



Project:	Franking credit disclosures	Meeting:	M194
Topic:	Literature review	Agenda Item:	7.2
		Date:	20 February 2023
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		Decision-Making:	Low
		Project Status:	Consider draft project plan stage

Objective of this paper

- 1 This paper provides a summary of relevant published academic and working papers' findings on franking (or imputation) credit disclosures.¹

Background

- 2 Feedback from the [AASB Agenda Consultation 2022-2026](#)² suggested that the Board consider revisiting franking credits disclosure requirements in AASB 1054 *Australian Additional Disclosures*.³ At its June 2022 meeting, the Board decided to add the franking credits disclosure project to the standard-setting work program.⁴
- 3 In accordance with the [AASB Due Process Framework for Setting Standards](#), once an accounting or external reporting problem is identified, evidence is sought to determine the nature and extent of issues to ensure regulatory action is warranted.
- 4 As part of developing the project plan, staff conducted a literature review to gather empirical evidence related to franking credit disclosures.

Summary and staff recommendation

- 5 Most of the literature related to franking credits focuses on:
 - (a) the costs of capital (e.g., Officer 1994; Gray and Hall 2006; Lally 2008; Truong and Partington 2008); and
 - (b) market valuation of franking credits (e.g., Hathaway and Officer 2004; Cannavan, Finn and Gray 2004; Cotter 2004; Minney 2010; Cannavan, Gray and Hall 2022; Le, Yin and Zhao 2022).

¹ This paper refers to imputation credits and franking credits interchangeably as these terms have the same meaning.

² https://asab.gov.au/media/orbnzkjf/03-2_ac_feedbacksummary_m187_pp.pdf

³ See paragraphs 12-15 of AASB 1054.

⁴ Refer to [minutes](#) of the June 2022 Board meeting.

- 6 However, there is a lack of literature examining the effect of franking credit disclosures required in AASB 1054.

Methodology

- 7 Although the literature review focuses on the disclosures of franking credits, staff also reviewed literature related to the valuation of franking credits by investors and its impact on the cost of capital. This approach would help ascertain how imperative the information relating to franking credits is for investors' decision-making.
- 8 Relevant published academic studies and working papers are identified from various platforms including Google Scholar, Business Source Complete, SSRN, and ResearchGate. Staff conducted the search using the following keywords: "AASB 1054", "imputation credit", "franking credit", and "franking account".
- 9 There is extensive research relating to franking credits conducted in many countries, such as Canada (e.g. Lakonishok and Vermaelen 1983), the United Kingdom (e.g., Poterba and Summers 1984; Bell and Jenkinson 2002), Taiwan (e.g., Chen, Chow and Shiu 2013; Tseng and Hu 2013), and Germany (McDonald 2001). However, the development of imputation tax systems and the tax offset requirements differ for each respective country.⁵ As such, staff decided to limit the literature review to focus on Australian studies.

Summary

Costs of capital

- 10 Franking credits reflect the amount of corporate tax paid on profits from which a dividend was distributed, and shareholders (i.e. resident natural persons or resident superannuation funds that have Australian personal tax obligations) are allowed to use these credits for offsetting their tax obligations. As such, arguably, franking credits are of value to some shareholders – particularly resident shareholders (Heaney 2010; 2011).
- 11 Officer (1994), one of the first and widely employed studies, shows that the value of franking credits should be incorporated into estimating the cost of capital (or the expected/required rate of return on capital). The theory is that investors would be willing to accept a relatively lower required rate of return (i.e. cost of capital) on an investment with franking credits compared with an investment with similar risk and without the benefit of franking credits. That is, there is an assumption that the value of franking credits to some shareholders is an important element of firm valuation. The market value of franking credits can be added back into the firm's cash flows or can form the basis of an adjustment to the weighted-average cost of capital (WACC).
- 12 Officer (1994) develops a framework that presents a series of expressions for the WACC under dividend imputation. Each definition of WACC requires a number of inputs and has a specific definition of cash flows to which it applies. The framework noted that there are two primary components in the value of franking credits being:
- (a) the proportion of credits that are distributed to shareholders; and
 - (b) the market value of those credits that are distributed.

⁵ For example, in Australia the research and development (R&D) tax offset that was introduced from 1 July 2011 to encourage more companies to engage in R&D has implications to the franking account.

