of dividend imputation by only two of the three banks. The participation in this plan was relatively minor compared to the BSP.

It is clear that implementation of dividend imputation caused the three major trading banks to reconsider dividend policy in the context of the benefit that could be transferred to shareholders via the payment of franked dividends. The analysis of the potential preferences for dividends v retention and the subsequent behaviour of the larger banks suggests that post-imputation the payment of franked dividend was a relevant decision variable. Furthermore the larger banks were aware of the range of preferences for franked dividends and did attempt to provide schemes in order that their shareholders could be selective.

The passage of time will benefit further research into the questions raised in this study. I suggest that this sample period

represented points along a fairly steep learning curve for the banks, especially the smaller ones and as such they may have not reached an equilibrium in developing post-imputation dividend policy.

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