Australian Government
Australian Government Actuary

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s 22

HELP Policy Programs Tuition Assurance
HELP and Provider Integrity
Australian Government Department of Education
PO Box 9880
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Dear s 22

ESTIMATED HELP RECEIVABLE FOR 2021-22 FINANCIAL STATEMENT

I am writing to notify the Department of Education (Education) of the completion by AGA of work relating to the roll-forward of the 2021 HELP model results to estimate the receivable that can be recorded on Education's financial statements for 2021-22.

We undertake an annual update of the HELP model. The details of the latest model are described in the most current HELP Model Results Report. In this letter, I have only presented the estimated receivables for financial statement purposes.

This letter describes the roll-forward approach for calculating the receivables for HELP and post 1 July 2019 VSL (post-19 VSL) debts and the relevant reconciliation and sensitivity checks. Numerous tables are included for the HELP results to show the key drivers of the receivable as well as to demonstrate reconciliation between ATO certificates, last year's model results and this year's model results as at 30 June 2021 and 30 June 2022. The tables were also used to sense check the results. Compared to last year's advice, certain tables have been redesigned to provide greater clarity.

Summary of Results

Overall, the HELP receivable is $49,670.376m and post-19 VSL receivable is $431.434m as at 30 June 2022. These are shown in Table 11. Compared to 30 June 2021, the HELP receivable decreased by $3,475.822m while the post-19 VSL receivable increased by $1.576m.

The change for HELP was largely driven by movements in the yield curve. Yields on Commonwealth bonds were much higher in June 2022 compared to 30 June 2021. The equivalent single discount rate increased from 1.72% per annum to 3.71% per annum. This reduced the HELP receivable by $9,016m. For post-19 VSL debt, the equivalent single discount rate is 3.76% per annum, up from 2.01% per annum last year. This reduced the post-19 VSL receivable by $93m. The yield curve impact is shown in Table 8, Table 10 and Table 11.

However, when the yield curve impact is factored out, the HELP receivable on a 5% discount rate basis increased by around $3,929m since last year (Table 7). The figures calculated on the long term constant discount rate basis provide a better guide to understanding the effect of changes in underlying repayment characteristics of HELP debts and the impacts of changes in the modelling approach. While an increase would normally be expected due to the additional debt incurred over the course of the year, the value has also increased due to the upgraded wage growth and CPI assumptions, a range of model enhancements and data changes that resulted in a $2,867m increase in the receivable and a $636m reduction in DNER. These are shown in Table 3 and Table 4. The details of the model changes are described in the 2021 HELP Model Results Report.

The DNER for HELP debts as at 30 June 2022 increased by $913m since last year. However, this was driven by new debts and indexation during the year as shown in Table 6. The model changes reduced DNER by $636m as shown in Table 4. More information on DNER results is provided in the 2021 HELP Model Results Report.

Note that the focus of this advice is on HELP debts, as post-19 VSL debts are not yet material. Both results are presented for the final accounting disclosure table (Table 11 in Attachment One). Although it shows the VET split of the HELP result, more details are provided in a separate advice.

As requested by ANAO last year, we have also included the results of four sensitivity tests in this advice. The results are shown in Table 11A (Attachment One).

Background

For financial reporting purposes, Education is required to record the HELP receivable at fair value. That is, taking account of the debt that is not expected to be repaid (DNER) due to the income contingent nature of the program and the deferral adjustment, which is the result of indexing outstanding debt in line with movements in the CPI rather than the valuation discount rate.

In order to reach an estimate of the fair value, a projection of future repayments against the debt which is estimated to be outstanding as at 30 June 2022 (i.e. the balance date) is performed. Note that because of delays in data transfer between educational institutions, Education and the ATO, primarily in relation to Semester 1 debt for 2022, the outstanding debt at the balance date will not be known with certainty. Similar to previous years, we relied on Education's data for this component. Education estimated around 30% of debts incurred but not yet reported by 30 June 2022 relate to pre- 1 July 2021 academic years. This figure was not historically provided and has been included in this year's reconciliation. We also note that the magnitude of the delay appears significantly reduced from previous years. The estimated late reporting of 2021-22 debts is $133m, which is much lower than $2,367m of 2020-21 debts and $3,137m of 2019-20 debts. This is believed to be as a result of migration from

Education's previous Higher Education Information Management system (HEIMS) to Tertiary Collection of Student Information (TCSI) from 2020, with the latter requiring more timely reporting of information.

The AGA HELP model generates simulated incomes at the individual level over a 45 year period for all those with an outstanding debt one year prior to the balance date. These incomes can then be used to calculate future repayments against the debt outstanding one year prior to the balance date (i.e. 30 June 2021 for the current report). The estimated future repayments are shown in our 2021 HELP Model Results Report. For the new debt which has been incurred over the financial year immediately preceding the balance date, we assume that the pattern of repayment observed for the final year of debt included in the model data can be applied. That is, we assume that the repayments projected by the 2021 model for debt incurred in 2020-21, can be pro-rated to estimate the repayments that will be made against debt incurred in 2021-22.

Principles for the estimation of the receivable

Several principles regarding the estimation of the receivable have been adopted over time dealing with the timing of accounting for repayments, treatment of policy changes and the appropriate discounting basis. These are discussed in turn below.

Accounting for repayments

The AGA model is based on ATO transaction data. This data accounts for compulsory repayments at the time they are credited against outstanding debt and we do the same in our model. In practice, employers are required to deduct PAYG contributions for the salaries of employees with a HELP debt. These amounts are known as PAYG receipts and are effectively an estimate of what are expected to become the actual compulsory payments credited against the outstanding debt in the following year. ANAO have advised that, in order to be consistent with the methodology which the ATO uses to report on receipts, PAYG receipts over the year immediately preceding the balance date (i.e. 2021-22) should be taken into account.

This methodology effectively brings forward compulsory payments by a year and this in turn has two partially offsetting impacts on the estimated fair value of the receivable. Firstly, the amount due is reduced by the tax receipts which are estimated to have been collected in the year before the reporting date but not yet credited against individual debts (i.e. 2021-22 income year). Secondly, the remaining projected compulsory payments are considered to be one year closer to payment and hence discounted by one year less. This second impact has the effect of increasing the value of the receivable. The net effect is a decrease in the value of the receivable. This is shown in Table 2.

Note that this method does not consider potential compulsory repayments from future lodgement of tax returns related to financial years prior to the year before the reporting date (i.e. 2021-22). There is insufficient data to reliably measure the magnitude of these extra repayments, and they should be relatively immaterial. By ignoring these potential repayments, the receivable estimate can be considered slightly conservative.

Treatment of policy changes and current legislation

It has been agreed with ANAO that only measures that have been legislated should be incorporated into the estimates for financial statement purposes.

While certain recent policy changes such as completion rate requirements for Commonwealth assistance and the Job-ready Graduates package could potentially change the repayment profile for new debts, it is still too early to quantify the impact. Its impact on rolling forward the receivable to 30 June 2022 is immaterial.

HELP repayment thresholds are indexed each year in line with the increase in the CPI over the year to the previous 31 December. As a result, the 2021-22 repayment thresholds were increased by 2.9%, being the CPI increase over the year to 31 December 2021, resulting in the following revised repayment thresholds for 2022-23:

HELP repayment thresholds from 2022-23	
Repayment rate%	Threshold amount
1.00%	$48,361
2.00%	$55,837
2.50%	$59,187
3.00%	$62,739
3.50%	$66,503
4.00%	$70,493
4.50%	$74,723
5.00%	$79,207
5.50%	$83,959
6.00%	$88,997
6.50%	$94,337
7.00%	$99,997
7.50%	$105,997
8.00%	$112,356
8.50%	$119,098
9.00%	$126,244
9.50%	$133,819
10.00%	$141,848

Note that post-19 VSL debts are only repaid after any higher-ranking HELP debts have been fully extinguished. HELP debts include VFH and pre-19 VSL debts.

Discounting

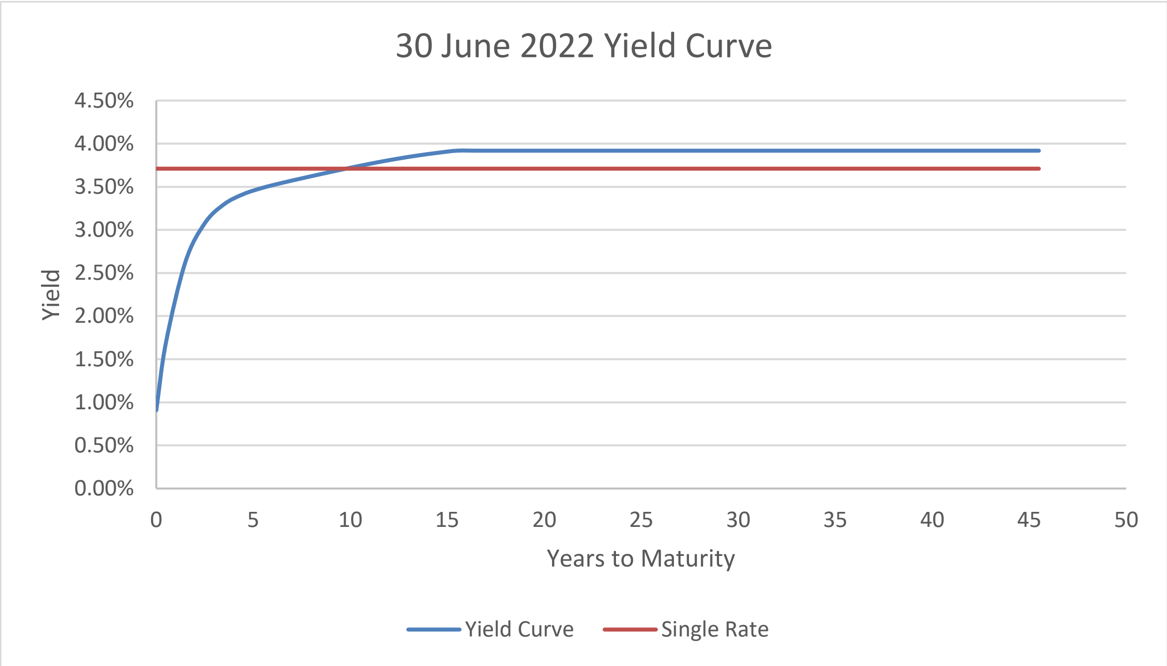
For several years now, we have used the yield curve derived from Commonwealth securities on issue as at the balance date for discounting future cashflows.

In line with last year's approach, we have retained the use of a single valuation discount rate for converting future projected repayments into a present or fair value. The single discount rate is intended to simulate the outcome of using a yield curve, while reducing the complexity associated with a yield curve. At the same time, we have also relied on Education estimates of likely repayments and new debt issued up to 30 June 2022.

The single discount rate adopted last year was 1.720% per annum for HELP and 2.006% per annum for post-19 VSL. For this year's exercise, we have used the full details of the 30 June 2022 yield curve and represented it for disclosure purposes by reference to an equivalent single discount rate of 3.710% per annum for HELP and 3.764% per annum for post-19 VSL. The mean term for HELP debt has reduced from 8.68 to 7.90 whereas for post-19 VSL, this has reduced from 14.25 to 9.53. This is driven by not only yield curve movements but also higher projected short-term repayments for both HELP and post-19 VSL debts following this year's model update.

Figure 1 compares the 30 June 2022 yield curve with the single discount rate derived of 3.710%. The increase in the single discount rate from that derived in 2021 reflects the general increase in yields observed over the latter part of the financial year.

Figure 1: 30 June 2022 Yield Curve and associated single discount rate



I note that the timing of HELP repayments is very uncertain, perhaps more so than the eventual level of debt that will remain unpaid. The use of a yield curve (including an associated single discount rate) means that the reported impact of any changes in the assumed timing in repayments can be magnified or obscured by changes in the shape of the yield curve.

As a result, considerable care should be taken in interpreting the results calculated using the yield curve (including an associated single discount rate) when attempting to understand the underlying dynamics of the HELP receivable. In my view, the figures calculated on the long term constant discount rate basis provide a better guide to understanding the effect of changes in underlying repayment characteristics of HELP debts and the impacts of changes in the modelling approach.

In providing results under a constant discount rate basis, we have retained the approach adopted last year of a 5% per annum discount rate, which is the rate now used for the valuation of a number of long term cashflow items on the Commonwealth balance sheet including superannuation and military compensation liabilities.

