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Aims and objectives

With an increasing emphasis on individual capability in personal financial management as well as an increased focus on consumer protection and professionalism in financial services, growing the research base for financial planning has never been more important.

The financial planning profession needs an academic platform for discourse on the issues of individual personal financial planning and wealth management, where issues of practice and policy can be debated with rigour, independence and evidence. Prior to the *Financial Planning Research Journal* (FPRJ), no journals fitted into this niche to provide a forum for dissemination of research in the specific area of personal finance and investments in the Australian context.

The context of personal finance and investments for Australia is different from the rest of the developed economies because of the presence of mandatory superannuation, a large managed funds pool, unique characteristics of Australia's investment environment as well as our demographic profile, and a strong, but increasingly pressured, social security system. Because of these factors international journals in the area of personal finance and/or investments may not suit an Australian audience. In addition, the rapid developments in regulatory and professional standards within the context of personal finance suggest there should be some interest in, and need for, independent, peer-reviewed research in this area.

The *Financial Planning Research Journal* (FPRJ) aims to publish high-quality, original, scholarly peer-reviewed articles from a wide variety of personal finance, investment and taxation disciplines. These include, but are not restricted to, economics, finance, management, accounting, marketing, taxation, behavioural finance, financial literacy, financial education and law. The issue is that they are of interest to the practice and policy of financial planning in Australia.

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Authors should submit complete papers that do not exceed 5,000 words not including the title page, abstract, tables, figures, charts, footnotes and reference list. The word count must be stated on the title page. Papers should be original works that are not published or under review at another journal.

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Authors are advised that if submitted papers are accepted for publication in FPRJ, then the authors will be required to complete a copyright assignment form and provide a 600-word synopsis of the paper for publication in ***Money & Life*** magazine.

Other submission requirements include:

- The title page should include a concise and informative title; the names and affiliations of all authors; the name, mailing address, telephone number, fax number, and email address of the author (or corresponding author, if more than one author); word count; and any acknowledgments to those who assisted the authors, in a footnote asterisked to the title.
- The second page should repeat the title so that papers may be refereed anonymously. This page should also include an abstract and up to five keywords. The text of the article should begin on the third page.
- The abstract (not more than 100 words) should highlight the paper's relevance to the area of financial planning.
- Manuscripts should be submitted in Microsoft Word format, use 1.5 spacing, A4 paper size, 11 point Arial font, 2.5 cm margins on all sides, and be left-aligned (not justified). Number all pages consecutively beginning with the title page.
- Non-English words, such as et al., ex-post, ad hoc, per capita, Zeitgeist, or au fait, should be italicised.
- Full stops and question marks should be followed by a single space.
- Tables and figures should be located at the end of the article. Make it clear where tables are to be inserted in the text, for example, (Table 1 here).
- The preferred referencing style is based on the 'AGPS Harvard referencing system'.

Detailed information about the AGPS Harvard referencing including examples can be found on the Griffith University website. Some examples of in-text and reference list elements are outlined over the page as a guide.

In-text citations

Ideas and work referenced from other sources are indicated by placing the author's surname and the date of publication in brackets. If possible, you should also give the page number. When an author has published more than one cited document in the same year, these are distinguished by adding lower case letters (a, b, c, etc.) to the year. For example, Jones (2010a) discussed the subject…

- Single author examples:

  Teachers help each student with their individual interpretation of understanding (Fetherston 2007, p.61).

  Fetherston (2007, p. 61) claims that teachers 'suggest ways of looking at the new material'.
- Two or three authors examples:

  The advantages of using proxy mode… (Kakadia & DiMambro 2004, p. 80).

  Douglas, Papadopoulos and Boutelle (2009, p. 11) dispute the claim…
- More than three authors examples:

  Industry best practice (Beer et al. 2012, p. 54) suggests that…

  Beer et al. (2012, p. 54) when discussing industry best practice…

Reference list

Place the reference list on a new page at the end of your paper and centre the heading of "References". List references alphabetically A-Z by first author's surname. List works with no author under the first significant word of the title and list multiple works by the same author from oldest to newest by date. Add a lower case letter immediately after the year for multiple works by the same author in the same year, for example, (2000a, 2000b, 2000c).

Examples:

- Book—print: Fetherston, T 2007, ***Becoming an effective teacher***, Thomson Learning, South Melbourne.
- Book chapter—print: Sherren, K 2006, 'Pillars of society: the historical context for sustainability and higher education in Australia', in W Filho & D Carpenter (eds), ***Sustainability in the Australasian university context***, Peter Lang, Frankfurt, pp. 11-32.
- Journal article—print: Leonard, V & LeBrasseur, R 2008, 'Individual assignments and academic dishonesty: exploring the conundrum', ***The Australian Educational Researcher***, vol. 35, no. 1, pp. 37-56.
- Web page: National Library of Australia 2010, ***About the National Library***, National Library of Australia, viewed 30 March 2010, <http://www.nla.gov.au>.

From the editors

The last year has presented enormous challenges for society with the global pandemic throwing markets, lives and livelihoods into chaos, sadly resulting in significant illness and death across the globe. The world of financial advice was also impacted by the obvious market turmoil, changes to business practices, managing client behaviour and working with new clients that have not been prepared for crisis situations financially. Indeed, many advisors have informally reported a spike in demand for their services over 2020. Add in the government providing early access to super, continued implementation of profession standards, changes to the roles and functions of regulators, proposed reforms to the superannuation system and macro-economic conditions such as effectively zero interest rates, low unemployment (and little wages growth), one might argue this has been an opportune time for financial advisers to demonstrate their value. Time will tell whether the response from the sector and government, the reform program, and the quality of the 'debate' that has had a positive impact in terms of promoting good consumer outcomes and/or the development of the financial advice profession and the standing it has in the community. No doubt the research community will explore such things in the future.

The *Financial Planning Research Journal*, should play a role in this debate and discussion in relation to the various issues impacting on the sector. With this in mind, we are pleased to have finalised the long-awaited next edition of the journal. COVID-19 has delayed this edition as the researchers (and higher education more broadly) worked through the crisis also. As a result of this we began placing final versions of papers for the edition on our website last year. This was well received and thus we will continue to do this in future.

In this context, we present Volume 6, Issue 1 of the *Financial Planning Research Journal*, the journal of the Financial Planning Association of Australia.This issue contains four articles from domestic and international contributors ranging in scope from investment risk in defined contribution plans, predicting risk tolerance, impacts of the Hayne Royal Commission and the proposals for a single disciplinary body for financial advisers – all topical issues.

The first article in this edition of the *Financial Planning Research Journal* from Michael Drew explores investment risk for defined contribution superannuation fund members and the impact that COVID-19 has also exposed these members to. The paper explores the impact of these forces, together with lower contribution rates, the path of returns and the risk of a lost generation in the superannuation system.

The second article in this issue by John Grable *et al* examines the predictability of financial risk tolerance and risk-taking behaviour. The paper focuses on the validity of a variety of risk tolerance tests and questionnaires, finding that those based on psychometric theory offer superior predictive ability in terms of financial risk-taking in contrast to those based on just economic theory.

The third paper by Angelique McInnes explores the issue of the proposed financial adviser Single Disciplinary Body. Building on prior work on licensing regimes, the paper argues in favour of the proposed reforms and encourages policy makers to strive for the development of a conflict free profession that will allow for a subsequent reduction in compliance requirements in relation to

regulatory burden (cost and accessibility).

The final paper in this edition by Mohammad Abu-Taleb *et al* examines the changes in operating models of financial planning businesses post the Hayne Royal Commission. They conclude there is likely to be unintended consequences of these reforms, particularly on small advice firms, and encourage financial advice businesses to strive for transformational growth.

We would once again like to thank the *Financial Planning Research Journal* editorial board, our reviewers and the production team for their contributions to this edition. The time and effort required to deliver a journal edition is significant and without all your efforts thejournal simply would not happen. Particular thanks to Joy Lin and Alayne Campbell.

We hope you enjoy this issue of the *Financial Planning Research Journal* and look forward to bringing the next edition to you, which will be a special issue on financial advice during COVID19.

Dr Di Johnson and Professor Mark Brimble

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COVID-19, INVESTMENT RISK, AND RETIREMENT SECURITY

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ABSTRACT

Investment risk and retirement income security are constant bedfellows. This paper provides estimates of investment risk for defined contribution (DC) plan members to illustrate the importance of compounding (both positive and negative) during the accumulation phase of retirement saving *and* associated retirement income during the decumulation phase. In addition to workers being exposed to investment risk via their DC plan, older workers face significant COVID-19 related headwinds in the labour market. The cresting of investment risk with the current pandemic may create a lost generation of those approaching retirement (and recently retired) through lower contribution rates and an unfavourable path of returns.

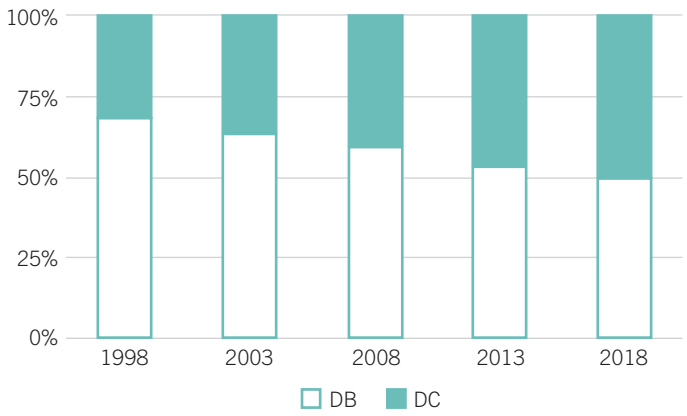
Introduction

The financial press is replete with stories regarding the exodus of workers moving into retirement. In the United States (US) alone, 10,000 baby boomers reach retirement age (65 years of age) each day and will do so for at least another decade.[1] Many workers retire on a Friday, with their metaphorical gold watch and accompanying well wishes, only to be greeted with the stark realisation on monetising their retirement nest-egg on Monday morning that it only replaces a fraction of the return (wages and benefits) that they had previously received from their human capital whilst in employment.

The system that was once in place to provide workers with certainty in retirement—the defined benefit (DB) plan—has collapsed (or is collapsing) around the world. The passing of the Revenue Act of 1978 by the US Congress was the start of what some have described as the 'accidental retirement revolution'. [2] Section 401(k) of the Act marked the statutory creation of the defined contribution (DC) plan and was the catalyst for a substitution effect (specifically, corporate DB pooled plans being replaced by individual DC account-based plans) that has forever changed the global pension system. Looking forward, it is likely that DB plans will be extinct within a generation, replaced entirely by DC plans as the default retirement savings vehicle for all.

It can be argued that the changes in the global pension system that have occurred since the 1970s have resulted in the single largest transfer of financial risk from the corporate sector to households in human history. The closure of DB plans has decoupled the pension liability of workers from the corporation, recoupling it to the individual. As illustrated in Figure 1, the extent of the disruption that has occurred is evidenced by the fact that DC pension assets globally exceeded that of DB assets for the first time in 2018 (Willis Towers Watson 2019).[3] Within fifty years, a relatively obscure statutory creation for supplementing traditional DB-like pension income, the humble DC Plan, now represents the majority of retirement savings for workers around the world.[4]

Figure 1: Proportion of defined benefit and defined contribution assets through time



Source: Willis Towers Watson (2019)

[1] For further background on this trend, see https://www.bloomberg.com/news/articles/2019-04-11/managing-baby-boomer-retirement-when-you-re-not-allowed-to-ask.

[2] The description, 'accidental retirement revolution' has been used in the financial press, see https://www.cnbc.com/2017/01/04/a-brief-history-of-the-401k-which-changed-how-americans-retire.html.

[3] As Roger Urwin, Global Head of Investment Content at the Thinking Ahead Institute, observed: *'… we've reached a pivotal moment in the DC pension assets growth story, as they exceed DB pension assets for the first time, after a slow and steady grind over 40 years'* (quoted in Willis Towers Watson 2019).

[4] In countries such as Australia, some 86% of total pension assets are in DC funds (Willis Towers Watson 2019).

The merits (or otherwise) of going from pooled vehicles (such as DB Plans) to individual account-based DC plans continue to be debated today. Clark (2006) observes that some of the issues with DC plans are, *'… too often located "offstage" shrouded behind curtains of ignorance of its principal imperatives and modes of practice'* (p. 84). Even those leading practitioners on the metaphorical pension 'stage', such as Roger Urwin, have cautioned that, *'… despite its long history, DC is still weakly designed, untidily executed, and poorly appreciated'* (quoted in Willis Towers Watson 2019).[5] The USD 40+ trillion question is: are DC plans up to the challenge of providing retirement security for workers? [6]

Defined contributions plans

While DB plans are characterised by their contractual obligation to members, DC plans offer members a market-related payment. DC plans have resulted in the pension liability being coupled with the worker, meaning that the individual holds the risk. As such, managing investment risk is critical to the success (or otherwise) of DC plans as a retirement savings product. Exley (1997) reminds us that, *'the benefits (from a DC plan) depend only on the returns achieved on contributions put into the scheme and no guarantee or underpin is provided by the company'* (p. 842).[7] To operationalise these issues, a stylised investment risk control process in a typical DC Plan is provided in Figure 2.

Figure 2: A stylised investment risk management process for DC plans

[5] Another wrinkle for individuals to manage as they are coupled with their pension liability in DC plans is that the liability itself is, *'not reliably quantifiable, not legally tradeable, not cheaply retireable, and not easily transferable'* (Clark & Monk 2006, p. 43). As a result, Monk (2009) explains that it has, *'proved extremely difficult to create a portfolio that perfectly matched the assets to the liabilities'* (p. 873).

[6] Willis Towers Watson (2019) estimate that the largest 22 global pension markets in the world had USD 40,173 billion in pension assets.

[7] Furthermore, individual decisions regarding the investment risk appetite of workers can be solved using some form of utility of wealth function (Poterba et al. 2007).

Financial economic theory provides a set of *a priori* expectations regarding the steps in the risk management process outlined in Figure 2:

- Owner. The owner of the risk is considered rational and self-seeking; in the case of the DC plan this is the member. Trustees (or sponsors) of DC plans hold a fiduciary duty to the fund members. Members seek perfect alignment to their agent, the fiduciary (Jensen & Meckling 1976).
- Identify. Investment risk has been identified as the key driver of benefits; where returns are compensation for the level of systematic risk borne by the investor (Sharpe 1964).
- Evaluate. Investment risk is probabilistic in nature and evaluated using a *Gaussian*-like asymptotic distribution; where standard deviation (or, as commonly termed by practitioners, volatility) is a meaningful proxy for investment risk (Fama 1965).
- Treat. The control for investment risk is portfolio theory; where a less than unitary correlation between asset classes allows for optimal portfolio selection (Markowitz 1952) and the accommodation of liquidity preferences (Tobin 1958).
- Monitoring and review. Finally, the superiority (or otherwise) of the investment risk taken by the portfolio selection process can be monitored and reviewed on a per unit of risk basis using received portfolio evaluation techniques (Sharpe 1966).

With investment risk controlled by the DC plan, the role of the fiduciary is to, on behalf of the worker, follow this continuous risk management process through to their retirement date (Drew & Walk 2019). At this point the individual's stock of human capital is largely depleted and their investment capital (via their DC plan) can provide an adequate real income stream for life (Merton 1969).

Baseline estimates of investment risk

Financial economics views the investment problem facing the members of DC plans as a probabilistic one, a complex balancing act between investment risk and reward. To illustrate this balancing act in a practical way, we report some stylised facts about investment risk in the DC plan context from a basic stochastic model. To operationalise our model, we take a hypothetical DC plan member (named 'Dawn') newly entering the workforce at 25 years of age and make the following assumptions:

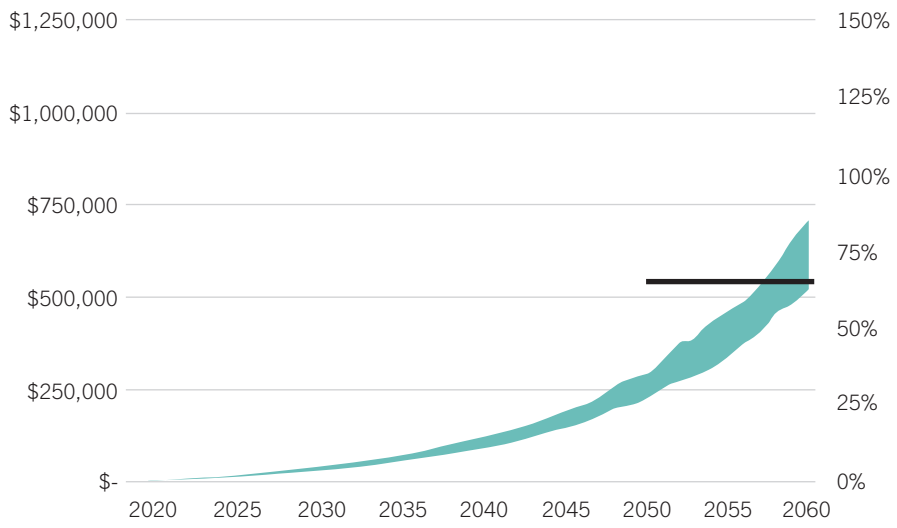
- starting base salary is $40,000 p.a.;
- the starting DC plan balance is zero;
- the retirement savings contribution is set at six per cent of salary (and is in addition to her base salary);
- due to productivity gains, remuneration growth slightly exceeds inflation, with a real base salary increase of 0.5% p.a.;
- our DC plan member works for forty years until the statutory retirement age of 65 years and has no career breaks;
- contributions are made to the DC plan annually in arrears;
- markets are informationally efficient, and there are no taxes and charges (Fama 1970);
- only two parameters are required to describe investment risk: an expected return (net of fees)

of 7.5 per cent annually (mean), with an annual expected volatility (standard deviation) of 3.1 per cent; and

- investment risk follows an independent and identically distributed ('i.i.d') normal model (Campbell, Lo & MacKinlay 1996) and 10,000 paths are simulated.

Parameterising our basic model in this way resulted in Dawn achieving a median retirement wealth ratio ('RWR') of around 11 times her final salary at 65 years of age.[8] At the date of retirement, we assume that Dawn takes the entirety of her accumulated lump sum in her DC plan and purchases an immediate term annuity. For peace of mind, Dawn's annuity has a term of 25 years (hence, her life expectancy is set at 90 years of age), and the prevailing inflation-linked payment on the term annuity is 3.0% per annum. Without any other retirement income sources (private and/or public) under this scenario, there is a greater than 80% probability (a four out of five chance) that Dawn will replace (at least) two-thirds of her pre-retirement income through to age 90. The results of the simulation are presented in Figure 3, with terminal wealth on the primary *y*-axis, and income replacement (percentage) on the secondary *y*-axis.

Figure 3: Range of best and worst paths (7.5%, 3.1%) [9]



The simulated worst and best average annual return paths are also reported to provide some sense of the distributional properties of investment risk.[10] This allows a set of controls that can be developed to reflect the DC plan member's appetite for this risk.

[8] We follow the approach of Basu and Drew (2009), where the RWR is expressed as a multiple of terminal wealth (accumulated balance in the DC plan) at time *t* to income (final salary) at *t*; where *t* is assumed to be the retirement date (at the age of 65 years).

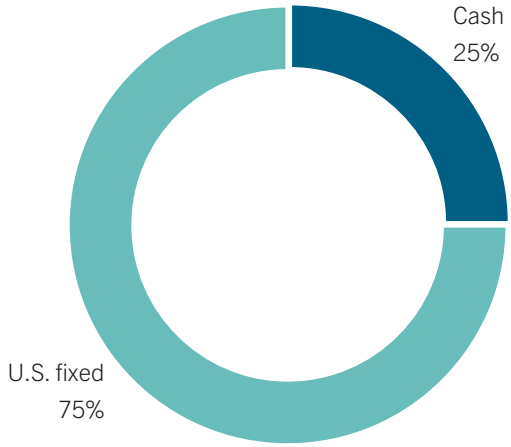
[9] Where 'best' is defined at the 90th percentile highest average annual simulated return over forty years, and 'worst' is the bottom 10th percentile.

[10] The range of simulated paths (7.5%, 3.1%) produced a relatively narrow range of outcomes, whereby the worst (best) paths would replace around 60% (85%) of pre-retirement salary to age 90.

Capital market expectations

Our illustrative example of a DC plan holding a portfolio with an annual expected return of 7.5% and standard deviation of 3.1% was not selected at random. This is exactly the investment problem that a DC plan fiduciary faced in the US some thirty years ago. The asset consulting firm, Callan Associates (2016; 2019), have reported that (using their proprietary capital market engine) an investor in 1989, wishing to achieve an expected return of 7.5% per annum, would have a portfolio with an expected annual volatility of 3.1%.[11,12] In 1989, Callan Associates' (2019) return expectations for cash and US fixed income were 6.80% and 9.35% respectively. As such, this portfolio held defensive assets only (25% cash and 75% US fixed interest), with no growth assets (such as equities and/or alternatives) required to earn a 7.5% expected return.

