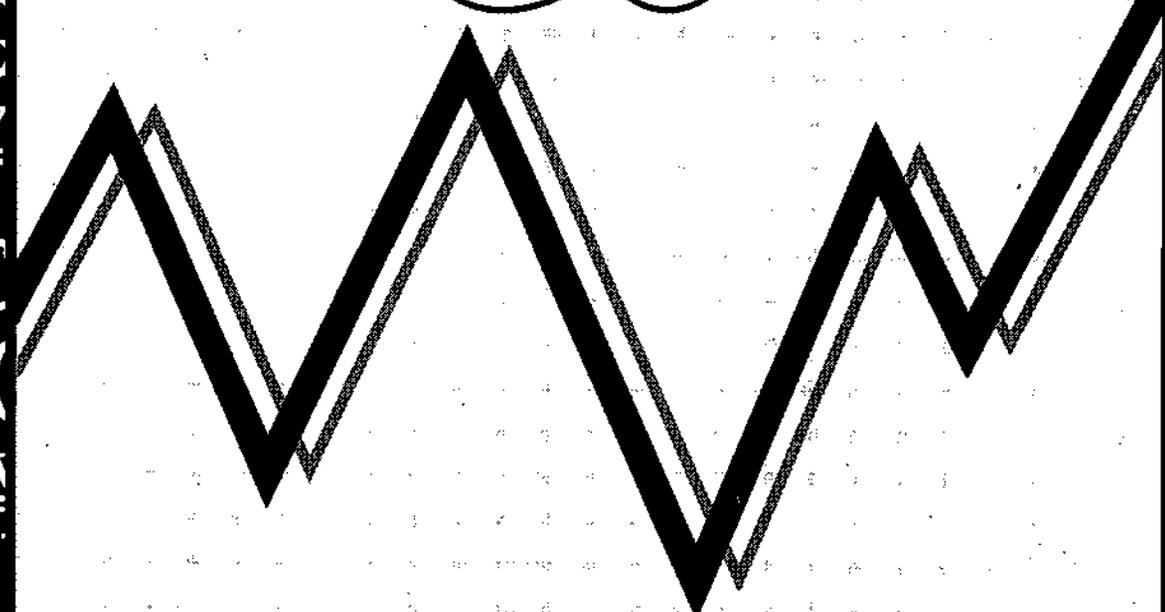


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Dividend Reinvestment Plans in Australia

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DIVIDEND REINVESTMENT PLANS IN AUSTRALIA

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ABSTRACT

Dividend reinvestment plans (DRPs) were introduced in Australia in 1982 primarily to help shareholders purchase new shares without transaction costs. Variants of the basic DRP were soon developed for taxation reasons to allow for income streaming. This paper examines the basic characteristics and the development of Australian DRPs. The impact of DRPs on firm value through information asymmetry and taxation is also discussed. With significant participation rates, DRPs will continue to be a major source of new equity capital for Australian companies.

INTRODUCTION

Dividend reinvestment plans (DRPs) allow shareholders to reinvest all, or part, of their dividends in additional company shares, usually with no transaction costs and at a discount to the market price. Prior to fiscal 1981, DRPs did not exist in Australia. However by fiscal 1993, dividend reinvestment plans provided Australian listed companies some \$2,609.1 million or 24.5% of their total \$10,651.1 million in equity raisings: their relative importance over 1988-93 is shown in Table 1.

Table 1
Australian Listed Companies' Equity Raisings, 1988-93

	1993	1992	1991	1990	1989	1988
Flotations	20.3	31.5	1.7	11.8	13.8	22.7
Rights issues	29.1	21.9	36.3	28.9	53.8	42.6
Placements	16.8	21.7	17.7	17.8	9.8	24.2
Calls on contributions	0.2	0.1	0.3	0.9	-	-
Options exercised	1.8	1.2	1.1	4.5	2.6	4.0
Employee shares	7.4	5.5	10.2	7.6	5.9	2.7
Dividend reinvestment	24.5	18.0	32.7	28.5	14.1	3.8
Total %	100.0	100.0	100.0	100.0	100.0	100.0
Total \$M	10,651.1	11,975	6,596	9,147	10,952	13,395

Note: Figures included only main board companies and are for the fiscal year ending 30 June.

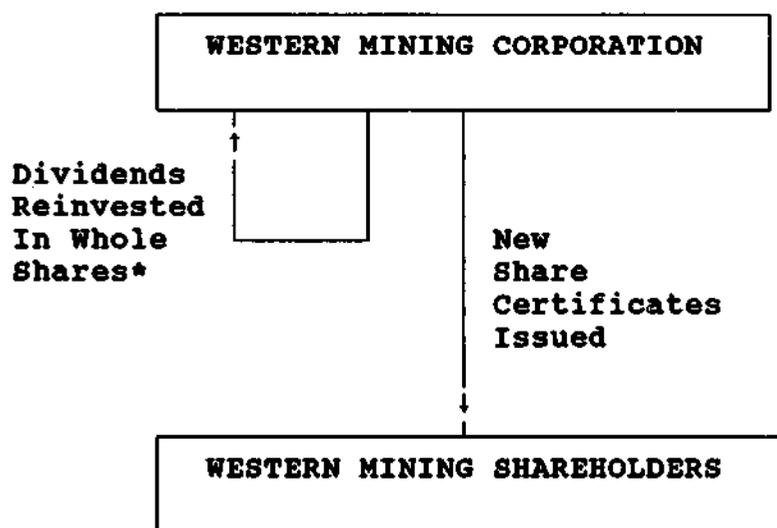
Source: *Australian Stock Exchange Monthly Index Analysis*, 1988-1993.