Deferral Adjustment

There are three adjustments made to the face value of the HELP debt provided by the ATO in order to calculate a fair value of the receivable. The first is the debt that is not expected to be repaid (DNER). The second is the adjustment for PAYG receipts. The final adjustment is the deferral adjustment.

This adjustment allows for the fact that the debt is only indexed in line with the CPI rather than the various yields associated with the yield curve (represented by a single valuation interest rate) which would be expected to be higher. Where a payment is made at a future date, the net impact of the indexation of the associated debt and the subsequent discounting of the payment to the present day, gives effect to a deferral adjustment.

Where fair value results are based on long term discount rates, the deferral adjustment reflects the 2.5 percentage point differential between the 5% per annum long term discount rate and the assumed long term indexation rate of 2.5% per annum (noting that there are short term variations). Where the fair value is based on the relevant yield curve and its associated single discount rate (see Figure 1), a much smaller difference between the 2.5% per annum indexation rate applies, resulting in a correspondingly reduced deferral adjustment. In some circumstances, such as in 2019, 2020 and also in 2021, where the yield curve and associated single discount rate is below the assumed indexation rate, the deferral adjustment actually increases the value of the receivable in present value terms. This has reversed in 2022 with the higher yield curve returning the deferral adjustment to a reduction in the receivable.

Throughout this advice, the deferral adjustment is quantified as an additional impairment (or enhancement) that is applied against the projected future repayments.

Estimated and Provisional Data

This advice has been provided based on information set out in two final ATO HELP Certificates as at 30 June 2022 (one for HELP and one for post-19 VSL provided Education), along with estimated debts incurred for 2021-22 provided by Education that were not included in the ATO certificates.

Results of the 2021 HELP Model

The output of the HELP model is a projection of future repayment cashflows which allows the DNER and deferral adjustment to be calculated for HELP debts. These amounts are deducted from the nominal value of debt to give the present value of repayments.

Table 1 shows the derivation of the fair value of the HELP receivable as at 30 June 2021 using the AGA method of accounting for repayments when they are credited against an individual's debt. Note that throughout this letter, totals may not add exactly due to rounding. Note also that while some figures are quoted to the nearest $1,000, this level of accuracy is not warranted given the uncertainties involved in the modelling process.

Table 1: Fair value of the HELP receivable at 30 June 2021

		5% Discount Rate $m	2021 Yield Curve $m
	Outstanding Debt as at 30 June 2021	70,977.8	70,977.8
less	*Nominal value of further VET FEE-HELP debt excluded (not in certificate)*	*804.9*	*804.9*
gives	Nominal Value of Debt considered to have repayment prospects	70,172.9	70,172.9
less	*Nominal Value of Debt Not Expected to be Repaid (DNER)*	*15,272.7*	*15,272.7*
gives	Face Value of Repayments	54,900.2	54,900.2
less	*Deferral Adjustment*	*9,206.2*	*-4,653.8*
gives	**Discounted Repayments (Fair Value of Outstanding Debt)**	**45,694.0**	**59,554.0**

Note these figures have been updated since the 2021 HELP Model Results Report to allow for further potential re-credits.

This year, we have revised down our estimate of ultimate total re-credits from $4.2bn to $3.58bn and so have made an allowance for a further $804.9m potential re-credits, based on a total of $2.775bn re-credits processed by the ATO as at 30 June 2021 as provided by Education. This adjustment reflects our understanding that the currently legislated end to the Redress measure on 31 December 2022 is unlikely to be extended.

These figures can then be adjusted to meet ANAO requirements by taking account of PAYG receipts as shown in Table 2. This table has been redesigned this year to distinguish between the discounting impact of the basis adjustment and the reversal of fair value of future re-credits. While the exclusion of the first year's PAYG reduces future cashflows, bringing forward all future PAYG receipts by one year increases the present value. This is shown by the difference between the two discounting impact elements. This approach essentially resets the starting position for this year's receivable by applying the results from this year's model and adjusted to ANAO basis. These figures then become the opening position for Table 7 and Table 8, and ultimately flow through to Table 11.

Table 2: Derivation of the ANAO value of the HELP receivable at 30 June 2021

		5% Discount Rate ($m)	2021 Yield Curve ($m)
	Discounted Repayments from AGA's latest model	45,694.0	59,554.0
plus	*Reversal of fair value of future re-credits*	*475.4*	*619.6*
gives	Discounted Repayments (AGA basis)	46,169.4	60,173.6
plus	*Discounting impact*	*25,026.4*	*11,022.2*
gives	Undiscounted Repayments (AGA basis)	71,195.8	71,195.8
less	*Face value of compulsory repayments in 2021-22 (for 2020-21 income year)*	*-4,164.5*	*-4,164.5*
gives	Undiscounted Repayments (ANAO methodology)	67,031.3	67,031.3
less	*Discounting impact*	*-23,036.1*	*-10,064.0*
gives	**Discounted Repayments (ANAO methodology)**	**43,995.2**	**56,967.2**

Table 3 reconciles the outcomes under the two discount rate assumptions with the values we estimated in 2021 based on the 2020 model.

Table 3: Reconciliation of fair value of HELP estimates at 30 June 2021

		5% Discount Rate ($m)	2021 Yield Curve ($m)
	Estimate of Fair Value of Debt as at 30 June 2021 (based on 2020 model)	41,194.2	53,146.2
less	*Lower than anticipated new debt in semester 1, 2021*[1]	*-17.4*	*-24.1*
less	*Higher than expected compulsory repayments relative to model estimate of 2020-21 PAYG receipts (including interest)*	*-48.8*	*-48.1*
gives	Revised Estimate of Fair Value of Debt as at 30 June 2021 (based on 2020 model)	41,128.1	53,074.1
plus	*Impact of using 2021 model and reversing future re-credits allowed for in 2020 receivable (based on 2020 model)*[2]	*2,867.1*	*3,893.2*
gives	**Estimate of Fair Value of Debt as at 30 June 2021 (based on 2021 model)**	**43,995.2**	**56,967.2**

[1] This is the value of the reduction in new debt after applying the impairment ratio which adjusts for DNER and the deferral adjustment.

[2] This includes the reversal of future re-credits allowed for in last year's model. The fair value impact of these were $330m at 5% discount rate and $708m at 2021 yield curve. After excluding this, the impact of using the 2021 model is $2,536.5m and $3,184.7m.

The impact of the 2021 model is a combination of updated data, changes in underlying assumptions, a reduction in the level of VET Redress estimate and changes in the model itself. Each of these elements has increased the value of the receivable by varying amounts. For example, the change in underlying economic assumptions contributed $870m to the total impact at 5% discount rate. While discussed in more detail in the 2021 HELP Model Results Report, the main takeaways from that analysis in terms of updated data include:

1. This year, two additional years of income data were used to project future incomes, although we note that both of these additional incomes were affected by COVID-19 which appears to have increased the volatility of historical incomes.

2. Lower income deciles continue to have a significant improvement in projected incomes relative to AWE in the updated data, which can be expected to translate into a higher relative impact on the receivable than the lower than expected projected incomes of higher income deciles (where close to full repayment is expected in any event).

3. The incomes and associated DNER of female debtors have largely caught up to that of male debtors, adding to the potential for a higher level of repayments overall, with female debtors the main reason for the overall reduction in DNER on completion.

The first three tables above show the revised fair value of debt as at 30 June 2021 to be used as a starting position for rolling forward this year's receivable. Table 4 shows the revised closing outstanding debt balance and DNER as at 30 June 2021 based on the 2021 model. They are then used for rolling forward DNER to 30 June 2022 in Table 6.

Table 4: Revised closing balance as at 30 June 2021

	Outstanding Debt ($'m)	DNER ($'m)
Closing balance reported as at 30 June 2021	69,741.6	15,978.6
Difference between actual ATO records and Department of Education estimates of debt in 2021	*-26.5*	*-4.3*
Removal of VFH debtors from model in excess of allowance at 30 June 2021[1]	*632.2*	*241.7*
Effect of HELP model changes for 2021[2]		*-635.7*

Revised closing balance at 30 June 2021 using latest data	**70,347.3**	**15,580.4**

1 This item increases rather than decreases the outstanding balance and DNER this year, as a result of lower ultimate total re-credits assumed (i.e. reduced from $4.212bn last year to $3.58bn this year). The associated DNER component is the amount in excess of that estimated by the HELP model, because we assume a total DNER of 60% for future re-credits. This is the same approach as last year.

2 This item is a balancing item which captures the lower DNER associated with an improved outcome from the updated 2021 model, partly offset by a reversal of a portion of the DNER associated with the VET re-credits removed last year.

Roll Forward Results from Previous 30 June

In order to roll forward the 2021 model results to the balance date, a range of additional information is required, specifically:

- ATO aggregate data on new debt incurred, indexation, write-offs, repayments and remissions over the 2021-22 financial year, taken from the final June 2022 HELP certificate provided by the ATO. In theory, the new debt incurred includes all of the debt for semester 2 of 2021 and most of the debt for semester 1 of 2022;
- an estimate of debt incurred during semester 1 of 2022 and prior that was not included in the ATO HELP certificates provided by Education;
- an estimate of PAYG receipts over the 2021-22 financial year also provided by Education; and
- the indexation rate of 3.9% which applied to outstanding HELP debt as at 1 June 2022.

Since last year, the above information has been separately provided for HELP and post-19 VSL. The roll-forward process described below only concerns HELP debts. For post-19 VSL debts, the roll-forward is only shown as a summary in Table 11.

The main assumption adopted in rolling forward the estimate is that new debts incurred over 2021-22 will have the same DNER percentages and repayment patterns associated with them as was estimated by our model for new debts incurred in 2020-21. While certain recent policy changes such as completion rate requirements for Commonwealth assistance and the Job-ready Graduates package could potentially change the repayment profile for new debts, it is too early to quantify the impact. Its impact on rolling forward the receivable to 30 June 2022 is immaterial.

Impairment assumptions for new VSL debt in 2021-22 have been derived based on a separate analysis. Given the differences in repayment prospects, we have distinguished between post-19 VSL debt and other HELP debt in estimating the impairment on the new debt incurred in 2021-22. More information on new debt repayment profiles is to be provided separately.

There are then three elements to the calculation:

- the estimation of the outstanding debt as at 30 June 2022 before allowance for PAYG receipts;
- the roll forward of the DNER from 30 June 2021 to 30 June 2022; and
- the estimation of the fair value of the receivable at 30 June 2022 on both the yield curve (represented by a single discount rate) and 5% p.a. discount rate basis.

Outstanding Debt as at 30 June 2022

Table 5: Outstanding debt as at 30 June 2022

	HELP ($m)	Post19 VSL ($m)	Total ($m)
Outstanding debt from the ATO June 2022 statement	74,385.930	796.678	75,182.608
Education estimate of debt incurred in semester 1 2022 and prior years but yet to be reported by ATO in 2021-22[1]	174.055	10.360	184.414
Outstanding debt as at 30 June 2022	**74,559.985**	**807.038**	**75,367.023**

[1] The prior year element of this item was explicitly provided by Education for the first time this year.

Estimated HELP Results as at 30 June 2022

Calculation of DNER for HELP debts as at 30 June 2022

Table 6 shows the calculation of the DNER for HELP debts as at 30 June 2022 working forward from the revised balance as at 30 June 2021 (as shown in Table 3).

It is important to recognise that the DNER percentage calculated below relates to the outstanding debt as at 30 June 2022, and any attempt to compare this value with values based on outstanding debt in prior years should be taken with care.

The DNER percentage at any time is a function of the following:

- the age of the relative tranches of debt, noting that the DNER of a certain pool of debt can be expected to increase over time due to the mathematical out-workings of an increasing proportion of non-recoverable debt relative to the reducing outstanding balance of a debt (referred to as “debt creep”,

- the weightings of debt in the relative tranches, including the amount of new debt entering the system each year relative to debt being repaid each year,
- the weighting of the debt between VET and non-VET debts (which exhibit significantly different repayment prospects),
- the assumptions incorporated into the AGA model each year, which reflect updated experience and modifications to previous assumptions, and
- the prevailing legislative environment.

Discussion around the calculation of DNER, changes in this value over time and different bases for measuring DNER are set out in more detail in our latest HELP model methodology paper and HELP Model Results Report.

