



## Joining or Exiting the Defined Benefit Division Superannuation Scheme of UniSuper

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### Abstract

The Defined Benefit Division of UniSuper is a large defined benefit superannuation scheme in Australia for public universities. Unlike public service superannuation schemes in Australia, it is not guaranteed by the employers. This has previously led to a reduction in benefits of the scheme due to expected funding shortfalls. This paper examines longstanding and more recent issues with the funding of the Defined Benefit Division. Recent changes to superannuation laws in Australia may result in further benefit reductions for the scheme in the future. Should new eligible employees join the Defined Benefit Division? What form of retirement benefit should be taken by retiring Defined Benefit Division members? The paper examines these two key questions. Employees who are contemplating joining the Defined Benefit Division, or those Defined Benefit Division members about to retire, have some very important decisions to make.<sup>2</sup>

**Keywords:** Superannuation, Universities, Defined benefit, Indexed pension, Retirement

**JEL:** D14, G11, G22, G51, J32

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**The author is a contributing member of the DBD and a member of Accumulation 2, and a deferred member of the CSS.**

## 1. Introduction

UniSuper is a superannuation fund in Australia which was established in 2000 and is one of Australia's largest superannuation funds. It was formed as a result of the merger between the Superannuation Scheme for Australian Universities (SSAU), formed in 1982, and the accumulation scheme called the Tertiary Education Superannuation Scheme (TESS), formed in 1988. UniSuper is owned by the 37 public universities in Australia. The Defined Benefit Division (DBD) of UniSuper is a defined benefit scheme which is available to certain employees in public universities in Australia. The scheme is still open to new eligible employees. It is one of only a few defined benefit schemes in Australia which are open to new employees. According to the Summary of the Actuarial Investigation of UniSuper as at 30 June, 2022, at this date the DBD had more than 94,000 members, with over 11,000 of these receiving a DBD pension (Willis Towers Watson, 2022).

There are very few articles about the DBD of UniSuper in the research literature and this paper aims to fill that gap. For example, one gap is that recent legislative changes in superannuation will impact on the DBD. The two key questions in this paper are : should new eligible university employees join the DBD, and should retiring DBD members take a superannuation pension or a lump sum benefit? A key issue is that the DBD is not guaranteed by employers, and is backed by a pool of assets where the asset allocation (Gerrans *et al.*, 2010) is highly exposed to share markets. This is important as it means that future retirement benefits for members of the DBD may need to be reduced, as occurred in 1998 and 2015, as the paper elaborates on. The lack of a guarantee may be an impediment to new younger employees to join the DBD. Another issue is that members who joined the DBD before July 1, 1998, are entitled to a lifetime indexed pension on retirement which is a great reward for such members and surviving spouses particularly in times of high inflation, but this indexed pension may not be sustainable in the long term as it is indexed to inflation. A more recent issue is that the DBD is no longer the default fund for UniSuper and eligible employees need to opt in to become a member, and this has the potential to reduce the number of new DBD members, particularly younger members who may not show a keen interest in superannuation to compare the benefits of the DBD with accumulation schemes (Bateman *et al.*, 2014). The research paper by Bateman *et al.* (2014) has provided analysis of UniSuper data. My paper is organised as follows. Following the introduction in Section 1, some background information is given in Section 2. Some issues and questions with the DBD are discussed in Section 3. Finally, a conclusion with recommendations follows in Section 4.

## 2. Background

The first superannuation funds set up in Australia were typically defined benefit schemes, where the retirement pension is determined by a formula linked to salary (Kingston and Thorp, 2019), and the defined benefit is usually guaranteed by the employer who makes extra contributions in the event of a shortfall of funds (Mees and Brigden, 2017). These schemes were first established in the early part of the twentieth century and were largely restricted to company executives and public servants. Prior to the 1980's, employees usually depended on their employer for access to a superannuation fund. In the 1970's, unions in Australia campaigned for universal superannuation and the 1980's saw the development of industry superannuation, for example in higher education with the formation of the SSAU and TESS. Australia had a government pension system that would

not adequately fund the retirement of the majority of the population (Morris, 2018). The funding of universal superannuation was negotiated by the Hawke Government with some wage and salary increases to be replaced by compulsory employer superannuation contributions on behalf of employees. Superannuation became a universal feature of employment relations with superannuation an employment right being good social policy. The Superannuation Guarantee Charge (SGC) began at 3% of gross wages and salaries and has now increased to 11% with future increases planned in stages to 12%. The superannuation industry in Australia now has assets of more than \$3 trillion but has developed into a complex industry with a diverse range of entities (Donald *et al.*, 2016). Compulsory superannuation contributions remain at zero for employees. One of the goals of compulsory superannuation was to reduce the dependence of the government pension system (Kingston and Thorp, 2019).