Given that Australian DRPs have provided a continuing flow of new equity capital for some years, it is surprising that they have not received more attention from finance academics. This paper at least partly addresses such shortcomings by examining the DRPs' basic characteristics, how they developed in America and Australia, the

different variations allowing income streaming, their impact on firm value and their future in Australian corporate finance.

DRP BASIC CHARACTERISTICS

In Australia, companies require shareholders' approval to establish DRPs, normally as a resolution at an annual general meeting. All shareholders, and in some cases public debt holders, are offered the opportunity to enrol all or part of their securities in the DRP: few Australia plans require a minimum number of shares. Once enrolled, any dividends or the interest on those securities are automatically reinvested. As of 1993, Australian companies handled this reinvestment by issuing new shares following each dividend payment (twice yearly for most companies). A new share certificate together with a detailed statement of account is then posted to each participant: see Figure 1. Shares issued under a DRP are not subject to brokerage, commissions or other transaction costs and rank equally with existing fully paid ordinary shares of the company. To avoid the problem with fractional shares or a host of small cheques, most firms now round up the reinvestment so that whatever cash is remaining, even a few cents, purchases a whole share.

Figure 1: DRP Operational Structure

*Rounded up to the next share in the case of any fractional entitlement.

Dividend reinvestment plans also differ on how they price the new shares on reinvestment. Previously there was a range of approaches, but now with the availability of the Australian Stock Exchange's computerised trading records, most DRPs use the weighted average market price of all shares traded on the Exchange typically for the five business days prior to the company closing its transfer books for that dividend: as shown in Table 2, however, there are many variations in terms of the actual number of days and whether they are counted before or after the closing date. Once this price is calculated, the actual DRP issue price is usually reduced further by a 5 to 10 per cent discount: some examples are also shown in Table 2, but a 7.5 per cent discount is now the most common.

Table 2:
Selected Australian Company DRPs:
discounts and pricing methods for shares issued

Company	Discount %	Pricing Details
ANZ Bank	7.5	5 days after excluding closing day
BHP Limited	5.0	5 days prior including closing day
BTR Nylex	7.5	3 days after excluding closing day
Burns Philp	7.5	5 days prior including closing day
Coles Myers	5.0	5 days prior including closing day
Commonwealth Bank	7.5	5 days after excluding closing day
CSR Limited	5.0	3 days after excluding closing day
Foster's Brewing	5.0	5 days prior including closing day
Mayne Nickless	5.0	5 days prior including closing day
MIM Holdings	7.5	5 days after excluding closing day
Natl. Australia Bank	7.5	4 days prior including closing day
News Corporation	10.0	5 days prior including closing day
Pacific Dunlop	5.0	5 days prior including closing day
Santos Limited	10.0	4 days after excluding closing day
Western Mining	5.0	4 days prior including closing day
Westpac Banking Corp	7.5	5 days prior including closing day

Note: The price is calculated on the weighted average sale price on all shares sold on the Australian Stock Exchange. The days referenced are ASX trading days. The closing day is when the transfer book closes.

Source: Compiled from Bongiorno, Caroline, *The Australian Dividend Handbook: a guide for investors*, Melbourne: ANZ McCaughan, 1993.

HISTORY OF DRPS

It is not known when and where dividend reinvestment first developed. Many U.S. mutual funds, for example, have long allowed their holders to reinvest dividends into additional shares rather than receive the cash directly. Some U.K. and Australian unit trusts have also offered such features. The first listed company, however, to do so

was a U.S. closed end investment company, the Lehman Corporation on 18 December, 1957.

The Lehman plan is known today as a market purchase scheme, whereby the dividends due to the DRP participants are paid to a trustee and the trustee then purchases the shares on their behalf. Thus Lehman did not purchase its own shares - an important distinction from an Australian viewpoint. While this DRP offered no tax advantages or discounts, the participating shareholders gained access to the lower brokerage fees afforded to larger trading lots; their cost was based on their proportion to the total reinvestment.

It was not until some ten years later that the first listed non-financial company, Allegheny Power Systems, introduced a similar plan on 12 September, 1968. Other companies, most notably American Telephone and Telegraph (AT&T), followed in 1969 and by 1971, 41 U.S. listed companies had DRPs available to their shareholders.

These DRPs became even more attractive when on 25 October, 1972, the Lehman Corporation improved its own DRP by allowing shareholders to invest additional cash as well as their dividends. Other companies soon followed with most placing a dollar limit of cash contributions per quarter or per annum. As before, the advantage was the reduced brokerage fees gained via the larger trading lots.

As most U.S. plans held the shares on behalf of the participants (certificates were only issued on request), fractional shareholdings were also possible and so any additional

cash contribution could be fully invested. Similarly, many DRPs could thus allow participants to sell their shares held within the plan at little or no transaction cost and so avoid added odd lot costs: these sales, priced at the average of the open market purchases, just reduced the shares needed from the open market.

1972 was important for DRPs for another reason, too. On 19 December, 1972 Long Island Lighting introduced what is now called an original or new issue DRP. The plan was to buy newly issued shares from the company rather than in the market place. This meant DRPs became a source of new equity capital and many other companies soon introduced similar plans.

While the new shares were sold at the market price around the dividend date, no brokers were involved and so the shareholders benefited from paying no commissions. As more traditional new share issues normally involved fairly major expenses, particularly underwriting fees, most companies absorbed any other expenses that might be involved with DRPs.

Indeed, given the savings of issue costs, AT & T in April, 1975, began to price the new shares at a 5 per cent discount from the then market. Other firms have followed suit and in 1992, Carlson [4] estimated that over 100 of the some 900 USA firms with DRPs offer reinvestment discounts of 3 to 10 per cent.