- 13 However, the precise value investors place on franking credits is ambiguous, given that individual investors have differing taxation circumstances and personal franking credit valuations (Vo, Gellard and Mero 2013). Extensive research papers have also elaborated on Officer (1994) by agreeing that the franking credits may affect the costs of capital in some form. However, different models are being suggested to determine the costs of capital with the considerations of franking credits (Gray and Hall 2006; Truong and Partington 2008; Lally 2008).

Market valuation of franking credits

- 14 As discussed above, Officer (1994) shows that franking credits play a significant role in assessing firm value under dividend imputation systems. As such, the value of franking credits may also be reflected by share prices. Extensive research attempted to show that there is a negative relationship between franking credits and stock returns. The logic behind this relationship is that if franking credits are capitalised, shares paying higher franking credits will be traded at a higher price and, in turn, a lower expected return (e.g., Ainsworth, Partington and Warren 2016; Le, Yin and Zhao 2022).
- 15 [Appendix A](#) summarises some papers related to the market valuation of franking credits. This section discusses some key concepts and the overall findings of the papers identified.
- 16 There are many approaches used in the literature to investigate whether franking credits are priced. Most studies use the "ex-dividend drop-off" approach to investigate such matters. The theory of the approach is that the share price generally drops after dividends and franking credits are distributed, and the drop in the share price reflects the market value of the cash dividend and the credit that was paid out. For example, Brown and Clarke (1993) hypothesize that the drop-off ratio would increase after the introduction of the imputation system if imputation credits had a positive value. However, they find that the drop-off ratio actually declined in the year following the introduction of the imputation system. Bellamy (1994) found that the average drop-off for fully franked dividends was greater than unfranked dividends from 1987 to 1992, suggesting that shareholders attribute some value to the embedded franking credits.
- 17 However, there is conflicting evidence in the findings. For example, some research (e.g. Bellamy 1994; Walker and Partington 1999; Hathaway and Officer 2004; Beggs and Skeels 2006; Gray 2008; Swan 2019) show that the market values imputation credits. Whereas other studies (e.g., Brown and Clarke 1993; Feuerherdt, Gray and Hall 2010; Lajbcygier and Wheatley 2012) document that the market does not price franking credits.
- 18 Many studies also attempted to estimate the percentage of the market value of distributed franking credits to its face value (or " θ ") by using various models and regressions. However, there are inconclusive findings. In particular, various methods were used to estimate θ in the literature and no consensus was formed on the most appropriate method for such estimation. For example, by examining the ex-dividend drop-off events between 1998 to 2006:
- (a) Gray (2008) documented an average θ of 28%;
 - (b) Gray, Hall, and Costello (2011) estimated a θ of 35% for the period between 2000 and 2010; and
 - (c) Minney (2010) found that θ is 24% from 2001 to 2005 and 53% from 2006 to 2009.
- 19 Other research methods have also investigated whether investors value franking credits. For example, Lonergan (2001) and Truong, Partington and Peat (2008) conducted surveys and found little evidence to show that the value of franking credits is considered for investing decisions. However, Minney (2010) noted that anecdotally, most buy-side analysts are factoring franking credits in their company valuation. There are also funds available to the public, both actively and passively managed, that explicitly consider the value of franking credits in their (after-tax) performance reporting.

- 20 Some studies investigated whether imputation credits influence the behaviours of companies and investors. For instance, Brown, Handley and O'Day (2015) examine on-market repurchases, taxed as capital gains, and off-market repurchases, which carry valuable tax credits. They find that on-market share repurchases are used as substitutes for dividends, while this is not the case for off-market repurchases. Their findings provide evidence that imputation credits play an important role in how Australian companies make their payout decisions.
- 21 Researchers also attempted to investigate the informativeness of franking credits with respect to earnings persistence. For example, Coulton, Ruddock and Taylor (2012) found strong evidence that firms that pay franked dividends have significantly more persistent earnings than firms that pay unfranked dividends.
- 22 In conclusion, extensive literature provides evidence on whether franking credits are of value to investors. However, there are conflicting findings, and the Australian literature provides no clear conclusion regarding the value of franking credits.
- 23 The inconclusive findings may have resulted from research limitations, such as:
- (a) There are resident and non-resident investors⁶ who attribute different values to these credits. As such, it is difficult to determine the expected market value in theory (Cannavan and Gray 2017).
 - (b) Franking credits are not tradable, and therefore prices are not directly observable. As such, it is problematic to value franking credits together with the value of dividends (Cannavan, Finn and Gray 2004). Other studies also raised concerns in relation to the noise in security prices which implies that the related research cannot provide reliable findings (Cannavan Finn and Gray 2004; Siau, Sault and Warren 2015).
 - (c) The periods used to examine the values of franking credits may result in different conclusions as there were different tax law changes relating to franking credits in different periods (e.g., Cannavan, Finn and Gray 2004; Fenech, Skully and Xuguang 2014).