Figure 4: Capital markets expectations, 1989 (7.5%, 3.1%)



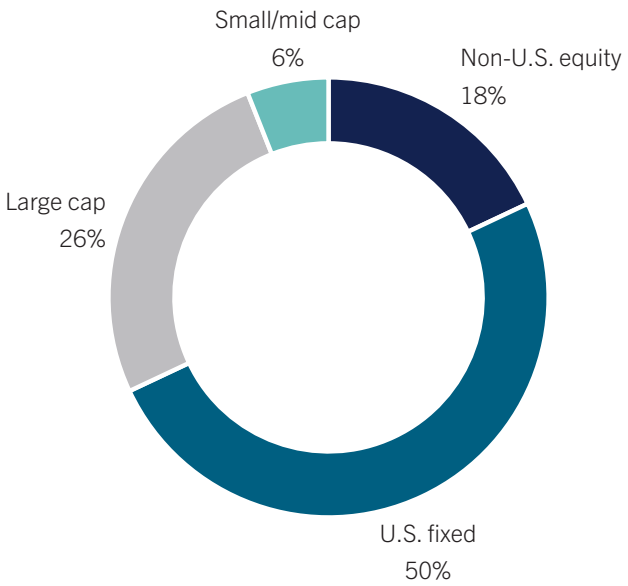
As capital market history has shown, changes to investment risk have persisted for decades, and could span a working life (and subsequent retirement years). Illustrative of this point is how radically capital market expectations have changed since the late 1980s to today. Data from Callan Associates (2019) shows that a US-based fiduciary seeking an annualised return of 7.5% per annum in 2004 (some fifteen years later than our original 1989 example) would need to hold a very different portfolio. The 2004 portfolio consisted of equal portions of defensive (50% US fixed interest) and growth assets (US large cap 26%, non-US equity 18%, and US small/mid-cap 6%), with an expected standard deviation of 8.9% (three times larger than the expected annualised volatility for the same expected return in 1989).

[11] We consider this forward-looking approach to be consistent with the original intention of the CAPM, that is, a consideration of the expected return that compensates for that risk, unlike the typical *ex-post* market model that dominates the pricing of investment risk by practitioners.

[12] This series of papers and updates by Callan Associates (2016; 2019) have received widespread coverage in the financial press, see https://www.wsj.com/articles/pension-funds-pile-on-the-risk-just-to-get-a-reasonable-return-1464713013

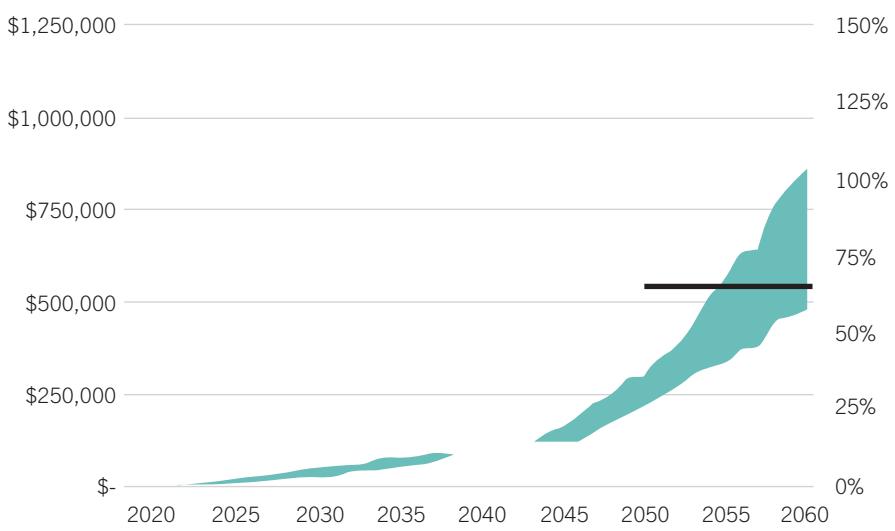
The portfolio allocation from 2004 is illustrated below.

Figure 5: Capital markets expectations, 2004 (7.5%, 8.9%)



Applying the rule of *ceteris paribus*, we return to our basic stochastic model and simulate terminal wealth outcomes for our same hypothetical DC plan member, Dawn. The goal remains that of replacing two-thirds of her pre-retirement income to age 90. Therefore, the only change in the model is that volatility has increased from an expected 3.1% in 1989 to 8.9% in 2004.

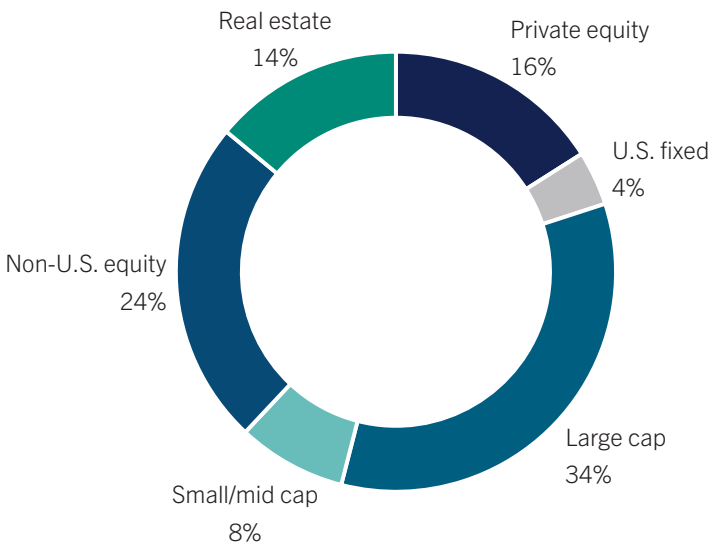
Figure 6: Range of best and worst paths (7.5%, 8.9%)



As expected, the range of potential retirement income levels at age 65 has become wider. The best paths allowed Dawn to replace all of her pre-retirement income to 90 years of age. In contrast, the worst paths replaced just over half of Dawn's pre-retirement income. Under this set of risk and reward characteristics, there is around a two-in-three probability of replacing at least two-thirds of Dawn's pre-retirement salary through to age 90.

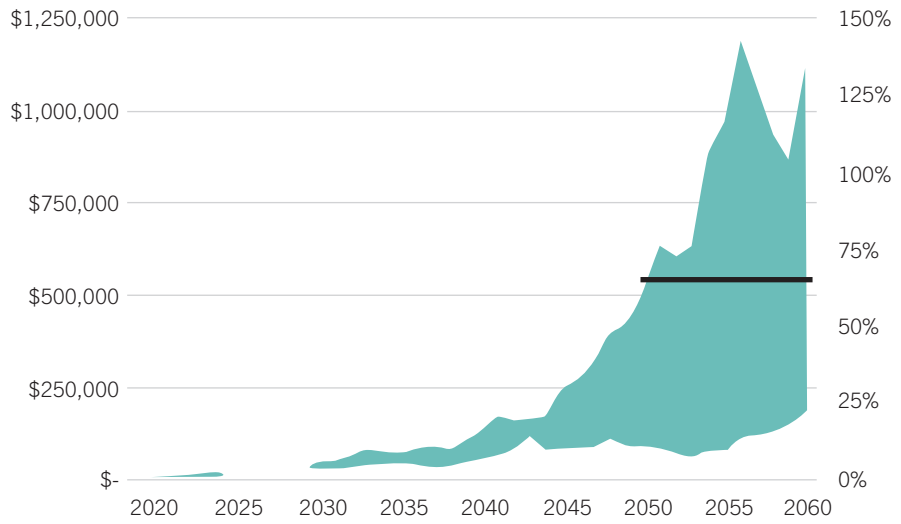
The contemporary story on investment risk faced by individual DC plan members is nothing short of alarming. In 2019, Callan Associates (2019) advised that, for the US setting, a fiduciary seeking an annual expected return of 7.5% would have to move to a portfolio allocation that was 4% defensive (US fixed interest 4%) and 96% growth (US large cap 34%, non-US equity 24%, and US small/mid-cap 8%) of which 30% of the growth allocation was to alternative assets (such as Private equity 16%, real estate 14%).

Figure 7: Capital markets expectations, 2019 (7.5%, 18.0%)



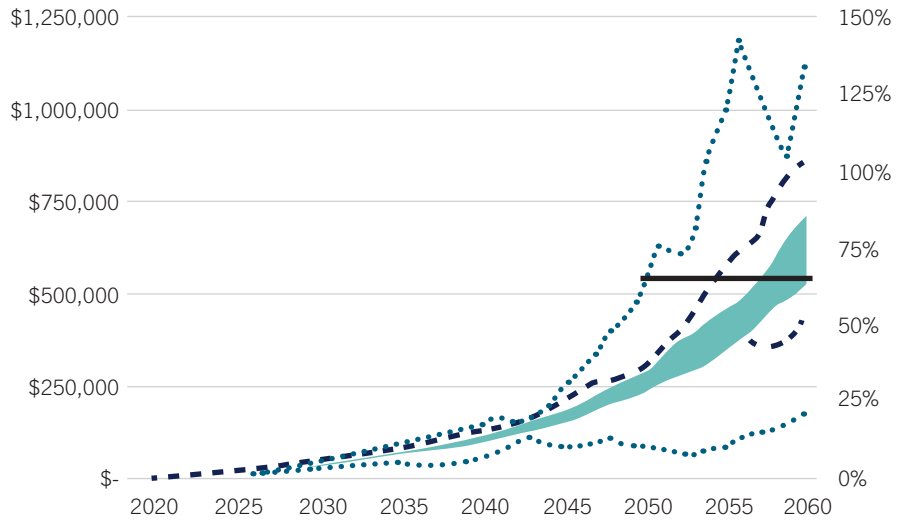
Again, *ceteris paribus*, portfolio volatility today for those seeking an expected return of 7.5% per annum is expected to be 18.0%. If, and acknowledging that it is a big 'if', this level of investment risk continued over Dawn's working life, the best paths actually replaced more than her pre-retirement salary (for some paths, an income replacement of 130% through to age 90 were simulated). However, at the other end of the spectrum, if Dawn experienced bottom decile-like returns, the level of income replacement would only be 20% of her pre-retirement salary. In the space of thirty years, the probability of replacing two-thirds of our hypothetical DC plan member's pre-retirement salary through to age 90 has gone from over 80% in 1989, to a two-thirds chance in 2004, to the odds of tossing a fair coin today. These stylised facts demonstrate the impact that the interplay of path dependency, sequencing risk, and the portfolio size effect (Basu & Drew 2009) can have on DC plan outcomes.

Figure 8: Range of best and worst paths (7.5%, 18.0%)



This one change—heightened volatility—is illustrative of how events such as COVID-19 can put the retirement security aspirations of workers in peril. Same worker, same human capital, same level of contributions, same targeted return, same immunising asset, seeking the same retirement income objective. The only variable that has changed in our basic model is that the expected investment risk has increased six-fold from around 3% in 1989 to 18% in 2019 (Callan Associates 2019).[13]

Figure 9: Range of best and worst paths (7.5%, σ = 3.1%, 8.9%, and, 18.0%)



[13] It is important to note that we are not debating the accuracy (or otherwise) of proprietary capital market projections; rather, this form of analysis allows us to illustrate the changes that have occurred in the statistical properties of investment risk facing DC plan members over the last three decades.

The stylised facts presented are nothing more than that—stylised—and it is entirely appropriate at this juncture to offer a *mea culpa*, of sorts, regarding the (many) simplifying assumptions in our model. Good returns have been accompanied by largely benign investment risk, save a few crises (Kindleberger & Aliber 2015) over the last fifty years. These generally good long-run investment returns (until the recent impacts of a global pandemic) have perhaps been able to hide from full view the emerging vulnerabilities that a DC plan member faces through their life course. Our stylised facts, for all their shortcomings, demonstrate the heavy expectation that is placed on investment risk to achieve retirement security. The price of investment risk has changed so dramatically, particularly over the last thirty years, that the questions we face today are confronting:

- Would you invest your retirement savings in a 4% defensive/96% growth option, with 18% volatility, for an expected annual return of 7.5% per annum?; and
- Do you think of your retirement savings as a 'game of chance', where the probability of 'winning' your retirement security mirrors the odds of tossing 'tails' on a fair coin?[14]

COVID-19 and retirement security

The analysis presented shows the challenges of investment risk facing DC plan members. From the start of 2020, we have seen the devastating impacts of the COVID-19 global pandemic throughout the world. At the time of writing, we are now witnessing COVID-19 shift from a public health crisis to a looming retirement security issue for many workers approaching retirement (and those in retirement).

In the Australian context, our research shows the average worker accumulates around half of their terminal (at-retirement) superannuation balance during the last decade of their working life (Basu & Drew 2009). As such, this outcome is largely driven by received returns on existing retirement savings and the decision to make additional voluntary superannuation contributions in the lead-up to retirement. The importance of returns earned during this last decade of working life on members' superannuation savings cannot be understated. Those workers approaching their retirement date (that is, when retirement savings reach their zenith) face an increasing level of what is known as 'sequencing risk' or sequence of returns risk (Drew, Walk & West 2015).

This means the impact of falling investment markets is much greater for those over 50 (when compared to a 25-year-old) because they have a larger amount of money at risk and the order (or sequence) of returns an investor has in the last decade of their working life is considerably more important than the average return received. By way of example, a 25-year-old today, with a small superannuation balance, can withstand the current COVID-19 related market volatility as they don't need to access their retirement savings for another 40 years. In short, the dollar value of decline for a 25-year-old is relatively small when compared to say, a 55-year-old.

Many folks nearing retirement (or currently retired) were just emerging from the drawdown of the GFC and are now facing a new shock in the form of COVID-19. Like the GFC, COVID-19 has heightened volatility in investment markets. However, the loss of employment (either temporary or permanent) and the Australian Government's decision to allow, for the first time, early access to superannuation savings (via the Early Release of Superannuation 'ERS' scheme) have also had a number of consequences for retirement security.[15] This has twin impacts on retirement security—

[14] Not unexpectedly, the answer we have received anecdotally to both of these questions has been a resounding and unequivocal, 'no'.

[15] For full policy details, see https://www.ato.gov.au/individuals/super/in-detail/withdrawing-and-using-your-super/covid-19-early-release-of-super/

both a decrease (or cessation) of contributions in the final decade of working life, and the potential for up to $20,000 being withdrawn by members via the ERS.

On the matter of voluntary superannuation contributions, an unexpected loss of employment during the final decade prior to retirement can be devastating. Given the challenges that older Australians face in the labour market, there is a rising concern regarding how, or perhaps if, this sector of the community will return to work over the coming year (Drew & Drew 2005). This not only affects the standard of living for those in their 50s and 60s today but will curtail their consumption in retirement.

Conclusion

Returning to our hypothetical member, Dawn—the simple analysis presented in this paper highlights the exposure that workers have to investment risk via their DC plan. In a system without pooling (a key advantage of DB plans), the importance of compounding (both positive and negative) during the accumulation phase of retirement saving *and* the income (or decumulation phase) is a risk that requires careful control for those in DC plans (Drew, Walk & West 2015; 2016). In addition to this risk, older workers face the significant COVID-19 related headwinds in the labour market. There is much work to do to ensure that a generation of near-retirees can repair their household balance sheets from the impacts of the global pandemic. The risk now is the current COVID-19 health crisis may create a lost generation of those approaching retirement and recently retired.

The results provided in this paper suggest that the balancing act between investment risk and reward is akin to walking a tightrope, with the public pension acting as a form of safety net. The COVID-19 investment landscape has presented DC plan members with a wicked problem. Cash and fixed interest returns today are expected to deliver zero (and perhaps negative on a real return basis), with risky assets bringing considerable investment risk to the DC plan member's portfolio as the price of seeking higher expected returns. These are non-trivial decisions facing the members of DC plans and their fiduciary boards. Responding to these challenges will involve a range of agency, behavioural, demographic, economic, environmental, gerontological, investment, labour, organisational, public health, and regulatory responses. For the retirement security of many workers, including Dawn, we can, and we must, do better.

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PREDICTING FINANCIAL RISK TOLERANCE AND RISK-TAKING BEHAVIOUR: A COMPARISON OF QUESTIONNAIRES AND TESTS

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ABSTRACT

The purpose of this study was to compare and contrast the concurrent, convergent, and predictive validity of a variety of risk tolerance tests and questionnaires. The tested measures represent tests and scales derived from economic and psychometric theory. It was determined that tests based on economic theory had similar predictive power, implying that economic measures provided some degree of convergent validity across measures. Only the psychometric risk tolerance measure, however, was found to be correlated to other indicators of risk tolerance and risk-taking. Results from this exploratory study suggest that a questionnaire developed using psychometric theory appears to offer superior predictive insight into financial risk-taking, at least when compared across the measurement techniques examined in this study.

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Introduction

Financial planners and advisors are tasked with accurately assessing the risk tolerance of clients before making investment or financial recommendations or implementing recommendations.[1] Although numerous assessment approaches are used in practice, nearly all financial planners and advisors use some type of risk tolerance questionnaire or test (Moore 2018). Questionnaires and tests can be generally classified as based either on economic or psychometric theory.

Those who advocate the use of measures derived from economic theory assert that 'the only rigorous theoretical analyses relating risk tolerance to optimal portfolios are based on the economic concept of risk aversion' (Hanna & Lindamood 2004, p. 27), which is premised on the notion of expected utility. In practice, economic theory approaches estimate risk aversion (the inverse of which is risk tolerance) using an investor's responses to income, asset, or other gamble/lottery choice questions (Barsky et al. 1997) in an effort to derive an approximation of a person's revealed-preference (Frey et al. 2017). Regardless of the type of question asked, or the manner in which a choice scenario is framed, nearly all economic theory measures rely on choice scenarios that require a person to choose between two options—one with a guaranteed outcome and the other with a 50% chance of success and a 50% chance of failure. Barsky et al. (1997) argued that if enough gamble/lottery questions are asked, it is possible to obtain an estimate of a person's gamma coefficient, which can be used to construct a utility function where U is the utility function and c is permanent consumption or wealth. The risk aversion coefficient (λ) derived from a revealed-preference test represents the rate at which an individual will give up a higher expected income (or other asset) in exchange for less uncertainty. Theoretically, '[an] expected utility maximizer will choose the 50-50 gamble of doubling lifetime income as opposed to having it fall by the fraction $1 - \lambda$ if $\frac{1}{2}U(2c) + \frac{1}{2}U(\lambda c) > U(c)$' (Barsky et al. 1997, p. 540).[2]

Estimates of risk aversion (risk tolerance) developed from measures based on economic theory—referred to as tests of revealed-preference—are thought to provide insights into the way people make risky choices. Those with low risk aversion (high risk tolerance) are known to be more likely to engage in sensation seeking activities like smoking, drinking heavily, and using illicit drugs. There is some evidence to suggest that low risk aversion is also associated with being self-employed and holding risky financial assets.

The economic-based approach to measuring risk aversion (risk tolerance) is not without its critics (see Dow & Werlang 1992). Hanna, Gutter, and Fan (2001) noted that some revealed-preference tests fail to provide enough context to capture a person's true level of risk tolerance. Barsky et al. (1997) noted that the question response options imbedded in 50-50 gamble/lottery scenarios may be too complex for many people to answer accurately. In effect, choice scenarios may lead to random guessing.

[1] In the United States, the Securities and Exchange Commission recommends and FINRA requires financial advisors who provide investment advice to retail clients to evaluate each client's risk tolerance prior to making an investment recommendation. The Certified Financial Planner Board of Standards, Inc. also mandates that a 'CFP profession must act with the care, skill, prudence, and diligence that a prudent professional would exercise in light of the client's goals, *risk tolerance*, objectives, and financial and personal circumstances (2018, p. 2). In Australia, the Corporations Act 2001 places strict requirements on financial advisors to 'know your client' (KYC). KYC rules require that clients receive appropriate advice and that only suitable products are recommended. Imbedded in KYC rules is a requirement to assess a client's risk appetite and risk tolerance, with a client's risk tolerance guiding the selection of recommended products and services (ASIC 2011; ASIC 2017).

[2] See Hanna and Lindamood (2004) for a complete description of the way in which constant relative risk aversion can be calculated.

Outside of economics, psychologists and behaviorists frame the measurement of risk attitudes differently. Instead of relying on choice scenarios in which the probabilities of choice outcomes are always based on predetermined probability estimates, psychometricians generally assume that choices are based on subjective probability estimates made by individuals at the time a decision is made. This assumption has led to the development of robust questionnaires based primarily on classical test theory. Outcome scores from such questionnaires are sometimes referred to as propensity measures (Frey et al. 2017).[3] Classical test theory is premised on the notions of reliability and validity. A robust questionnaire based on psychometric principles is one in which random error is minimized across questions. To do this, a test developer focuses on asking appropriate questions that help uncover a person's attitudes and future behavior. If developed properly, questionnaire items can be combined into a preference scale or index (Faff, Hallahan & McKenzie 2009).

Economists, behaviorists, and commercial software testing firms typically adopt one testing tradition when developing measurement tools. There is little agreement among proponents of one approach or another regarding test methodologies. Each assessment procedure offers users advantages and disadvantages. For example, the revealed-preference approach has the advantage that scores can be mapped to a mean variance optimized portfolio recommendation. A disadvantage, however, is that the questions used to estimate risk tolerance may not be valid with some test takers or populations. For example, traditional risk tolerance measurement techniques require a test taker to exhibit relatively high cognitive skills (Charness, Gneezy & Imas 2013). The psychometric approach has the advantage of providing users with statistically robust measures of reliability and validity. A disadvantage is that it is difficult to map psychometric risk tolerance scores to a portfolio or other financial recommendation.