The last major American DRP innovations to date came in October, 1979 when Control Data introduced what it called a stock purchase plan. This allowed

non-shareholders to purchase a small amount of shares, initially \$50.00, from the DRP's trustee. This then made the investor a shareholder and they could then participate as any other shareholder in subsequent purchases. Electric utilities found that these plans could encourage customers to become shareholders and, through new issue plans, help fund the utility's capital investment. A number of U.S. firms also afford similar arrangements through the National Association of Investment Clubs; as of mid 1993, 114 companies had 127,000 investors participating through this means.

Dividend reinvestment plans started rather more recently in Australia when on 26 March, 1982, the Lend Lease Corporation became the first listed corporation to introduce a DRP. An Australian cash contribution feature, the CSR Share Purchase Plan, was introduced by CSR Limited in 1984 whereby shareholders could add up to \$2,400 per year to their DRP purchases, but few Australian companies have followed suit. One variation, a Share Purchase Plan introduced by Advance Bank in 1984, allows participants to add sufficient cash to purchase a round lot (up to 99 shares) on reinvestments. Burns Philp and a few companies now offers a similar feature.

While some individual shareholders and organisations, such as the Australian Shareholders Association, often suggested at annual general meetings that DRPs be introduced, the number of DRPs remained relatively small. Indeed, some five years after its introduction, there were still less than 40 Australian companies with DRPs.

The DRP's popularity changed in 1987 when the government replaced its classical treatment of dividend taxation with a dividend imputation system. Previously, when a

company paid tax on its income and then paid these earnings as dividends to its individual shareholders, these dividends were considered as taxable income in their hands and taxed again. Thus, there was a double taxation of dividends.

The introduction of dividend imputation on 1 July, 1987 effectively removed this double taxation for most shareholders. Now when Australian resident shareholders receive a dividend from income on which Australian corporate tax has been paid, they gain credit for these payments. These are known as franking credits and they can help offset the taxpayer's own tax liabilities. Such dividends from income on which Australian corporate tax has been paid are known as franked dividends. Where the entire dividend is from such a source, it is known as a fully franked dividend; otherwise it is partly franked or unfranked.

With a corporate tax rate of 39 per cent, an individual's benefit from imputation depends upon one's marginal tax rate. Resident taxpayers with a personal marginal tax rate of less than 39 per cent would have excess franking credits which could be used to offset other taxes payable in that year; since 1 July 1988 superannuation funds, taxed at 15 per cent, have found this feature particularly attractive. Resident shareholders with a 39 per cent marginal rate would need pay no additional tax but the franking credits would prove inadequate for those on higher tax rates. For example, those paying tax at the top rate of 48.4 per cent (47 per cent personal tax and the 1.4 per cent Medicare levy) would need to pay an additional 15.4 per cent as both the dividend and the franking credit are included as assessable income and then the franking credit is later deducted from the taxes payable. The Government's decision to reduce Australian

corporate tax on 1 July, 1993 from 39% to 33% has reduced the benefit of future imputation credits.

The use of word "resident", when discussing franking credits and their impact on taxpayers, is important as non-residents are subject to different treatment. A franked dividend does offer non-resident shareholders the advantage that these dividends are exempt from Australian withholding tax. In practice, however, this benefit is often illusory. This is because the dividend withholding tax that would have been paid in Australia is often allowed as a credit for taxes payable under their home country's taxation laws. The franking credit exemption simply makes the entire dividend taxable within their home country.

Franking credits are in particular demand by Australian investors. As Australia taxes individuals rather than households, wealthy families stream their income where possible to benefit fully from imputation. Superannuation funds similarly seek franking credits to reduce their taxation even though only charged at a 15% concessional rate. These demands, particularly by superannuation funds, have pressured Australian companies to pay a greater proportion of their earnings as franked dividends. As a DRP allows some of these cash flows to remain within the firm, many companies have introduced plans accordingly. As shown in Table 3, the numbers of DRPs rose sharply after 1987-88 and as of July, 1993, 181 companies had DRPs. As Australia's Bureau of Industry Economics [3:19] concluded, "there would have been less benefit for companies in setting up such a plan when pay out ratios were low, as they were up to 1987 under the classical [taxation] system."

Table 3:
Dividend Reinvestment Plans, 1981-1993

Year	Plan Numbers
1981	1
1982	6
1983	12
1984	31
1985	43
1986	45
1987	40
1988	91
1989	143
1990	155
1991	152
1992	167
1993	181

Note: Figures as of December but for November in 1986 and July 1993

Source: Correspondence, 1981; *Australian Stock Exchange Journal*, December, 1992, p. 64; December, 1989, p. 64, December, 1990, p. 61; December 1991, p. 31; December 1992, p. 41, July, 1993, p. 23 and *Personal Investment*, December, 1983, p. 115; December, 1984, p. 139; December, 1985, p. 134; November, 1986, p. 240; December, 1987, p. 232; December, 1988, p. 161.

Prior to imputation, most Australian firms introduced fairly basic DRPs with a 5 per cent discount on reinvestment and these were met with considerable success. Anderson [1] in 1986 found participation rates of 14 to 29 per cent in these early Australian plans; rates then achieved only by very well established U.S. plans. Australian participation rates have since increased; a 1991 Australian Stock Exchange survey [24] of 50 DRPs found an average participation rate of 37.4 per cent. The figure in 1993 is probably much higher and 60 per cent is not uncommon; in 1993, for example, CSR Limited had 62 per cent of its dividends reinvested.