Disclosure of franking credits

- 24 No prior academic study specifically looks at the impact of franking credit disclosure. However, some studies raised issues related to franking credit disclosure (Heaney 2010). For example, Heaney (2010) on page 4, footnote 5, states that:
- "Corporations maintain a record of franking credits that are available for distribution to investors but companies are not required to disclose this information and so there is considerable variation in disclosure of franking credit balance across companies. Thus, it is difficult to get an accurate estimate of the total franking credit balance for the firms in this sample ..."*

Conclusion

- 25 Overall, the literature related to franking credits generally focuses on the costs of capital and market valuation of franking credits. These papers provide mixed findings. Further, There is a lack of literature that examines the effect of franking credit disclosures that are required in AASB 1054.

⁶ Non-resident investors cannot utilise imputation tax credits, and as such, they are likely to value capital gains and cash dividends only.

Appendix A: Summary of studies related to franking credit and investor valuation

Paper details	Key ideas	Description	Period Examined	Investors Reaction
Ainsworth, A., Partington, G. and Warren, G., 2015. Do franking credits matter? Exploring the financial implications of dividend imputation. <i>Exploring the Financial Implications of Dividend Imputation (June 1, 2015). CIFR Paper, (058).</i>	The various impact of dividend imputation tax system in Australia.	This study examines the implication from imputation system for stock prices and returns, cost of capital, project evaluation, capital structure, payout policy and investor portfolios. There are nine key findings of this study: <ol style="list-style-type: none"> 1. The effect of imputation is debatable both in theory and practice along most dimensions. 2. Whether imputation is priced into the market is a central issue, but theory and evidence provide very mixed indications, and there is no consensus. 3. Whether imputation probably matters is small, domestic companies. 4. How imputation influences behaviour is important. 5. The relationship between imputation and payout policy deserves more attention. 6. Imputation may not have much impact on corporate capital structure or investment decisions. 7. Imputation is influential in regulatory decisions. 8. The influence of imputation on investor portfolios is unclear, but any resulting domestic bias should not be a major policy concern. <p>The potential effects of removing or adjusting the imputation system are conditional on what else happens.</p>	Various	Unclear
Ainsworth, A., Partington, G. and Warren, G.J., 2016. The impact of dividend imputation on share prices, the cost of capital and corporate behaviour. <i>JASSA</i> , (1), pp.41-49.	Imputation system affects the share price and corporate behaviour.	In this study, the authors observe whether the presence of imputation affects investor and corporate behaviour. While the theory and evidence may be unclear, the notion that imputation has no impact on share prices and the cost of capital sits at the extreme of the spectrum of possibilities. It is more likely that imputation has had some effect on share prices , even if it is just in certain situations such as for smaller, domestic companies. Further, imputation appears to have influenced behaviours , some of which have been beneficial. It has encouraged higher dividend payouts, and possibly lower corporate leverage and a propensity for Australian companies to invest domestically at the margin.	Various	Value franking credits.
Bellamy, 1994. Evidence of imputation clienteles in the Australian equity market. <i>Asia Pacific Journal</i>	Since shareholders do not all gain the same advantage from the imputation credits, it is	This paper investigates the development of shareholder clienteles in response to the introduction of the Dividend Imputation (Integrated Tax System) into the Australian capital market. The author finds that companies paying franked dividends have significantly increased dividend payments than those paying little or no imputation tax credit. The author also finds that the use of dividend reinvestment plans has increased significantly post-imputation. The findings	1983 to 1992	N/A