Compulsory superannuation began in Australia on July 1, 1992 (Mees and Brigden, 2017; Morris, 2018), and is generally regarded as a big success for employees and has seen a large growth in the superannuation industry (Kingston and Thorp, 2019). Since this time, there has been a shift in Australia in superannuation from defined benefit schemes to defined contribution (accumulation) schemes (Bateman and Kingston, 2013; Mees, 2020). This has been an international trend which started in Australia. The main reason for this shift is that employers do not want to take on the risk of funding defined benefit schemes. Such schemes can result in unfunded liabilities for the employers (Ferris, 2006). With accumulation schemes, it is the employees who take on the risk of funding their retirement as the returns on funds invested, net of fees and charges, determine the retirement benefits, but employees may not have the knowledge or skills to manage the risk. Accumulation schemes are much less likely to become insolvent. The shift has resulted in uncertain retirement outcomes for a whole generation of employees. It also exposes members to sequencing risk (Mees, 2020) where there is a risk of falling investment markets reducing an accumulation plan balance when an employee retires, and to longevity risk, as many people retiring in the next decade or two will find that their retirement income from superannuation will not last long enough. This paper considers only intermediated superannuation funds and does not consider the Self Managed Superannuation Fund (SMSF) system.

When UniSuper decided to remove the lifetime indexed pension for members who joined the DBD after June 30, 1998, members were given the option of switching to a new accumulation fund (Gerrans and Clark, 2013). The research paper by Gerrans and Clark (2013) also analyses data provided by UniSuper. Members had 12 months from June 30, 1998, to make their decision and the choice was an irreversible decision. However, when benefits for DBD members were reduced in 2015, members were not given the option of leaving the DBD to join another fund.

### **3. Defined Benefit Division issues**

In the last 25 years, UniSuper and its predecessor institutions have had two major changes in the way retirement benefits are calculated for members of the DBD. Please refer to UniSuper (2022[1]) for the Product Disclosure Statement for the DBD. The DBD is quite a unique scheme in that it is a large Australia wide defined benefit scheme still open to new eligible members and it is backed by a pool of assets. A DBD account includes both a defined benefit component and an accumulation component with the accumulation component in the accumulation fund

Accumulation 2 (UniSuper, 2022[1]). In this paper, the DBD is assumed to refer to the defined benefit component.

Firstly, existing members of the DBD who joined the scheme before July 1, 1998, are entitled to receive a non-commutable indexed lifetime superannuation pension on retirement called the Defined Benefit Indexed Pension product (UniSuper, 2022[4]) which is indexed to the Consumer Price Index (CPI). This pension (excluding any supplementary benefit) is directly proportional to the so called accrued percentage (rate of benefit accrual) which is 2.1% per year for the first 20 years of service as a DBD contributing member and 1.1% per year in excess of 20 years. This means that the aggregate accrued percentage for 40 years of service is 64%, which essentially means that the DBD indexed pension would start at 64% of the employee's benefit salary. This is more generous than the old hybrid Commonwealth Superannuation Scheme (CSS) for Commonwealth Public Servants where the CPI indexed pension has a rate of benefit accrual of 2% per year for the first 20 years of service, 1% per year for the next 10 years of service, and 0.25% per year for the next 10 years of service (Dixon, 1990). This means that the benefit accrual for 40 years of service is 52.5%, which essentially means that the CSS indexed pension would start at 52.5% of the employee's benefit salary, assuming 65 years is the retirement age. The CSS was closed to new employees on July 1, 1990. The CSS was replaced by the Public Sector Superannuation Scheme (PSS) which was a defined benefit scheme open to new employees until July 1, 2005. It was then replaced by the Public Sector Superannuation accumulation plan (PSSap) which is an accumulation scheme.

Members who joined the DBD on or after July 1, 1998, are entitled to a Commercial Rate Indexed Pension product (UniSuper, 2022[5]) where the income payments are calculated using market rates. This change was made due to longevity risk, with increasing longevity making the scheme too generous. DBD members also do have options of a lump sum payment at retirement. Retiring DBD members have a very important decision to make regarding whether to choose an annuity, a lump sum in full, or a combination of the two. Retiring DBD members also have the option of the Flexi Pension product (UniSuper, 2022[2]), which is an account-based pension. In Australia, account-based pensions are generally more popular than lifetime annuities. The lack of demand for annuities is referred to as the annuity puzzle (O'Meara *et al.*, 2015).