To date, there have been few attempts to compare assessment methods. This study was undertaken to address this gap in the literature by addressing the following questions: (1) do measures based on economic theory and psychometric classical test theory exhibit concurrent validity;[4] (2) do measures based on economic theory and psychometric classical test theory exhibit convergent validity;[5] (3) do measures based on economic theory and psychometric classical test theory exhibit predictive validity; and (4) which measurement approach (i.e., revealed-preference testing or psychometric scaling) provides the clearest insight into investor risk-taking tendencies? As will be shown in this paper, while both approaches offer unique advantages and disadvantages, scores from a psychometric risk tolerance measure appear to be more valid in describing financial risk-taking behavior. The remainder of this paper reviews relevant literature associated with the research questions. This is followed by an explanation of the research methodology, with a special emphasis on describing the different measures of financial risk tolerance evaluated in the study. The paper concludes with a report of findings and an applied discussion of results.

[3] Other psychometric theories can be used to frame questions, including item response theory (IRT) and Rasch modelling.

[4] Concurrent validity refers to the degree to which a measure 'agrees with another contemporaneous measure of the same concept' (Remler & Van Ryzin 2015, p. 110).

[5] Convergent validity is measured as a correlation between a measure and an outcome one would expect the measure to be related to in practice (Remler & Van Ryzin 2015).

Literature review

Among test developers, two traditions dominate the way financial risk tolerance assessments are created: measures of revealed-preference and psychometric assessments. Economists tend to utilize revealed-preference assessment techniques, whereas psychologists and those who construct tests using classical test theory utilize psychometric tools (Frey et al. 2017). Both revealed-preference and psychometric approaches stand in contrast to the use of stated preferences (see Adamowicz, Louviere & Williams 1994), which is a measurement technique often employed by financial planning practitioners when attempting to measure the extent to which someone is willing to take a financial risk in which the outcomes of the risk are potentially negative and unknown.[6]

The methodology used by a particular test developer tends to be driven by the person's academic training. In order to understand the test development process in the context of financial risk tolerance, it is first useful to review the difference between risk and uncertainty because these two constructs often shape the manner in which tests are developed. According to Knight (1921) and described by Weber and Johnson (2009), '*risk* refers to situations where the decision-maker knows with certainty the mathematical probabilities of possible outcomes of choice alternatives. *Uncertainty* refers to situations where the likelihood of different outcomes cannot be expressed with any mathematical precision' (p. 132). Those who advocate the use of revealed-preferences argue that 'uncertain situations can be reduced to risky situations' (Weber & Johnson 2009, p. 132). Ellsberg (1961) found fault with this argument by noting that people exhibit what he called ambiguity aversion, which makes it difficult to simplify uncertainty into a risk analysis.

The revealed-preference tradition, however, offers several unique advantages, not the least of which is the notion that revealed-preferences are easy to identify. Within the domain of financial risk tolerance, a person's revealed-preference can be assessed by asking a test taker to choose between and among choice alternatives where monetary incentives (real or hypothetical) are provided (Eckel & Grossman 2008). The notion underlying this assessment approach is that what people say they will or will not do is often different from the choices made when faced with a choice that involves relatively little variance in monetary outcomes compared to a choice alternative with more variance (Samuelson 1948). Sometimes referred to as a behavioral score, revealed-preferences are generally assessed by documenting actual engagement in behavior (e.g., how often a person engages in or chooses a particular risky behavior) or as an evaluation of hypothetical monetary gambling/lottery choices. According to Frey et al. (2017), revealed-preference measures are generally designed to 'capture specific cognitive processes, such as the integration of gains and losses or the role of learning and experience' (p. 1). Proponents of the revealed-preference tradition in relation to financial risk tolerance assessment often argue that this measurement technique provides the most direct link to identifying a person's utility function when investment choices are being made (Houthakker 1950; Richter 1966; Weber & Johnson 2009).

Objections have been raised about the wide use of revealed-preference methodologies. Frey et al. (2017) stated that measurements of revealed-preference may actually be capturing situational characteristics that help a person adapt to a particular situation (i.e., states) (Buss 1989) rather than traits, which can be thought of as preferences that exhibit consistency across time (Josef et al. 2016; Reynaud & Couture 2012). Others have noted that questions used in revealed-preference measures,

[6] An example of a stated preference item is, 'If the markets were to fall by 10 per cent later this week, what would you do?'

particularly assessment techniques that rely on a test taker to choose between gambles or lotteries, demand a cognitive ability that falls outside the norm for generalized assessments (Dave et al 2010), which can create noisy data (Charness, Gneezy & Imas 2013). Corter and Chen (2006) reported that familiarity with concepts related to expected value and probability outcomes can create a familiarity bias that distorts the way some people answer choice dilemmas. In other words, answers derived from revealed-preference measures may not capture a decision-maker's true willingness to take a financial risk. Another criticism is that to fully capture a revealed-preference, a test developer must assume that a test taker has access to full information and uses such information. As noted by Fischhoff et al. (1978), these assumptions are typically not observed and are unlikely in practice.

The primary alternative to a revealed-preference assessment is a psychometric test, which is sometimes referred to as a propensity measure. Psychometric tests are designed to assess a test taker's attitudes in a way that uncovers an underlying trait.[7] Psychometric tests are widely used to assess intelligence, personality, and other psychological constructs.[8] An advantage associated with psychometric measurements is that a well-designed test can account for a test taker's deeply held feelings of regret, fear, greed, and happiness associated with financial decision-making. Rather than a test taker's score being derived primarily from cognitive appraisals, psychometric tests allow for the incorporation of emotional factors. The primary argument against the use of psychometric tests is that what a person states may not be related to the person's ultimate behavior. Fischhoff et al. (1978) argued that this criticism is likely overstated. They noted that 'attitudes elicited in surveys often correlate highly with behavior . . . Furthermore, they elicit present values rather than historical preferences (p. 130). Research conducted over the past decade has confirmed Fischhoff et al.'s findings. Several researchers have recently noted the superiority of psychometric tests in the domain of financial risk-taking. For example, Dohmen et al. (2011) compared self-reported attitudinal risk-taking questions to hypothetical gambling questions. Dohmen et al. reported that the self-rating items did a better job of predicting actual financial risk-taking behavior. A similar finding was reported by LÖnnqvist et al. (2015).

In addition to direct comparisons of measurement tools, some researchers have attempted to determine how well revealed-preference and psychometric questionnaires and tests correlate with each other. In general, and particularly in the context of financial decision-making, associations between measures have been weak. Consider the following conclusion from Frey et al. (2017): '. . . measures from the propensity and behavioral measurement traditions cannot be used interchangeably to capture risk preference' (p. 8). This implies that those who rely on scores from risk assessments (e.g., financial planners, investment advisors, and other professionals who counsel individuals on day-to-day financial matters) cannot assume consistency across measurement techniques, nor can users of assessments presuppose that all assessment tools are equal. In effect, a decision must be made as to the validity of one measurement technique over the other. The findings from this study provide additional information to help guide the choice of financial risk tolerance assessment tools for practice.

[7] Indicators that a test is likely built on psychometric principles include reports of reliability and validity. Within classical test theory, reliability refers to the 'consistency of individuals' responses to an instrument across measurement occasions and is a descriptive statistic designed to capture how much measurement error is in a variable (Beauchamp, Cesarini & Johannesson 2017, p. 205). Validity refers to how well a measurement tool actually measures what it is purported to measure.

[8] It is possible to compute the reliability coefficient for a revealed-preference measure. One approach involves using a test-retest reliability estimate, which essentially involves calculating polychoric correlations. Beauchamp et al. (2017) estimated the reliability coefficient for the Barsky et al. (1997) revealed-preference test to be approximately .59, which falls below the typical criterion of .70 (see Nunnally & Bernstein 1994).

Methods

Recruitment for participation in the study was conducted during late 2017. Given the exploratory nature of the project, recruitment flyers and emails were distributed in one college community in a southeastern US state. Based on institutional IRB restrictions, potential participants were screened by age. Specifically, in order to be eligible for participation, a participant needed to be at least 21 years of age at the time of the study. The recruitment period was open for six weeks. At the end of the recruitment period, 164 participants were selected for the study. Each participant was sent an email survey link using Qualtrics. Participants were offered a $US10 gift card upon completion of the survey and related tasks. A unique code was assigned to each participant who finished the survey.

Participant characteristics

The general characteristics of participants in this study were skewed towards those who were young with a high level of attained education. This was not surprising given the general demographic profile of the community in which this study was conducted. Slightly more than 48% of participants were female. The average age of participants was close to 26 years of age, with the majority (56%) being unmarried. Other marital statuses included married (13%), divorced (2%), and other, including those who were widowed or not married but living with a significant other (29%). The majority of participants lived in a household of two or fewer people. Slightly more than three out of four participants were currently employed, with the remainder being retired or students. Only 4% of participants indicated being self-employed. Approximately 77% of participants indicated being Caucasian/White, whereas 10% of participants indicated being Asian or Pacific Islander. Other racial/ethnic categories included African-American/Black (6%), Hispanic (6%), and Native American (1%). The median personal income of participants fell between $US30,001 and $US40,000, whereas median household income fell between $US40,001 and $US50,000. The majority of participants held at least a college degree level of education.

Outcome measures

Participants received an email with a link to the survey. The survey comprising attitudinal, demographic, and risk tolerance measures (both revealed-preference tests and psychometric questions). Data collection occurred over a three-week period. At the end of the survey data gathering phase of the study, 40 participants were randomly chosen to complete a financial risk-taking activity. The activity comprised the following steps:

(1) Each participant was asked to visit the research team's lab to receive a participation incentive ($US10). Once in the lab, the participant was asked if they would be interested in an opportunity to win an additional $US10 or $US20 by playing a simple game of chance (i.e., a monetary risk-taking activity). The question was asked as the participant and interviewer stood next to a Las Vegas style craps table.[9]

(2) Those who indicated no interest were then asked to draw a winning ball from an opaque jar. This task was manipulated so that each participant "won," meaning that everyone who opted out of the task left the activity with $US30 in gift cards.

[9] Although not widely used in personal and household finance studies, the use of dice tasks as a measure of decision-making under risk and uncertainty is common in the gaming and risk-assessment literature (see Brand et al. 2005; Schiebener& Brand 2015).

(3) Those who indicated an interest in playing the game were read the following script:

Here is how the game works. You will be given dice to roll. You must wager your $US10 gift card. In order to win $US10, you must roll a 5, 6, 8, or 9. If you roll any other number you will lose $US10. In order to win $US20, you must roll a 2, 3, 4, 11, or 12 to win; if you roll any other number you will lose $US10. Which game would you like to play?

(4) Each participant's choice was recorded. Participants were then allowed to take a practice roll of the dice. This was followed by the interviewer reading the following script:

Okay, before you roll, we would like to share with you the true odds associated with your choice. The odds of rolling a 5, 6, 8, or 9 to win $US10 is 50% or 1 out of 2. The odds of rolling a 2, 3, 4, 11, or 12 to win $US20 is 25% or 1 out of 4.

Knowing this information, would you like to change your decision? You may also still choose to withdraw from the game and leave with your $US10.

(5) Each participant's choice was recorded. Those who decided to leave the game were then asked to draw a winning ball from an opaque jar. This task was manipulated so that each participant who opted out "won," meaning that those who exited the game left the activity with $US30 in gift cards.

(6) Those who remained in the game were asked to confirm their risk-taking choice and to roll the dice. Those who won an additional $US10 gift card where then asked to draw a winning ball from the same opaque jar. This task was again manipulated so that each participant "won." In this case, the participant received another $US10, bringing the total incentive to $US30 in gift cards. Those who won the $US20 gamble were congratulated and given $US30 in gift cards. Participants who lost the game were then asked to draw a winning ball from the same opaque jar. As with the other drawing scenarios, the task was manipulated so that each participant "won," thus leaving the study with $US30 in gift cards.

Participants did not know prior to the game that they were guaranteed to leave with $US30. Participant behaviors related to the game were used as an indicator of risk preference and behavior.

Economic theory measures

As noted above, the use of 50-50 gambles and lottery choice scenarios is the primary way someone's revealed-preference is measured within economically-derived models. In this study, the widely used Barsky et al. (1997) test of risk aversion was used as one economic choice indicator (heretofore referred to as the Barsky test). Barsky and his associates published the following series of questions to classify individuals into one of four categories of risk aversion (i.e., high, above-average, below-average, and low):

Question 1: Suppose that you are the only income earner in the family, and you have a good job guaranteed to give you your current (family) income every year for life. You are given the opportunity to take a new and equally good job, with a 50-50 chance it will double your (family) income and a 50-50 chance it will cut your (family) income by a third. Would you take the new job?

If the answer to this question was 'yes,' the participant was then asked:

Question 2: Suppose the chances were 50-50 that it would double your (family) income, and 50-50 that it would cut it in half. Would you still take the new job?

If the answer to the first question was 'no,' the participant was then asked:

Question 3: Suppose the chances were 50-50 that it would double your (family) income and 50-50 that it would cut it by 20 percent. Would you then take the new job?

Participants who answered 'no' to the first and third questions were classified as having high risk aversion (i.e., low risk tolerance). A participant who answered 'no' to the first question and 'yes' to the third question was classified as having above-average risk aversion. A participant who answered 'yes' to the first question and 'no' to the second question was classified as having below-average risk aversion. Those who answered 'yes' to the first and third questions were classified as having low risk aversion (i.e., high risk tolerance).

A similar measure was used as a second economic choice indicator: the Hanna and Lindamood (2004) subjective risk tolerance test (heretofore referred to as the H&L test). This measure used income choice scenarios that require participants to choose between pensions with 50-50 answer options.[10] The questions and scoring are shown below:

1. *Suppose that you are about to retire, and have two choices for a pension. Pension A gives you an income equal to your preretirement income. Pension B has a 50% chance your income will be double your preretirement income, and a 50% chance that your income will be 20% less than your preretirement income. You will have no other source of income during retirement, no chance of employment, and no other family income ever in the future. All incomes are after-tax. Which pension would you choose? If A, go to #2. If B, go to #5.*
2. *Suppose that you are about to retire, and have two choices for a pension. Pension A gives you an income equal to your preretirement income. Pension C has a 50% chance your income will be double your preretirement income, and a 50% chance that your income will be 10% less than your preretirement income. You will have no other source of income during retirement, no chance of employment, and no other family income ever in the future. All incomes are after-tax. Which pension would you choose? If A, go to #3. If C, your subjective risk tolerance is moderate.*
3. *Suppose that you are about to retire, and have two choices for a pension. Pension A gives you an income equal to your preretirement income. Pension D has a 50% chance your income will be double your preretirement income, and a 50% chance that your income will be 8% less than your preretirement income. You will have no other source of income during retirement, no chance of employment, and no other family income ever in the future. All incomes are after-tax. Which pension would you choose? If A, go to #4. If D, your subjective risk tolerance is low.*
4. *Suppose that you are about to retire, and have two choices for a pension. Pension A gives you an income equal to your preretirement income. Pension E has a 50% chance your income will be double your preretirement income, and a 50% chance that your income will be 5% less than your preretirement income. You will have no other source of income during retirement, no chance of employment, and no other family income ever in the future. All incomes are after-tax. Which pension would you choose? If A, your subjective risk tolerance is extremely low. If E, your subjective risk tolerance is very low.*

[10] This study used only the question narrative from the Hanna and Lindamood (2004) test. The original framework included visual representations of the 50-50 choice scenarios; these were not shown to participants in this study.

5. *Suppose that you are about to retire, and have two choices for a pension. Pension A gives you an income equal to your preretirement income. Pension F has a 50% chance your income will double your preretirement income, and a 50% chance that your income will be one third less than your preretirement income. You will have no other source of income during retirement, no chance of employment, and no other family income ever in the future. All incomes are after-tax. Which pension would you choose? If A, your subjective risk tolerance is moderately high. If F, go to #6.*
6. *Suppose that you are about to retire, and have two choices for a pension. Pension A gives you an income equal to your preretirement income. Pension G has a 50% chance your income will be double your preretirement income, and a 50% chance that your income will be half your preretirement income. You will have no other source of income during retirement, no chance of employment, and no other family income ever in the future. All incomes are after-tax. Which pension would you choose? If A, your subjective risk tolerance is very high. If G, your subjective risk tolerance is extremely high.*

Psychometric theory measures

In this study, the Grable and Lytton (1999) multi-dimensional risk tolerance scale was used as a proxy for a variety of psychometric risk tolerance measures. The choice of this scale was based on the open access nature of the scale and the questionnaire's wide use in previous research. The Grable and Lytton (1999) measure comprises 13 multiple choice items.[11] The scale was designed to be multi-dimensional and focused on measuring someone's willingness to make investments, comfort and experience taking risks, and disposition to taking speculative risk. The literature suggests that scale scores are positively associated with risky asset holdings and other consumer choices that entail risk (see Kuzniak et al. 2015; Rabbani et al. 2017).

The scale's Cronbach's alpha has ranged from .70 to .80 in most published studies. The highest reliability estimates tend to be associated with those with higher incomes and those who are older (see Kuzniak et al. 2015). Although certainly not the only (or even the best) risk tolerance scale available to researchers (e.g., Weber, Blais & Betz 2002), the Grable and Lytton scale (heretofore referred to as the propensity scale) has been used in numerous studies, with a general pattern of lower (higher) risk tolerance scores being associated with less (more) equity portfolio holdings and more conservative (aggressive) financial decisions (Kuzniak et al. 2015).

Participants were asked to answer a second measure of subjective risk tolerance. The single-item investment risk aversion measure from the Survey of Consumer Finances was included in the study. The question asks:

Which of the following statements below comes closest to the amount of financial risk that you are willing to take when you save or make investments?

1. *No financial risk.*
2. *Average financial risks expecting to earn average returns.*
3. *Above-average financial risks expecting to earn above-average returns.*
4. *Substantial financial risks expecting to earn substantial returns.*

[11] Examples of items asked in the scale include: (1) In general, how would your best friend describe you as a risk taker? a. A real gambler b. Willing to take risks after completing adequate research c. Cautious d. A real risk avoider; and (2) You are on a TV game show and can choose one of the following. Which would you take? a. $1,000 in cash b. A 50% chance at winning $5,000 c. A 25% chance at winning $10,000 d. A 5% chance at winning $100,000. The scale can be found at: http://pfp.missouri.edu/research_IRTA.html.

As coded, a high score represents low risk aversion (i.e., high risk tolerance), whereas a low score indicates high risk aversion (i.e., low risk tolerance). Scores were used to test the concurrent validity of the other risk tolerance measures.

A third measure of self-assessed financial risk tolerance was assessed by asking each participant to 'Rate yourself as a financial risk taker.' A 10-point scale was used, with 1 indicating the lowest level and 10 indicating the highest level.

Validity measures

Several questions were asked to gauge the degree of validity associated with the risk tolerance measures. Knowledge of casino gambling was assessed by asking, 'How knowledgeable are you about casino games?' A 10-point scale was used, with 1 indicating not at all knowledgeable and 10 indicating very knowledgeable. The likelihood of gambling was measured by asking, 'How likely is it that you would bet a day's income at the horse races?' Another 10-point scale was used, with 1 meaning very unlikely and 10 meaning very likely. Financial decision-making experience was assessed by asking, 'How much experience do you have making financial decisions?'. A 10-point scale was used, with 1 representing very little and 10 representing a lot. Participants were also asked to rate their investing knowledge on a 10-point scale with 1 indicating the lowest level and 10 indicating the highest level. Asset allocation data from each participant was assessed by asking, 'Suppose that you were to take a snapshot of your current financial position. Approximately what per cent of your total savings and investments are in the categories below?' Six asset categories were provided: (a) cash, (b) fixed-income, (c) equities, (d) business ownership, (e) real estate, (f) hard assets.

Risk tolerance scores from the measurements used in this study were also evaluated against five demographic characteristics. The gender of participants was assessed by asking each participant to self-identify as either male (coded 1) or female (coded 2). Approximately 60% of participants were female. Age was measured by asking each participant to indicate their age in years. Personal and household income was assessed using the following 11 categories: (1) none, (2) less than $US20,000, (3) $US20,001 to $US30,000, (4) $US30,001 to $US40,000, (5) $40,001 to $US50,000, (6) $US50,001 to $US60,000, (7) $US60,001 to $US70,000, (8) $US70,001 to $US80,000, (9) $US80,001 to $US90,000, (10) $US90,001 to $US100,000, and (11) above $US100,000. Median personal income fell between $US30,001 and $US40,000. Median household income fell between $US40,001 and $US50,000. Educational attainment was measured using the following six categories: (1) some high school or less, (2) high school graduate, (3) some college/trade/vocational training, (4) Associate's degree, (5) Bachelor's degree, and (6) graduate or professional degree. The majority of participants held at least a college degree level of education.

Analytical methods

The research questions were tested using a variety of statistical techniques. The core validity tests were assessed using non-parametric correlation coefficients. The use of non-parametric statistics was based on the categorical manner in which some of the variables were coded. ANOVA, *t*, and Kruskal-Wallis tests were used to evaluate the third research question, with each of the *t* and ANOVA tests using a bootstrap methodology. An answer to the fourth research question was based on a review of results from each of the tests.