Table 6: Estimated DNER for HELP debts at 30 June 2022

	Outstanding Debt ($'m)	DNER ($'m)
Revised closing balance at 30 June 2021 using latest data[1]	**70,347.319**	**15,580.434**
Actual compulsory repayments in 2021-22	*-4,227.084*	
Voluntary repayments in 2021-22	*-780.142*	
Bonus on voluntary repayments in 2021-22	*-0.001*	
Bonus reductions for selected courses	*-0.003*	*0.000*
Write-offs in 2021-22	*-59.845*	*-59.845*
Remissions and waivers in 2021-22	*-0.029*	*-0.029*
New Debt	*6,479.565*	*765.908*
Actual indexation applied at 1 June 2022 at 3.9%	*2,572.996*	*605.302*
ATO adjustments for indexation and transfers of credit[2]	*-5.105*	
Closing balance as at 30 June 2022	**74,327.670**	**16,891.770**

1 This is the closing balance of Table 4.

2 Total adjustments from the ATO Certificate

Based on these results, DNER represents 22.7% of the estimated outstanding debt as at 30 June 2022 based on the VET re-credits applied to date and a DNER of 60% for future re-credits. After all assumed VET debts are re-credited, the DNER is expected to fall to 22.4%.

Estimate of fair value of HELP receivable as at 30 June 2022

The estimate of the fair value of the HELP receivable as at 30 June 2022 is derived from the fair value adjusted for the ANAO methodology as at 30 June 2021. I have shown the calculation at the long term interest rate (Table 7) separately from that using the yield curve (Table 8). The split of the fair value adjustment on new debt is shown in Table 13 (long term discount rate) and Table 14 (yield curve) in Attachment Two, along with a description of the other items in Tables 7 and 8.

Table 7: Estimate of Fair Value at Long Term Discount Rate

	$m
Opening balance at fair value (revised balance as at 30/6/21)[1]	43,995.214
Estimated 2021-22 PAYG receipts on opening balance	*-4,083.200*
Actual voluntary repayments in 2021-22	*-780.142*
New debt incurred in 2021-22	*6,479.565*
Estimated 2021-22 PAYG receipts on new debt	*-312.967*
Fair value adjustment on new debt	*-1,914.935*
Difference between AGA and Education estimate of 2021-22 PAYG receipts	*-56.780*
Interest at 5% per annum	*2,070.529*
Actuarial gains[2]	*131.454*
Closing 5.0% per annum balance at fair value (as at 30 June 2022)	**45,528.738**
Impact of further VET re-credits (Model adjustment)	*-405.331*
Adjusted Closing balance as at 30 June 2022	**45,123.407**

1 This is the closing balance of Table 3.

2 This is the gain from actual indexation of 3.9% rather than the 3.6% assumed in the HELP model.

When calculating results based on the 2022 yield curve, while the cash transactions are the same, the other items are no longer based on the long-term interest rate, including the impairment ratio applied to the new debt which is calculated using the 2021 yield curve, the calculation of interest, which is based on the 2021 yield curve (represented by a single discount rate of 1.72% per annum), and the impact of the change from the 2021 to the 2022 yield curve on the overall value. Table 8 below sets out the estimate of the fair value using the 2022 yield curve.

Table 8: Estimate of Fair Value using the 2022 Yield Curve

	$m
Opening balance at fair value (revised balance as at 30/6/21)[1]	56,967.238
Estimated 2021-22 PAYG receipts on opening balance	*-4,083.200*
Actual voluntary repayments in 2021-22	*-780.142*
New debt incurred in 2021-22	*6,479.565*
Estimated 2021-22 PAYG receipts on new debt	*-312.967*
Fair value adjustment on new debt	*-158.032*
Difference between AGA and Education estimate of 2021-22 PAYG receipts	*-56.780*
Interest at 1.72% per annum	*934.752*
Actuarial gains	*165.521*
Closing balance at fair value using 2021 yield curve (as at 30 June 2022)	**59,155.954**
Movement from 2021 yield curve to 2022 yield curve	*-9,015.638*
Closing balance at fair value using 2022 yield curve (as at 30 June 2022)	**50,140.316**
Impact of further VET re-credits (Model adjustment)	*-469.940*
Adjusted Closing balance as at 30 June 2022	**49,670.376**

1 This is the closing balance of Table 3.

For reporting purposes, we have been requested to determine the proportion of future repayments that are attributable to interest on the outstanding debt balance. The proportion in relation to the fair value as at 30 June 2022 is 19.8%.

We can reconcile the ATO certified amount of outstanding debt to the fair value calculated using the ANAO preferred approach based on the long term discount rate. This is shown in Table 9.

Table 9: Reconciliation between outstanding HELP debt and fair value

		5.0% Discount Rate ($m)	2022 Yield Curve ($m)
	ATO certified amount of outstanding debt as at 30 June 2022	74,385.930	74,385.930
plus	*Estimated debt incurred in semester 1 of 2022 and prior years to be reported in 2022-23*	*174.055*	*174.055*
gives	Outstanding debt as at 30 June 2022	74,559.985	74,559.985
less	*estimated 2021-22 PAYG receipts*	*-4,396.168*	*-4,396.168*
gives	Nominal value of outstanding debt after PAYG	70,163.818	70,163.818
less	*Modelled face value of debt not expected to be repaid (DNER)*	*-16,891.770*	*-16,891.770*
gives	Face value of debt expected to be repaid	53,272.048	53,272.048
less	*Deferral adjustment*	*-8,148.641*	*-3,601.672*
gives	Closing balance at fair value	45,123.407	49,670.376

When the 2022 yield curve is used, the closing balance at fair value becomes $49,670.376m. This is consistent with Table 8. All other items of the above table remain unchanged.

Finally, by combining the results shown in Table 3 and Table 8, we can reconcile the fair value of the receivable reported in 2021 with the current estimate, as shown in Table 10.

Table 10: Reconciliation between 2021 and 2022 yield curve estimates

		($m)
	Reported fair value of HELP receivable as at 30 June 2021	53,146.198
plus	*Fair value adjustment for existing debt*	*3,821.040*
gives	**Revised fair value of HELP receivable as at 30 June 2021**	**56,967.238**
less	*AGA estimated 2021-22 PAYG receipts and actual voluntary repayments*	*-5,233.089*
plus	*Estimated new debt incurred in 2021-22*	*6,479.565*
less	*Fair value adjustment for new debt (comprising DNER of $766m and a deferral adjustment of -608m)*	*-158.032*
plus	*Unwinding of the discount*	*934.752*

plus	*Fair value adjustment for actuarial gains*	*165.521*
less	*Fair value adjustment for change in discount rates*	*-9,015.638*
less	less impact of further VET re-credits (Model adjustment)	*-469.940*
gives	**Reported fair value of HELP receivable as at 30 June 2022**	**49,670.376**

Sensitivity analysis (HELP)

We have calculated the fair value of the HELP receivable for four alternative scenarios shown below. They are for illustration purposes. Different sensitivity analyses on long term economic assumptions were carried out for the HELP Model Results Report.

A. 1% higher CPI for the first four years

B. 1% lower wage growth for the first four years

C. 1% higher CPI and 1% higher wage growth for all future years

D. 1% higher CPI and 1% lower wage growth for all future years

For simplicity, we have assumed that the proportional impact of alternative economic assumptions on the fair value as at 30 June 2021 on the AGA basis can be applied to the revised fair value as at 30 June 2021 on the ANAO basis. They are shown below. The rationale for each result is discussed. The results of these sensitivity tests on the fair value as at 30 June 2022 are shown in Table 11A (Attachment One).

Scenario	Relative Change	Rationale
A	102%	Short-term higher CPI will increase the amount of debt to be repaid through indexation, but the impact is partially offset by slower movement to higher repayment rate as thresholds are indexed at higher rates as well.
B	99%	Short-term lower wage growth will more likely defer the payment of debts than reduce the ultimate amount of debts repaid.
C	109%	Long-term increases in CPI will increase the amount of debt repayments relative to current outstanding balance while higher wage growth

		will more than offset higher threshold indexation rates by bringing forward repayments.
D	98%	Combined impact of Scenario A and B suggests that the combination has a net positive short-term impact but over the long term, there is a net negative impact as the lower wage growth over the long term combined with higher threshold indexation over the long term will significantly restrict movement to higher repayment rates.

Estimated Post-19 VSL Results as at 30 June 2022

Advice received from Education was that a total of $245.174m of VSL debt has been incurred between 1 July 2021 and 30 June 2022 under the lower ranked repayment arrangement that has been in place since 1 July 2019. As it is a requirement to separately calculate and report the fair value of future expected repayments associated with this debt, this value has been determined to be $431.434m based on the 2022 yield curve. It is shown separately to HELP debts in Table 11 (Attachment One).

In future, when post-19 VSL becomes more material and has its own model and report, we can provide similar reconciliations and break-downs as the case for HELP debts.

Comment on Results

On a 5% discount rate basis, the closing balance of the HELP receivable is around $3.9 billion higher than the estimate of the receivable provided in 2021. While an increase would normally be expected due to the additional debt incurred over the course of the year, the value has also increased due to the upgraded wage growth and CPI assumptions and a decrease in ultimate irrecoverable VET debt assumed. The inclusion of a further year of income data, along with a range of model improvements this year as described in the 2021 HELP Model Results Report has had a positive impact on the receivable relative to what we were projecting based on the 2020 model using the 5% discount rate.

Legislation

There were no significant changes to legislation over the past year that have impacted on our calculations, following the significant changes adopted in 2019 involving a widening of the repayment thresholds as well as indexing thresholds in line with movements in CPI.

While certain recent policy changes such as completion rate requirements for Commonwealth assistance and the Job-ready Graduates package could potentially change the repayment profile for new debts, it is still too early to quantify the impact. Its impact on rolling forward the receivable to 30 June 2022 is immaterial.

Yield Curve

Yields on Commonwealth bonds were much higher in June 2022 compared to 30 June 2021. This year we have again chosen to represent the respective yield curves by calculating equivalent single discount rates. The increase in the 2021 rate of 1.72% per annum to the current rate of 3.71% per annum has resulted in a $9,016m decrease in the HELP receivable. For post-19 VSL debt, the equivalent single discount rate is 3.76% per annum, up from 2.01% per annum last year. This reduced the post-19 VSL receivable by $93m. The yield curve impact is shown in Table 8, Table 10 and Table 11.

VET

The VET system continues to transition from VFH to VSL with new debts now all coming from the new VSL program. The take-up of loans continues to be lower since the closure of VFH to new students and the introduction of VSL.

In rolling forward the estimate of the receivable to 30 June 2022, a key assumption is the DNER percentage and repayment pattern of new VSL debt incurred after 30 June 2019 (post-2019 VSL). It is not appropriate to retain the DNER estimate that applies to pre 2019 VSL debt for this tranche of new debt, as the repayment rules associated with this debt mean that it will not commence to be repaid until all other HELP, VFH and pre 1 July 2019 VSL debts have been repaid.

Last year, we chose to adopt a DNER assumption of 30% for new VET debts. This assumption recognised the different design elements of the VSL program relative to VFH, drew on the most recent analysis and recognised the improved economic outlook. This remains an appropriate estimate for this exercise.

I note that there is significant uncertainty around how VSL might ultimately play out and that we do not yet have sufficient post completion income data to build a HELP-style granular model for estimating its DNER. However, the approach adopted for pos-19 VSL has already improved since last year with cashflows now being estimated based on recognition of debt size and higher ranking debts. The details of the current approach are provided in the 2021 HELP Model Results Report. As more income data becomes available for this population, the approach can be further refined in future.

VET Split

With effect from 28 May 2019, the administration of the VET sector was transferred from the then Department of Education to the Department of Employment (Employment). For the purpose of the 2019 advice, we were requested to calculate the value of future repayments in respect of VSL debts only (i.e. debts incurred since 1 January 2017) and to reduce the HELP receivable recorded by Education by this amount. Appropriate values at both 28 May 2019 and 30 June 2019 for both Education and Employment were calculated.

With effect from 31 January 2020, Employment returned to the expanded Department of Education, Skills and Employment. To recognise this a full split of the total HELP receivable into HELP only related repayments, VET repayments and VSL repayments was performed.

For the HELP receivable as at 30 June 2020, 30 June 2021 and this year, we understand that it is a requirement to retain a notional split between the three debt types, but that the VSL fair value is only required in relation to the new VSL debt incurred from 1 July 2019.

The results of the split between the three debt types are shown in Table 11 (Attachment One). The details will be the subject of a separate advice.