Neither participation rates within DRPs nor the probability of a firm offering a DRP seem closely related to firm size; both small and large firms offer such plans. There is also seemingly little correlation between firms offering DRPs and their respective industries. The major exceptions, as shown in Table 4, are investment companies and property trusts which account for 11.7 and 10 per cent respectively of all DRPs: as their managers are normally paid as a percentage of total assets, they have a significant incentive for additional new share issues. Banks, insurance and other financial service providers, as their regulators required additional capital to fund asset growth, are similarly well represented. Thus, in mid 1993, investment companies and financial related institutions account for some 35 per cent of Australian DRPs.

Table 4:

Listed Companies with DRPs: shown by industry, 1993

Banking	10
Building & property contractors	11
Building materials	10
Diversified Industrials	12
Services	11
Publishing & broadcasting	5
Equity investments	21
Insurance and financial services	14
Food & beverages	11
Engineering	11
Mining	13
Property trusts	18
Retail	12
Timber & board	5
Transport	3
Miscellaneous	14
Total	<hr/> 181

Note: Constructed from Australian Stock Exchange initial major industry classifications and then merged into larger industry groups.

Source: *Australian Stock Exchange Journal (SXJ)*, July, 1993, Tables Section, various pages.

VARIATIONS OF THE DRP

The basic dividend reinvestment plans offer shareholders the opportunity to reinvest their dividends into additional shares in their company. Changes in taxation, however, have prompted a number of variations on the basic DRP concept. These dividend enhancement initiatives could have each been implemented on their own simply as a means of dividend streaming, but they usually have supplemented existing DRPs rather than replaced them. While they have a variety of names, these variants can be

broadly classified into four main groups; the dividend election or bonus share plan, the dividend selection plan, the overseas dividend plan, and the scrip dividend plan.

Dividend Election (Bonus Share) Plans

Dividend election plans give shareholders the choice of receiving bonus shares in lieu of their normal cash dividend. Bonus shares (an Australian version of US stock dividends), if issued from share premium account reserves, are not considered as income in the hands of their recipients, but rather a tax free distribution of existing capital. On their resale, though, most investors would have to pay capital gains tax effectively based on a nil purchase cost. However, where the underlying shares were acquired prior to the introduction of the capital gains tax on 20 September 1985, the bonus securities would be considered part of this initial holding and so not subject to capital gains tax on disposal. Since June 1987 all other bonus issues, such as ones paid from revaluation reserves, are considered taxable income in the hands of shareholders regardless of when the underlying shares were purchased and so the bonus share plans now invariably involve shares issued from share premium reserves.

This tax advantage was (and remains) understandably popular with pre- 20 September 1985 shareholders as well as those unable to benefit from the franking credits on cash dividends. Also as a bonus issue was technically not a dividend, it did not utilise any franking credits. They were thus also popular with Australian companies in that shareholders opting for a bonus issue left more franking credits available for other shareholders. The number of dividend election plans, as shown in Table 5, rose accordingly.

Table 5:
Dividend Election (Bonus Share) Plans, 1982-1993

Year	Plan Numbers
—	—
1982	25
1983	26
1984	33
1985	38
1986	40
1987	46
1988	74
1989	95
1990	94
1991	81
1992	81
1993	85

Note: Figures as of December but for November in 1986 and July 1993

Source: Correspondence, 1981; *Australian Stock Exchange Journal*, December, 1992, p. 64; December, 1989, p. 64, December, 1990, p. 61; December 1991, p. 31; December 1992, p. 41, July, 1993, p. 23 and *Personal Investment*, December, 1983, p. 115; December, 1984, p. 139; December, 1985, p. 134; November, 1986, p. 240; December, 1987, p. 232; December, 1988, p. 161.

These plans, however, received a major set back when on 1 July, 1990 the tax treatment of bonus issues and franking credits changed. The government decided that as bonus shares were defacto dividends, they should deplete a company's franking credit reserves just like a cash dividend. Thus a cash dividend or bonus issue now have the same effect on franking credits. Perhaps surprisingly, this change at the corporate level has not been passed to shareholders as bonus share recipients cannot utilise these associated franking credits. However, bonus shares continue to be tax-exempt on receipt and, where underlying shares were acquired pre- 20 September 1985, exempt

from capital gains tax as well.

Dividend Selection Plans

As suggested earlier, dividend imputation expanded the clientele effect to produce two classes of investors: those seeking franked dividends and those (overseas investors and tax exempt bodies) gaining little benefit from them. Dividend selection plans allow shareholders to choose between franked and unfranked dividend streams. Given the difference in tax benefits, the unfranked dividend was generally higher than the franked one: Amatil, for example, paid an amount 20% more in unfranked dividends. Thus shareholders unable to benefit from the credit would have an incentive to help save franking credits for those that could. These payments could then also be reinvested in new shares, but their key attraction for the company was the savings of franking credits. Some non-resident shareholders, though, would have still preferred the higher un-franked dividend and claimed credit in their own country for Australian withholding tax paid. In contrast, while franked dividends were exempt from the normal 15 to 30 percent withholding tax such shareholders would simply be taxed on the dividend in their home country.

By combining these selection plans with a bonus and normal DRP, many firms achieved very high participation rates. Elder IXL's (now Foster's Brewing), for example, in May 1988 found that 38 per cent of shareholders took unfranked dividends, 49 per cent franked dividends and 13 per cent bonus shares. Typically, those with shares purchased before 20 September 1985 choose the bonus share option.

The selection plans, though, lost considerable popularity on 1 July, 1988 when superannuation funds were made subject to corporate taxation. As mentioned, their concessional 15% tax treatment meant imputation credits (at 39%) could greatly reduce their taxes payable and so the major group of investors previously attracted to unfranked dividends then preferred fully franked dividends instead. Any remaining incentives to use selection plans to conserve franking credits were removed by the Australian government via Section 160AQCB of the *Income Tax Assessment Act*. This provided that companies using schemes to pay unfranked dividends to some shareholders and franked dividends to others should be deemed to suffer a debit to their franking credit reserves just as if a franked dividend had been paid to all shareholders.