Results

The first research question asked whether the measures based on economic theory and psychometric classical test theory exhibited concurrent validity. A preliminary answer to this question can be found in Table 1. Table 1 shows the mean and standard deviation for each of the risk tolerance measures used in this study, as well as the non-parametric correlation coefficients among the measures. One would expect that each of the measures should be correlated. This was generally the case. The Barsky and H&L tests were statistically related. Both measures were also positively correlated with the propensity scale. Curiously, however, H&L test scores were not correlated with scores from the SCF risk item.

Table 1: Descriptive and correlational data for the risk rolerance measures

	Range	Mean	S.D.	Barsky Corr.	H&L Corr.	Propensity Corr.	Self-Rated Risk Tolerance Corr.	SCF Risk Item Corr.
Barsky	1 – 4	2.20	0.88	1.00				
H&L	1 – 7	4.21	1.30	0.26**	1.00			
Propensity	13 - 44	26.10	4.66	0.21**	0.28**	1.00		
Self-Rated RT	1 – 10	4.11	2.19	0.18*	0.18**	0.42**	1.00	
SCF Risk Item	1 – 4	1.58	0.50	0.17*	0.14	0.44**	0.44**	1.00

Note: *p < .05 **p < .01

Results from tests undertaken to answer the first (concurrent validity) and second (convergent validity) research questions can be found in Table 2. Table 2 shows the mean and standard deviation for the gambling, gambling likelihood, financial experience, and investment knowledge questions, as well as the non-parametric correlation coefficients for each item linked to the Barsky, H&L, and propensity measures. Curiously, scores from the Barsky and H&L tests were not correlated with the casino gambling items. However, as suggested by Ahmad et al. (2011), Barsky and H&L test scores were correlated with investing knowledge, and for the Barsky test, a correlation with financial decision-making experience was noted. Scores on the propensity scale were correlated across the items.[12]

Table 2: Descriptive and correlational data for the knowledge, likelihood, and experience items

	Mean	S.D.	Barsky Corr.	H&L Corr.	Propensity Corr.
Casino Knowledge	4.13	2.63	0.11	0.10	0.26**
Gambling Likelihood	2.25	2.14	0.08	0.01	0.18**
Financial Decision Experience	5.70	2.22	0.16*	0.05	0.12*
Investing Knowledge	4.71	2.46	0.15*	0.17*	0.34**

Note: *p < .05 **p < .01

[12] Although not shown, self-rated risk tolerance and scores from the SCF risk item were statistically correlated with the items.

Table 3 provides a description of the portfolio allocation categories described by participants and the non-parametric correlation coefficients each asset class had with scores from the risk tolerance measures. Similar to the results shown in Table 2, neither the Barsky nor H&L tests were correlated to holdings in the asset classes. This is a curious finding in that theoretically the correlations should have been large and significant; however, given the relatively young average age of the sample, this may not be a surprise. It is possible participants did not understand the questions and/or held limited risky assets. The correlations were stronger for the propensity scale. Those who exhibited a higher tolerance for financial risk held less cash, more equities, and more hard assets (e.g., gold). No statistical significance was found between the propensity scale and fixed-income, business ownership, and real estate assets.

Table 3: Descriptive and correlational data for asset allocation items

	Mean	S.D.	Barsky Corr.	H&L Corr.	Propensity Corr.
Cash Assets	68.47	36.13	-0.01	-0.12	-0.23**
Fixed-Income	4.33	9.01	-0.05	0.01	0.07
Equities	16.99	27.58	0.01	0.08	0.20**
Business Ownership	2.53	9.90	0.01	-0.01	0.07
Real Estate	2.64	9.40	-0.03	-0.01	0.11
Hard Assets	5.07	13.39	0.05	0.05	0.14*

Note: *p < .05 **p < .01

The last test of convergent validity is shown in Table 4. Scores on the Barsky, H&L, and propensity measures were not found to be correlated with gender, age, personal or household income, or education. While not necessarily surprising given the homogenous nature of the participant sample, what is curious is that the direction of the correlation coefficients (although not statistically significant) varied across measures.

Table 4: Descriptive and correlational data for demographic items

	Mean	S.D.	Barsky Corr.	H&L Corr.	Propensity Corr.
Gender (1 = Male; 2 = Female)	1.60	0.49	-0.15	-0.15	-0.13
Age	25.94	6.48	0.06	0.05	-0.00
Personal Income	2.98	2.40	-0.01	0.01	0.04
Household Income	4.95	3.62	-0.06	0.03	0.08
Education	4.87	1.06	-0.04	-0.06	-0.00

Note: *p < .05 **p < .01

Data in Tables 1 through 4 represent cross-sectional data used to answer the first two research questions. The third research question asked if measures based on economic theory and psychometric classical test theory exhibit predictive validity to observed risk-taking behavior. In order to answer this question, data from the risk-taking game were evaluated.

Table 5 shows how well scores on the three risk tolerance measures predicted engagement in the risk-taking game. Of the 40 participants, 27 indicated a willingness to play, whereas 13 opted out of the game immediately. Excluding significance levels, scores from each measure were useful in predicting who would participate in the game, with higher scores predicting participation. However, when statistical significance was estimated, only scores from the propensity scale were predictive of game participation.

Table 5: Estimates of risk-taking by risk tolerance score

Would You Like to Participate in the Game?	N	Barsky M SD S.E. Mean	H&L M SD S.E. Mean	Propensity M SD S.E. Mean
Yes	27	2.26 0.90 0.17	4.22 1.48 0.28	26.52 5.13 0.99
No	13	2.08 0.64 0.18	4.15 1.07 0.30	22.92 3.71 1.03
t Test		$t_{38} = 0.65$, $p = .52$	$t_{38} = 0.15$, $p = .88$	$t_{38} = 2.26^{*}$, $p = .03$

Table 6 shows a more nuanced test of the predictive power of the risk tolerance scores. In this case, an analysis of variance test showed that propensity scale scores were useful in predicting three categories of participants: (1) those who opted out of the game, (2) those who opted in and chose the $US10 gamble, and (3) those who opted in and chose the $US20 gamble.[13] A post-hoc analysis using the Tukey post-hoc criterion for significance indicated that those who opted out of the game were similar to those who selected the $US10 gamble. Propensity scale scores for those who selected the $US20 gamble ($M = 27.69$, $SD = 4.90$) were significantly greater than the scores of those who opted out of the game ($M = 22.85$, $SD = 3.72$).

Table 6: Predictions of risk-taking by risk tolerance score

	N	Barsky M SD S.E. Mean	H&L M SD S.E. Mean	Propensity M SD S.E. Mean
No Gamble	13	2.15 0.69 0.19	4.15 1.07 0.30	22.85 3.72 1.03
$US10 Gamble	8	2.25 0.89 0.31	4.00 1.85 0.65	23.88 4.82 1.71
$US20 Gamble	19	2.21 0.92 0.21	4.32 1.34 0.31	27.69 4.90 1.12
F Test		$F_{37} = 0.04$, $p = .97$	$F_{37} = 0.30$, $p = .85$	$F_{37} = 4.94^{**}$, $p = .01$

[13] The sample size per group was based on a test power of .80, an effect size of .50, and a significance level of .05.

Another analysis of variance test (results not shown) indicated that propensity scale scores offered insights into the profile of participants who maintained their bet, compared to those who changed their bet, after learning about the true odds associated with the game. Three categories of risk-taking were examined: (1) those who opted out of the game, (2) those who retained their bet after hearing the odds, and (3) those who changed their bet after hearing the odds. A post-hoc analysis using the Tukey post-hoc criterion for significance indicated that those who opted out of the game were most similar to those who changed their bet and most dissimilar to those who retained their bet after hearing the true odds. In other words, participants with the highest risk tolerance scores on the propensity scale ($M = 27.48$, $SD = 5.39$) were more likely to participate in the game, and once a decision was made, they were the most likely to retain their choice. Neither Barsky nor H&L test scores were related to predicting the persistence of risk-taking choices.

Two robustness checks were made. First, a Kruskal-Wallis test was conducted to validate the risk-taking choice ANOVA findings (Table 6). Similar to an ANOVA analysis, the Kruskal-Wallis test is an omnibus test that indicates differences among groups. Because it is a non-parametric test, the analysis is based on median scores (Pett 2016). The results of the test matched the ANOVA findings. Specifically, neither Barsky nor H&L test scores were associated with risk choices. However, propensity scale scores were significant (χ^2 K-W = 7.20, $p = .03$). Post-hoc analyses using the Dunn procedure indicated that those who chose the highest risk choice had the highest propensity scale scores, with the highest risk group exhibiting a significantly different choice compared to those who opted out of the game. Second, an analysis of variance test was made using the variable titled, 'How knowledgeable are you about casino games' as a covariate in the model comparing (1) those who opted out of the game, (2) those who opted in and chose the $US10 gamble, and (3) those who opted in and chose the $US20 gamble. It was hypothesized that a participant's choice may have been influenced by the participant's familiarity with casino games, with those with little experience opting out of the game immediately. Even when accounting for this possibility, the core findings reported above were confirmed; propensity scale scores were predictive of risk-taking behavior ($F_{36} = 3.99$, $p = .02$), whereas Barsky and H&L test scores were statistically not significant.

Discussion

Results from the *t*, ANOVA, and Kruskal-Wallis tests were used to address the fourth research question, which asked what measurement approach (i.e., those based on economic utility theory or assessments based on classical test theory) provides the clearest insight into risk-taking tendencies? Before addressing this question directly, it is important to reconsider the purpose and sample of this study. Specifically, this study was designed to explore the relationships among the Barsky, H&L, and propensity measures with the intent of comparing and contrasting each method's predictive ability. In this regard, it was apparent that each measure offered unique advantages and disadvantages. The Barsky and H&L tests, for example, were very similar in terms of predictive power of participants' risk-taking behavior. Both measures were positively correlated with the propensity scale. This implies that these tests, based on economic theory, provide some degree of convergent validity across measures.

Curiously, the associations among the economic theory-based tests and the other measures of risk tolerance (i.e., the SCF risk question or self-assessed risk tolerance) were inconsistent, whereas scores from the scale developed using classical test theory were correlated consistently across measures. Similarly, only the psychometric scale was correlated with knowledge of casino games and the likelihood of gambling. None of the measures were found to be associated with participant demographic characteristics, which may have been due to the homogenous nature of the sample.

Of critical importance were the findings showing patterns of predictive accuracy among the risk tolerance measures. The psychometric scale was the only measure to predict who was more likely to participate in a game in which the participant was required to make a wager when the outcomes of the game were unknown and potentially negative. Similarly, scores from the psychometric scale were predictive of the level and persistence of risk-taking. Those who exhibited the highest scores on the psychometric scale were more likely to take the greatest risk in the risk-taking task, and when given the opportunity to change their wager, those with a high psychometric scale score were more likely to retain their bet. Robustness checks confirmed these findings. In matching tests, neither of the revealed-preference tests exhibited predictive ability to the level of the psychometric measure.

The results from this study provide support for what has often been reported in the literature. As noted by Frey et al. (2017), revealed-preference tests may be measuring situational characteristics rather than trait attributes (Buss 1989). The notion of having financial decision-makers choose between gambles or lotteries with probability outcomes known prior to the decision may not correspond to the cognitive demands placed on someone when a decision must be made when outcome probabilities are unknown. At a minimum, such assessments are likely to, as Charness et al. (2013) noted, cause noisy data. At their weakest, revealed-preference tests may not accurately capture a decision-maker's true preference for risk (i.e., risk appetite). Scores from a psychometric assessment appear to work more reliably because these tools are better able to account for a decision-maker's emotions (e.g., feelings of regret, fear, greed, and happiness). These tools appear to do a relatively good job of predicting future behavior (Dohmen et al. 2011; LÖnnqvist et al. 2015). When viewed holistically, the findings from this study provide support to the following comment made by Frey et al. (2017): '… measures from the propensity and behavioral measurement traditions cannot be used interchangeably to capture risk preference' (p. 8).

As such, a preliminary answer to the last research question—which measurement approach provides the clearest insight into risk-taking tendencies?—is that a questionnaire developed using principles from psychometric theory appears to offer greater validity when attempting to describe and predict financial risk-taking behavior, at least when compared across the measures examined in this study. The final choice of which assessment technique to use in practice should be based on the known strengths and weaknesses associated with each methodology. However, if the goal is to most accurately assess a decision-maker's willingness to engage in a risky financial behavior in which the outcome of the decision is both unknown and potentially negative, a psychometric assessment will likely provide more insights than a revealed-preference test.

Further research is needed to confirm this and the other results presented in this paper. In this regard, several limitations associated with the current study need to be acknowledged and addressed in future work. To begin with, the sample used in this study suffered from a potential

recruitment bias. It would be very useful to use a larger and more representative sample when replicating this study's methodology. Moving beyond an exploratory sample will provide additional insights into the usefulness of risk tolerance assessment tools. Additionally, future studies should attempt to align the use of incentives more closely with the demographic characteristics of participants. In this study, the maximum incentive was $US30, which was deemed to be meaningful to those who participated in the study. However, it is possible that some participants viewed the incentive as "found money," and as such, were willing to gamble even if this action was not in alignment with their stated or revealed risk tolerance. This possibility can be tested in future studies using larger incentives and categorizing future samples by income, net worth, financial knowledge, and similar characteristics.

To summarize, the results from this study are exploratory. This means that while the propensity scale, as a proxy for other questionnaires developed using principles from psychometric theory, showed the best concurrent, convergent, and predictive validity, this does not mean that tests based on economic theory are not valuable. It is possible that questionnaires based on economic theory work better at predicting behavior that does not involve a monetary risk (e.g., health, social, and physical risk-taking). Likewise, it is possible that economic theory tests and questionnaires, because of the types of questions asked, work best when administered to those with high cognitive ability. These and other potentialities need to be examined empirically before it will be possible to truly determine which measurement approach is the most valuable within the context of financial decision-making.

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THE AUSTRALIAN GOVERNMENT IS JUSTIFIED IN ESTABLISHING A SINGLE DISCIPLINARY BODY

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ABSTRACT

Published empirical research (McInnes 2020) proves licensing financial advisers through multiple profit-driven Australian Financial Services licensees contributes to conflicts of interest by association. Government's response is to regulate advisers by adopting a single disciplinary body (Frydenberg & Hume 2019) to professionalise advisers like established professions. This paper supports Government's move to implement this body (Taylor 2020c; Maddock 2020), albeit delayed by COVID-19 (Taylor 2020a), by using the evidence published in a Routledge book (McInnes 2020). It aims to motivate advisers to work with policymakers to reshape financial advice into a true, accredited profession to address the problem of conflicted association, to make advice accessible (Marsh & Phillips 2019) and conflict free, while also dismantling costly compliance legislation (Smith & Sharpe 2020).

Introduction

Before advisers may offer their services to the public (Hutson & Vonnessen 2003; Pearson 2006) they have to comply with the regulations of the Australian Securities and Investments Commission (ASIC), the Financial Adviser Standards and Ethics Authority (FASEA), the Tax Practitioners Board (TPB), AUSTRAC, the Office of the Australian Information Commissioner (OAIC) and the Australian Financial Complaints Authority (AFCA) (Taylor 2020c; Taylor 2020b; Orchard 2018; Travers and Ertac 2020; OAIC 2020; Spicer 2018). Subject to Chapter 7, Part 7.6 of the *Corporations Act 2001* (Cwlth), ASIC enforces the mandatory regulation of advisers via multiple third-party Australian Financial Services (AFS) licensees. FASEA, as per the *Corporations Amendment (Professional Standards of Financial Advisers) Act 2017* (Cwlth), enforces the educational qualifications, ongoing training and ethical conduct of licensed financial advisers (FASEA 2020). Advisers offering tax [financial] advice for a fee must comply with the *Tax Agent Services Act 2009* enforced by the TPB (Financial Planning Association 2020). AUSTRAC works with the financial services sector to protect the public by identifying, preventing and interrupting criminals from abusing the financial system (Spicer 2018). The OAIC protects consumers' rights to privacy and access to their information as per the *Privacy Act 1988, Freedom of Information Act 1982*, and the *Treasury Laws Amendment (Consumer Data Right) Act 2019* which inserted a new Part IVD (Consumer Data Right into the *Competition and Consumer Act 2010* (OAIC 2020). Finally, the AFCA—bound by the *Treasury Laws Amendment (Putting Consumers First—Establishment of the Australian Financial Complaints Authority) Act 2018*—deals with public complaints about credit, finance, loans, insurance, banking transactions, financial advice, and superannuation, all of which were previously managed by the Superannuation Complaints Tribunal, Credit and Investments Ombudsman and the Financial Ombudsman Service (Orchard 2018).

Presently, advisers either choose to be self-licensed by applying for their own AFS license or advisers are employees of an AFS licensee giving the legal liability for the advice to their licensee (Power 2015; Certified Practicing Accountants and Chartered Accountants Australia and New Zealand 2017). Others have selected to be self-employed 'contractors' [franchisees] of institutional licensees without taking on any AFS licensee legal liability (Power 2015; Certified Practicing Accountants and Chartered Accountants Australia and New Zealand 2017). Advisers are either truly independent [non-aligned, non-institutionally owned, independently owned, unbiased and impartial] if they comply with s293A of the Corporations Act or they are product- or remuneration-conflicted—in other words, non-compliant with the Corporations Act (ASIC 2017a). Presently, the exit and entry of qualified advisers in Australia are determined by AFS licensees under the jurisdiction of ASIC (Bowley 2017) and FASEA (2020).

Adviser regulation is not only being examined in Australia, but also in places like the United States (US), United Kingdom (UK) and New Zealand (NZ) (Deloitte & Financial Services Council 2014; Burke & Hung 2015; Singleton & Reveley 2020; Bowley 2017; Marsh & Phillips 2019).

Like Australia, these countries' institutional third parties[1] appoint representatives[2] to deliver financial recommendations (Zabel 2010; Bateman & Kingston 2014; Burke & Hung 2015; McInnes & Ahmed 2016; Bowley 2017). These third parties with their representatives are all registered[3] with their corresponding regulator[4] (Zabel 2010; Bateman & Kingston 2014; Burke & Hung 2015; McInnes & Ahmed 2016; Bowley 2017). They are all dealing with how best to regulate financial advisers (Millhouse 2019; Deloitte & Financial Services Council 2014; Singleton & Reveley 2020; Bowley 2017) as they consider how best to improve consumer protection (Schmulow, Fairweather & Tarrant 2019), lack of public trust (O'Brien 2017) and confidence (Balasubramnian, Brisker & Gradisher 2014), quality of the advice (O'Brien 2019) and access to financial advice (Marsh & Phillips 2019).

Unlike these countries, the Australian Government has set a course to further professionalise financial advisers by committing to establishing a single disciplinary body to regulate Australian financial advisers as individuals (Frydenberg & Hume 2019; Vickovich 2019) separate from institutional third parties. The overlap of roles between ASIC, FASEA, TPB, AFCA, (Liu et al. 2020, p. 63) along with the professional associations[5] and the AFS licensees is in the process of being overhauled as the Government prepares to implement this new body (Travers & Ertac 2020; Hendy 2020; Australian Government Productivity Commission 2018; Riskinfo 2020). This paper relies on evidence published in an earlier publication (McInnes 2020) supporting the Government as being on the right path to hasten the establishment of a single disciplinary body to pioneer a new way to regulate financial advisers as true professionals.

Figure 1 from the bottom up illustrates that under the AFSL-AR licensing model, advisers are paddling 'in two canoes' (Liu et al. 2020, p. 37); that is—acting as double agents serving the commercial interests of their AFS licensees (Commonwealth of Australia 2019) as well as their clients' best interests, manifesting into conflicts of interest (Kingston & Weng 2014) by association (McInnes 2020). Conflicts of interest by association caused by this double agency result in infringements of sections 961B and 961J of the Corporations Act, which the FASEA Codes of Ethics Standards two[6] [best interests' duty] and three [conflicts of interests][7], commenced on 1 January 2020, aim to address (Collier 2003; Serpell 2008; Jones 2009; Alexander 2011; Ireland & Gray 2011; Kell 2013; McInnes 2020). Although Pearson (2019) maintained best interests duty would mitigate conflicts of interest, yet to be verified is whether FASEA's Code of Ethics Standards two and three will mitigate the infringements of s961B and s961J of the Act. Despite the best interests duty 'safe harbour' requirements to address advice misconduct, the Royal Commission into Misconduct of the Banking, Superannuation and Financial Services Industry (FSRC) saw Haynes querying the effectiveness of this requirement to improve the quality of advice (Liu et al. 2020).