Secondly, note that the DBD retirement benefits are determined by a formula which is directly proportional to (i.e. a multiple of) the benefit salary. The formula also has an age factor which means that younger members are subsidising older members (Dixon, 2013). For service before January 1, 2015, the benefit salary is calculated as a three-year benefit salary and for service after January 1, 2015, the benefit salary is calculated as a five-year benefit salary. The three-year benefit salary is calculated as an employee's average annual equivalent full-time salary, indexed by the CPI, over the last three years of employment before their benefit is calculated. The indexation here makes this a generous scheme, for those members lucky enough to have significant service before 2015. The five-year benefit salary is calculated as an employee's average annual equivalent full-time salary (not indexed) over the last five years of employment before their benefit is calculated.

As an example, suppose that a member of the DBD had an annual salary of \$100,000, \$102,000, \$104,500, \$107,000 and \$110,000 for the last five years (2017-2021). The five-year benefit salary is found by taking the average of these five salaries and this average equals \$104,700. The annual rate of inflation in Australia was 0.9% for 2020 and 3.5% for 2021. Hence, the three-year benefit salary is

$$\frac{\$104,500 \times 1.009 \times 1.035 + \$107,000 \times 1.035 + \$110,000}{3} = \$109,958.64$$

which is significantly more than the five-year benefit salary, and close to the final salary of \$110,000.

More example calculations are given in Dixon (2013). The change in benefit salary did not alter payments to DBD pensioners who retired before 2015. The benefit salary for the old CSS is an employee's final salary, which makes for an interesting comparison. Therefore, members of the DBD can be classified into three broad categories : those who joined before July 1, 1998; those who joined between July 1, 1998, and before January 1, 2015; and those who joined on or after January 1, 2015.

This second major change was made as a result of the first of four four-year monitoring periods that the DBD had as a consequence of falling financial markets due to the Global Financial Crisis. These monitoring periods began in 2008, 2011, 2012 and 2013. No action was required due to the last three monitoring periods. The last monitoring period ended on June 30, 2017. The DBD is backed by a pool of assets. A four-year monitoring period is triggered if :

- (1) the Accrued Benefits Index (ABI) is less than 100%, or
- (2) the Vested Benefits Index (VBI) is less than 95%, or
- (3) the level of contributions to UniSuper mean that it's likely that either of the above measures (or both) falls below those levels.

According to the Summary of the Actuarial Investigation of UniSuper as at 30 June, 2022, at this date the DBD had an ABI of 135.7% and a VBI of 121.0% (Willis Towers Watson, 2022). These calculations are not precise as they assume an annual inflation rate of 4.0% in the short term (2 years to 30 June, 2024) and 2.5% in the long term whereas the inflation rate in the 2021-2022 financial year in Australia was 6.1%. As a comparison, the CSS was an unfunded scheme, but the Australian Government set up the sovereign wealth fund called the Future Fund (Xu, 2017) in 2006 to fund future superannuation liabilities for Commonwealth Public Servants.

The DBD has a very generous employer contribution of 14% of the gross salary of an employee. After taking the 15% contributions tax into account, the employer contribution is 11.9% of gross salary. Under Australian superannuation law, employers are currently obliged to contribute a minimum of 11% of gross wages or salaries to a superannuation fund for most employees, and is known as the SGC. The 11% rate is scheduled to progressively increase in half a percentage point increments to 12% on July 1, 2025. For continuing employees, the university employer contribution rises to 17% of gross salary if the employee contributes a default amount of 7% of gross salary. Of the 17% employer contribution, 14% is allocated to the DBD and 3% to the accumulation fund Accumulation 2 (UniSuper, 2022[1]). This is the most generous employer superannuation contribution in Australia, even more than the 15.4% employer contribution received by Federal politicians in the scheme introduced post 2004 election. Commonwealth Public Servants in the PSSap scheme also receive a 15.4% employer contribution. It would be

unreasonable to increase either the employer or default employee contribution for the DBD in the future.

The asset allocation of the DBD as at 30 June, 2022, was 44% Australian shares, 21% cash and fixed interest, 10% international shares, 12% property and 13% infrastructure and private equity (UniSuper, 2022[1]). This is a relatively risky allocation for a defined benefit scheme, and the high exposure to share markets places further pressure on the DBD as a result of the January, 2022, and June, 2022, corrections on Australian and other share markets. The Accumulation 2 accumulation fund offers a total of 16 investment options. For example, the cash option can be chosen as an employee nears retirement to remove sequencing risk. The balanced investment option of Accumulation 2 as at 28 September, 2022, had an asset allocation of 30% Australian shares, 28% cash and fixed interest, 33% international shares, 3% property and 6% infrastructure and private equity (UniSuper, 2022[1]). However, defined benefit schemes traditionally invest in lower risk profile assets than accumulation schemes because of their need to fund superannuation pension payments (Dixon, 2013). Total DBD assets as at 30 June, 2022, were \$30,004,900,000 (Willis Towers Watson, 2022). Dividing this by the total membership of 94,209 gives an average of \$318,492 per member, which is relatively high by Australian averages.