Overseas Dividend Plans

When allocating franking credits only to those shareholders that could utilise them, Australian companies with overseas operations were at a disadvantage. Income received outside Australia was taxed in the country concerned but these taxes, in that they were not Australian tax, did not count in terms of franking credits. Similarly, any franked dividends paid to non-residents meant less franking credits for Australian shareholders. The Overseas Dividend Plan (ODP) was developed to correct both problems. Australian companies simply restructured their operations to have a holding company gather all of the taxes paid in the one foreign country and then offer their shareholders the alternative of receiving dividends from that holding company. UK shareholders in Australian companies could thus receive the equivalent of the Australian dividend in British pounds (Brambles also offers a choice of Australian dollars) and gain access to

any U.K. style franking credits their firm had accumulated in that country. Also as the funds did not leave the country where the income was earned, they were not subject to any withholding taxes that might apply on repatriating the money to Australia. Similarly, as the dividend was not paid from Australia, these ODP payments were not subject to any Australian dividend withholding tax (typically 15 to 30%) requirements.

Unfortunately, the Australian government via Section 160AQCB of the *Income Tax Assessment Act* also removed this benefit on 1 July 1990 so these plans now utilise franking credits just as a normal Australian dividend. A number of firms, however, have retained their ODPs as their overseas shareholders can still benefit in terms of their own domestic taxation treatment. This of course requires first that tax be paid in that country and some companies, such as Brambles, suspended their ODP when their UK operations became unprofitable, but reinstated it when conditions improved. In any case, these plans are relatively small compared to domestic DRPs: for example, only 2% of the ANZ Bank's July 1993 dividend was reinvested through its ODP compared to 38.1% for the straight DRP, and 11.4% for its bonus plan.

Scrip Dividend Plans

The last of the DRP variations, the scrip dividend plan, differs from the previous schemes in that the shareholders have no choice on participation. As the name suggest, they are a form of scrip dividend, not unlike a bonus issue. These issues, however, were designed to be fully franked and hence taxable in the hands of their shareholders. They were designed specifically to allow companies to distribute any excess franking credits to their shareholders without the risk of any associated cash outflow. These

plans sought to distribute maximum franking credits with the minimum increase in issued capital by issuing shares priced at a substantial premium to par value. This nominated "price" would then be treated in full as a franked dividend.

Again, the Australian Taxation Commissioner expressed concern over these payments and issued Income Tax Ruling 2603, effective as of 1 July, 1990, prescribing that if scrip dividend shares are issued, shareholders will only receive franking credits to an amount equal to the new shares' par value: this amount is also considered the shares purchase cost for tax purposes. Where the share's allotment price is greater than its par value (the case with all previous scrip dividends), any excess would not count as franking credits nor would the share premium created through issuing the shares count for taxation purposes (such as for share repurchases). The excess would not be assessable in the hands of shareholders, but as the share's cost price for capital gains purposes would be just its par value, this benefit would be captured on resale. This ruling effectively cancelled the benefit of scrip dividend plans.

IMPACT ON FIRM VALUE

As a survey by Anderson [1] discovered, dividend reinvestment plans were initially introduced in Australia as part of corporate shareholder relations. They were intended to assist small shareholders reinvest their dividends without transaction costs. In addition, participants typically benefited from purchasing these shares at a discount from the then market value: other lesser benefits are also shown in Table 6.

Table 6:
Individual Investors and DRPs

ADVANTAGES:

no administration, transaction costs or stamp duties
often a 5 to 10% discount off market price
dividends compound with each new purchase
participation can be stopped at any time
rounding up to round lots via extra cash purchases
regular small cash contributions (CSR Ltd)

DISADVANTAGES:

timing fixed by company
records must be kept for each reinvestment
tax on dividend must be paid from other funds
non-residents may be unable to participate
non-participants may subsidised participants

Australian corporations, though, soon found that improved shareholder relations were not the only benefit. Through new issue DRP plans, they also found that DRPs could provide a relatively predictable source of new equity capital: other lesser benefits are also shown in Table 7.

Table 7:
Corporates and DRPs

ADVANTAGES:

Enhance shareholder goodwill
Cost effective new equity capital
Allow greater dividend payout ratios
Improve liquidity through dividends reinvested
Attract new shareholders who like DRPs
Market purchase plans might support share price

DISADVANTAGES:

Greater administration and correspondence costs
Potential conflict between participants and non-participants
Potential dilution in earnings per share
Free cash flow problems due to increased cash reserves

If DRPs do benefit potential shareholders and their companies, then, as Skully [23] suggested, investors might prefer DRP firms to other similar companies and so, all things being equal, firms with a DRP might be valued more highly than their non-DRP counterparts.

Since the introduction of dividend imputation, this concept of DRP "value" appears to have some justification within the Australian context. Industry interviews indicate that there is considerable trading just before and after the ex-dividend date. Fund managers capture the franking credits on these payments as well as invest their full entitlement into new discounted DRP shares. They then sell both their initial and reinvestment purchases during the DRP reinvestment pricing period. If handled properly, careful trading should provide an immediate short term capital gain. Scholes and Wolfson [22] found they were similarly able to exploit even more attractive arbitrage trading opportunities within the US market.

Even without this trading, though, DRP participants might still gain some benefit from the DRP discount price on reinvestment. Indeed, this savings has often been justified as a defacto placement or underwriting fee paid to participating shareholders. As the firm would have required more frequent rights issues or placements without the DRP reinvestments, the participants were only gaining at the expense of investment bankers and not non-participating shareholders.