Paper details	Key ideas	Description	Period Examined	Investors Reaction
<i>of Management</i> , 11, pp.275-287.	likely that imputation clienteles will form.	from this study provide evidence to support the proposition that companies paying franked dividends have undertaken policies that will maximise the benefits to their shareholders. There is support for the existence of shareholder clienteles related to companies' imputation policies.		
Beggs, D.J. and Skeels, C.L., 2006. Market arbitrage of cash dividends and franking credits. <i>Economic Record</i> , 82(258), pp.239-252.	Marginal investors did not value the franking credit, but the year 2000 tax change increased the value of franking credits to marginal investors.	The authors examine whether share prices adjust efficiently to reflect the full after-tax value of the gross dividend in Australian market from 1986 to 2004. Analysing the gross drop-off ratios, cash drop-off ratios and franking credit drop-off ratios, the authors find that marginal investors, on average, did not value the franking credit . Further, the authors analyse six tax regime changes and found that the year 2000 tax change increased the value of franking credits to the marginal investors . The authors attribute this finding to the tax change that allowed the marginal investors to extract a substantial component of the benefit of the franking credit.	1986 to 2004	Mixed (Do not value in the pre-2000 and value in the post-2000)
Brown, P., & Clarke, A., 1993. The ex-dividend day behaviour of Australian share prices before and after dividend imputation. <i>Australian Journal of Management</i> , 18(1), pp.1-40.	Market continued to prefer returns in the form of capital gains. However, market has gained access to the value of the imputation tax credit.	This paper aims to exploit if the changes in Australian tax laws (i.e., taxation of capital gains, dividends and superannuation funds) induced changes in investor preferences at the margin. By documenting the changes in the ex-dividend day pricing behaviour of a sample of Australian shares which paid cash dividends between July 1973 and June 1991, the results suggest that the share market, on average, continued to prefer returns in the form of capital gains rather than dividends. In addition, one change was the introduction of dividend imputation in 1987, which took the market some time to adjust. The author finds that by 1990 shareholders typically obtained 80% of the benefit of imputed tax credit.	1973 to 1991	N/A
Cannavan, D., Finn, F. and Gray, S., 2004. The value of dividend imputation tax credits in Australia. <i>Journal of Financial Economics</i> , 73(1), pp.167-197.	The tightening of tax laws in 1997 diminishes the value of franking credits for future contracts and low exercise price options.	In this paper, the authors seek to estimate the value of imputation tax credits in Australia and whether the 1997 tightening of tax laws affected their value. The authors find that: (1) Cash dividends are fully valued relative to future payoffs; (2) Prior to the 45-day rule, imputation credits were valued at up to 50% of face value for high-yielding firms; and (3) since the 45-day rule, imputation credits are effectively worthless to the marginal investor of individual share futures contracts and low exercise price options.	1994 to 1997	Do not value franking credits.

Paper details	Key ideas	Description	Period Examined	Investors Reaction
Cannavan, D. and Gray, S., 2017. Dividend drop-off estimates of the value of dividend imputation tax credits. <i>Pacific-Basin Finance Journal</i> , 46, pp.213-226.	The market does not value the franking credit at its face value.	The authors propose that the value of imputation tax credits (for shareholders) is the product of two components: (1) the proportion of the distributed credits; and (2) the market value of those distributed credits. In this study, the authors used dividend drop-off analysis and focus on estimating the market value the distributed imputation credits (component 2). According to the authors, there are various reasons as to why the distributed credits would have a market value less than the face amount of those credits, including: credits distributed have no value to non-resident investors, some credits cannot be redeemed (e.g., the 45-day rule), delay between the receiving a credit and being able to convert it into reduction in personal tax payments, administrative costs, and portfolio rebalancing costs. By using data from July 2000 to June 2016 and consists of 4,690 ex-dividend events, the authors find that the market values distributed imputation credits at approximately 35% of the face value.	2000 to 2016	Value franking credits (at 35% of face value).
Cannavan, D., Gray, S. and Hall, J., 2022. Sampling error and the joint estimation of imputation credit value and cash dividend value. <i>Accounting & Finance</i> .	The joint estimation and joint interpretation of the value of both imputation credits and cash dividends is critical for correct inference.	In this study, the authors argue that the estimation of the imputation credits is complicated because of the need to simultaneously estimate the value of the cash dividend to which the credits are attached. The authors find that the joint estimation and joint interpretation of both estimates is critical for correct inference. By using more than 73,000 derivative prices and 12,000 ex-dividend day prices, the authors find that the estimated market value of credits for derivatives sample lies within the range of 0.01 to 0.20 of face value, but within the range of 0.23 to 0.46 of face value for ex-dividend sample. Further, a fully franked dividend is valued by the market within the range of 0.93 to 0.97 of cash dividend face value for derivatives sample, while ex-dividend sample is within the range of 0.89 to 1 of cash dividend face value.	1994 to 2016	Value franking credits.
Coulton, J., Ruddock, C. and Taylor, S.L., 2012. The informativeness of dividends and franking credits. In <i>2012 Financial Markets & Corporate Governance Conference</i> .	Firms that pay franked dividend have significantly more persistent earnings than firms that pay unfranked dividend.	In this study, the authors analyse whether the dividend and dividend-related tax credits provide users with information to assess earnings quality. The authors argue that dividend paying firms are more likely to be mature firms, which are likely to drive earnings persistence. Further, the authors also argue that mature firms tend to pay more tax; therefore, franking credits provide an incremental measure of firm maturity. The authors find that firms that pay dividends have more persistent profits and less persistent losses than those that do not pay dividends. Further, the authors also find that firms that pay franked dividend have significantly more persistent earnings than firms that pay unfranked dividend.	1993 to 2010	Value franking credits.