UniSuper is governed by a Trust Deed and the monitoring periods were triggered by Clause 34 of the Trust Deed. For more information about Clause 34, please refer to Dixon (2013). It is also important to note that under Clause 34, the employers (i.e. the universities) are not required to make extra contributions in the event of a shortfall in funding of the DBD. Therefore, the DBD scheme is not guaranteed in the way that Public Service defined benefit schemes are guaranteed by their respective employers (governments) in the event of a funding shortfall.

For members who opt for the Defined Benefit Indexed Pension product or the Commercial Rate Indexed Pension product, the assets left in the DBD by these retirees are not segregated into a separate account, as the money is merged with the assets of current DBD members (Dixon, 2013). This means that benefits promised to these retirees cannot be guaranteed. This non-segregation of assets is something that should be looked into by superannuation regulators in Australia, particularly with a new Australian Government recently elected. The prudential regulation of the superannuation system is highly important in Australia given its compulsory superannuation that is mostly privately managed (Donald *et al.*, 2016).

Many thousands of employees have left university employment in Australia in the last 3 years as the coronavirus pandemic has impacted university revenues (Guthrie *et al.*, 2021), resulting in many now retired DBD members moving from accumulation phase to pension phase. According to Willis Towers Watson (2022), the number of DBD active and deferred members decreased by 6,378 and the number of DBD pensioners increased by 233, in the 12 months to June 30, 2022. The coronavirus pandemic caused falling investment markets in 2020 and the long term viability of the DBD was again brought into some uncertainty. On November 1, 2021, the Australian Government's superannuation "stapling" laws took effect. This is likely to impact the number of new members for the DBD as most new employees at universities would have had previous employment outside the university sector in Australia and therefore would be "stapled" to a fund outside of UniSuper. Such employees will need to opt in if they wish to join the DBD. It also needs to be noted that the DBD is no longer UniSuper's default fund for eligible employees as the default fund is now the accumulation fund called Accumulation 1 (UniSuper, 2022[3]), which is exposed to market risk. Accumulation 1 offers a total of 16 investment options (Bateman *et al.*, 2016).

The aspects of the DBD which are CPI indexed will place further pressure on the scheme, particularly with the inflation rate currently at 7% for the 12 months to the end of March, 2023. Salary rises in new university enterprise agreements may not keep pace with inflation, as measured by using the CPI. In his calculations, Dixon (2013) assumes that the annual rate of salary growth is 3.5% per annum and the annual inflation rate is 2.75% per annum. Currently, salary rises in universities are generally less than inflation. For a long term employee who is already a member of the DBD, the only way to leave the DBD before reaching retirement preservation age (Whittaker, 2022) is to leave university employment and transfer their accrued DBD benefit to Accumulation 1 or another superannuation scheme outside of UniSuper entirely. The transfer of the DBD benefit to Accumulation 1 or elsewhere is an irreversible decision.

#### **4. Conclusion**

Regarding Australian Government policy, following a Retirement Income Review by the Australian Government (The Australian Government the Treasury, 2020), the Retirement Income Covenant legislation was recently passed by the Parliament of Australia pre-election and this legislation requires most superannuation funds in Australia to develop new retirement income products, called MyRetirement products (The Australian Government the Treasury, 2021). The newly elected Australian Government has put the release of these products on hold. New products may help to reduce longevity risk and reduce dependence on the government age pension. Retiring DBD members have a very important decision to make regarding the type of retirement benefit and it is recommended that they receive independent financial advice. Taking a superannuation pension or a lump sum benefit, or a combination of the two, could have serious implications for the retirement income of retirees. Also, with the eligibility age of the age pension increasing to 67 years from July 1, 2023, retirees need to consider the impact of the assets test and income test on government age pension eligibility.

Since compulsory superannuation was introduced in Australia in 1992, there has been a shift from defined benefit schemes to accumulation schemes. Compulsory superannuation is generally regarded as being successful policy. However, a consequence of pressures on the DBD scheme is that retirement benefits for DBD members could potentially be reduced, as occurred in 1998 and 2015. New eligible university employees have two years from employment commencement to decide whether to opt in to the DBD. Members that opt to join the DBD then have a further 24 months to elect to join the accumulation fund Accumulation 2. With DBD benefits not being guaranteed, these employees face very important personal decisions, particularly if they intend to have a long career employed in the public university sector in Australia (Dobrescu *et al.*, 2016). Such employees should receive independent financial advice before making their decision. A good decision could result in thousands of extra dollars over time in an employee's superannuation account balance.

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