Final comments

As always, I would emphasise the uncertainty associated with estimates based on projecting incomes up to 45 years into the future. The higher debts that are now being incurred mean that repayments span an increasingly longer period and the results are therefore more sensitive to income projections further into the future, which are inherently subject to greater uncertainty. The margin of error around the results is therefore substantial. Nonetheless, I consider that the value of the receivable reported here falls within the range of reasonable estimates.

The calculation of the fair value is not straight-forward. To provide reassurance on the accuracy of the calculation, the fair value estimate as at 30 June 2022 has been derived multiple ways as shown in Table **8**, Table **9**, Table **10** and Table **11**. It has been reconciled with the fair value as at 30 June 2021 as well as the outstanding balance as reported on the 30 June 2022 ATO certificate.

This year's results assume the current VFH Redress measures will end on 31 December 2022. Should this sunset date be extended, more future re-credits than that allowed for could be removed, further reducing the fair value of the receivable.

Relative to the results derived from the 2021 model, and on a like with like basis, the DNER percentages from the 2022 model in respect of new debt for both non-VFH debts and VFH debts have reduced. This reflects both model improvements as well as improved graduate earnings relative to expectations.

Please feel free to contact me on s 22 if you have any questions relating to this advice.

Yours sincerely
s 22

Australian Government Actuary

s 22

Australian Government Actuary

Attachment One

We provide a reconciliation between the outstanding debt and the estimated fair value as at the balance date. The following table is in a format which I understand you use for inclusion in financial statement disclosures. The VET and non-VET split of HELP debts (i.e. the HELP column) are shown in the last two columns and further details are provided in a separate advice.

Table 11: Accounting Disclosures Table

	HELP ($m)	Post-19 VSL ($m)	HELP split VET ($m)	HELP split non-VET ($m)
Opening Balance as at 1 July 2021	**53,146.198**	**429.858**	**3,356.534**	**49,789.663**
Adjustment for restated VET split	0.000	0.000	*315.586*	*-315.586*
Higher than estimated semester 1 2021 new debt	*-24.080*	*-30.051*	*0.000*	*-24.080*
Higher than expected PAYG repayments	*-48.057*	*-6.608*	*-3.909*	*-44.148*
Model adjustment / Data update	*3,893.177*	*-39.668*	*269.077*	*3,624.101*
Revised Opening Balance as at 1 July 2021	**56,967.238**	**353.532**	**3,937.288**	**53,029.950**
Estimate 2021-22 PAYG receipts on opening balance	*-4,083.200*	*-26.987*	*-269.197*	*-3,814.003*
Actual voluntary repayments in 2021-22	*-780.142*	*-3.867*	*-47.772*	*-732.371*
New debt incurred in 2021-22	*6,479.565*	*245.174*	*0.000*	*6,479.565*
Estimated 2021-22 PAYG receipts on new debt	*-312.967*	*-0.693*	*0.000*	*-312.967*
Fair value adjustment on new debt	*-158.032*	*-50.373*	*0.000*	*-158.032*
Difference between AGA and Education estimate of PAYG 2021-22 receipts	*-56.780*	*0.000*	*-3.477*	*-53.303*
Unwind the discount	*934.752*	*6.777*	*64.958*	*869.794*
Actuarial gains	*165.521*	*1.032*	*11.458*	*154.063*
Movement in yield curve from 2021 to 2022	*-9,015.638*	*-93.160*	*-733.341*	*-8,282.297*
Closing Balance as at 30 June 2022	**50,140.316**	**431.434**	**2,959.918**	**47,180.398**
Impact of further VET re-credits	*-469.940*	*0.000*	*-469.94*	*0.000*
Adjusted Closing Balance as at 30 June 2022	**49,670.376**	**431.434**	**2,489.977**	**47,180.398**

The results of the sensitivity analysis for HELP debts are shown below.

Table 11A: Accounting Disclosure Table (sensitivity analysis for HELP)

	HELP ($m)				
	Baseline	**A**	**B**	**C**	**D**
Opening Balance as at 1 July 2021	**53,146.198**	**53,146.198**	**53,146.198**	**53,146.198**	**53,146.198**
Adjustment for restated VET split	0.000	0.000	0.000	0.000	0.000
Higher than estimated semester 1 2021 new debt	*-24.080*	-24.080	-24.080	-24.080	-24.080
Higher than expected PAYG repayments	*-48.057*	-48.057	-48.057	-48.057	-48.057
Model adjustment / Data update	*3,893.177*	*5,265.615*	*3,386.583*	*9,164.660*	*2,989.575*
Revised Opening Balance as at 1 July 2021	**56,967.238**	**58,339.675**	**56,460.643**	**62,238.720**	**56,063.635**
Estimate 2021-22 PAYG receipts on opening balance	*-4,083.200*	*-4,083.200*	*-4,083.200*	*-4,083.200*	*-4,083.200*
Actual voluntary repayments in 2021-22	*-780.142*	*-780.142*	*-780.142*	*-780.142*	*-780.142*
New debt incurred in 2021-22	*6,479.565*	*6,479.565*	*6,479.565*	*6,479.565*	*6,479.565*
Estimated 2021-22 PAYG receipts on new debt	*-312.967*	*-312.967*	*-312.967*	*-312.967*	*-312.967*
Fair value adjustment on new debt	*-158.032*	*-158.032*	*-158.032*	*-158.032*	*-158.032*
Difference between AGA and Education estimate of PAYG 2021-22 receipts	*-56.780*	*-56.780*	*-56.780*	*-56.780*	*-56.780*
Unwind the discount	*934.752*	*934.752*	*934.752*	*934.752*	*934.752*
Actuarial gains	*165.521*	*165.521*	*165.521*	*165.521*	*165.521*
Movement in yield curve from 2021 to 2022	*-9,015.638*	*-9,015.638*	*-9,015.638*	*-9,015.638*	*-9,015.638*
Closing Balance as at 30 June 2022	**50,140.316**	**51,512.754**	**49,633.721**	**55,411.798**	**49,236.713**
Impact of further VET re-credits	*-469.940*	*-469.940*	*-469.940*	*-469.940*	*-469.940*
Adjusted Closing Balance as at 30 June 2022	**49,670.376**	**51,042.814**	**49,163.781**	**54,941.858**	**48,766.773**

Also included below is a split of the fair value of the receivable into a current value (representing the face value of expected repayments in the coming year) and a non-current value (representing the remainder of the fair value). Values for the total receivable and in respect of post 1 July 2019 VSL debt are provided.

Table 12: Current and Non-current split ($m)

	HELP ($m)	Post-19 VSL ($m)	Total ($m)
Current Asset	4,648.045	37.578	4,685.623
Non-current Asset	45,022.330	393.856	45,416.186
TOTAL	49,670.376	431.434	50,101.810

Attachment Two

An explanation of the various items in Table 7 and Table 8 is provided below.

1. Estimated split of 2021-22 PAYG between opening balance and new debt

It is possible to estimate the proportion of compulsory repayments that relate to debt in existence a year before the balance date and the residual that relates to new debt incurred during the year. Based on the 2021 model, about 7% of compulsory repayments in 2021-22 were expected to be in respect of new debt, with the remaining 93% of repayments relating to debt in existence at 1 July 2021. These percentages have been applied to the Education estimate of PAYG receipts for 2021-22 of $4,396.2m.

2. Voluntary repayments

Voluntary repayments for 2021-22 are taken from the ATO Certificate as at 30 June 2022.

3. New debt incurred in 2021-22

The new debt has been provided by Education (including the first semester of 2022 debt that was still to be reported).

4. Fair value adjustment on new debt

The adjustment for the fair value has been determined by comparing the present value of all estimated repayments projected by the 2021 model against the face value of the debt incurred in 2020-21. These estimates have been applied to the figures we have been advised for new debt incurred in 2021-22, split by HELP and VSL debt. This resulted in an overall fair value adjustment of -29.55% for HELP debt and -47.85% for VSL debt, under the 5% discount rate basis.

The split between the components of the adjustment is shown in the two tables below. Given the difference in outcomes, there results are reported separately for VSL and HELP debt. The amount of new debt the adjustments relate to is also provided.

Table 13: Split of fair value adjustment on new debt (5% discount rate)

	5% discount rate		
	HELP	VSL	Total
Estimated new debt in 2021-22 ($m)	6,479.565	245.174	6,724.739
Face value of DNER ($m)	765.908	73.552	839.460
DNER as a % of new debt	11.82%	30.00%	12.48%
Deferral adjustment ($m)	1,149.027	43.752	1,192.779
Deferral adjustment as a % of new debt	17.73%	17.85%	17.74%

Fair value adjustment on new debt	1,914.935	117.305	2,032.239
Total impairment percentage	29.55%	47.85%	30.22%

Table 14: Split of fair value adjustment on new debt (2021 yield curve, $m)

	HELP	VSL	Total
Estimated new debt in 2021-22 ($m)	6,479.565	245.174	6,724.739
Face value of DNER ($m)	765.908	73.552	839.460
DNER as a % of new debt	11.82%	30.00%	12.48%
Deferral adjustment ($m)	-607.876	-23.179	-631.055
Deferral adjustment as a % of new debt	-9.38%	-9.45%	-9.38%
Fair value adjustment on new debt ($m)	158.032	50.373	208.405
Total impairment percentage	2.44%	20.55%	3.10%

Of note in the tables above is the reduction in the level of DNER for new debt since last year. DNER reduces for similar reasons to the reduction in the fair value. In relation to new debt, the recent increase in voluntary repayments (perhaps impacted by COVID) has had the major impact on the likely DNER on new debts. As always, we caution the reliance on DNER measures for any purpose other than calculating the value of the receivable.

5. Difference between AGA and Education estimates of PAYG receipts

Although our practice is to recognise the estimate of PAYG receipts generated by our model, for disclosure purposes we have continued the practice of showing the difference between the estimate provided by Education and the estimate generated by the model as an explicit item in the roll forward. By including this adjustment, we are increasing the value of the receivable by the difference and ensuring that the resulting estimate corresponds to the present value of projected repayments after 30 June 2022.

6. Interest

In moving forward from the estimated fair value of the HELP receivable as at 30 June 2021 to the 2022 estimate, the discount rate used to derive the present value of repayments needs to be unwound to reflect the fact that projected payments are one year closer to being received. Hence, the interest rate used in deriving the opening balance is applied to bring the estimate up to 2022 dollars. Cashflows occurring during the year are assumed to be spread evenly over the year and accordingly six months interest is assumed on voluntary repayments and PAYG receipts (including the AGA adjustment mentioned above).

7. Actuarial gains/losses

The latest AGA model assumes that the CPI will grow by 3.6% per annum in 2021-22 and this is the rate of indexation applied to outstanding debt by our model. If inflation is higher than expected, the outstanding debt will be subject to a higher level of indexation and expected repayments will also increase. In 2021-22, the applicable indexation rate applied to outstanding HELP was 3.9% and accordingly there has been an actuarial gain which impacts on the value of the HELP receivable. Note that this is normally calculated from the discounted value of repayments before adjustment for PAYG amounts because PAYG receipts do not affect the amount recorded by the ATO as outstanding at the indexation date of 1 June 2022.

8. Impact of further VET recredits

This year, we have revised down our estimate of ultimate total re-credits from $4.2bn to $3.58bn and so have made an allowance for a further $804.9m potential re-credits, based on a total of $2.775 bn re-credits processed by ATO as at 30 June 2021 as provided by Education. This adjustment reflects our understanding that the currently legislated end to the Redress measure on 31 December 2022 is unlikely to be extended.

Telephone: s 22
E-mail: s 22

11 August 2023

s 22

HELP Policy
Funding, Integrity and Students
Australian Government Department of Education
PO Box 9880
CANBERRA ACT 2601

Dear s 22

ESTIMATED HELP AND POST-19VSL RECEIVABLES FOR 2022-23 FINANCIAL STATEMENT

I am writing to notify the Department of Education (Education) and the Department of Employment and Workplace Relations (DEWR) of the completion by AGA of work relating to the roll-forward of the 2022 HELP model results to estimate the receivables that can be recorded on Education's financial statements for 2022-23.

We undertake an annual update of the HELP model. The details of the latest model are described in the most current HELP Model Results Report and the HELP Model Methodology Paper. In this letter, I have only presented the estimated receivables for financial statement purposes.