Paper details	Key ideas	Description	Period Examined	Investors Reaction
Cummings, J.R. and Frino, A., 2008. Tax effects on the pricing of Australian stock index futures. <i>Australian Journal of Management</i> , 33(2), pp.391-406.	Investors do not value the franking credit at its value and the 2000 tax change enhances the value of franking credit for marginal investors.	This study focuses on the Australian stock index futures to infer the value of the debt tax shield, accumulated cash dividends and franking credit for the underlying stocks over the remaining life of the future contract. The authors find that the accumulated cash dividends are incompletely valued and the franking credits are worth at least fifty percent of their face value relative to future payoffs . The values of the accumulated cash dividends and franking credits implied by index future prices are very close to the ex-dividend date cash drop-off ratio and franking credit drop-off ratio estimated by Beggs and Skeels (2006) for the Australian share market.	2002 to 2005	Value franking credits.
Fenech, J.P., Skully, M. and Xuguang, H., 2014. Franking credits and market reactions: Evidence from the Australian convertible security market. <i>Journal of International Financial Markets, Institutions and Money</i> , 32, pp.1-19.	Franking credits in convertible security is valuable for Australian market.	Focusing on the convertible preference shares (CPSs) , the authors observe market reaction to a firm's announcement of a CPS issue under an imputation system. After controlling for the non-resident firm ownership, the authors find that a firm's available franking levels is positively associated with the abnormal returns. In other words, the authors suggest that a firm's ability to attach franking credits to a convertible security appears important in Australia.	2001 to 2010	Value franking credits.
Feuerherdt, C., Gray, S. and Hall, J., 2010. The value of imputation tax credits on Australian hybrid securities. <i>International review of finance</i> , 10(3), pp.365-401.	The price-setting investor in the Australian market is a foreign investor who places no value on franking credits.	This paper aims to estimate the value of franking credits that are attached to dividends from hybrid securities. The authors find no evidence that mean dividend drop-off ratios are greater than one for samples of ordinary shares, reset preference shares (RPS) and convertible preference shares (CPS) over three separate time periods . The authors argue that the security prices are set by a marginal investor who does not value franking credits (i.e., overseas marginal investor). Further, the authors argue that even if a theory were proposed in which security prices were set by the average investor base, the empirical result would be unchanged.	1995 to 2002	Do not value franking credits.
Gray, 2008. The impact of franking credits on the cost of capital of Australian firms. <i>SFG Consulting</i> .	The most recent, up-to-date and comprehensive data set is employed in this study and the standard dividend drop-off method produces an estimate of the value of	This paper focuses on the estimation of theta (i.e., the value to investors of a franking credit at the time they receive it) from market data. There are some key points raised by the author: 1. All WACC parameters, including theta, should be estimated using appropriate market data;	1998 to 2006	Value franking credit.