Thus far, most empirical work on DRPs and firm value have been conducted in the form of event studies. Dubofsky and Bierman [6] and Perumpral [19], for example, have

found that the announcement to introduce a DRP produced positive abnormal returns. Peterson, Peterson and Moore [20] examined the announcement effects on utility company DRPs prior to and during a special \$750 U.S. tax exemption on DRP reinvestment in public utility shares between 1983 and 1985. They found little impact before the reform, but that DRPs were valued positively during the exemption period. These results suggest that DRPs offer shareholders real benefits.

In a perfect market, the introduction of a DRP should have no impact on firm value. However, market imperfections such as transaction costs, taxation, information asymmetry and other factors affecting capital structure might cause these plans to have value. Anderson [1] found that shareholders' potential savings of transaction costs were an important factor in Australian companies deciding to introduce DRPs. Information asymmetry and taxation, though, require more discussion.

Information Asymmetry

In terms of information asymmetry, the decision to introduce a dividend reinvestment plan could be along the lines of Miller and Modigliani's [13] views on dividend policy. They considered that by showing a willingness to service more dividend payments, the management might be signalling their optimism of good earnings prospects for the immediate future. As a DRP in the Australian context would result in additional shares being issued, the total amount of dividends paid would increase provided the dividend paid per share remains the same. The signal may also indicate that the management perceives sufficient positive net present value projects within the company so that new the equity via the DRP would not result in excess free cash flows

and/or a dilution in the company's earnings per share.

The Australian market practice suggests that managers are concerned about dilution problems. Most companies which suspended their DRPs recently did so due to insufficient investment opportunities for the resulting cash and hence the impact on EPS of the newly issued shares.

As DRPs are a means of raising equity capital, their introduction might receive negative market reaction. Jensen [10] and Ross [21] suggest that most leverage-reducing transactions, of which a new issue DRP is one, are associated with decreases in share prices. Also Myers and Majluf [16] suggest that the decision to seek equity finance may convey negative information about the firm to the market. This is because the firm's management will only issue new equity when they feel the shares are overpriced. Initially, this might seem to argue against DRP new issues; that they would reduce market value not increase it. Myers' [15] pecking order theory, however, suggests that internally generated sources of finance, of which the DRP is certainly one, offer a superior means of funding without adverse effects. Dubofsky and Bierman [6:60] thus suggest that DRPs could be used by firms seeking more equity but wishing to "avoid the signalling consequences that would lead to a price decline." Wilson [26] further argues that capital-intensive firms with high leverage but poor growth prospects should use DRPs to raise funds. Scholes and Wolfson [22] indeed found that DRPs, as a continuous fund raising alternative, might not only mitigate adverse signalling effects but also could increase share prices.

Agency cost issues might further support the idea of DRP firms being valued more highly in the market. As Miller and Rock [14] suggest, managers may choose to distribute more earnings as dividends and so help overcome the information asymmetries between them and their shareholders. As the company will need to raise equity capital more frequently in order to replace these dividends, they will place their operations under considerable scrutiny via the disclosures these new issues require. As only good managers would be likely to seek such attention, the market may reward them through valuing their shares more highly due to lower agency costs. Within Australia at least, Nicol [17] found that companies have used DRPs as a means of significantly increasing their payout ratios. By adjusting the DRP discount, managers have found they can influence the level of reinvestment. Typically, the higher the discounts, the greater the portion of dividends that will be reinvested. It should be stressed, though, that shareholders need not make this reinvestment: they can sell their shares or just choose to exit the DRP before the next dividend.

Taxation

Australia's dividend imputation system also suggests that DRPs should have a positive impact on firm values. Under imputation, superannuation funds, taxed at a concessional rate of 15 per cent since 1988, prefer franked dividends and use the excess franking credits to offset other tax liabilities. As they are the dominant shareholders, most Australian companies have been under pressure to pay out all their franking credits. Nicol [17] reported that overall dividend payout ratios of Australian listed companies have increased significantly since imputation. Nicol also found that the strong commitment to the reinvestment plans by financial institutions was the underlying

reason for the increase of franked dividends.

Howard and Brown [9] argue that, under imputation, the optimal dividend policy for most Australian companies is to pay the maximum possible franked dividends. Officer [18] shows that the before-tax cost of capital is reduced by the relative value of franking credits compared to the cost of equity under a classical tax system and therefore the value of companies paying franked dividends will increase. Given that DRPs would help most Australian companies to increase dividend payouts while maintaining their investment activities, the introduction of a DRP could be viewed by investors as good news that the company would pay out more franked dividends. As an internal source of finance, DRPs also allow companies to bypass the capital market so as to avoid the market scrutiny, transaction costs and signalling effects associated with external equity financing. Hence, DRPs might be expected to have a positive impact on firm values. In fact, Chan, McColough and Skully [5] found that the announcement to introduce a DRP was received indifferently by the market both before and initially during imputation but was valued positively once superannuation funds could utilise the imputation credits.

A further potential Australian tax benefit afforded by DRPs is somewhat less obvious and certainly not direct. It relates to the taxation treatment of companies that repurchase their own shares and how the return of capital and dividend component of the repurchase amount is determined. If a share is repurchased off market through retained earnings, only an amount equal to the share's paid up capital (par value) will be considered a return of capital: the remainder will be considered a dividend to the

seller for taxation purposes. The par value portion, though, is considered a return of capital and so is not taxable. In contrast, if the repurchase is accomplished through a share premium or capital surplus account, the entire repurchase would be considered a return of capital and hence not taxable to the seller.