This letter describes the roll-forward approach for calculating the receivables for HELP and post 1 July 2019 VSL (post-19 VSL) debts and the relevant reconciliation and sensitivity checks. Numerous tables are included for the HELP results to show the key drivers of the receivables as well as to demonstrate reconciliation between ATO certificates, last year's model results and this year's model results as at 30 June 2022 and 30 June 2023. The tables were also used to sense check the results. Compared to last year's advice, certain tables have been redesigned to provide greater clarity.

Summary of Results

Overall, the estimate of the fair value of the HELP receivable is $49,666.005m and post-19 VSL receivable is $559.180m as at 30 June 2023. These are shown in Table **9**: Accounting Disclosures Table (the equivalent table last year was Table 11). Compared to 30 June 2022, the HELP receivable increased by $71.654m while the post-19 VSL receivable increased by $127.746m. Note that the HELP receivable as at 30 June 2022 was slightly reduced from $49,670m to $49,594m (i.e. 0.15%) after our advice on the HELP receivable was issued on 10 August 2022. The change was explained in our letter on the new debt run-off pattern dated 24 October 2022. The revised figure has been used throughout this letter as the correct receivable estimate as at 30 June 2022.

While the overall change for HELP represents a relatively small percentage increase, for the second straight year movements in the yield curve had a significant impact on the receivable. Like last year, yields on Commonwealth bonds were much higher in June 2023 compared to 12 months prior. The equivalent single discount rate increased from 3.71% per annum to 4.21% per annum. This reduced the HELP receivable by $1,800m. For post-19 VSL debt, the equivalent single discount rate is 4.31% per annum, up from 3.76% per annum last year. This reduced the post-19 VSL receivable by $58m. The yield curve impact is shown in Table 7 and Table 9.

However, when the yield curve impact is factored out, the HELP receivable on a 5% discount rate basis increased by around $2,235m since last year (Table 3 and Table 7). The figures calculated on the long term constant discount rate basis provide a better guide to understanding the effect of changes in underlying repayment characteristics of HELP debts and the impacts of changes in the modelling approach. This year the repayments made exceeded the debt incurred, however the value increased overall due to the upgraded wage growth and CPI assumptions and data changes, and slightly offset by a range of model enhancements, that on aggregate resulted in a $2,835m increase in the receivable. These are shown in Table 3 and Table 4. The details of the model changes are described in the 2022 HELP Model Results Report.

The DNER for HELP debts as at 30 June 2023 increased by $2,844m since last year. However, this was driven by indexation and new debts during the year as shown in Table 6. The model changes increased DNER by $637m as shown in Table 4. More information on DNER results is provided in the 2022 HELP Model Results Report.

Another change since last year relates to the calculation of the impairments on new debt incurred during the year i.e. 2022-23. Following an issue that Education identified, we have refined the method of calculating the receivable on new debt such that it is now consistent with the method for old debts, so that both values as at 30 June 2023 are on the ANAO basis. Further work will be required to make the change consistently applied in our new debt run-off advice and in your forward estimate model.

The rate of DNER as a percentage of new debt at 30 June 2023 is estimated as 15.40% for HELP debts, an increase of 1.62% on last year. The HELP debt deferral adjustment on the yield curve basis as a percentage of new debt is 5.23%, compared to -10.12% last year. These are shown in Table **12**, followed by further discussions.

As mentioned above, the level of DNER for new debt has increased since last year. The changes to the economic assumptions (higher short term CPI and lower long term wage growth) along with an allowance for the impact of the Job-ready Graduates Package has had the major impact on the likely

DNER on new debts. As always, we caution the reliance on DNER measures for any purpose other than calculating the value of the receivable.

Note that the focus of this advice is on HELP debts, as post-19 VSL debts are not yet material. Both results are presented for the final accounting disclosure table (Table 9). Although it shows the VET split of the HELP result, more details will be provided in a separate advice.

As requested by ANAO last year, we have also included the results of four sensitivity tests in this advice. The results are shown in Table **13** (Attachment Two).

Note that some table references have changed since last year's advice. As requested by Education, the previous Table 7 and Table 8 have been combined to become the new Table 7, and the previous Table 10 has been removed. We understand that these changes have been approved by the ANAO.

Background

For financial reporting purposes, Education is required to record the HELP receivable at fair value. That is, taking account of the debt that is not expected to be repaid (DNER) due to the income contingent nature of the program and the deferral adjustment, which is the result of indexing outstanding debt in line with movements in the CPI rather than the valuation discount rate.

In order to reach an estimate of the fair value, a projection of future repayments against the debt which is estimated to be outstanding as at 30 June 2023 (i.e. the balance date) is performed. Note that because of delays in data transfer between educational institutions, Education and the ATO, primarily in relation to Semester 1 debt for 2023, the outstanding debt at the balance date will not be known with certainty. Similar to previous years, we relied on Education's data for this component. Education estimated around 15% of debts incurred but not yet reported by 30 June 2023 relate to pre- 1 July 2022 academic years.

We note that the magnitude of the delay appears significantly reduced from previous years. The estimated late reporting of both HELP and VSL 2022-23 debts is $540m, which is higher than the $134m in 2021-22, but much lower than the estimated $2,367m of 2020-21 debts and $3,137m of 2019-20 debts. Note that the actual late reporting in debts incurred in 2021-22 is $532m based on ATO's latest data. The significant difference to Education's initial estimate prompted Education to revise the method this year for estimating the late reporting of debts for 2022-23. This recent decline is believed to be as a result of migration from Education's previous Higher Education Information Management system (HEIMS) to Tertiary Collection of Student Information (TCSI) from 2020, with the latter requiring more timely reporting of information.

The AGA HELP model generates simulated incomes at the individual level over a 45 year period for all those with an outstanding debt one year prior to the balance date. These incomes can then be used to calculate future repayments against the debt outstanding one year prior to the balance date (i.e.

30 June 2022 for the current report). The estimated future repayments are shown in our 2022 HELP Model Results Report.

For the new debt which has been incurred over the financial year immediately preceding the balance date, we normally assume that the pattern of repayment observed for the final year of debt included in the model data can be applied. That is, we normally would have assumed that the repayments projected by the 2022 model for debt incurred in 2021-22, can be pro-rated to estimate the repayments that will be made against debt incurred in 2022-23. However, the unprecedented voluntary repayment in 2022-23 required us to apply an adjustment to the model. Given the future voluntary repayments are unlikely to persist at this level, we have used the results without this adjustment as the basis for repayment projection for new debt incurred in 2022-23.

Furthermore, we have increased the new debt DNER by a percentage point to allow for the impact of Job-ready Graduates Package (JRG). Note that the impact on DNER will increase over time as the proportion of students under the grandfathering arrangement falls. Adjustments were made to new debt repayments in an attempt to capture the impact of the JRG package. In the first three years, no adjustment has been made to reflect this transition period. Over the following 25 years, new debt repayments are reduced by up to 2.2%. These adjustments are based on the 2020-21 and 2021-22 JRG summary data provided by Education and our previous report on the DNER differentials by field of study. These adjustments will continue to be updated in future years as the package matures and as more data becomes available. Further details on this matter will be discussed in a separate letter on new debt run-off to be provided in September this year.

Principles for the estimation of the receivable

Several principles regarding the estimation of the receivable have been adopted over time dealing with the timing of accounting for repayments, treatment of policy changes and the appropriate discounting basis. These are discussed in turn below.

Accounting for repayments

The AGA model is based on ATO transaction data. This data accounts for compulsory repayments at the time they are credited against outstanding debt following the lodgement of a tax return, and we do the same in our model. In practice, employers are required to deduct PAYG contributions for the salaries of employees with a HELP debt. These amounts are known as PAYG receipts and are effectively an estimate of what are expected to become the actual compulsory payments credited against the outstanding debt in the following year. ANAO have advised that, in order to be consistent with the methodology which the ATO uses to report on receipts, PAYG receipts over the year immediately preceding the balance date (i.e. 2022-23) should be taken into account.

This methodology effectively brings forward compulsory payments by a year and this in turn has two partially offsetting impacts on the estimated fair value of the receivable. Firstly, the amount due is reduced by the tax receipts which are estimated to have been collected in the year before the reporting date but not yet credited against individual debts (i.e. 2022-23 income year). Secondly, the remaining projected compulsory payments are considered to be one year closer to payment and hence discounted by one year less. This second impact has the effect of increasing the value of the receivable. The net effect is a decrease in the value of the receivable. This is shown in Table 2.

Note that this method does not consider potential compulsory repayments from future lodgement of tax returns related to financial years prior to the year before the reporting date (i.e. 2022-23). There is insufficient data to reliably measure the magnitude of these extra repayments, and they should be relatively immaterial. By ignoring these potential repayments, the receivable estimate can be considered slightly conservative.

Treatment of policy changes and current legislation

It has been agreed with ANAO that only measures that have been legislated should be incorporated into the estimates for financial statement purposes.

This year, for the first time we have allowed for the JRG impact on new debt DNER on rolling forward the receivable to 30 June 2023.

HELP repayment thresholds are indexed each year in line with the increase in the CPI over the year to the previous 31 December. As a result, the 2022-23 repayment thresholds were increased by 6.6%, based on the CPI increase over the year to 31 December 2022, resulting in the following revised repayment thresholds for 2023-24:

HELP repayment thresholds from 2023-24	
Repayment rate	**Threshold amount**
1.00%	$51,550
2.00%	$59,519
2.50%	$63,090
3.00%	$66,876
3.50%	$70,889
4.00%	$75,141
4.50%	$79,650
5.00%	$84,430
5.50%	$89,495
6.00%	$94,866
6.50%	$100,558
7.00%	$106,591

HELP repayment thresholds from 2023-24	
Repayment rate	Threshold amount
7.50%	$112,986
8.00%	$119,765
8.50%	$126,951
9.00%	$134,569
9.50%	$142,643
10.00%	$151,201

Note that post-19 VSL debts are only repaid after any higher-ranking HELP debts have been fully extinguished. HELP debts include VFH and pre-19 VSL debts.

Discounting

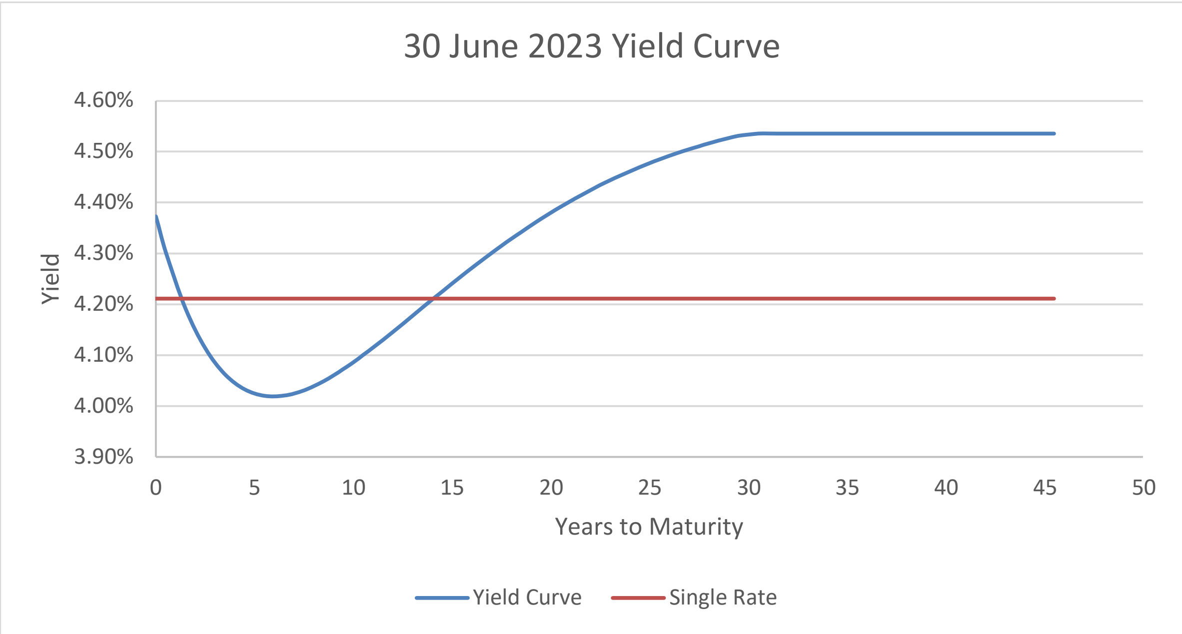
For several years now, we have used the yield curve derived from Commonwealth securities on issue as at the balance date for discounting future cashflows.