[1] Australian Financial Services licensees, US broker-dealer institutions, UK 'restricted' advice institutions, UK independent advice institutions, US financial advisory institutions and NZ Qualifying Financial Entities

[2] Australian s923A independent authorised representatives [AR] and Australian product-aligned authorised representatives, US broker-dealer registered representatives and US independent registered investment advisers, UK 'restricted' appointed representatives, UK independent appointed representatives, NZ Authorised Financial Advisers and NZ Registered Financial Advisers

[3] Australian Financial Advisers Register, US Investment Adviser Registration Depository, UK Financial Services Register, NZ Financial Services Providers Register

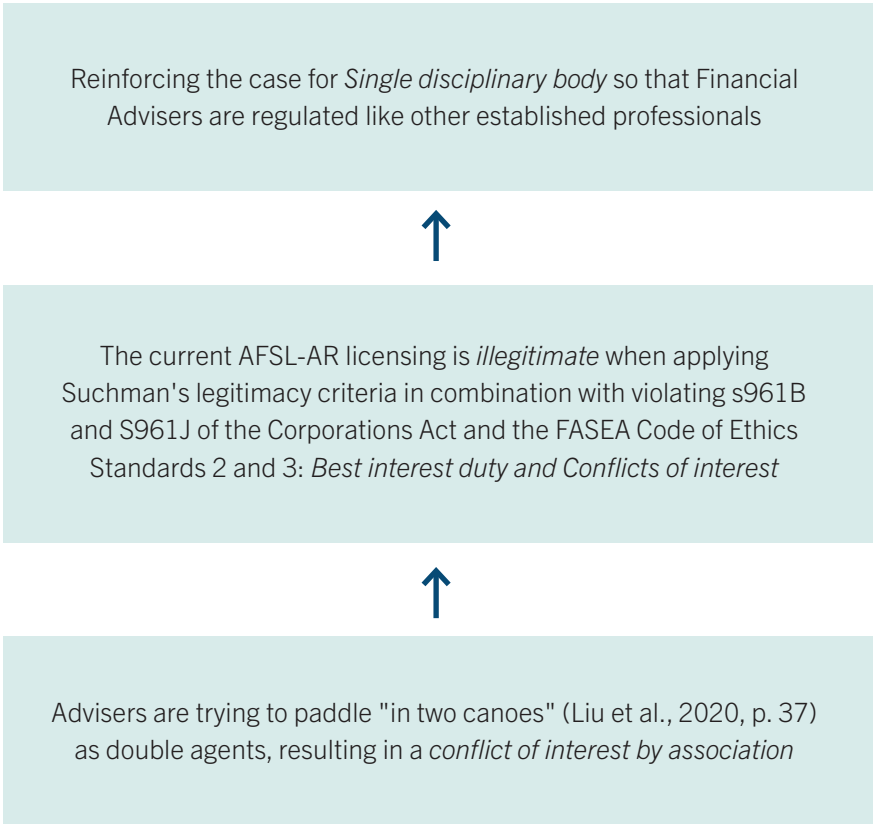
[4] Australian Securities and Investments Commission US Securities and Exchange Commission, UK Financial Conduct Authority, US Financial Industry Regulatory Authority, NZ Financial Market Authority

[5] Financial Planning Association, Association of Financial Advisers, Self-Managed Super Fund Association, et cetera

[6] *"You must act with integrity and in the best interests of each of your clients"*

[7] *"You must not advise, refer or act in any other manner where you have a conflict of interest or duty"*

Figure 1: Adapted from the works of McInnes (2020) is the framework supporting the implementation of the single disciplinary body



Liu et al. (2020) recommend the retention of the 'safe harbour' requirements by improving them through a similar principle-based US Securities and Exchange Commission model or via FASEA's (2019, p. 5) Code of Ethics to regulate adviser behaviour. Since its inception, the practicality of applying Standards two and three of the FASEA Code of Ethics has not gone unchallenged (Financial Planning Association of Australia 2020).

With reference to the earlier publication that includes a detailed review of the literature on legitimacy theory, McInnes (2020) prove the AFSL-AR licensing is illegitimate if tested alongside Suchman's (1995) legitimacy criteria [Figure 1]. Suchman (1995, p.574) defined legitimacy as

> *a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions.*

McInnes (2020) applies this definition to financial planning theory suggesting licensing advisers via multiple profit-driven third parties are perceived as inappropriate within the '*socially constructed system of '* appropriate adviser culture and ethics (Suchman 1995, p. 574) as legislated in the Act.

Suchman (1995) theorises three main legitimacy criteria: 1) pragmatic [regulative], 2) normative [moral] and 3) cultural-cognitive [cognitive]. Briefly, *pragmatic legitimacy* is defined as the perception of the social support for an object's activities operating within some socially acceptable system (Suchman 1995; McInnes 2020). *Regulative legitimacy* stems from pragmatic legitimacy (Rao 2004; Chen & Roberts 2010; McInnes & Ahmed 2016). Legitimacy studies (Bitektine 2011; Chelli, Durocher & Richard 2014; Scott 2014) suggest that maintaining regulative legitimacy requires a perception of legislative compliance. McInnes (2020) show regulative illegitimacy exists, because advisers perceive that the current licensing through third-party profit-driven intermediaries, risks them from unintentionally (and intentionally) breaching regulatory compliance of the Corporations Act because of their licensees' product affiliations.

To comprehend *normative [moral] legitimacy*, attention must move to specific morals, values or ethics (Chen & Roberts 2010; Chua & Rahman 2011) of an object's outcomes, goals, activities, and/or structures within a socially accepted (Johnson & Holub 2003), constructed value system (Bitektine 2011). Moral legitimacy comprises: i) consequential; ii) procedural; iii) structural; and iv) personal normative legitimacies (Suchman 1995) (see Figure 2).

Consequential [moral] legitimacy analyses an object's socially valued outcomes from an ethical perspective (Suchman 1995). Product-oriented licensees perform as '*commercial businesses using advisers as a sales force*' (Commonwealth of Australia 2014, p. 24) to support shareholder wealth maximisation (Griffiths 2007; Lindorff & Peck 2010; Kofman & Murawski 2015). Linking the shareholder wealth maximisation model to the principal-agent problem has led to risk-taking and moral hazard behaviours (Murray, Manrai & Manrai 2017) by licensees and advisers. While licensees supervise their agents to act in the clients' best interests, they are simultaneously driven by the profit motive (Lewis 2013). During a mixed methods study, Smith (2009) found this tension (Perkins & Monahan 2011) to be most keenly felt by the employee advisers of licensees—those who face conflicts between their professional obligations of best interests and their commercial obligations of licensee profit. Wahn (1993) found that individuals who are dependent on their employers are more likely to behave unethically when expected to comply with organisational pressures which FSRC found present within AFS licensees (Commonwealth of Australia 2019). Although conflicts of interest can be managed through disclosure (Serpell 2008), Bruhn and Miller (2014) suggest disclosure does not generally work. Sah and Loewenstein (2014) found during their experimental research that most conflicts of interests are unavoidable, and thus disclosure is useless. Critical for legitimacy, Maclean and Behnam (2010) argue, involves organisations resolving their struggle to manage their regulatory compliance, especially when the legal requirements compromise their commercial activities. Interestingly, Burdon (2020) notes that the UK Regulator's approach of penalising or coercing profit maximising institutions to encourage ethical behaviour and a healthy compliance culture was ineffective. In support, McInnes (2020) finds that licensing advisers through multiple intermediaries results in ethical tension between the licensees' commercial interests and their clients' best interests (Maclean & Behnam 2010; Smith 2009; Finke & Langdon 2012, Moran 2014), displaying the current licensee-adviser licensing model as consequential [morally] illegitimate.

Procedural [moral] legitimacy considers the moral perceptions of an object's socially acceptable practices, standards and procedures (Suchman 1995). Legitimacy theory states decoupling (Cole & Salimath 2013) occurs where formal policies, processes and rules for legislative compliance differ from actual practice (Carruthers 1995) and behaviour (Scott 2014). Investigations by the FSRC, parliamentary inquiries, recent court cases and media reports show AFS licensees implement legislated practices, standards plus procedures using codes of practice and handbooks (Flood 2017) reinforcing the advisers' product distribution role (Commonwealth of Australia 2018; Ziffer 2018; Davis 2019; Commonwealth of Australia 2019; Ferguson, Masters & Christodoulou 2014; Parliament of Australia 2014). Often product recommendations are masqueraded as sources of advice (Newnham 2012). Together with the inductive qualitative analysis of a US financial services organisation where widespread deceptive sales practices occurred (Maclean & Behnam 2010), research by McInnes (2020) reinforced procedural illegitimacy when advisers verified that AFSL-AR licensing resulted in deceptive sales practices to enhance product distribution, whilst giving the appearance (window dressing) of satisfying compliance with the Corporations Act and, hence, Standards two and three of the FASEA Code of Ethics.

Suchman (1995) defined *structural [moral] legitimacy* as the moral assessment of adopting acceptable (in the eyes of society) formal structures. Under existing adviser licensing, licensees appoint and oversee multiple representatives (Australian Government 2014). Accepting licensees to control self-employed advisers like quasi-employees (Pokrajac 2014) led to proven unethical practices because advisers do not have autonomy like true professionals (Smith, Armstrong & Francis 2009) to provide truly independent advice, except in the case where they are self-licensed complying with s923A of the Act. As the FSRC investigated the misconduct, it became apparent licensees who had full control of their employee 'advisers' where the relationship is not only a licensee-adviser one but an employer-adviser too, resulted in even less autonomy to offer independent advice with a culture driven to meet product sales targets. The Australian financial advisory participants have bought into a system of co-habitation (Money Management 2014) between product distributors and their advisers where they are working under the same umbrella as associates servicing clients' needs. This product-conflicted licensing system is structurally [morally] illegitimate because it is troubled by conflicts of interest by association (McInnes 2020).

Achieving *personal [moral] legitimacy* requires the moral evaluations of the roles of charismatic personalities (Carnegie & O'Connell 2012; Goretzki, Strauss & Weber 2013) with vested interests who lobby Government to create or dismantle organisations (Suchman 1995). Young and Thyil (2014) suggested leaders of financial organisations have a duty and moral obligation to all stakeholders to behave ethically to receive consent to operate. Demonstrated during the naming and shaming of leaders of licensees during the FSRC, through litigations by ASIC (O'Brien 2019) combined with McInnes's (2020) evidence the licensing model displays personal illegitimacy where pre-FSRC individual licensee leaders' contributions to the licensing debate (Carnegie & O'Connell 2012) aimed to protect their distribution channels.

Finally, *cultural-cognitive legitimacy* manifests when a perception of shared understanding, activities, norms and beliefs (Santana 2012) aims to perpetuate an institutional order (Kury 2007) based on awareness (Meyer 2007). In terms of financial planning, cultural-cognitive legitimacy is the perception of a shared understanding of adviser identity, role (Zimmerman & Zeitz 2002, p. 420) and performance (Scott 2014). With regards to this shared understanding, a Roy Morgan study

(Morris 2013) claimed the public were generally unsure as to whether financial advisers were product-aligned or s923A independent [identity] providing conflicted or independent advice [role] to meet the best interests duty and avoid conflicts of interests [performance]. According to McInnes (2020), licensee-adviser licensing cultural-cognitive illegitimacy exists because advisers claim the public cannot clearly distinguish between independent financial advisers and conflicted financial advisers.

The importance of passing Suchman's criteria was discussed in earlier works (McInnes & Ahmed 2016; McInnes 2020).

Research support for a single disciplinary body

It is clear three years after the FSRC (Commonwealth of Australia 2019) finding solutions to improve consumer protection (Schmulow, Fairweather & Tarrant 2019), lack of public trust (O'Brien 2017) and confidence (Balasubramnian, Brisker & Gradisher 2014), quality of the advice (O'Brien 2019) and access to financial advice (Marsh & Phillips 2019) remains agenda items for Government to persuade the public to seek financial advice.

North (2015) identified the different standards, structures, sizes, and range of business models the current licensing regulations has disseminated. For instance, there are organisations that offer 'holistic' (comprehensive) advice; others, like SMSF and life insurance-only advice, offer limited (scoped) advice, not forgetting innovative FinTech and RegTech technologies (Nicholls 2019) like the emerging Robo advice business models. Sanders and Roberts (2015) highlight the financial advisory sector's business models developed around the licensee-adviser licensing model is an institutional profit-driven intermediary, rather than a client-driven intermediary serving the clients' best interests.

Not only evidence (Cull & Bowyer 2017; Hooper, D'Souza & Braddon 2018) from the FSRC (Commonwealth of Australia, 2019) exposed how these institutions' culture and ethics undermined the compliance obligations of the individual professional adviser (Millhouse 2020). Cull (2009) mentions in her paper that the embedded financial product distribution within a profit business model makes professionalism challenging. Sanders and Roberts (2015) later claim it is the opposite approach of accredited true professions.

Merely focussing on FASEA's bachelor's degree requirement, national exam, professional year, continuing professional development and ethical standards[8] is insufficient according to Breakey and Sampford (2017b). They claim the financial advice sector requires an integrity system encompassing *inter alia* licensing requirements and a regulated independent body. This supports the notion of Steen, McGrath and Wong (2016) and the empirical evidence of McInnes (2020) in that disconnecting advisers from intermediaries should encourage a much-needed cultural shift toward adviser behaviour that serves the common good. Besides, the illegitimacy of the existing adviser licensing structure leads to a strong argument for replacing current institutional adviser licensing via multiple licensees with a recognisable accredited professional individual licensing model via a single disciplinary body as occurs in the medical, legal and accounting professions (Kingsford Smith 2014; Sanders & Roberts 2015; McInnes 2020). This is further supported by the FSRC (Commonwealth of Australia 2019), the ASIC inquiries (2017b) and ASIC private (Australian Securities and Investments Commission 2013) and public class actions (Pearson 2019)—of which discovered licensees had failed on many levels in the oversight of their advisers.

[8] Corporations Amendment (Professional Standards of Financial Advisers) Bill 2017.

Moreover, financial planning is becoming a profession (Breakey & Sampford 2017b). Financial planners should thus be regulated as soon as possible as are professionally qualified lawyers, doctors and accountants (Bruce 2012; Ap 2011; Burke et al. 2015; Australian Securities and Investments Commission 2014; Watts and Murphy 2009; McInnes 2020). Unlike AFS licensee-having the power to control financial advisers to recommend the licensee's financial products as they are contractually obligated to their AFS licensees, pharmaceutical companies do not have the same coercive power to control doctors to prescribe their pharmaceutical products (McInnes 2020). Third party/intermediary medical practices, centres, large corporate commercial corporations (including hospitals) or other health providers who employ doctors, lawyers and accountants (Bamber & Iyer 2002; Institute of Chartered Accountants of Australia 2012; MilnerKnight, 2020; Medical Board of Australia 2012; Australian Bar Association 2016; McInnes 2020) are able to control their professional culture, ethics, knowledge, skills and practices (Breakey & Sampford 2017a, p. 262; McInnes 2020) rather than be controlled by those who employ their services. When corporate control of these professionals works against their values of fiduciary duty, independence, collegiality, ethical standards and autonomy to serve the public good (Breakey & Sampford 2017a), they have the legal power of their professional bodies to minimise or stop it.

Established professions are controlled via their certification bodies. Similarly, financial advisers should be certified by an independent body in a similar manner (McInnes 2020) so that managerial interventions and licensee controls (Evetts 2011) can be removed. Instituted professions have evolved their regulatory governance over centuries (Breakey & Sampford 2017b). For instance, English lawyers gained the 'status of profession' by the end of the thirteenth century, while English physicians did so during the sixteenth century, and accountants between the seventeenth and eighteenth centuries (Edwards & Anderson 2011). Registration of medical practitioners in Australia began first in Tasmania in 1939 (Dammery 2001). The first UK immigrant lawyers arrived in 1814, barristers emerged in 1824, and the Australian Supreme Court opened 17 May 1824 (Pelly 2015). The first Australian association of lawyers (Law Society of NSW) dates to 1842. It was established to improve the integrity of the legal profession (Pelly 2015). For the accounting profession, the first two professional bodies and the designation 'chartered accountant' was founded in Scotland in 1850 (Edwards & Anderson 2011). Australian accountants were recognised as a profession in March 1907 in the Editorial of Australia's first professional accounting journal (The Public Accountant) because of a UK legal case—Society of Accountants and Auditors v Goodway and Others—which ruled that only a member of that society is an incorporated accountant (Cooper 2007).

Initially, professionals formed partnerships or were sole practitioners (Breakey & Sampford 2017a). However, new business models evolved over time where professionals have become employees of larger commercial organisations, manifesting ethical predicaments such as conflicts between their professional ethical duties and contractual obligations to their employer (Breakey & Sampford 2017a). Despite their shortcomings, these recognised professions continually evolve their mindsets (professional beliefs, moral issues around common good language and ethics), education, socialisation (honesty, trust) and practices (professional codes, regulation and related controls) (Smith, Clarke & Rogers 2017) through community membership, supervision, mentoring, apprenticeships, training and education (Breakey & Sampford 2017b). Thus, professionalism is a dynamic concept brimming with contradictory meanings and failures at the individual level, and not at the institutional level (Smith, Clarke & Rogers 2017) for the common good.

Although, there are writers suggesting that efficiency and commercialisation have replaced traditional ethics and serving the common good (Smith, Clarke & Rogers 2017), COVID-19 may be the return to traditional ethics to serve the common good (Bearden 2020; Centorrino 2020; Schlag & Mele 2020). Financial advisers have the benefit of hindsight of several established professions to evolve the financial planning profession in a shorter time than these professions have done and to learn from their mistakes.

Literature on the development of professions internationally (Neal & Morgan 2000; Adams 2010) suggest it is a challenging and ongoing process—one that takes time involving either state intervention or that develops spontaneously or in combination. The Government is approaching the establishment of the financial planning profession by combining both (Sanders & Roberts 2015) to address weaknesses in governance within the financial advice sector (Commonwealth of Australia 2019; Frydenberg & Hume 2019). Now is the opportune time for advisers to shape the emerging profession to be fit for purpose, especially given the claim by Hooper, D'Souza and Braddon (2018) that the adoption and development of Fintech and Regtech solutions to address issues such as compliance has the backing of both Government and ASIC. For many, it may seem obvious that professional associations, the abandoned monitoring body/ies (Smith 2020) initially planned by FPA, AFA, SMSFA and others (Riskinfo 2019) or FASEA should take on all or some of the role of the disciplinary body. However, it must be recognised that most of them would not qualify because they would struggle to meet the requirements of a professional standards scheme (Professional Standards Councils 2020) pursuant to the professional legislation (Sanders & Roberts 2015). This is particularly so when many are conflicted by funding/sponsorships from commercial AFS licensees who are often also corporate members of the association with strong relationships with AFS licensees (Power 2016; Flores 2019). Even if policy makers face resistance to change (Marsh & Phillips 2019) due to lack of transparency, complicated internal administrative structures and systems (Millhouse 2019) and notwithstanding the cost of that change, any change will, according to Dolan et al. (2012), have a strong effect on behaviour. However, it is imperative that the right people, namely well-behaved advisers, who are far more qualified than Government, lawyers, academics and ethicists, be fully involved in shaping the policies, governance, processes, and people of the single disciplinary body, so that financial planning becomes a true profession run by advisers, like the established professions run theirs.

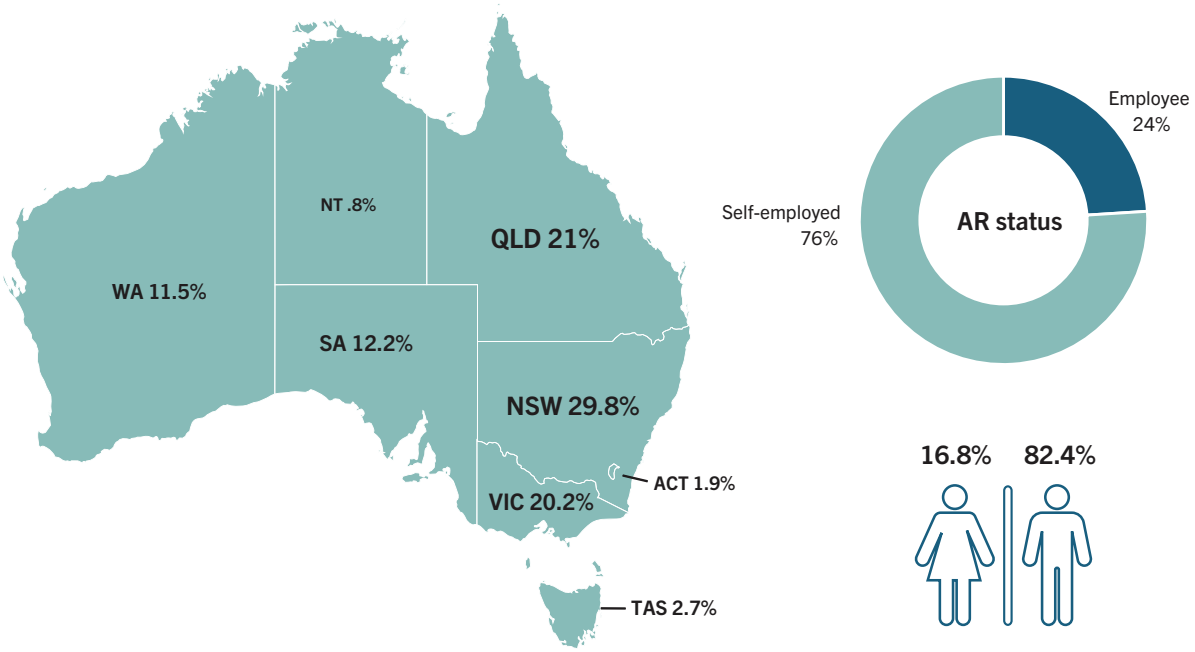
To be clear, individual licensing of 'natural persons' via a single disciplinary body to become a true professional is different from self-licensing (Bowler 2015) to become an independent financial adviser. Self-licensed AFS licensees are not 'natural persons' that are subject to the same requirements as accredited and recognised professionals who fall under the Professional Standards Scheme enforced by the Professional Standards Councils (2020). Self-licensing and limited licensing models are business models involving individual advisers forming small organisations that procure their own AFS license by meeting the same compliance requirements as the large product provider AFS licensees and other AFS licensees (Sharpe 2019; Halsey & Halsey 2014). However, the main difference between them and large product provider licenses is the license enables them to better meet the s923A independent adviser (advice) requirements of the Corporations Act. The main concern for self-licensed and limited licensees when it comes to individual licensing via the single disciplinary body is that it potentially makes the large investment in self-licensing in its current form redundant. However, if licensees want to survive, they all, including self-licensed advisers, will have to transform their businesses.