The problem for companies is to have a sufficiently large capital surplus account to handle any potential repurchases. Interestingly, DRPs seem to assist their growth. As Graw [7] explained, the pricing of DRP issued shares at close to their market value (Australian rights issues are traditionally priced at a much greater discount) means that DRPs help increase a firm's share premium account and so provide greater flexibility should it later wish an off market share repurchase. To the extent that the market values this flexibility, these companies may be valued higher.

DRP'S FUTURE IN AUSTRALIA

While DRPs now represent a fairly consistent and significant source of new equity capital, some press reports, such as Herbert [8], have questioned their future role in Australian finance. Certainly, Australia's recent recession has presented considerable problems for corporate treasurers. In some cases, the decision has been simple; the firm has had to cease dividend payments and so the DRP has had to stop accordingly. In other cases, the DRP has been temporarily suspended or otherwise modified to reduce the number of shares issued in order to achieve certain corporate goals. In contrast, other firms found their DRPs' new equity capital most welcome during the recession and have sought ways to encourage even greater

participation rates. This section examines these efforts to reduce or increase the flow of new DRP equity capital and suggests improvements to each approach.

Reducing DRP new share issues

As mentioned previously, Australia started the 1990s in recession and this presented a problem even to those companies that could still pay dividends. In many cases, the economic downturn limited the positive net present value investments available within certain industries and these firms faced the problem of dilution. If the firm had few good investment opportunities, then there would be little sense in retaining the cash. As the standard DRP would simply recapture part of this outflow, some companies choose to reduce this option.

Even where additional equity might be welcome, the lower earnings were already a problem due to the recession and so an increase in the number of shares outstanding via further DRP issues would simply magnify the drop. Thus in 1991, the ANZ Bank reduced its DRP discount rate from 10 to 7.5 per cent and consequently the number of shares to be issued for any given dividend. The lower discount also, as expected, resulted in a modest drop in the DRP participation rate. National Foods (10% down to 5%), Howard Smith (10% down to 7.5%), Brambles (10% down to 7.5%) and North Broken Hill (10% to 7.5%) have all taken similar action.

Pioneer International, too, found its DRP a problem in that some 60% of its dividends were reinvested. This combined with low share price, 7.5 per cent discount and limited investment prospects, made its management concerned the

earnings per share (EPS) would be diluted and they sought to limit the reinvestment to \$1,500 per shareholder per dividend. Interviews suggest that this would have allowed some 90% of DRP participants to continue their participation unaffected. However, when the Australian Stock Exchange indicated the change would require the approval of an annual general meeting, a DRP suspension seemed an easier alternative.

A similar, though more successful, approach at limiting DRP related share issues was adopted by the Australian retailer, Coles Myers, in 1992. Its DRP with shareholder approval limits the total amount of dividend that can be reinvested to \$1,500 per reinvestment (\$3,000 per year) per participant: it also requires participating shareholders place at least 100 ordinary shares in the DRP. While this approach could be used to limit the cash retention and potential earnings dilution, the decision in this case was to limit the potential of any voting control dilution for its two major shareholders, Solomon Lew and the U.S. based, K Mart chain.

A most obvious solution to the dilution problem is to suspend the DRP altogether and, as shown in Table 8, some companies have done so even though they continued to pay cash dividends. Industry interviews found that potential EPS dilution was important in their decision, but most also had considerable funds on hand already and did not wish to accumulate further cash. This position was seemingly confirmed in the case of Brambles Industries. It suspended its DRP in 1990 due to surplus cash and concerns over dilution, but reinstated it in 1992 after a major overseas acquisition. CRA also suggested that its debt to equity ratio was too low and sought to increase its debt accordingly: the DRP equity raisings worked against this objective,

but it would again restore the DRP once the additional equity and the related cash was required.

Table 8:
Australian DRPs Suspensions, 1990-93

Firm	Year	Main reasons for discontinuing
CRA	1990	Surplus cash & impact on future EPs
Brambles	1990	Surplus cash & impact on future EPS
Lend Lease	1991	Surplus cash
Howard Smith	1991	Surplus cash & impact on future EPS
Stockland Trust	1991	Impact on future EPS
Tubemakers of Australia	1991	Low public participation
Fletcher Challenge	1992	Dilution of book value
Pioneer International	1993	Impact on future EPS

Source: Correspondence/interviews with the respective firms.

The only example to date of a perceived DRP failure was that of Tubemakers. After some three years of operations, its DRP, even with a 5 per cent discount, had achieved only around a 10 to 15 percent participation rate from its outside shareholders. This lack of success was compounded by the fact that its two major shareholders BHP and the Sumitomo group, with approximately 49.75% and 19.49% respectively, felt obliged to retain their voting positions by matching these outside reinvestments. In the end, the costs did not seem justified either to these shareholders or the management and the DRP ceased operations.

Another reason for suspending a DRP, though there are no examples to date, is to

implement a share buyback. Under Australia's Corporations Law (Section 206NB and 206NC) share repurchases are not permitted within three months of a share placement nor can a placement be made within three months of a share repurchase. As dividends are paid on a six monthly basis, a new issue DRP would effectively preclude a company from having any share repurchases (known locally as a buyback). As Graw [7] explained, companies will have to "keep the need to close down or phase out their DRPs in mind so that the buyback can take place."

From a small shareholder viewpoint, a more attractive alternative to a DRP suspension would be to modify the standard Australian DRP from simply a new issue plan, where new shares are issued on each reinvestment, to a market purchase plan. These market plans, the most common type in the U.S. use the dividends to purchase shares from existing shareholders on the open market. This means DRP participants can continue to compound their dividends with little transaction costs while the company avoids the additional cash and dilution problem. Indeed, many U.S. plans allow the directors to decide with each dividend; whether additional equity can be used to advantage. Typically, these DRPs provide the same benefits in terms of transaction cost savings and often offered a small discount; the latter is no doubt to avoid participant complaints.