In line with last year's approach, we have retained the use of a single valuation discount rate for converting future projected repayments into a present or fair value. The single discount rate is intended to simulate the outcome of using a yield curve, while reducing the complexity associated with a yield curve. At the same time, we have also relied on Education estimates of likely repayments and new debt issued up to 30 June 2023.

The single discount rate adopted last year was 3.710% per annum for HELP and 3.764% per annum for post-19 VSL. For this year's exercise, we have used the full details of the 30 June 2023 yield curve and represented it for disclosure purposes by reference to an equivalent single discount rate of 4.212% per annum for HELP and 4.308% per annum for post-19 VSL. The mean term for HELP debt has reduced from 7.90 to 7.13 whereas for post-19 VSL, this has increased from 9.53 to 11.75. These is driven by not only yield curve movements but also higher projected short-term repayments for HELP and higher projected long-term repayments for post-19 VSL debts following this year's model update.

Figure 1 compares the 30 June 2023 yield curve with the single discount rate derived of 4.212%. The increase in the single discount rate from that derived in 2022 reflects the general increase in yields observed over the last financial year.

Figure 1: 30 June 2023 Yield Curve and associated single discount rate



I note that the timing of HELP repayments is very uncertain, perhaps more so than the eventual level of debt that will remain unpaid. The use of a yield curve (including an associated single discount rate) means that the reported impact of any changes in the assumed timing in repayments can be magnified or obscured by changes in the shape of the yield curve.

As a result, considerable care should be taken in interpreting the results calculated using the yield curve (including an associated single discount rate) when attempting to understand the underlying dynamics of the HELP receivable. In my view, the figures calculated on the long term constant discount rate basis provide a better guide to understanding the effect of changes in underlying repayment characteristics of HELP debts and the impacts of changes in the modelling approach.

In providing results under a constant discount rate basis, we have retained the approach adopted last year of a 5% per annum discount rate, which is the rate used for the valuation of a number of long term cashflow items on the Commonwealth balance sheet including superannuation and military compensation liabilities.

Deferral Adjustment

There are three adjustments made to the face value of the HELP debt provided by the ATO in order to calculate a fair value of the receivable. The first is the debt that is not expected to be repaid (DNER). The second is the adjustment for PAYG receipts. The final adjustment is the deferral adjustment.

This adjustment allows for the fact that the debt is only indexed in line with the CPI rather than the various yields associated with the yield curve (represented by a single valuation interest rate) which would be expected to be higher. Where a payment is made at a future date, the net impact of the indexation of the associated debt and the subsequent discounting of the payment to the present day, gives effect to a deferral adjustment.

Where fair value results are based on long term discount rates, the deferral adjustment reflects the 2.5 percentage point differential between the 5% per annum long term discount rate and the assumed long term indexation rate of 2.5% per annum (noting that there are short term variations). Where the fair value is based on the relevant yield curve and its associated single discount rate (see Figure 1), a much smaller difference between the 2.5% per annum indexation rate applies, resulting in a correspondingly reduced deferral adjustment. In some circumstances, such as in 2019, 2020 and also in 2021, the yield curve and associated single discount rate was below the assumed indexation rate, the deferral adjustment actually increased the value of the receivable in present value terms. This reversed in 2022, and was again the case in 2023, with the higher yield curve returning the deferral adjustment to a reduction in the receivable.

Throughout this advice, the deferral adjustment is quantified as an additional impairment (or enhancement) that is applied against the projected future repayments.

Estimated and Provisional Data

This advice has been provided based on information set out in two final ATO HELP Certificates as at 30 June 2023 (one for HELP and one for post-19 VSL provided by Education and DEWR), along with estimated debts incurred for 2022-23 provided by Education and DEWR that were not included in the ATO certificates.

Results of the 2022 HELP Model

The output of the HELP model is a projection of future repayment cashflows which allows the DNER and deferral adjustment to be calculated for HELP debts. These amounts are deducted from the nominal value of debt to give the present value of repayments.

Table 1 shows the derivation of the fair value of the HELP receivable as at 30 June 2022 using the AGA method of accounting for repayments when they are credited against an individual's debt. Note that throughout this letter, totals may not add exactly due to rounding. Note also that while some figures are quoted to the nearest $1,000, this level of accuracy is not warranted given the uncertainties involved in the modelling process.

Table 1: Fair value of the HELP receivable at 30 June 2022

		5% Discount Rate $m	2022 Yield Curve $m
	Outstanding Debt as at 30 June 2022	75,254.1	75,254.1
less	*Nominal value of further VET FEE-HELP debt excluded (not in certificate)*	*351.9*	*351.9*
gives	Nominal Value of Debt considered to have repayment prospects	74,902.3	74,902.3
less	*Nominal Value of Debt Not Expected to be Repaid (DNER)*	*17,540.4*	*17,540.4*
gives	Real Value of Repayments	57,361.9	57,361.9
less	*Deferral Adjustment*	*7,059.7*	*2,400.8*
gives	**Discounted Repayments (Fair Value of Outstanding Debt)**	**50,302.2**	**54,961.0**

Note these figures have been updated since the 2022 HELP Model Results Report to allow for further potential re-credits.

This year, we have maintained our estimate of ultimate total re-credits from last year of $3.58bn and so have made an allowance for a further $219.3m potential re-credits, based on a total of $3.361bn re-credits processed by the ATO as at 31 December 2022 as shown in the ATO granular data. This adjustment reflects our understanding that the currently legislated end to the Redress measure on 31 December 2023 is unlikely to be extended.

These figures can then be adjusted to meet ANAO requirements by taking account of PAYG receipts as shown in Table 2. This table distinguishes between the discounting impact of the basis adjustment and the reversal of the fair value of future re-credits. While the exclusion of the first year's PAYG reduces future cashflows, bringing forward all future PAYG receipts by one year increases the present value. This is shown by the difference between the two discounting impact elements. This approach essentially resets the starting position for this year's receivable by applying the results from this year's model and adjusted to the ANAO basis. These figures then become the opening position for Table 7, and ultimately flow through to Table 9.

Table 2: Derivation of the ANAO value of the HELP receivable at 30 June 2022

		5% Discount Rate ($m)	2022 Yield Curve ($m)
	Discounted Repayments from AGA's latest model	50,302.2	54,961.0
plus	*Reversal of fair value of future re-credits*	*157.8*	*172.4*
gives	Discounted Repayments (AGA basis)	50,460.0	55,133.5
plus	*Discounting impact*	*24,558.6*	*19,885.1*
gives	Undiscounted Repayments (AGA basis)	75,018.6	75,018.6
less	*Face value of compulsory repayments in 2022-23 (for 2021-22 income year)*	*4,899.5*	*4,899.5*
gives	Undiscounted Repayments (ANAO methodology)	70,119.1	70,119.1
less	*Discounting impact*	*22,735.7*	*18,428.4*
gives	**Discounted Repayments (ANAO methodology)**	**47,383.3**	**51,690.7**

Table 3 reconciles the outcomes under the two discount rate assumptions with the values we estimated in 2022 based on the 2021 model.

Table 3: Reconciliation of fair value of HELP estimates at 30 June 2022

		5% Discount Rate ($m)	2022 Yield Curve ($m)
	Estimate of Fair Value of Debt as at 30 June 2022 (based on 2021 model)	**44,866.5**	**49,594.4**
plus	*Higher than anticipated new debt in semester 1, 2022*[1]	*63.8*	*72.5*
plus	*Higher than expected compulsory repayments relative to model estimate of 2021-22 PAYG receipts (including interest)*	*-382.4*	*-380.1*
gives	Revised Estimate of Fair Value of Debt as at 30 June 2022 (based on 2021 model)	44,547.9	49,286.8
plus	*Effect of HELP model changes for 2022 - Updated data*[2]	*1,558.3*	*1,004.1*
plus	*Effect of HELP model changes for 2022 - Updated economic parameters*	*1,222.5*	*1,467.8*
plus	*Effect of HELP model changes for 2022 - Methodology changes*	*-346.3*	*-535.1*

plus	*Reversing future re-credits allowed for in 2022 receivable (based on 2021 model)*	*401.0*	*467.2*
gives	**Estimate of Fair Value of Debt as at 30 June 2022 (based on 2022 model)**	**47,383.3**	**51,690.7**

[1] This is the value of the reduction in new debt after applying the impairment ratio which adjusts for DNER and the deferral adjustment.

[2] This excludes the two data change items separately identified in the table, namely the higher than anticipated new debt and the higher than expected PAYG.

The impact of the 2022 model is a combination of updated data, changes in underlying assumptions, and changes in the model itself. Each of these elements has changed the value of the receivable by varying amounts. For example, the change in data, such as actual debt incurred, income and more extensive repayment experience contributed $1,240m to the total impact at the 5% discount rate. Note that this includes the higher than anticipated new debt in semester 1, 2022 and the higher than expected compulsory repayments relative to model estimate of 2021-22 PAYG receipts (including interest). Additionally, changes to underlying economic assumptions including higher indexation and higher short term wages (offset by lower long term wage growth) contributed $1,223m to the total impact at the long term discount rate. The various methodology changes this year have resulted in a net reduction of $346m in the receivable at the long term discount rate. Methodology changes are explained in the 2022 HELP Model Results Report.

The first three tables above show the revised fair value of debt as at 30 June 2022 to be used as a starting position for rolling forward this year's receivable. Table 4 shows the revised closing outstanding debt balance and DNER as at 30 June 2022 based on the 2022 model. They are then used for rolling forward DNER to 30 June 2023 in Table 6.

Table 4: Revised closing balance as at 30 June 2022

	Outstanding Debt ($'m)	DNER ($'m)
Closing balance reported as at 30 June 2022	74,327.7	17,018.5
Difference between actual ATO records and Department of Education estimates of debt in 2022	*96.0*	*13.2*
Removal of VFH debtors from model in excess of allowance at 30 June 2022	*0.0*	*0.0*
Effect of HELP model changes for 2022 – Updated data		*-980.3*
Effect of HELP model changes for 2022 – Updated economic parameters		*958.0*

Effect of HELP model changes for 2022 – Methodology changes		*659.7*
Revised closing balance at 30 June 2021 using latest data	**74,423.7**	**17,669.1**

This year, both DNER and receivable have increased. The 2022 HELP Model Results Report discusses the impact on DNER in detail. The receivable also increased because the deferral adjustment was smaller with the higher CPI.

As explained in our HELP Methodology Paper, it is possible to have a situation where the real value of repayments increases (and hence the DNER falls) but the timing of these repayments may be pushed so far into the future that the present value of repayments falls. Similarly, the larger the gap between the indexation rate and the discount rate, the higher the deferral adjustment with the present value of repayments being commensurately lower. However, it is important to note that if the indexation rate applied to HELP debts were higher, the size of the deferral adjustment would be reduced but some of what is currently being reported as deferral adjustment would be reported as DNER. This appears to be the driver behind the increase in both receivable and DNER this year.

This interrelationship between payments, DNER and deferral adjustment highlights the importance of understanding what each measure represents, the drivers behind observed changes and the potential limitations of focussing on a particular measure for both policy setting and ongoing monitoring purposes.

Roll Forward Results from Previous 30 June

In order to roll forward the 2022 model results to the balance date, a range of additional information is required, specifically:

- ATO aggregate data on new debt incurred, indexation, write-offs, repayments and remissions over the 2022-23 financial year, taken from the final June 2023 HELP certificate provided by the ATO. In theory, the new debt incurred includes all of the debt for semester 2 of 2022 and most of the debt for semester 1 of 2023;
- an estimate of debt incurred during semester 1 of 2023 and prior that was not included in the ATO HELP certificates provided by Education;
- an estimate of PAYG receipts over the 2022-23 financial year also provided by Education; and
- the indexation rate of 7.1% which applied to outstanding HELP debt as at 1 June 2023.

Since 2021, the above information has been separately provided for HELP and post-19 VSL. The roll-forward process described below only concerns HELP debts. For post-19 VSL debts, the roll-forward is only shown as a summary in Table 9.

The main assumption adopted in rolling forward the estimate used to be that new debts incurred over 2022-23 will have the same DNER percentages and repayment patterns associated with them as was estimated by our model for new debts incurred in 2021-22. As discussed previously, this approach was changed this year to recognise both the temporary boost in voluntary repayments in 2022-23 as well as the impact of the JRG.