ASIC (2012) acknowledges the potential benefit of individual licensing via a single disciplinary body, making employee advisers more visible to everyone. Additionally, the growth in low-cost competitive digital finance solutions is making it possible for new players to threaten (Marsh & Phillips 2019) AFS licensees' businesses. Government's agenda is to utilise the disciplinary body to dismantle the layers of financial advisory legislative reforms coined 'FREXIT (financial regulation exit)' (Smith & Sharpe 2020). Then instead of ASIC and AFCA having to be concerned with handling complaints of misconduct, responsible for imposing banning orders to prevent individuals from providing financial advice, they can focus their enforcement powers (Bowley 2017) on AFS licensees and other intermediaries. This would free the disciplinary body to consolidate advisers' compliance responsibilities to ASIC, TPB, FASEA, AUSTRAC and AFCA under one umbrella focused on consistent adviser policies, governance, processes, and people.

Methodology

To determine the extent of the current AFS licensee-adviser licensing model's illegitimacy, McInnes (2020) asked the investigative questions as presented in Tables 2, 3, 4 and 5. She selected 4,000 Australian ARs on the ASIC Adviser Register using stratified probability random sampling (Cooper & Schindler 2014) to complete an online semi-structured cross-sectional questionnaire. To build additional acceptable standards for research (Willmott 1993) in financial planning, she used mixed methods methodology (Creswell & Plano Clark 2011; Baran & Jones 2016) utilising parallel convergent design (Creswell & Plano Clark 2011). She collected quantitative and qualitative data simultaneously to integrate into the overall interpretation of the results, which is known as the constant comparative technique (Baran & Jones 2016, Onwuegbuzie, Johnson & Collins 2009; Glaser 1965; Maykut & Morehouse 1994; Kolb 2012). She prioritised analysing the quantitative data using structural equation modelling (Figure 1) bootstrapped maximum likelihood estimation [MLE] (Arghode 2012).

Figure 2: Frequency of sample gender, location, AR status, age, qualifications, and licensee status [n = 262] adapted from the works of McInnes (2020)



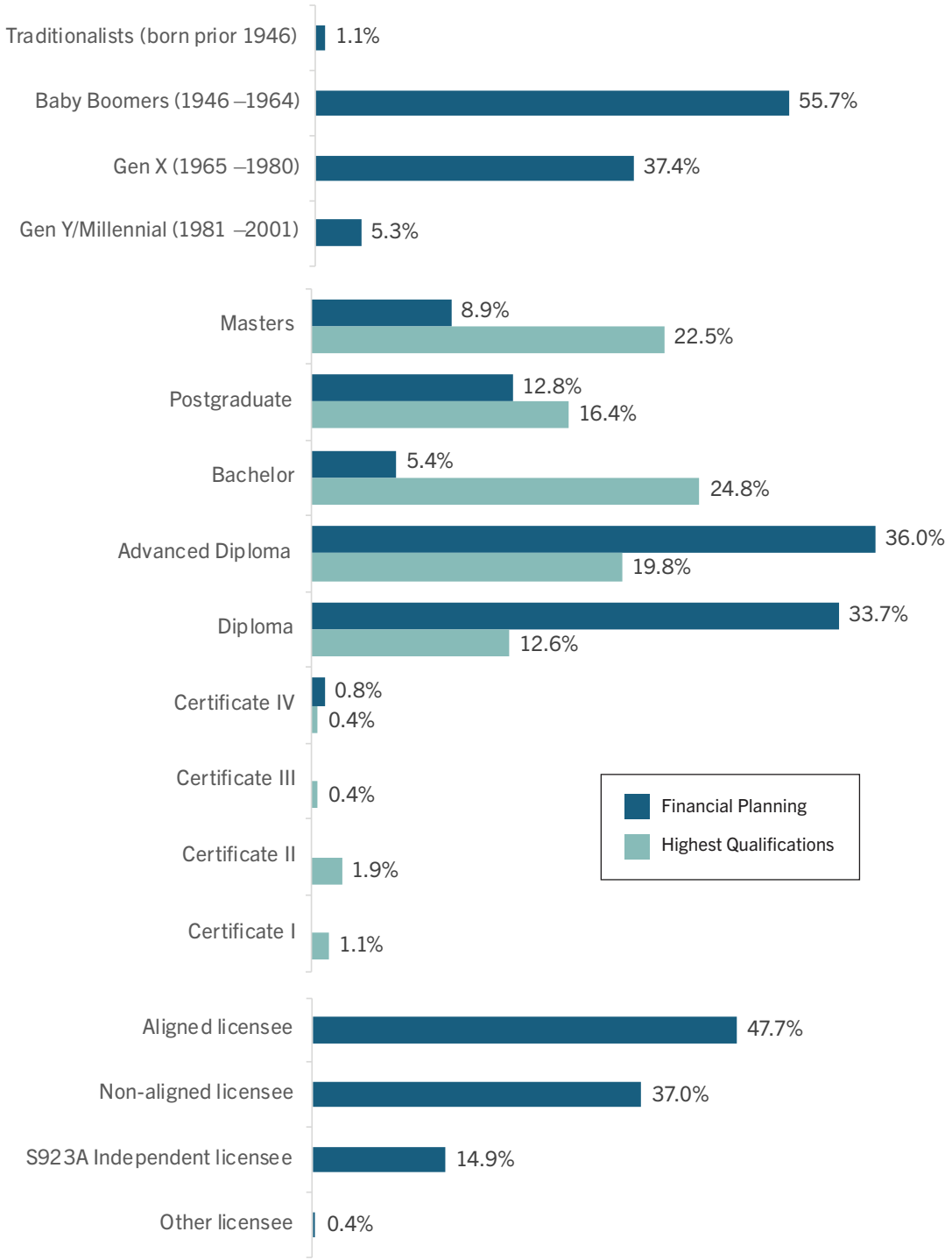

Traditionalists (born prior 1946)
1.1%
Baby Boomers (1946 –1964)
55.7%
Gen X (1965 –1980)
37.4%
Gen Y/Millennial (1981 –2001)
5.3%
Masters
8.9%
22.5%
Postgraduate
12.8%
16.4%
Bachelor
5.4%
24.8%
Advanced Diploma
36.0%
19.8%
Diploma
33.7%
12.6%
Certificate IV
0.8%
0.4%
Certificate III
0.4%
Certificate II
1.9%
Certificate I
1.1%
Financial Planning
Highest Qualifications
Aligned licensee
47.7%
Non-aligned licensee
37.0%
S923A Independent licensee
14.9%
Other licensee
0.4%

Table 1: Goodness of fit indices adapted from the works of McInnes (2020)

Measure	Estimate Ex CLF	Cum CLF	Definition of measures	Thresholds for good fit
CMIN	222.131	128.339	Chi-square fit index shows the sample and estimated matrix are the same.	
CMIN DF	119	101	Chi-square fit index degrees of freedom.	
CMIN P	0	0.034	Chi-square fit index p-value.	p>0.01
PCMIN/DF	1.867	1.271	Relative or normed chi-square fit index measures the difference between the population's true covariance structure and the target model.	<3
GFI	0.915	0.95	Goodness of fit index measures the relative amount of variance and covariance in the sample matrices jointly explained by the population matrices.	>0.95 good; >0.90 permissible; 0 [no fit] to 1 [perfect fit]
AGFI	0.878	0.915	Adjusted goodness of fit index for the degrees of freedom value.	>0.95 to >0.80; 0 [no fit] to 1 [perfect fit]
CFI	0.964	0.991	Comparative fit index is an incremental fit index comparing the hypothesised model against some standard baseline independence and null model. Measures the over-identification condition.	>0.95 good; >0.90 permissible; 0 [no fit] to 1 [perfect fit]
TLI/NNFI	0.954	0.986	Tucker-Leis fit/ Non-normed fit index compares the hypothesised model with null [no] model. Measures over-identification condition.	close to 0.95; 0 [no fit] to 1 [perfect fit]
NFI	0.927	0.958	Normed fit index.	close to 0.95; 0 [no fit] to 1 [perfect fit]
PCFI	0.75	0.654	Parsimony comparative fit index measures whether the estimated parameter is robust against others.	0 [no fit] to 1 [perfect fit]
AIC	326.131	268.339	Akaike information criteria compares alternative models. A value as low as possible is better. Should be smaller than the saturated and independence models.	< saturated [342] & independence [3,073]
BIC	511.685	518.123	Bayesian information criteria compares alternative models. A value as low as possible is better. Should be smaller than the saturated and independence models to be more generalisable.	< saturated [952] & independence [3,137]
SMSR	0.0688	0.0318	Average error in the model is minimal.	<0.09 good; 1 [no fit] to 0 [perfect fit]
RMSEA	.058	.032	Root mean square error of approximation measures whether the population matrix is the same as the sample matrix within a 90% Confidence Interval [CI]. Lower discrepancy between matrices the better.	<0.05 good; 0.05 to 0.10 moderate; >0.10 poor
RMSEA 90% CI	[.046;.069]	[.009;.048]	Root mean square error of approximation confidence interval.	<0.05 good; 0.05 to 0.10 moderate; >0.10 poor
PCLOSE	0.139	0.971	Closeness of fit. If less than 0.05, then RMSEA fails the test of minimal discrepancy between observed and predicted covariance matrix.	>0.05

Content analysis of the specific words written (Steen, McGrath & Wong 2016; Smith 2009) by respondents and reported in the findings section below in italics and quotation marks formed part of the qualitative analysis.

The author screened the data in accordance with recommendations by Cooper and Schindler (2014) resulting in useable cases of 262 out of 4,000 [7%]. Aguinis and Edwards (2014) contended generalizability is not guaranteed by large sample sizes and response rates. Besides, only a response rate of 3.5% [137 cases out of 4,000] is needed according to an online calculator tool developed by Soper (2016) and based on the works of Cohen (1988) and Westland (2010) computing a recommended minimum sample size for valid SEM studies. The sample demographics as per infographic Figure 2 support the research's representativeness. Close to a normal distribution, the mean number of years of AR experience of the respondents was 17.66 years with a standard deviation of 8.42 years and a range of 1 to 40 years. Given the nature of the topic is sensitive and controversial, the self-report design resulted in common method bias. However, when remedying the issue statistically using a common latent factor [CLF] it was clear common method bias was inconsequential, because the estimates *ex* and *cum* CLF arrived at the same conclusions.

Findings of the illegitimacy of adviser licensing

Table 1 shows the model has overall acceptable fit. The overidentification condition [CFI] was met, the estimates are generalisable [BIC] and the population matrix model was the same as the estimated or sample model's matrix [RMSEA]. The average error or discrepancies between matrices is minimal at .032 [cum CLF]. PClose value verified the estimated model [sample] is a good fit to the population. Therefore, the parameter estimates are interpretable in terms of their sizes and significant factor loadings plus correlations.

Figure 3 illustrates all the estimated standardised regression weights [RW] in the respecified model are significant [$p < 0.05$] to highly significant [$P < 0.001$]. The insignificant p-value [$p = .079$] for correlation coefficients between b_1 [advisers are double agents] and b_4 [Single Disciplinary Body] [Figure 3] is good news, because advisers cannot be double agents, while concurrently being licensed via a single disciplinary body. Overall, the results indicated all the theories assist in evaluating the licensee-adviser licensing's illegitimacy. Although not ideal, negative covariances for factor b_3 [Illegitimacy of AFSL-AR licensing] indicated overestimations of the relationships between its indicators. However, these variables were retained, because they were related to each other based on goodness of fit statistics, the theory, and the advisers' voluntary commentary [qualitative data collected]. The results, described in Tables 2, 3, 4, 5, and illustrated in Figure 3, supported all the hypotheses and sub-hypotheses.

Figure 3: Confirmatory factor analysis model cum Common Latent Factor adapted from McInnes (2020)

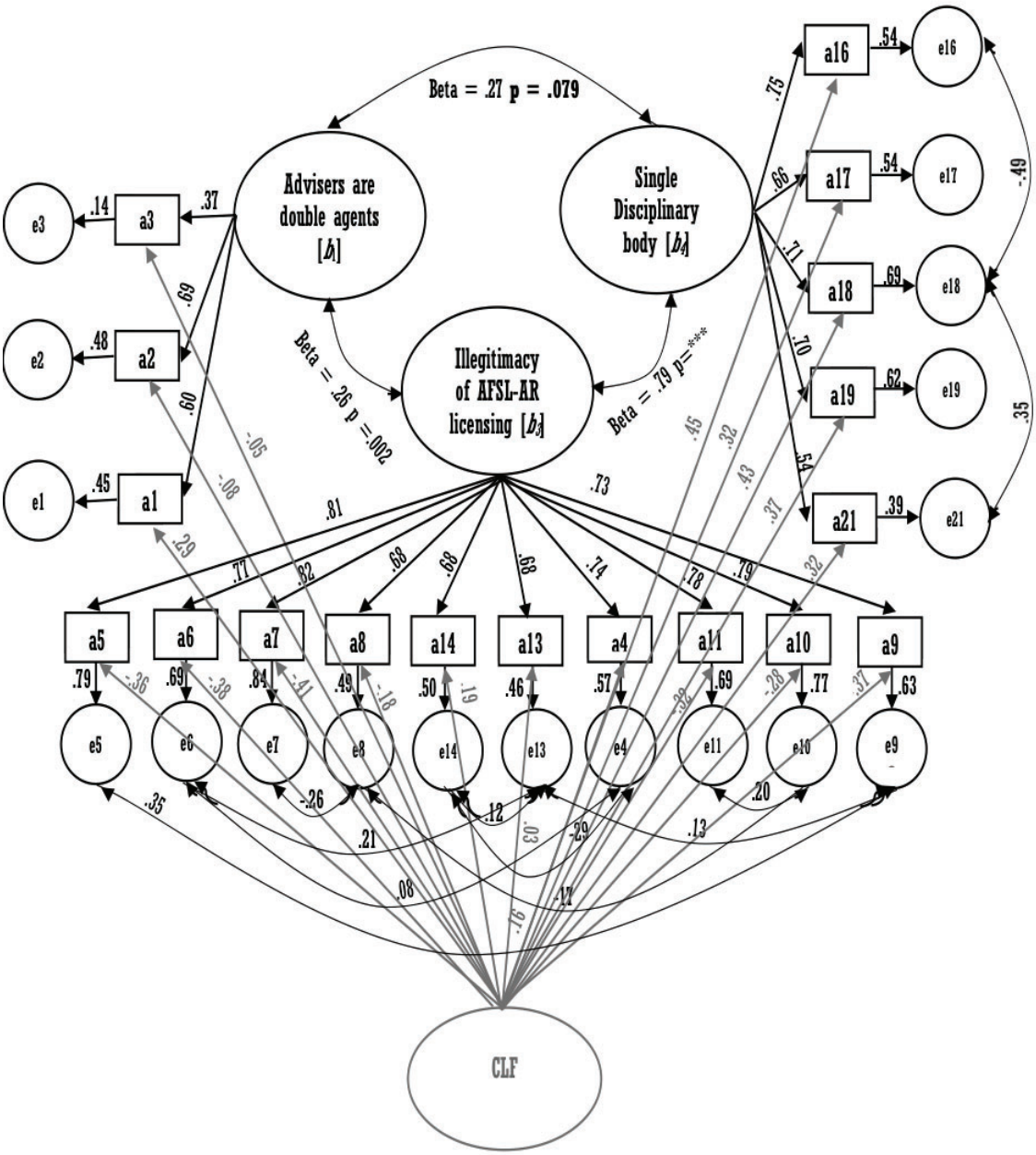


Table 2 results reveal, advisers felt licensing via third-party licensees turns them into double agents facing conflicts of interest by association. Moderate regression weight suggest respondents were uncertain about their responsibility as advisers when reflecting on the licensee-adviser-client agent role, which was reflected in the commentary they offered. For instance, advisers said that the adviser-licensee relationship is *'purely legal, compliance related'*. Contrary to s916A and s916B of the Corporations Act legislating advisers to *'provide a specified financial service or financial services on behalf of the licensee'*, advisers explained for *'almost all advisers . . . their responsibility is to their clients'. 'The real agency is with the client. The relationship with the third-party licensee is one of a service provided'. 'The client relationship is distinct from and trumps the Licensee relationship in all cases'. 'Best interests Duty overrides the dual agency relationship, as the adviser is left in no doubt about the fact his fiduciary duties are to the adviser-client relationship.'* Although, advisers are '...bound by the licensee rules and regulations, licensees are merely seen *'... as a servant/tool ...' '. . . supplying compliance, audit and PD training', '... relevant legislation; education'* and *'... assesses the products available in the market ...'*.

Table 2

Question 1: To what extend do financial advisers agree the current licensee-adviser licensing model makes advisers double agents creating conflicts of interest by association? Adopted from the works of McInnes (2020)

LITERATURE REVIEW **Advisers are double agents**	**SUB-HYPOTHESES**	**EVIDENCE** **RW CR p-value SMC** **M [95% CI] MSE CR p-value**
Licensee-adviser (Gor 2005; Smith & Walter 2001) & adviser-client relationship (Corones & Galloway 2013)	a1: Advisers are double agents	.604 2.676 p = .007 0.448 77 [73, 80] 1.912 40.266 p=0.10
Advisers serve the interests of licensees & clients, simultaneously (Kingston & Weng, 2014)	a2: Advisers serve clients' best interests & licensees' commercial interests simultaneously	.689 marker p = *** 0.47 0.481 62 [57, 66] 2.188 28.234 p=0.10
Double role creates a conflict of interest (Kingston & Weng, 2014)	a3: Advisers generate revenue for their licensees, while serving clients best interests	.375 3.642 p = *** 0.143 78 [75, 82] 1.767 44.416 p=0.10
Bootstrapped standardised regression weight (**RW**) Critical ratio (**CR**) Square multiple correlation (**SMC**) Mean (**M**) 95% confidence interval (**CI**) Mean standard error (**MSE**)		

Interestingly, some respondents did suggest that *'bank'* or *'specific dealer group that does not have a wide authorised product list'* in an employer-adviser relationship created more of a double agent role, than if *'the licensee is independent'*. One respondent claimed, *'my experience is that there remains an expectation from employer/AFSLs for an internal product bias'*. The only low squared multiple correlation [SMC] value, indicating low reliability in the responses was a value of .143 for hypothesis *'Advisers generate revenue for their licensees, while serving clients best interests'* [Table 2 above]. Qualitative evidence to explain this low reliability points to advisers' discomfort when they were asked about licensees' revenue benefits: *'The majority of licensees though do expect their advisers to generate revenue through the products that they provide'.*

'Most licensees have preferred product lines that generate income for the licensee ...'; 'licensees are in the business of making money'; '... And that's the conflict'; 'Without the Planner the Dealer group gets no revenue'. Contrary comments from some informants suggested: *'The revenue of the licensee is never a consideration'; '... overall most licensees do not make a substantial profit, it is more to complement other services and other benefits of having distribution'*.

Table 3 proves regulative illegitimacy because advisers claimed with high reliability [SMC = 0.839] unintentional [often intentionally as well!] best interests duty contraventions is the key variable delegitimising the licensee-adviser licensing model. Advisers felt contravening the conflicts of interest's objective of the Corporations Act is unavoidable because of *'cultural pressure from the parent company'* on *'employee'* and *'Buyer of Last Resort'* ARs. Employee ARs are expected to be *'writing product not strategy/optimal product for the client'*, otherwise it is *'difficult to retain their job or obtain bonuses'*.