Paper details	Key ideas	Description	Period Examined	Investors Reaction
	theta in the range of 0.2 to 0.35, with an average estimate of 0.28.	<ol style="list-style-type: none"> 2. Redemption rates are not empirical market data and are consequently not relevant to the estimation of theta; 3. Empirical estimates of theta come from the analysis of dividend drop-offs and simultaneous security prices; 4. A comprehensive data set should be used to estimate the value of theta and there is no reason to exclude pre-2000 data; 5. The whole empirical result should be used, not half of it; 6. The correct interpretation of the empirical estimates is a lower value of theta (and consequently gamma); 7. The most recent empirical estimates of theta (and consequently gamma) are lower than 0.5. 		
Gray, Hall, and Costello, 2011. Dividend drop-off estimate of theta. <i>SFG Consulting</i> .	The appropriate estimate of theta from the dividend drop-off analysis is 0.35.	The report outlines the methodology used to estimate the dividend drop-off, which takes into account factors such as market expectations, the dividend yield, and the historical stock price performance. Based on the analysis, the authors estimate that the dividend drop-off will be approximately 15 cents per share, or around 4% of the pre-dividend share price. The authors also find that the appropriate estimate of theta from the dividend drop-off analysis is 0.35 and that this estimate is paired with an estimate of the value of cash dividends in the range of 0.85 to 0.90.	2000 to 2010	Value franking credit.
Hathaway, N. and Officer, R.R., 2004. The value of imputation tax credits. <i>Capital Research</i> .	Among the distributed franking credit, not all of them are redeemed by taxable investors.	Looking at the Australian entities, the authors explained that there are three milestones in the life of imputation credits: (1) They are created when company tax is paid; (2) They are distributed when franked dividends are paid to shareholders; and (3) They are redeemed when shareholders lodge their personal tax claims. In this study, the authors focus on two factors: (1) how many credits are issued to shareholders (<i>access</i>); and (2) how many of these distributed credits are redeemed by shareholders (<i>utilisation</i>). The authors find that over the period 1987/1988 to 1999/2002, 71% of company tax payments have been distributed as imputation credits (<i>access factor</i>) and 40-50% of the distributed credits are redeemed by taxable investors (<i>utilisation factor</i>).	1987 to 2002	N/A
Heaney, R., 2010. Dividend imputation in Australia: The value of franking credit balances. School of	The identity of marginal investors influences the association between	This study provides a detailed discussion on Australia's dividend imputation system and whether marginal shareholders value the franking credit. Analysing the sample period of 2001 to 2006, the author split companies into small companies (not in the top 100 companies) versus large companies (in the top	2001 to 2006	Mixed (Valued by marginal shareholders)

Paper details	Key ideas	Description	Period Examined	Investors Reaction
Economics, Finance and Marketing, RMIT University. (working paper)	franking credit and a company's share price.	100 companies). The author finds that franking credits are valuable to the marginal shareholder in smaller companies but not to marginal shareholders in larger companies . The author links the findings to two tax-based groups of companies: (1) Larger companies are most likely to have non-resident marginal shareholders, who have limited access to franking credit benefits, and their share prices will not reflect the effect of franking credits; and (2) Smaller companies are more likely to have Australian resident shareholders, who are benefited from the franking credits, and their share prices will reflect the value of franking credits. Further, the author finds that larger companies are more likely to accumulate the franking credit balances over time while smaller companies with concentrated shareholdings are less likely to accumulate franking credit balances .		in the small companies; Not valued by marginal shareholders in the larger companies).
Heaney, R.A., 2011. The Existence of Tax Clienteles: An Australian Setting. Available at SSRN 1966835.	On average, franking credit balances are of value to the marginal shareholder across the whole market. However, there are two tax clienteles in the Australian share market that have an impact on the pricing of Australian shares.	The author argues that the current Australian dividend imputation tax legislation has split those investing in Australian shares into two clienteles, resident marginal shareholders and non-resident marginal shareholders. However, if two tax clienteles exist then similar Australian companies could be priced quite differently depending on whether the marginal shareholder is a resident or a non-resident for tax purposes. The author finds that franking credit balances are of value to the marginal shareholder on average across the whole market . While there is support for the existence of valuable franking credit balances for the small company subsample and for the segmented company subsample, this is not apparent for companies that fall within the largest 100 companies subsample or the integrated firm subsample. Thus, there is a support for the existence of two tax clienteles in the Australian share market and that these clienteles have an impact on the pricing of Australian shares.	2001 to 2006	Value franking credits.
Heaney, R., Koh, S. and Lan, Y., 2016. Australian firm characteristics and the cross-section variation in equity returns. <i>Pacific-Basin Finance Journal</i> , 37, pp.104-115.	Franking credits are valuable and valued by Australian shareholders.	This study aims to observe the explanatory power of Australian firm characteristics over expected return for a large sample of firms spanning from 1993 to 2012. The authors find firms that pay dividends earn a premium on average relative to those firms that do not pay dividends , which the authors argue as the result of dividend imputation. Thus, this premium may reflect the value of franking credits to Australians who invest in dividend paying stocks. However, the results are only documented for pre-global financial crisis (GFC) period.	1992 to 2012	Value franking credits.