Impairment assumptions for new VSL debt in 2022-23 have been derived based on a separate analysis. Given the differences in repayment prospects, we have distinguished between post-19 VSL debt and other HELP debt in estimating the impairment on the new debt incurred in 2022-23. More information on new debt repayment profiles is to be provided separately.

There are then three elements to the calculation:

- the estimation of the outstanding debt as at 30 June 2023 before allowance for PAYG receipts;
- the roll forward of the DNER from 30 June 2022 to 30 June 2023; and
- the estimation of the fair value of the receivable at 30 June 2023 on both the yield curve (represented by a single discount rate) and 5% p.a. discount rate basis.

Outstanding Debt as at 30 June 2023

Table 5: Outstanding debt as at 30 June 2023

	HELP ($m)	Post19 VSL ($m)	Total ($m)
Outstanding debt from the ATO June 2023 statement	78,225.645	1,117.902	79,343.547
Education estimate of debt incurred in semester 1 2023 and prior years but yet to be reported by ATO in 2022-23	588.976	40.403	629.380
Outstanding debt as at 30 June 2023	**78,814.622**	**1,158.305**	**79,972.926**

Estimated HELP Results as at 30 June 2023

Calculation of DNER for HELP debts as at 30 June 2023

Table 6 shows the calculation of the DNER for HELP debts as at 30 June 2023 working forward from the revised balance as at 30 June 2022 (as shown in Table 3).

It is important to recognise that the DNER percentage calculated below relates to the outstanding debt as at 30 June 2023, and any attempt to compare this value with values based on outstanding debt in prior years should be taken with care.

The DNER percentage at any time is a function of the following:

- the age of the relative tranches of debt, noting that the DNER of a certain pool of debt can be expected to increase over time due to the mathematical out-workings of an increasing proportion of non-recoverable debt relative to the reducing outstanding balance of a debt (referred to as "debt creep",
- the weightings of debt in the relative tranches, including the amount of new debt entering the system each year relative to debt being repaid each year,
- the weighting of the debt between VET and non-VET debts (which exhibit significantly different repayment prospects),
- the assumptions incorporated into the AGA model each year, which reflect updated experience and modifications to previous assumptions, and
- the prevailing legislative environment.

Discussion around the calculation of DNER, changes in this value over time and different bases for measuring DNER are set out in more detail in our latest HELP model methodology paper and HELP Model Results Report.

Table 6: Estimated DNER for HELP debts at 30 June 2023

	Outstanding Debt ($'m)	DNER ($'m)
Revised closing balance at 30 June 2022 using latest data[1]	**74,423.697**	**17,669.129**
Actual compulsory repayments in 2022-23	*-4,826.152*	
Voluntary repayments in 2022-23	*-2,901.509*	
Bonus on voluntary repayments in 2022-23	*0.000*	
Bonus reductions for selected courses	*-0.008*	*-0.001*
Write-offs in 2022-23	*-5.717*	*-5.717*
Remissions and waivers in 2022-23	*-1.085*	*-1.085*
New Debt	*6,470.612*	*945.923*
Actual indexation applied at 1 June 2023 at 7.1%	*4,798.434*	*1,254.025*
ATO adjustments for indexation and transfers of credit[2]	*-2.830*	
Closing balance as at 30 June 2023	**77,955.440**	**19,862.273**

1 This is the closing balance of Table 4.

[2] Total adjustments from the ATO Certificate

Based on these results, DNER represents 25.5% of the estimated outstanding debt as at 30 June 2023 based on the VET re-credits applied to date and a DNER of 60% for future re-credits. After all assumed VET debts are re-credited, the DNER is expected to fall to 25.3%.

Estimate of fair value of HELP receivable as at 30 June 2023

The estimate of the fair value of the HELP receivable as at 30 June 2023 is derived from the fair value adjusted for the ANAO methodology as at 30 June 2022. When calculating results based on the 2023 yield curve, while the cash transactions are the same, the other items are no longer based on the long-term interest rate, including the impairment ratio applied to the new debt which is calculated using the 2022 yield curve, the calculation of interest, which is based on the 2022 yield curve (represented by a single discount rate of 3.71% per annum), and the impact of the change from the 2022 to the 2023 yield curve on the overall value. I have shown the calculation at the long term interest rate separately from that using the yield curve in Table 7. The split of the fair value adjustment on new debt is shown in Table **11**: Split of fair value adjustment on new debt (5% discount rate) (long term discount rate) and Table **12**: Split of fair value adjustment on new debt (2022 yield curve, $m) (yield curve) in Attachment One, along with a description of the other items in Table 7.

Table 7: Estimate of Fair Value at 30 June 2023

	Long term discount rate $m	**2023 Yield Curve $m**
Opening balance at fair value (revised balance as at 30/6/22)[1]	47,383.347	51,690.698
Estimated 2022-23 PAYG receipts on opening balance	*-5,076.494*	*-5,076.494*
Actual voluntary repayments in 2022-23	*-2,901.509*	*-2,901.509*
New debt incurred in 2022-23	*6,470.612*	*6,470.612*
Estimated 2022-23 PAYG receipts on new debt	*-328.796*	*-328.796*
Fair value adjustment on new debt – DNER	*-945.923*	*-945.923*
Fair value adjustment on new debt – deferral adjustment	*-794.767*	*-321.214*
Difference between AGA and Education estimate of 2022-23 PAYG receipts	*1,233.451*	*1,233.451*
Interest at 5% per annum and interest at 3.71% per annum	*2,194.490*	*1,787.709*
Actuarial gains[2]	*0.000*	*0.000*

Closing 5.0% per annum balance at fair value (as at 30 June 2023)	**47,234.411**	**51,608.533**
Movement from 2022 yield curve to 2023 yield curve		-1,799.996
Impact of further VET re-credits (Model adjustment)	*-132.760*	*-142.532*
Adjusted Closing balance as at 30 June 2023	**47,101.651**	**49,666.005**

1 This is the closing balance of Table 3.

2 This item is zero this year because the actual indexation of 7.1% was used in the HELP model.

For reporting purposes, we have been requested to determine the proportion of future repayments that are attributable to interest on the outstanding debt balance. The proportion in relation to the fair value as at 30 June 2023 is 22.9%. The increase in this rate from last year (19.8%) was driven by higher CPI assumptions, as well as an adjustment to the method for discounting repayments so that this calculation was consistent with the approach taken with the HELP model.

We can reconcile the ATO certified amount of outstanding debt to the fair value calculated using the ANAO preferred approach based on the long term discount rate. This is shown in Table 8.

Table 8: Reconciliation between outstanding HELP debt and fair value

		5.0% Discount Rate ($m)	2023 Yield Curve ($m)
	ATO certified amount of outstanding debt as at 30 June 2023	78,225.645	78,225.645
plus	*Estimated debt incurred in semester 1 of 2023 and prior years to be reported in 2023-24*	*588.976*	*588.976*
gives	Outstanding debt as at 30 June 2023	78,814.622	78,814.622
less	*estimated 2022-23 PAYG receipts*	*-4,171.839*	*-4,171.839*
gives	Nominal value of outstanding debt after PAYG	74,642.782	74,642.782
less	*Modelled face value of debt not expected to be repaid (DNER)*	*-19,862.273*	*-19,862.273*
gives	Face value of debt expected to be repaid	54,780.509	54,780.509
less	*Deferral adjustment*	*-7,678.858*	*-5,114.504*
gives	Closing balance at fair value	**47,101.651**	**49,666.005**

When the 2023 yield curve is used, the closing balance at fair value becomes $49,666.005m. This is consistent with Table 7. All other items of the above table remain unchanged.

Estimated Post-19 VSL Results as at 30 June 2023

Advice received from Education was that a total of $241.088m of VSL debt has been incurred between 1 July 2022 and 30 June 2023 under the lower ranked repayment arrangement that has been in place since 1 July 2019. As it is a requirement to separately calculate and report the fair value of future expected repayments associated with this debt, this value has been determined to be $559.177m based on the 2023 yield curve. It is shown separately to HELP debts in Table 9.

In future, when post-19 VSL becomes more material and has its own model and report, we can provide similar reconciliations and break-downs as the case for HELP debts.

For both HELP and Post-19 VSL, we have provided a reconciliation between the outstanding debt and the estimated fair value as at the balance date. The following table is in a format which I understand you use for inclusion in financial statement disclosures. The VET and non-VET split of HELP debts (i.e. the HELP column) are shown in the last two columns and further details are provided in a separate advice.

Table 9: Accounting Disclosures Table

			HELP split	
	HELP ($m)	Post-19 VSL ($m)	VET ($m)	non-VET ($m)
Opening Balance as at 1 July 2022	**49,594.351**	**431.434**	**2,492.738**	**47,101.613**
Adjustment for restated VET split	0.000	0.000	*518.367*	*-518.367*
Higher than estimated semester 1 2022 new debt	*72.524*	*11.109*	*0.000*	*72.524*
Higher than expected PAYG repayments	*-380.065*	*6.608*	*-26.407*	*-353.658*
Model adjustment / Data update	*2,403.888*	*45.550*	*584.462*	*1,819.425*
Revised Opening Balance as at 1 July 2022	**51,690.698**	**494.701**	**3,569.160**	**48,121.538**
Estimate 2022-23 PAYG receipts on opening balance	*-5,076.494*	*-32.227*	*-266.082*	*-4,810.411*
Actual voluntary repayments in 2022-23	*-2,901.509*	*-13.404*	*-142.830*	*-2,758.679*
New debt incurred in 2022-23	*6,470.612*	*241.088*	*0.000*	*6,470.612*
Estimated 2022-23 PAYG receipts on new debt	*-328.796*	*-0.586*	*0.000*	*-328.796*
Fair value adjustment on new debt – DNER	*-945.923*	*-74.556*	*0.000*	*-945.923*
Fair value adjustment on new debt – deferral adjustment	*-321.214*	*-15.266*	*0.000*	*-321.214*
Difference between AGA and Education estimate of PAYG 2022-23 receipts	*1,233.451*	*0.000*	*60.718*	*1,172.733*
Unwind the discount – indexation component	*3,421.222*	*33.498*	*241.162*	*3,180.060*
Unwind the discount – net discount component	*-1,633.513*	*-15.739*	*-115.146*	*-1,518.367*
Actuarial gains	*0.000*	*0.000*	*0.000*	*0.000*
Movement in yield curve from 2022 to 2023	*-1,799.996*	*-58.329*	*-125.064*	*-1,674.932*
Closing Balance as at 30 June 2023	**49,808.537**	**559.180**	**3,221.917**	**46,586.620**
Impact of further VET re-credits	*-142.532*	*0.000*	*-142.53*	*0.000*
Adjusted Closing Balance as at 30 June 2023	**49,666.005**	**559.180**	**3,079.385**	**46,586.620**

As requested by Education, the amount of discount unwound in 2022-23 has been notionally split between an indexation component and a net discount component, based on the most recent debt indexation rate as a proportion of the previous 30 June's single discount rate. This year, because the indexation rate on 1 June 2023 (i.e. 7.1%) was significantly higher than the single discount rate based on the 2022 yield curve (i.e. 3.71%), the indexation component exceeds the total discount unwound. It is calculated at $3,421,222m, being 191% (i.e. 7.1% divided by 3.71%) of the total discount unwound. Similarly, the indexation component is $241.162m for VET and $3,180.060m for non-VET. Note that this split has not been applied to the other tables.

Also included below is a split of the fair value of the receivables into a current value (representing the face value of expected repayments in the coming year) and a non-current value (representing the remainder of the fair value). Values for the total HELP receivable and in respect of post 1 July 2019 VSL debt are separately provided.

Table 10: Current and Non-current split ($m)

	HELP ($m)	Post-19 VSL ($m)	Total ($m)
Current Asset	5,898.464	33.178	5,931.642
Non-current Asset	43,767.541	526.002	44,293.543
TOTAL	49,666.005	559.180	50,225.185

Sensitivity analysis (HELP)

We have calculated the fair value of the HELP receivable for four alternative scenarios shown below. They are for illustration purposes. Different sensitivity analyses on long term economic assumptions were carried out for the HELP Model Results Report. An alternative scenario of three more years of higher voluntary repayments was also considered for that report and is not repeated here.