Table 3

Question 2: To what extend do financial advisers agree the current licensee-adviser licensing model achieves objectives of the Act 2001? Adopted from the works of McInnes (2020)

LITERATURE REVIEW **Objectives of *the Act***	**SUB-HYPOTHESES**	**EVIDENCE** **RW CR p-value SMC** **M [95% CI] MSE CR p-value**
Manage, control or avoid conflicts of interests (Tuch 2005; Schwarcz 2009, Valentine 2008; 2013)	a6: Unavoidable conflicts of interests is present	.773, 15.101.169 p = *** 0.688 65 [61, 69] 2.315 28.137 p=0.10
Ensure compliance of the statutory fiduciary duty (Banister et al. 2013)	a7: At risk of unintentionally breaching best interests' duty	.821, marker p = *** 0.839 59 [54, 63] 2.288 25.717 p=0.10
Bootstrapped standardised regression weight (**RW**) Critical ratio (**CR**) Square multiple correlation (**SMC**) Mean (**M**) 95% confidence interval (**CI**) Mean standard error (**MSE**)		

Table 4

Question 3: To what extend do financial advisers agree the current licensee-adviser licensing model is legitimate based on Suchman's theoretical legitimacy framework extended and applied to financial planning theory? Adopted from the works of McInnes (2020)

LITERATURE REVIEW **Illegitimacy of adviser licensing**	**SUB-HYPOTHESES**	**EVIDENCE** **RW CR p-value SMC** **M [95% CI] MSE CR p-value**
Regulative illegitimacy: Perception of activities/rules/laws operating within some socially acceptable system (Suchman 1995; Chen & Roberts 2010)	a9: Licensing increases risks of unintentional breaches of the Act (Bitektine 2011; Chelli, Durocher & Richard 2014)	.727 15.207 p = *** 0.628 48 [43, 52] 2.337 20.365 p= 0.10
Consequential normative [moral] illegitimacy: Perception of specific morals/values/ethics of socially value outputs/outcomes (Suchman 1995)	a10: Licensees' commercial interests compromise clients' best interests (Smith 2009; Moran 2014; Maclean & Behnam, 2010)	.794 19.416 p = *** 0.768 63 [59, 58] 2.264 28.111 p=0.10
Procedural normative [moral] illegitimacy: Perception of socially acceptable practices, standards & procedures (Suchman 1995)	a11: Licensees' sales policies window-dressed to comply with the Act (Valentine & Hollingworth 2015; Newnham 2012; Sampson 2010; West 2009; Valentine 2013)	.781 13.844 p = *** 0.687 61 [56, 66] 2.356 25.956 p=0.10
Structural normative [moral] illegitimacy: Perception of adopting formal structures acceptable to society (Suchman 1995)	a4: Conflicts of interests from association/affiliation/ownership exists (Steen, McGrath & Wong 2016; Smith 2009; Commonwealth of Australia 2009; Valentine 2013)	.740 9.073 p = ***0.574 75 [70, 78] 2.041 36.477 p=0.10
Personal normative [moral] Illegitimacy: Perception of leaders' roles to exert their personal influence to dismantle/create existing/new bodies (Suchman 1995; Carnegie & O'Connell 2012; Goretzki, Strauss & Weber 2013)	a13: Aligned leaders aim to protect their product distribution channels (Bird & Gilligan 2015; Sampson 2010)	.679 5.193 p = *** 0.463 78 [75, 82] 1.797 43.594 p=0.10
Cultural-cognitive illegitimacy: Shared understanding to perpetuate an institutional order based on cognition or awareness (Santana 2012; Meyer 2007; Suchman 1995; Kury 2007)	a14: Clients-advisers' shared understanding as to advisers' identity - independent/conflicted (Zimmerman & Zeitz 2002; Scott 2014). The public cannot clearly distinguish between s923A independent from product conflicted advisers (Morris 2013)	.682 3.817 p = *** 0.502 62 [58, 66] 2.268 27.401 p = 0.10
Bootstrapped standardised regression weight (**RW**) Critical ratio (**CR**) Square multiple correlation (**SMC**) Mean (**M**) 95% confidence interval (**CI**) Mean standard error (**MSE**)		

Table 5

Question 4: To what extend do financial advisers agree the current licensee-adviser licensing model should be replaced with a single disciplinary body? Adopted from the works of McInnes (2020)

LITERATURE REVIEW **Professional individual licensing**	**SUB-HYPOTHESES**	**EVIDENCE** **RW CR p-value SMC** **M [95% CI] MSE CR p-value**
Lack of trust & confidence (Morgan & Levine 2015) prevents the public from seeking advice (Balasubramnian, Brisker & Gradisher 2014)	a16: Individual licensing will improve public trust & confidence	.745, marker p = *** 0.754 64 [60, 68] 2.327 27.386 p=0.10
Institutional commercial licensee favoured over individual professional adviser (Sanders & Roberts 2015), which leads to problems (O'Brien & Gilligan 2014). Individual licensing to disconnect advisers from product issuers may lead to a culture shift (Steen, McGrath & Wong 2016) to independence (North 2015; Kingsford Smith, Clarke & Rogers 2017)	a17: Individual license will promote independence from conflicted licensees	.662, 11.035 p = *** 0.541 65 [61, 69] 2.230 29.147 p=0.10
Financial advisers have been likened to other professionals (Ap 2011; Bruce 2012; Burke et al. 2015) Professional regulation evident in law/medicine is critical to the proper functioning of financial services industry (Omarova 2010)	a18: Individual license should be modelled on other professions [accounting, legal and medical]	.711, 11.211 p = *** 0.694 69 [64, 73] 2.244 30.618 p=0.10
Individual license (Hoyle 2017; Sanders & Roberts 2015; Commonwealth of Australia 2014; Commonwealth of Australia 2009) via single monopoly body = most effective way to regulate the future financial planning profession (Kingsford Smith 2014)	a19: Individual license regulated through a single independent registration, competency, education, conduct, standards, and disciplinary board preferred	.695, 12.075 p = *** 0.623 68 [63, 72] 2.198 30.969 p=0.10
Conflicts of interests by association due to licensees-advisers acting as co-workers (Money Management 2014) lead to institutional- professional conflicts (Smith 2009). Government's policy objective is to eliminate conflicts of interest (Millhouse 2019)	a21: Individual licensing will eliminate conflicts of interests from association	.536, 8.625 p = *** 0.39 52 [48, 57] 2.167 24.188 p=0.10
Bootstrapped standardised regression weight (**RW**) Critical ratio (**CR**) Square multiple correlation (**SMC**) Mean (**M**) 95% confidence interval (**CI**) Mean standard error (**MSE**)		

Consequential [moral] illegitimacy [Table 4] scored the third highest reliability [SMC = 0.768] and the third overall highest regression weight [0.794]. This suggests licensees' commercial interests do compromise advisers' best interests' duty. By combining the results of double agency role [Table 2] and consequential illegitimacy [Table 3] it is evident advisers acknowledge licensee revenues as a problem but find reflecting on the matter problematic.

Table 4 confirmed AFSL-AR licensing is normatively illegitimate. AFS licensees control advisers' professional ethics with key performance indicators, sales targets and threats of job and remuneration losses to promote a product sales culture, which validated the presence of conflicts of interests by association.

From the foregoing discussion, the licensing model failed all the legitimacy tests. Thus, current licensing is convincingly illegitimate.

As a possible solution, advisers reveal their support for individual licensing via a *'single body'* based on the empirical evidence in Table 5. They agree clients' trust and confidence would improve with individual licensing, while providing them with much-needed independence from product-conflicted licensees.

Furthermore, they are in favour of modelling adviser licensing on established professions. However, advisers expressed reservations of replacing licensees with a *'single body'* such as numerous unresolved issues comprising practicality, professional indemnity, approved product lists, *'economies of scale'* and problems of *'vertical integration'*. A major concern was where *'subsidised . . . research, compliance, marketing and training support'* is going to come from, because support services *'from aligned dealer groups are substantial'*. Others felt *'the cost of having back office staff. . . would be too expensive'* and the *'cost to end client would be much greater'*. However, some disagreed this would be a problem, particularly those advisers favouring individual licensing via a *'single body'* who felt *'... costs could be drastically reduced due to numbers'* and *'would also help reduce costs to an Adviser's practice'*.

There was lack of consensus regarding whether individual licensing will eliminate conflicts of interest. Responses included: *'I don't know that it will eliminate, but it will resolve possibly the biggest issue standing in the way of clients' best interests being satisfied (all of the time)'*; *'Might not eradicate conflicts but will reduce them a lot'*, because *'product providers will continue to try and influence advisers.* Contrary responses included: *'No we will still have BDM's providing incentives etc and our personal bias'; 'Nothing will stop bank and union super fund licensees from finding ways to influence advisers they employ'* and *'all product providers focus on large writers of business and incentivise them to use their products—this will continue'*.

Discussion, implications, recommendations and contributions

Since the best interests duty was legislated, advisers' double agency identity and role have been problematic for their effective performance. The current structure of licensing advisers displays inconsistencies with the best interests duty [s961B] and conflicts of interest [s961J]. Empirically confirmed, the current licensing's illegitimacy tendencies have changed advisers' perceptions and practice despite their legal obligations to their licensees. Licensees' commercial interests are compromising the best interests duty by the attitudes set by top management of these intermediaries which has led to class action post-FSRC. The existing licensing model threatens advisers' independence and integrity, shapes adviser culture and ethical behaviour—some of the key characteristics of a profession. The culture of licensees is blind to conflicts of interest (Hooper, D'Souza & Braddon 2018), a key variable identified to result in unethical behaviour (Murray, Manrai & Manrai 2017). Conflicts of interest by association remains inappropriate when elimination of conflicts is vital for a professional.

A strict focus on legal standards for education, ethics, experience, and examination to professionalise financial advisers is insufficient. For a profession to develop, a body is required to oversee and administer professional entry, standards, and the public's compliance expectations. Therefore, Government should be commended for committing to provide advisers with a single disciplinary body to self-regulate, while assisting in disconnecting them from licensees with vested interests to control them which has led to unethical behaviours. Thus, there is empirical evidence supporting Hayne's recommendations and Government's action to set up a single disciplinary body to better protect the public. This disciplinary body is a critical element to turn advisers into recognised accredited professionals like the established professionals. Advisers can draw on years of experience and practices of lawyers (Rogers, Smith & Chellew 2017) and accountants, notwithstanding doctors, to address the concerns around, for instance, professional indemnity and its role in professional relationships (Morgan & Hanrahan 2017) together with issues around 'large organisations or professional service firms' (Rogers, Smith & Chellew 2017, p. 218).

Although the public is likely to benefit with access to independent advice, change will not be pain-free. Redundancies among small, single adviser self-licensed adviser businesses and financial collapse for some advisers presently financially and contractually tied to licensees or struggling with the 'regulatory overload' (Adviser Ratings 2020, p. 3) may be hastened by the single disciplinary body combined with COVID-19 repercussions. Therefore, legislators will have to carefully consider changes to the legislation to minimise the negative outcomes of advisers locked in with some licensees. Another major concern for advisers is the cost implications of individual licensing, economies of scale and practicality. However, Susskind (2017) is of the view that the Internet of Things (IoT), AI and machine learning is transforming the way professions work and live. Flood (2017) suggested AI and big data should improve the capabilities of professionals. He also maintains professional commercial and business models will constantly undergo evolutionary change where large organisations will use power and influence (Flood, 2017). However, if the cost of service does not reduce with technological innovations and reduced compliance, then clients' demands of value for money advice may not be met, especially given Greenleaf's (2017) argument that the impact of digitization is difficult to determine with certainty. However, living with uncertainty seem to have become a way of life now.

Despite all these concerns, if advisers want to have greater autonomy, power, authority, and independence to build an ethical culture they must oversee the single disciplinary body like other established professionals are collectively in charge of the entrance, exit and conduct of their professionals within their profession via their professional body/ies. Rather than leaving it all to Government, academics, ethicists, lawyers, and the old guard of Financial Services leaders, advisers should heed Flood's (2017) advice and consider universal models of professionalism by clearly defining the profession, professional, and professionalisation. For him, the differences between various established professions, including their national jurisdictions, justifications, and regulations are important concerns. This new body is important, because empirically, independently licensed advisers promote improvement in public trust. It will provide university graduates a clear professional career pathway—important considering Adviser Ratings (2020) reports that financial planning students are demotivated from completing their degrees. Thus, there is no better time than now for advisers to actively participate in the disconnection from AFS licensees via a single disciplinary body. Getting involved is especially important given valued experienced advisers are considering exiting the industry by 1 January 2026 when the FASEA educational standard must be met (Adviser Ratings 2020).

Like most empirical studies, research validating a new licensing model confronted several limitations. Although the small sample size was more than sufficient to produce research data that passed all the tests for validity, reliability, representativeness and generalisability (McInnes 2020), the response rate limited the study and might suggest that at the time of the study advisers did not think adviser licensing an important issue. There was limited scholarly attention prior to the FSRC, which restricted reliance on negative unsubstantiated claims from non-peer reviewed secondary data. Thus, the examination of the current licensing models' illegitimacy occurred at the strategic level to develop the conceptualised theoretical model. However, this research advances financial planning theory with a more impartial peer review, in addition to providing a scholarly platform to raise other central topics around licensing advisers. Furthermore, the low response rate and lack of data availability among other stakeholders limited deeper analytical interpretation of the findings. Therefore, future research should survey other stakeholders and use methods to encourage more participation in research of this nature. Suchman's (1995) criteria could be extended in time as researchers delve deeper into this topic. The study also focused on a single jurisdiction, namely Australia. Including research considering other countries' adviser licensing legitimacies would further contribute to the international issue of regulating advisers as true accredited professionals. Finally, the research was constrained by its timing as it occurred during major and ongoing Future of Financial Advice, FSRC and FASEA (soon to be wound up) reforms which remain ongoing and not all fully implemented.

Conclusion

Critically integrating several relevant theories contributed to establishing the illegitimacy of the licensee-authorised representative licensing model. This arms the Government with empirical evidence to push for major structural change in the process of professionalising advisers as soon as possible—that being, commercial institutional licensing replaced by professional individual licensing. However, this provocatively delicate and complex topic is being addressed by the stakeholders of the financial advisory sector as this paper goes to print. Once Government has formed the single disciplinary body, advisers must be the major active participants in the legislative advocacy and governance, internal and organisational governance, the external governance, and public accountability, and shape their responsibilities and functions. With a single disciplinary body, advisers will no longer be paddling in two canoes. A major obstacle to professionalising advisers would be removed, namely conflicts of interest by association. This would provide well-behaved, ethical advisers with an opportunity to position and differentiate themselves from some of the aspects of product-based practices. Moreover, the application of the FASEA guidelines would be more easily policed, along with any additional conventions developed within the single disciplinary body. At the same time, the need for unnecessary and/or impractical compliance regulations would be removed. The cost of service would be thus reduced with the assistance of digital technologies and reduced legal compliance obligations, making advice more accessible to a greater number of Australians. Although all stakeholders have been involved consulting with the Government to drive change to date, advisers should really be in the driver's seat as other professionals are at the helm of their professions. Experienced advisers can conceive a profession that offers young, emerging, newly qualified entrants a sustainable professional financial planning career. Well-behaved advisers can improve culture, ethics, integrity, and decision-making structures within the financial advisory sector to restore trust and confidence in the services it provides. Advisers made personally accountable for protecting the public from misconduct in the same way established professionals attempt to protect the public from any misconducts within their professions should lead to better advisory outcomes for the public. However, before launching into any new regime, further consideration must be given to the perceived challenges. In closing, once the new disciplinary body is established and settles into its task of regulating advisers, then it would be prudent for its legitimacy to also be tested empirically.

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THE HAYNE ROYAL COMMISSION AND FINANCIAL PLANNING ADVICE: A REVIEW OF THE IMPACT ON THE OPERATING MODEL OF FINANCIAL ADVICE FIRMS

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ABSTRACT

The recommendations of the Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry outlined a new approach to disclosure, review and remuneration practices of the financial planning industry. Drawing from academic articles and industry analysts, the Financial Services Royal Commission is likely to have a significant impact on the financial planning industry and the operating model of financial advice firms, which requires the redesign of financial advice business and delivery models. This paper provides some evidence of the changes in the operating model of financial advice firms after the enactment of the Royal Commission's recommendations. We also identify gaps in the literature and highlight some important research issues that provide directions for future research.

Introduction

Over the last two decades, the financial planning industry in Australia has experienced significant changes, ranging from legislative to technological. In 2019, the Financial Services Royal Commission (FSRC) outlined a number of key recommendations which are likely to have significant implications for participants in the financial planning sector. There was an expectation that the FSRC recommendations, in relation to financial advice, would have a major impact on the financial planning industry and advice operating model. However, evidence is still being gathered. In order to examine the impact of the FSRC on the operating model of financial advice firms, we review articles and industry analysis reports related to the impact that the FSRC has had or is likely to have on two key themes: first, financial advice business models, including remuneration models, cost-to-service models and client segmentation. Second, financial advice delivery models including products and platforms, processes and technology, advice distribution channels and customer value propositions.

The change from a predominantly sales-based revenue model to a fee-based advisory model means that the business models of many financial advice firms could be quite different. For example, the advice operating model of big financial advice institutions such as the four major banks, AMP and IOOF Holdings, which have over 9,000 financial advisers operating under a licence they control according to the Australian Securities and Investments Commission (ASIC) (2019), cannot survive after the enactment of the FSRC's recommendations without a substantial change in either pricing to the client or cost efficiencies in the business. However, the change to financial advice business models will have to do more than ensure the provision of advice remains profitable—it will have to adapt to the behaviour of consumers of financial advice and address a new expectation of authentic service models and client relationships. Also, for single or self-licensed advisory businesses it will be vitally important to have a clearly structured client value proposition that demonstrates how that value will add to their clients' financial health compared with non-advice providers.

According to industry analysts (Deloitte Australia 2019), the FSRC would increase the possibility of individual licensing or quasi-licensing—in turn, increasing self-determination and accountability for the individual adviser. These business models could also lead to a shift in both business practice and the support systems of industry. In line with this perspective, we can expect a wide range of competitive service offerings and segmented business models—for instance, the rise of shared services, that will offer a variety of professional services to clients with no product. Also, it is expected that the majority of financial advice businesses post-Royal Commission will intend to offer fee models where fees will generally be a mixture of fixed pricing and hourly rates.

However, after the FSRC, it is evident that the provision of financial planning advice is becoming unviable for many advisers and licensees. A recent report from Adviser Ratings (2020) found that 4,378 licensed financial advisers quit the industry in 2019, equating to a reduction of 15.6 per cent of the total number of financial advisers. This drop is linked to sharp rises in costs, including regulatory, compliance, technology, and professional indemnity insurance. We suggest that the FSRC is likely to have had the greatest impact on smaller financial advice firms which would not have had the necessary infrastructure to implement the Royal Commission's recommendations.

These smaller firms may be more affected by the cash-flow limiting consequences of the cessation of grandfathered commissions effective from 1 January 2021, the reduction of the cap on commissions for life risk insurance products, and anti-hawking rules implemented by mid-2020 to end cross-selling of insurance and superannuation products (Hayne 2019). Therefore, financial advice businesses need to re-evaluate their strategic position and business viability, while focusing their resources on transformational growth.

In light of the ongoing pressures on the operating model of financial advice firms after the FSRC's recommendations, including the segmentation of client bases and the revenue targets, we can conclude that one of the unintended consequences of the FSRC will be that the mass market for financial advice is even less likely to be provided for after the enactment of the Royal Commission's recommendations than was the case before their implementation.

An outline of the article is as follows. Section 2 (Background) gives a broad picture regarding the establishment of the FSRC. It also provides a brief overview of the process followed by the FSRC to identify the systemic causes of problems in the financial advice industry. And finally, presents a summary of the FSRC outcomes and major themes. Section 3 (Studies on the Royal Commission and financial services industry) presents several studies which examine the effects of the FSRC's impact on the financial services industry from different perspectives. Section 4 (The impact of the Royal Commission on financial advice operating models) focuses on providing evidence of the changes in the operating model of financial advice firms after the enactment of the FSRC's recommendations. Section 5 (Future research agenda) outlines suggestions for the future research agenda. Section 6 (Limitations) addresses the study limitations. Section 7 (Conclusion) concludes the paper.

Background

The establishment of the Financial Services Royal Commission

Since 2001, attempts to reform the financial advice industry have been in train to improve the quality of financial advice, strengthen consumer-protection, promote trust and transparency in the financial advice industry and enhance minimum education standards in the sector (Australian Government Treasury 2018). However, progress has not been rapid, and the FSRC, established in 2017, has released ten essential recommendations for the financial advice industry before it can be deemed a profession (Hayne 2019). The recommendations suggest new ways to deliver financial advice, including changes to ongoing fees, disclosure of lack of independence, quality of advice, conflicted remuneration and discipline for misconduct.

Following pressure from whistleblowers, lobby groups and heightened media attention, the FSRC was established in late November 2017 and led by former High Court Judge Kenneth Hayne to investigate misconduct in Australia's banking, superannuation and financial services industry. Some studies suggest that the decision to establish the FSRC was inherently political, more than it was necessary or even desirable (Gilligan 2018; Davis 2019; Singleton &Reveley2020). Nonetheless, the FSRC was charged to investigate the extent to which misconduct fell below community standards and the expectations of financial services entities (Hayne 2019).

A number of studies (Schmulow, Fairweather & Tarrant 2018; Wishart &Wardrop 2018; Coburn 2019; Millhouse 2019; O'Brien 2019) find the establishment of the FSRC contributes to enhancing management accountability with a focus on culture, governance, risk management and remuneration. Also, it helps to improve the performance of regulators such as ASIC and the Australian Prudential Regulation Authority (APRA). However, the implementation of the recommendations will no doubt prove challenging for regulators and financial advice industry players. Also, many of the changes expected would depend upon the outcome of a review by ASIC in 2022.