Paper details	Key ideas	Description	Period Examined	Investors Reaction
Lajbcygier and Wheatley, 2012. Imputation credits and equity returns. <i>Economic Record</i> , 88(283), pp.476-494.	The authors find no evidence that the provision of imputation tax credits lowers the returns investors require on equity.	Using a range of pricing models and monthly data from July 1987 to December 2009, the authors observe whether the provision of imputation tax credits lower the returns investors require on equity. The authors argue that, in practice, the situation depends on the impact of foreign investors on equity prices because they cannot use the credits that domestic equities provide. Consistently, the authors find no evidence that the provision of imputation tax credits lowers the returns investors require on equity.	1987 to 2009	Do not value franking credits.
Le, A., Yin, X., & Zhao, J., 2022. The Capitalization Effect of Imputation Credits on Expected Stock Returns. <i>Abacus</i> .	Imputation credit yields lower subsequent expected stock returns.	This paper examines whether imputation credits affect stock returns in the Australian market. By observing the sample of the All Ordinaries Index's constituent stocks from 1997 to 2014, the authors find that higher imputation credit yield in one year leads to lower expected stock return in the following year . This provides evidence that imputation credits are valued by the market, leading to lower expected stock returns. However, the effect is weakened when stocks have higher idiosyncratic risk, larger size and greater liquidity.	1996 to 2014	Value franking credits.
Lonergan, 2001. The disappearing returns [Why dividend imputation has not reduced the cost of capital.]. <i>JASSA</i> , (1), pp.8-17.	Imputation credits are valuable to certain classes of Australian shareholders, but it is a long way from saying that imputation credits have reduced the cost of capital for the entire Australian equities market.	This paper examines whether the introduction of dividend imputation credits has reduced the cost of capital to companies. The author finds that the imputation had no impact on tax payable by Australian companies compared with the position before imputation. Individual Australian resident shareholders were substantially better off post-imputation while it had little or no effect on the major overseas investors in the Australian equity market. While the author agrees that imputation credits are valuable to certain classes of Australian shareholders, the author argues that this is a long way from saying that imputation credits have reduced the cost of capital for the entire Australian equities market.	Various	Mixed (Valued by certain classes of Australian shareholders).
McCarthy, M., 2020. Abolishing franking credit refunds: evidence from an event study (Master dissertation, University of Oxford). (working paper)	Announcement of abolishing cash refunds by Australian Labor Party does not affect change in share price	This thesis conducts an event study of the Australian Labor Party announcement that, if elected, it would abolish cash refunds provided to taxpayers with excess imputation credits. Since this policy will increase the taxation of dividends paid by domestic companies to domestic shareholders, the announcement will reduce share prices and the reduction will be larger for those companies expected to distribute more franking credits. However, the author finds no evidence that the share price over the days following the announcement is affected by the announcement.	2018 to 2019	N/A