Discussions with the Australian Stock Exchange indicate that neither the existing legislation nor listing requirements would preclude similar open market plans operating in Australia. While Australian company share repurchase schemes are subject to a number of constraints, open market plans involve shareholders, typically through a

trustee, purchasing shares from other shareholders; the company is not directly involved. It is hoped that Australian corporate treasurers will investigate this option and modify their plans accordingly. One problem under Australian tax law, however, is the presence of state stamp duties which would add a significant transaction cost relative to the traditional new issue plan.

Increasing DRP new share issues

Some firms with more business success now view their DRP as an important, and fairly predictable, source of new equity capital as well as a means of increasing their dividend payout ratio while avoiding major cash outflows. Thus rather than reduce their DRPs, these firms have been seeking ways to encourage greater participation rates.

As mentioned, interviews suggest that corporate treasurers view the discount rate offered as a means of encouraging or discouraging reinvestment. Wills [25] has confirmed this view in that she found a strong correlation between the rate offered and the degree of participation. Thus, many firms seeking more reinvestment have raised the discount. Lend Lease, for example, has offered as high as a 15 per cent discount for specific dividends when cash retention was considered important.

Another alternative to achieve the desired participation rate is simply to insure against receiving a lesser amount by seeking an underwriting agreement to cover the reinvestment. This was first used in 1988 by Wesfarmers to ensure that at least 50% of its dividends were reinvested: an underwriting group of stockbrokers (J.B. Were, Potters and Mullens) would subscribe to any short fall on the same discount terms.

Other companies such as Faulding, Burns Philp, Adelaide Brighton Cement and Pioneer International also arranged underwritings for a certain minimum of DRP reinvestment. In 1990, a listed investment company, BT Global Asset Management Limited, went one step further by having its DRP underwritten for a 100% reinvestment. Foodland Associated Limited has since similarly arranged for a 100% reinvestment.

Another reason for these DRP underwritings is that they allow Australian companies to pay a higher percentage of their earnings as dividends. As Lowenstein [11] described it, the recent growth in DRPs reflected the "pressure on corporations to increase their pay-out ratios as a result of Australia's unique full dividend imputation scheme." Indeed, many shareholders have suggested that firms should pay all of their franking credits in the form of dividends. It is significant that Foodland Associated's 1990 dividend was fully franked and represented 100% of the year's earnings per share. Given the demand for franking credits, it would seem logical for other firms to combine an attractive discount with a standby underwriting agreement so to pay 100 per cent of their franking credits, too.

While 100% reinvestment might seem as much as a firm could raise through their DRPs, this need not be case if the plan also offers a cash contribution option. In contrast to the U.S. where virtually all DRPs allow some form of cash contribution, typically up to \$60,000 per year, only one Australian firm, CSR, allows cash contributions of up to \$2,400: with little promotion, 12,000 of CSR's 128,000 shareholders made additional cash investments in 1993. While a few firms now permit extra cash investment to purchase a round lot, it remains a mystery as to why

other Australian firms have not investigated this possibility. This feature would seem particularly attractive for firms, such as banks, where new equity capital is almost a constant requirement for growth.

Cash contributions, however, are not the only innovation remaining for Australian DRPs. Another alternative, and again one for which the banks would seem particularly well suited, is the stock purchase plan. Again, over 100 companies in the United States (including the Bank of New York, Cummins Engine, Exxon, W.R. Grace, Nevada Power, Texaco, and Union Electric) now offer this feature to their customers and often the general public. Australian small investors, through a series of fairly successful privatization floats, seemed to have a renewed interest in share investment. Plans using a regular direct debit from one's bank account, might help return share investment as an important portion of national savings.

SUMMARY AND CONCLUSIONS

This paper details the development of dividend reinvestment plans in Australia and examines their impact on firm value. DRPs allow shareholders to reinvest all or part of their dividends in additional company shares, usually at a discount to the market price. Introduced in 1982 primarily to help shareholders purchase new shares without transaction costs, variants of the basic Australian DRP such as dividend election plans, dividend selection plans, overseas dividend plans and scrip dividend plans were soon developed to meet the specific tax and financial needs of investors. These dividend schemes help shareholders to stream their dividends to minimise taxation.

The number of DRPs increased significantly since the introduction of the dividend imputation system on 1 July 1987. Under imputation, Australian resident shareholders receive a franking credit in respect of tax already paid by the company on income paid out as dividends. The imputation system is particularly valuable for superannuation funds and individuals with low marginal tax rates since surplus franking credits can be used to offset tax liability on other income. As superannuation funds are the dominant shareholders, there has been strong demand for most companies to increase their payout of franked dividends. Many companies responded by introducing DRPs to increase the payouts while retaining cashflows for investment purposes.

As an internal source of financing, DRPs help companies raise new equity capital while avoiding adverse signalling effects normally associated with equity raisings. DRPs also help most Australian companies to increase dividend payouts cost effectively, therefore the introduction of a DRP could be a good signal to shareholders and have a positive impact on firm value.

In conclusion, DRPs have served a useful function in Australia in that they allow companies to have a relatively inexpensive source of equity finance while giving shareholders higher dividend payouts. As such DRPs would be valued favourably in the market place, especially following the introduction of dividend imputation. With a significant participation rate, DRPs will continue to be a major source of new equity capital for Australian companies. Nevertheless, there are many innovations common in overseas DRPs which should be considered by Australian

directors.

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