The Financial Services Royal Commission process

The Royal Commission adopted a case-study approach to present specific cases of misconduct from amongst the over 10,000submissions made to it. The FSRC held seven separate rounds of public hearings from March to November 2018, examining consumer lending practices, financial advice, loans to small and medium enterprises, issues affecting Australians who live in remote and regional communities, superannuation, Australia's insurance industry and policy questions in order to highlight structural and systemic issues relating to misconduct within the financial services sector. An interim report was published on 28 September 2018 (Hayne2019).

According to Gilligan (2018), a significant element in the success of the FSRC's process to cast light on the misbehaviour in Australia's financial sector and develop high levels of public interest was the coercive powers available to royal commissions of inquiry in Australia. The FSRC was able to call witnesses to give testimony, seize documents and hold secret hearings to protect whistleblowers (*Royal Commission Act 1902*, s. 2).

On the other hand, Davis (2019) identifies a number of shortcomings in the FSRC 'case study' process including, firstly, that its focus on specific types of misbehaviour limits the FSRC's ability to deal with other types of misbehaviour. Second, a focus on only the poor outcomes of the financial system may lead to a disregard of its desirable outcomes. Third, the search for solutions lies primarily in examining behaviour of one side of the participants in financial contracts. Finally, assessing whether the undesired behaviour observed is an Australian problem or one commonly found in most financial systems—and suggesting some fundamental problems warranting rectification—is ultimately beyond the scope of the FSRC.

The Financial Services Royal Commission outcome

On 4 February 2019, the Government publicly released the final report of the FSRC which outlines 76 recommendations to avoid recurring misconduct in the financial services sector. The themes of the FSRC's report are concentrated around culture, governance, management accountability, conduct, remuneration and the performance of regulators (Hayne 2019). The final report calls for deep changes in corporate cultural practices which have implications for the board and governance arrangements. Also, the final report calls for fundamental changes in law enforcement cultural practices which have implications for the conduct regulator (ASIC) and the corporate sector in Australia (Hayne 2019). The Commissioner Kenneth Hayne said 'culture, governance and remuneration march together'. This means that the reform of organisational culture and governance in financial services will impact how remuneration is designed, implemented, and monitored.

The FSRC final report sets out six principles to achieve good governance and appropriate culture within the financial services industry. The six norms of conduct include that all financial services entities should obey the law, not mislead or deceive, act fairly, provide services and/or ensure products are fit for purpose, deliver services with reasonable care and skill, and act in the best interests of their clients.

It is arguable that the soft-law guidelines approach recommended by Commissioner Hayne as a tool to develop good corporate culture has the potential to prevent future systemic misconduct in the financial services sector. However, as Smith (2012) points out, compliance with soft regulation is voluntary and, unlike hard law, there are no legal sanctions upon breach. Davis (2019) also questions the ability of the soft-law guidelines approach recommended by Commissioner Hayne to prevent non-compliance in the financial services sector, considering that self-regulation by industry and professional associations failed to prevent misconduct and poor behaviour in the first place. Similarly, Hargovan (2019) suggests that the reliance on soft law to develop good corporate culture may be short-lived. In contrast, Marsh and Phillips (2019) agree that the cultural concerns are better tackled through the judicial system than the legislature. Those authors suggest that the soft-law guidelines approach recommended by the FSRC seems intent on limiting the creation of new laws and regulations and is capable of preventing misconduct in the financial services sector more successfully than, for example, the United States' financial crisis responses.

Studies on the Royal Commission and financial services industry

The existing literature reveals a dearth of research on the FSRC and its impact on financial planning advice, particularly about the changes in operating models of financial advice firms, including business and delivery models, after the enactment of the FSRC's recommendations.

Since the establishment of the FSRC in 2017, most available studies discuss the FSRC's regulatory framework and its implications for the conduct regulator and the corporate sector in Australia. Schmulow, Fairweather and Tarrant (2018) conclude that the establishment of an Assessment Board in Australia to provide continuous oversight of the financial regulators—APRA and ASIC—would enhance accountability and assist improvements in the regulators' culture, ensure prevention of regulatory capture while also serving as an effective addition to the current Australian 'twin peaks' financial regulatory architecture comprising APRA and ASIC. Wishart and Wardrop (2018) argue that the FSRC will create further regulatory and compliance pressures while possibly offering enhanced accountability within financial service entities; however, they state that it is highly unlikely that the FSRC's outcome will be sufficient to reform the corporate culture within the financial services industry due to the industry's privacy, autonomy, and competition concerns. Hanrahan (2019) examines the twin peaks financial supervisory architecture which is recommended by the FSRC—comprising a prudential regulator and a market conduct regulator. Hanrahan (2019) goes on to suggest a 'three peaks' model to strengthen the regulation by establishing a specialist regulatory agency with responsibility for consumer protection in the retail market for financial products and services. Sy (2019) provides detailed explanations for the observed failure of the regulators to enforce the law. That author shows that Australian financial markets are evidently not competitive markets as they are dominated by monopolies and oligopolies, and the failures are due to government sanctioned oligopolies which have captured the regulators. Lumsden (2019) explores

the implications of the FSRC for corporate Australia, agreeing with Commissioner Hayne that the community expects corporate Australia to foster a culture that promotes good leadership, decision-making and ethical behaviour. Millhouse (2019) introduces a framework for the re-integration of the intent and spirit of the law with its statutory manifestations, supporting the FSRC's long-run reform objectives. Gilligan (2019) discusses the effects of the FSRC as a mechanism of official discourse, and concludes that the FSRC has been an influential inquiry with lasting ramifications for the Australian financial services sector. However, that author raises questions about its truly transformative effects in areas such as delivering accountable regulation for improved consumer protection and competition.

Other studies examine the FSRC's regulatory framework and findings from an international context. For example, Marsh and Phillips (2019) consider that the various forms of misconduct in the financial services sector are not an Australia-only problem. Those authors expect that the FSRC's approach will be more successful in preventing misconduct in the financial services sector than the United States' financial crisis responses. D'Hulster (2019) analyses and compares the findings of the FSRC and the International Monetary Fund's (IMF) Financial Sector Assessment Program (FSAP) assessment of Australia, finding that the legal approach of the FSRC has proven well-suited for identifying violations of laws, regulations, and norms. But it is less well-suited for making recommendations in a complex, globally benchmarked and continuously evolving area as the financial sector. Coburn (2019) concludes that the FSRC report will have a global impact where organisations and regulators internationally will be able to learn compliance and risk lessons from the outcomes of FSRC. And this will lead to a new mandate for compliance and risk teams within organisations to be more effective and call out misconduct earlier. Singleton and Reveley (2020) compare the Australian financial sector misconduct with major British and American banks. That study concludes that the Hayne Royal Commission exaggerates the level of misconduct within the Australian financial sector when viewed from an international perspective. That study further suggests that the FSRC's findings unintentionally provide support for the populist view that Australian financial institutions are exceptionally unethical in their treatment of customers and clients.

There are a number of studies examining whether the FSRC has the ability to make a positive cultural change in the financial advice industry and reduce future misconduct. According to Davis (2019), due to the FSRC's limited mandate and limited time frame, its recommendations are unlikely to provide a lasting solution to concerns about the culture within financial services and the resultant misconduct. Davis (2019) argues that the FSRC has made a small step towards reducing financial sector misconduct; however, it has done nothing to remove the naked greed and the pursuit of profit at the expense of reputation which can generate incentives for misconduct. Therefore, in the absence of recommendations for significant structural changes to ultimately drive behaviour, that author concludes that FSRC is likely to be a temporary fix for preventing financial sector misconduct. In line with this perspective, Turnbull (2019) investigates the causes and solutions for misconduct in the financial services industry and concludes that a new governance model is needed that introduces stakeholders as co-regulators to provide continuous comprehensive identification of misconduct, leading to an amplification of regulation and a reduction in the role, size, cost, and interventions of regulatory agencies.

The impact of the Royal Commission on financial advice operating models

Industry analysts are raising concerns that the FSRC's recommendations will have serious implications for the revenue models of financial advice firms and may in turn decrease consumer access to financial advice. The removal of grandfathering and conflicted commissions (Hayne2019) would force many advice practices to restructure their entire business models. Revenue and cost pressures will most likely demand financial advisers to increase their up-front fees, making the initial cost of advice more expensive.

An analysis report by Deloitte Australia (2019) indicates that everything in the financial advice industry would change as a consequence of the FSRC, including advice quality, compliance and regulation, products and services, business models, the role and obligations of the adviser and the size of the industry. The report suggests that the FSRC's outcomes will reshape the business models for many in the financial advice community and would likely lead to a wholesale exit of practices and practitioners. Another analysis report issued by KPMG Australia (2019) on key implications of the FSRC, emphasises that there is a need to focus on providing quality advice for clients while also ensuring advice businesses remain profitable. The report identifies three levers that directly impact the delivery of quality financial advice in a compliant and efficient manner: first, efficiency in the implementation of advice. Second, sustainable financial planning practices with sufficiently robust revenue streams. Third, provision of the right-sized advice for the client's needs and profile.

In this section, we provide some evidence that shows the changes in the operating business and delivery models of financial advice firms after the FSRC's recommendations and the effect on consumer outcomes.

The changing nature of the financial advice revenue model

According to industry analysts (Adviser Ratings 2019; Deloitte Australia 2019; KPMG Australia 2019) the FSRC's recommendations will have a negative impact on the sustainability of financial advice practices. Material impacts on revenue models at both a practice/firm level and a licensee level would arise from the cessation of grandfathered commissions effective from 1 January 2021 (Hayne 2019, pp. 185–188), reduction of the cap on commissions for life risk insurance products (Hayne 2019, pp. 189–190) and anti-hawking rules implemented by mid-2020 to end cross-selling of insurance and superannuation products (Hayne 2019, pp. 29–31). This is likely to impact on practices across the financial advice industry, leading to depressed valuations and significant effects on practice profitability and solvency. The industry analysts suggest that financial advisers who rely on passive income are required to change the way they are paid for their services by transitioning from conflicted remuneration to more transparent, flexible, and non-conflicted revenue models such as fee-for-service. In line with this perspective, Financial Planning Association (FPA) CEO Dante De Gori (2019) argues that the shift from a sales-based revenue model (i.e. grandfathered commission) to an advice-based revenue model (i.e. fee-for-service) would have an initial negative impact on the value of financial advice businesses in terms of return, profit, and cash flow. However, it is important for advice providers to replace the lost revenue and grow in a post-FSRC reform environment.

In a transaction showing the magnitude of the challenges confronting financial advice businesses after the FSRC, CountPlus acquired Count Financial from the Commonwealth Bank of Australia for $2.5 million including 359 advisers and 160 firms with $8.1 billion of funds under administration, according to a statement on the ASX (2019). A document prepared by CountPlus for an extraordinary general meeting to ratify its acquisition of Count Financial revealed a potential 60 per cent revenue decrease due to regulatory changes, including the Future of Financial Advice (FoFA) reforms and the FSRC. 'There is accordingly a risk that the loss of the licensee advice fees, and grandfathered commissions will have a material impact on Count's revenue, and therefore profitability', the document said. The CountPlus document has also called for a new revenue model towards fee-for-service due to changes in revenue: 'There is a revenue risk to Count from these proposed changes and a need for Count's business to transition towards fee-for-service and/or other permissible revenue models.'

Further pressures on financial advice cost-to-service models

The FSRC's recommendations have forced many financial advice practices to increase the cost of advice, at both a practice firm level and licensee level. The increase in advice costs reflected an increase in administration costs associated with changes to ongoing fee arrangements which have forced advisers to add opt-in costs for ongoing services, ranging between $100 to $250 per client, or around 12 per cent, according to surveys conducted by the FPA (2020). Also, the reasons include higher compliance costs associated with a new disciplinary system for financial advisers and a mandatory reporting of compliance concerns.

According to a benchmarking study issued by Adviser Ratings (2020) which included responses from around 1,500 advisers, the median cost of advice had increased to $3,256 in 2020. This was up by 16 per cent from the median cost of advice of $2,800 in 2019, and up more than 29 per cent from the median cost of advice of $2,510 in 2018. The reasons include higher advice operating costs and lower supply of advisers.

Analysts at KPMG Australia (2019) suggest providing the right-sized advice for the customer's needs instead of traditional comprehensive advice, including direct distribution to the customers through efficient, transparent, and simple advice platforms with enhanced technology solutions, creating an efficient cost-to-service model to reduce the cost of advice for better customer outcomes and improved profitability.

The structural change in the vertical integration model

There is no recommendation in the FSRC's report mandating the structural separation between offering products and providing advice, as the benefits of requiring separation would outweigh the costs (Hayne2019, p. 196). However, the absence of a specific recommendation mandating change does not mean the structure of the vertical integration model will operate the same as before. The FSRC's report includes a number of recommendations primarily aimed at eliminating conflicts of interest (Hayne 2019, pp. 26–27), which will impact the profitability of vertically integrated businesses by increasing costs. This will likely result in speeding up the transition away from vertical integration in the industry, even in the absence of forced structural separation, according to Commissioner Hayne (Hayne 2019, pp. 190–196).

As a result of the FSRC, the Government passed legislation to improve consumer protection in relation to financial and credit products. The updated Design and Distribution Obligations (DDO)[1] and Product Intervention Powers (PIP)[2] will further improve consumer outcomes by requiring financial product manufacturers and their distribution channels to ensure products are only sold to customers for whom they are likely to be suitable. However, the responsibility lies with the financial adviser to ensure all conflicts are removed. Under the product intervention power, ASIC has the ability to request necessary information and to ban financial products when there is a risk of significant consumer detriment (Deloitte Australia 2019).

The growing increase in the adoption of digital operating models

In light of the ongoing pressures from the FSRC's recommendations to bring about tangible change in the way independent advisers operate, there is an overwhelming need for advice practices to deliver services through efficient, transparent and simple advice platforms using improved technology solutions. According to Financial Planning Association CEO Dante De Gori (2020), the adoption of enhanced technology solutions by financial advice businesses will play a critical role in promoting standardisation and process improvements, improving compliance, and increasing efficiency to ensure the provision of advice remains profitable. This would reduce administrative staff time, in turn lowering cost, reducing human error, and increasing the efficiency of managing models. In addition, this would allow broader service offerings and lead to increased revenue and profitability of financial advice entities.

Technology will have an important role to play in the financial planning industry, especially with the exit of large institutions after the findings of the FSRC and post coronavirus 2019 (COVID-19). A KPMG Australia (2020) survey of over 1,500 people finds consumers of insurance, super and financial advice products have withdrawn increasingly during COVID-19 while also seeking better value. In line with this perspective, studies by Adviser Ratings (2018; 2020) suggest that digital financial planning advice (Robo-Advice)—expected to grow 43 per cent per annum in the next five years—can fill this gap and should complement the traditional advice industry by improving the accessibility and affordability of advice for consumers.

The changes in customer value proposition of advice firms

The FSRC has encouraged advisers to build meaningful relationships with clients through the adoption of a 'customer first' duty to enhance their value proposition (Hayne 2019, p. 120). For example, the requirement for financial advisers to seek annual renewal, in writing, of ongoing fee arrangements instead of every two years (Hayne 2019, p. 25) would provide customers with more meaningful value than would an automatic fee deduction from their investment funds. Also, this will give customers greater visibility of the ongoing advice fees they are paying to financial advisers against the value they receive. And this will help financial advisers to engage with clients and to better understand their needs.

[1] Refer to regulatory guide 274: Product design and distribution obligations (ASIC December 2020).

[2] Refer to regulatory guide 272: Product intervention power (ASIC June 2020).

An industry analysis report by Deloitte Australia (2019) suggests some changes to the value proposition for advisers and licensees to attract a broader spectrum of customers after the FSRC. Advisers and licensees will need to focus on three areas, including education, research, and investing in technology to make it easier to interact with customers in a cost-efficient way. In addition, the value propositions need to help advisers to engage with clients and understand their capacity and needs.

However, keeping clients better informed and valued would increase the operating cost of advice and price out lower income customers from accessing advice services. According to an Adviser Ratings (2020) study which included around 1,500 advisers, there are multiple variables behind increasing the costs of advice following the FSRC. One of the reasons is because financial advisers are getting better at understanding their customer value proposition and charging appropriately.

Growing the advice gap in Australia

Industry analysts at CPA Australia (2020) are raising concerns about the reduction in the supply of financial advice and its effect on the availability and affordability of advice as consumer needs increase. The annual report published by ASIC (2020) shows a reduction in the supply of financial advice to Australian consumers. The report notes as of 25 June 2020, the number of financial advisers is 11% below the long-term average prior to 1 January 2019. This exit of advisers from the industry is driven by a number of factors not excluding the Financial Adviser Standards and Ethics Authority (FASEA) regime. According to Adviser Ratings (2020), 4,378 advisers quit the industry in 2019, equating to a reduction of 15.6% of the total number of financial advisers.

An advice gap is created when consumer demand for financial advice continues growing, but advice capacity reduces as advisers quit the industry. As a result, the cost of delivering advice will be higher than customers are prepared to pay. In light of this, ASIC (2020) released a consultation paper on promoting access to affordable and limited advice for consumers, especially low worth customers, as part of its “unmet advice needs project”.

Future research agenda

Future research can be conducted to empirically investigate the impact of the FSRC’s recommendations on the operating model of financial advice firms by collecting the data from a sample of small, medium, and large Australian financial services (AFS) licensees that are authorised to provide personal advice to retail clients.

In addition, there are several avenues for further research—for example, a study about the effect of the FSRC on the uptake of digital advice. Digital financial advice might be the only low margin, mass market model that will survive in the long term. Or further, a study examining the extent of the changes in financial advice pricing models after the enactment of the FSRC’s recommendations, and whether competition in financial advice provision prevents excessive pricing.

Limitations

This study has limitations normally associated with qualitative research, which are limited validity and verifiability, and the reliance on researcher interpretation. Also, this study only explores the impact of the FSRC on certain areas of the operating model of financial advice firms. Future research

can be done to investigate the effects of the FSRC on other areas of the financial advice operating model, such as on financial advice marketing approaches, and people and change management. Notwithstanding its limitations, this research contributes to new aspects of financial planning advice. Studying the impact of the FSRC on the operating model of financial advice firms is a unique contribution to the existing research.

Conclusion

Commissioner Hayne outlined a number of recommendations in relation to financial advice (Hayne 2019, pp. 25–28) primarily aimed at improving the quality of financial advice, strengthening consumer protection and promoting trust and confidence in the financial planning industry. However, many of the changes would depend upon the outcome of a review by ASIC before the end of 2022.

This paper provides some evidence of the impact of the FSRC's recommendations on the operating model of financial advice firms and their effect on consumer outcomes. The recommended cessation of grandfathered and conflicted commissions has triggered a rethink of the value chain of advice and service, transitioning towards more transparent, flexible, and non-conflicted revenue models such as fee-for-service to cover costs and ensure that the provision of advice remains profitable. The shift towards more transparent and flexible fee models such as fee-for-service would provide more meaningful value to customers, but there will be some negative impacts in the short to medium term. Increasing the cost of advice means that lower income earners will no longer be able to afford or justify the cost of financial advice.

Also, the recommendations of the FSRC are likely to accelerate the adoption of digital operating models including robo-advice and digital delivery to mass customers. Implementing enhanced technology solutions will play a critical role in delivering the required improvements effectively and efficiently. A digital advice operating model will enable advisers to meet compliance and regulatory obligations more easily, to reach new and more diverse customers living in different geographical locations faster, and to significantly reduce the operating cost of advice provision.

This paper finds the change in the vertical integrated model would lead product manufacturers and advisory dealer groups to review their distribution strategy, pricing, and structure. The increase in dealer group fees by as much as 30 per cent, according to Association of Financial Advisers (2019), to cover off both increased costs and the loss of revenue from some of the recommendations of the FSRC (Hayne 2019, pp. 25–28), will affect the cost of advice, making the economics of financial advice firms more challenging. On the other hand, the decline of the vertically integrated model will encourage product and platform competitiveness based on offering rather than fee.

Regarding the customer value proposition, financial advice practices will have to focus on a number of areas over and above compliance, including technology, education and research. A well-defined customer value proposition that helps the adviser to engage with clients and to better understand their needs and capacity to pay is important to both attract and retain customers. Therefore, financial advice practices that cannot prove their value proposition post-FSRC will struggle.

One of the major recommendations of the FSRC's report in relation to financial advice is the new education requirements for financial advisers (Hayne 2019, pp. 28). The application of the new FASEA code of ethics has attempted to improve standards by raising the education of financial advisers. However, the current approach has led to a reduction in the number of financial advisers according to ASIC (2020). The growing mismatch between supply and demand in the advice industry is increasing the cost-to-service models and lowering the level of advice being delivered to customers. Therefore, ASIC nominated Australia's unmet advice needs as one of the new financial advice focal points in its 2019–2023 corporate plan[3]. The purpose is to examine the gap between the demand and supply of advice and to seek potential solutions to reducing this gap.

In summary, the FSRC's recommendations represent both a challenge and an opportunity for financial advice firms to review their current operating models and identify opportunities to digest and consider how to implement the recommendations into their existing models for better customer outcomes and improved profitability.

[3] Refer to ASIC Corporate Plan 2019–23, page 20.

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