Paper details	Key ideas	Description	Period Examined	Investors Reaction
<p>Minney, 2010. The valuation of franking credits to investors. <i>JASSA</i>, (2), pp.29-34.</p>	<p>Market values the franking credits, but the valuation is not the same across the market.</p>	<p>This paper investigates the extent to which the value of franking credits is reflected in the market price of stocks. The author finds that the market price now tends to incorporate a relatively large component of any franking credit into stock prices as market gradually moves to factor the benefits into stock prices. The increased significance of franking credits is likely to be the result of marginal investors, including superannuation funds, actively seeking these credits. While it is clear that the market assigns some value to franking credits, the valuation is below their theoretical value across the market.</p>	<p>2001 to 2009</p>	<p>Value franking credits.</p>
<p>Siau, K.W., Sault, S.J. and Warren, G.J., 2015. Are imputation credits capitalised into stock prices?. <i>Accounting & Finance</i>, 55(1), pp.241-277.</p>	<p>Imputation credits fail to lower realised returns, casting doubt over whether imputation credits are priced from long-term investors perspective.</p>	<p>The authors examine whether the existence of imputation credits influences the observed level of stock prices. The intuition is that if the marginal investor values available imputation credits, then the cost of capital will be lower and/or the cash flows recognised by the market are raised, and hence, stock prices will be higher. By using a sample of 468 publicly listed stocks over 1996 to 2011, the authors fail to find clear, unambiguous evidence that the presence of imputation credits substantially influences the level of share prices. The authors argue that estimates of the value of imputation credits generated by prior studies are mixed and subject to various shortcoming, including heavy focus on the pricing of dividend events; potential influence of traders and dividend arbitrageurs; various econometric issues; and lack of a sufficiently representative sample at times. Therefore, the authors conclude that there is little convincing evidence that imputation credits are priced from the perspective of long-term buy-and-hold investors.</p>	<p>1996-1997 and 2010-2011</p>	<p>Mixed (valued by long-term buy-and-hold investors.)</p>
<p>Swan, 2019. Investment, the corporate tax rate, and the pricing of franking credits. <i>Economic Record</i>, 95(311), pp.480-496.</p>	<p>Imputation credits are nearly fully priced within the Australian context on a full-year basis.</p>	<p>By using the Capital Asset Pricing Model (CAPM), the author assesses whether all ASX stocks with franking credits face far less systematic risk than those without franking credits. The author concludes that imputation credits are nearly fully priced within the Australian context on a full-year basis. The author criticizes that conventional studies suffer two major drawbacks: 1) They implicitly assume that there is no relationship between the systematic risk borne by investors and tax status – franking (i.e., domestic) versus non-franking (overseas investment) by Australians, and 2) one need not be concerned by the estimation efficiency loss from effectively discarding 92% of observations to focus on just the stale annual observations of the dividend and imputation credit yield that are updated each month.</p>	<p>2001 to 2013</p>	<p>N/A</p>

Paper details	Key ideas	Description	Period Examined	Investors Reaction
Truong, G., Partington, G. and Peat, M., 2008. Cost of Capital Estimation & Capital Budgeting Practice in Australia. <i>Australian Journal of Management</i> , 33(1), pp. 95 – 121.	Australian corporate practice is generally consistent with the practice of Australian price regulators, except that regulators take into account the value of imputation tax credits when computing the cost of capital.	Using a sample survey to analyse the capital-budgeting practices of Australian listed companies, the authors find that Net Present Value (NPV), Internal Rate of Return (IRR) and Payback are the most popular evaluation techniques used by companies in Australia. Discounting is typically done by using weighted average cost of capital and discount rate is reviewed regularly and is updated as conditions change. The authors also find that the Capital Asset Pricing Model (CAPM) is widely used and project analysis takes no account of the value of imputation tax credits.	2004	Does not value franking credit.
Vo, D., Gellard, B., and Mero, S., 2013, April. Estimating the market value of franking credits: Empirical evidence from Australia. In <i>Paper presented at the 2013 Australian conference of economists</i> . Murdoch University.	The estimation of market value of franking credits should be presented in a range, rather than precise estimate, of the value.	In this paper, the authors attempt to estimate the market value of franking credits using a dividend drop-off methodology. By using data from 1 July 2001 to 1 July 2012, the authors find that estimating the market value of franking credits using the dividend drop-off methodology cannot give a precise estimate for the value , which explains the large divergence and lack of consensus in the economic and financial literature. The authors suggest the use of a range for the market value of franking credits, which suggested to be between 0.35 to 0.55. However, the authors also mentioned that the most appropriate value, if needed, is 0.45.	2001 to 2012	N/A
Walker and Partington, 1999. The value of dividends: evidence from cum-dividend trading in the ex-dividend period. <i>Accounting & Finance</i> , 39(3), pp.275-296.	The value of one dollar fully-franked dividends is worth more than one dollar.	In this paper, the authors observe the market value of a dollar of fully franked dividends. By exploiting a new phenomenon in the Australian capital market, in particular the trading of shares cum-dividend during the ex-dividend period, the authors find the evidence that one dollar of fully franked dividends, after-tax effects and transaction costs, is worth significantly more than one dollar. The authors also show that the traditional measure of the ex-dividend price drop-off has a lower average value and exhibits substantially more cross-sectional variation.	1995 to 1997	Value franking credit.

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