A. 1% higher CPI for the first four years

B. 1% lower wage growth for the first four years

C. 1% higher CPI and 1% higher wage growth for all future years

D. 1% higher CPI and 1% lower wage growth for all future years

For simplicity, we have assumed that the proportional impact of alternative economic assumptions on the fair value as at 30 June 2022 on the AGA basis can be applied to the revised fair value as at 30 June 2022 on the ANAO basis. They are shown below. The rationale for each result is discussed. The results of these sensitivity tests on the fair value as at 30 June 2023 are shown in Table 13: Accounting Disclosure Table (sensitivity analysis for HELP) (Attachment Two).

Scenario	Relative Change	Rationale
A	102%	Short-term higher CPI will increase the amount of debt to be repaid through indexation, but the

		impact is partially offset by slower movement to higher repayment rates as thresholds are indexed at higher rates as well.
B	99%	Short-term lower wage growth will more likely defer the payment of debts than reduce the ultimate amount of debts repaid.
C	107%	Long-term increases in CPI will increase the amount of debt repayments relative to current outstanding balance while higher wage growth will more than offset lower threshold indexation rates by bringing forward repayments.
D	97%	Combined impact of Scenario A and B suggests that the combination has a net positive short-term impact but over the long term, there is a net negative impact as the lower wage growth over the long term combined with higher threshold indexation over the long term will significantly restrict movement to higher repayment rates increasing the ultimate DNER.

The results are less sensitivity to long term assumption changes this year because of the significant bring-forward of repayments in the HELP model (as explained in the 2022 HELP Model Results Report).

Comment on Results

On a 5% discount rate basis, the closing balance of the HELP receivable is around $2.2 billion higher than the estimate of the receivable provided in 2022. This year the repayments made exceeded the debt incurred, however the overall value increased due to upgraded wage growth and CPI assumptions (which have reduced the deferral adjustment). The inclusion of a further year of income data, along with a range of model improvements this year as described in the 2022 HELP Model Results Report has had a net positive impact on the receivable relative to what we were projecting based on the 2021 model using the 5% discount rate.

Legislation

There were no significant changes to legislation over the past year that have impacted on our calculations, following the significant changes adopted in 2019 involving a widening of the repayment thresholds as well as indexing thresholds in line with movements in CPI.

The impact of the Job-ready Graduates package on the DNER of new debt has been incorporated into this year's results, with a one percentage point increase in DNER assumed. This impact will grow over time as more of the new debt each year is JRG impacted.

Yield Curve

Yields on Commonwealth bonds were higher in June 2023 compared to 30 June 2022. The increase in the 2022 rate of 3.71% per annum to the current rate of 4.21% per annum has resulted in a decrease in the HELP receivable. For post-19 VSL debt, the equivalent single discount rate is 4.31% per annum, up from 3.76% per annum last year. This reduced the post-19 VSL receivable. The yield curve impact is shown in Table 7 and Table 9.

VET

The VET system continues to transition from VFH to VSL with new debts now all coming from the new VSL program. The take-up of loans continues to be lower since the closure of VFH to new students and the introduction of VSL.

This year, we chose to adopt a DNER assumption of 31% for new VET debts, up from 30% last year. This assumption drew on the most recent analysis of debtors and recognised the changed economic outlook. This remains an appropriate estimate for this exercise.

I note that there is significant uncertainty around how VSL might ultimately play out and that we do not yet have sufficient post completion income data to build a HELP-style granular model for estimating its DNER. However, the approach adopted for post-19 VSL has already improved in recent years with cashflows now being estimated based on recognition of debt size and higher ranking debts. The details of the current approach are provided in the 2022 HELP Model Results Report. As more income data becomes available for this population, the approach can be further refined in future.

VET Split

Since 28 May 2019, the administration of the VET sector has been transferred from the Department of Education to the Department of Employment (Employment), back again into the Department of Education, Skills and Employment (DESE) and currently to the Department of Employment and Workplace Relations (DEWR). To recognise this, a full split of the total HELP receivable into HELP only related repayments, VET repayments and VSL repayments was performed and remains a requirement.

The results of the split between the three debt types are shown in Table 9. The details will be the subject of a separate advice.

Final comments

As always, I would emphasise the uncertainty associated with estimates based on projecting incomes up to 45 years into the future. The higher debts that are now being incurred mean that repayments span an increasingly longer period and the results are therefore more sensitive to income projections further into the future, which are inherently subject to greater uncertainty. The margin of error around the results is therefore substantial. Nonetheless, I consider that the value of the receivable reported here falls within the range of reasonable estimates.

The calculation of the fair value is not straight-forward. To provide reassurance on the accuracy of the calculation, the fair value estimate as at 30 June 2023 has been derived multiple ways as shown in Table 7, Table 8 and Table 9. It has been reconciled with the fair value as at 30 June 2022 as well as the outstanding balance as reported on the 30 June 2023 ATO certificate.

This year's results assume the current VFH Redress measures will end on 31 December 2023. Should this sunset date be extended, more future re-credits than that allowed for could be removed, further reducing the fair value of the receivable.

Relative to the results derived from the 2022 model, and on a like with like basis, the DNER percentages from the 2022 model in respect of new debt for both non-VFH debts and VFH debts have increased. This reflects the increased short term CPI growth coupled with lower long term wage growth which can slow down debtors' transition into higher repayment thresholds..

Please feel free to contact us on s 22 or s 22 if you have any questions relating to this advice.

Yours sincerely

s 22

Australian Government Actuary

s 22

Australian Government Actuary

Attachment One

An explanation of the various items in Table 7 is provided below.

1. Estimated split of 2022-23 PAYG between opening balance and new debt

It is possible to estimate the proportion of compulsory repayments that relate to debt in existence a year before the balance date and the residual that relates to new debt incurred during the year. Based on the 2022 model, about 6% of compulsory repayments in 2022-23 were expected to be in respect of new debt, with the remaining 94% of repayments relating to debt in existence at 1 July 2022. These percentages have been applied to the Education estimate of PAYG receipts for 2022-23 of $5,405.3m.

2. Voluntary repayments

Voluntary repayments for 2022-23 are taken from the ATO Certificate as at 30 June 2023.

3. New debt incurred in 2022-23

The new debt has been provided by Education (including the first semester of 2023 debt that was still to be reported).

4. Fair value adjustment on new debt

The adjustment for the fair value has been determined by comparing the present value of all estimated repayments projected by the 2022 model against the face value of the debt incurred in 2021-22. These estimates have been applied to the figures we have been advised for new debt incurred in 2022-23, split by HELP and VSL debt. This resulted in an overall fair value adjustment of -28.34% for HELP debt and -45.10% for VSL debt, under the 5% discount rate basis.

The split between the components of the adjustment is shown in the two tables below. Given the difference in outcomes, there results are reported separately for VSL and HELP debt. The amount of new debt the adjustments relate to is also provided.

Table 11: Split of fair value adjustment on new debt (5% discount rate)

	5% discount rate		
	HELP	**VSL**	**Total**
Estimated new debt in 2022-23 ($m)	6,141.815	240.502	6,382.317
Face value of DNER ($m)	945.923	74.556	1,020.479
DNER as a % of new debt	15.40%	31.00%	15.99%
Deferral adjustment ($m)	794.767	33.913	828.680
Deferral adjustment as a % of new debt	12.94%	14.10%	12.98%

Fair value adjustment on new debt	1,740.690	108.469	1,849.159
Total impairment percentage	28.34%	45.10%	28.97%

Table 12: Split of fair value adjustment on new debt (2022 yield curve, $m)

	HELP	VSL	Total
Estimated new debt in 2022-23 ($m)	6,141.815	240.502	6,382.317
Face value of DNER ($m)	945.923	74.556	1,020.479
DNER as a % of new debt	15.40%	31.00%	15.99%
Deferral adjustment ($m)	321.214	15.266	336.480
Deferral adjustment as a % of new debt	5.23%	6.35%	5.27%
Fair value adjustment on new debt ($m)	1,267.137	89.822	1,356.958
Total impairment percentage	20.63%	37.35%	21.26%

Of note in the tables above is the increase in the level of DNER for new debt since last year. DNER increases for similar reasons to the increase in the fair value. The significant bring forward of repayments, combined with higher debt indexation, reduced the deferral adjustment in comparison to last year. As always, we caution the reliance on DNER measures for any purpose other than calculating the value of the receivable.

Note also that due to the aforementioned change to the approach this year in calculating new debt impairment on a true ANAO basis, the results are not directly comparable with last year. The impact on DNER is higher than on the deferral adjustment. Following the change, the CPI discounting for DNER is moved one year forward, such that each PAYG is discounted by the expected indexation rate for that PAYG year as it is assumed to be processed in the following year. For example, the first PAYG payment is for 2023-24 under the ANAO basis, and it is discounted by the expected indexation rate for 1 June 2024. The net impact on DNER is about 0.5 percentage point. On the other hand, the deferral adjustment is lower due to the bring-forward of repayments on an ANAO basis, as well as the change in CPI discounting which moved some of the DNER to deferral adjustment.

5. Difference between AGA and Education estimates of PAYG receipts

Although our practice is to recognise the estimate of PAYG receipts generated by our model, for disclosure purposes we have continued the practice of showing the difference between the estimate provided by Education and the estimate generated by the model as an explicit item in the roll forward. By including this adjustment, we are increasing the value of the receivable by the difference and ensuring that the resulting estimate corresponds to the present value of projected repayments after 30 June 2023.

6. Interest

In moving forward from the estimated fair value of the HELP receivable as at 30 June 2022 to the 2023 estimate, the discount rate used to derive the present value of repayments needs to be unwound to reflect the fact that projected payments are one year closer to being received. Hence, the interest rate used in deriving the opening balance is applied to bring the estimate up to 2023 dollars. Cashflows occurring during the year are assumed to be spread evenly over the year and accordingly six months interest is assumed on voluntary repayments and PAYG receipts (including the AGA adjustment mentioned above).

7. Actuarial gains/losses

The latest AGA model assumes that the CPI will grow by 7.1% per annum in 2022-23 and this is the rate of indexation applied to outstanding debt by our model. If inflation is higher than expected, the outstanding debt will be subject to a higher level of indexation and expected repayments will also increase.

8. Impact of further VET recredits

This year, we have maintained our estimate of ultimate total re-credits from last year of $3.58bn and so have made an allowance for a further $219.3m potential re-credits, based on a total of $3.361bn re-credits processed by ATO as at 30 June 2022 as provided by Education. This adjustment reflects our understanding that the currently legislated end to the Redress measure on 31 December 2023 is unlikely to be extended.

9. Interest capital split on total debt

For reporting purposes, we have been requested to determine the proportion of future repayments that are attributable to interest on the outstanding debt balance. The proportion in relation to the fair value as at 30 June 2022 is 22.9%. It is calculated as 1 minus the real value of future repayments as a proportion of the nominal value of future repayments after rolling forward the results from June 2022 (AGA basis) to June 2023 (ANAO basis).

Attachment Two

The results of the sensitivity analysis for HELP debts are shown below. Note that for simplicity, several items including the fair value adjustment on new debt were not re-calculated under alternative scenarios.

Table 13: Accounting Disclosure Table (sensitivity analysis for HELP)

	HELP ($m)				
	Baseline	A	B	C	D
Opening Balance as at 1 July 2022	**49,594.351**	**49,594.351**	**49,594.351**	**49,594.351**	**49,594.351**
Adjustment for restated VET split	0.000	0.000	0.000	0.000	0.000
Higher than estimated semester 1 2022 new debt	*72.524*	*72.524*	*72.524*	*72.524*	*72.524*
Higher than expected PAYG repayments	-380.065	-380.065	-380.065	-380.065	-380.065
Model adjustment / Data update	*2,403.888*	*3,255.455*	*1,806.717*	*6,112.143*	*1,046.309*
Revised Opening Balance as at 1 July 2022	**51,690.698**	**52,542.265**	**51,093.527**	**55,398.953**	**50,333.119**
Estimate 2022-23 PAYG receipts on opening balance	*-5,076.494*	*-5,076.494*	*-5,076.494*	*-5,076.494*	*-5,076.494*
Actual voluntary repayments in 2022-23	*-2,901.509*	*-2,901.509*	*-2,901.509*	*-2,901.509*	*-2,901.509*
New debt incurred in 2022-23	*6,470.612*	*6,470.612*	*6,470.612*	*6,470.612*	*6,470.612*
Estimated 2022-23 PAYG receipts on new debt	*-328.796*	*-328.796*	*-328.796*	*-328.796*	*-328.796*
Fair value adjustment on new debt – DNER	*-945.923*	*-945.923*	*-945.923*	*-945.923*	*-945.923*
Fair value adjustment on new debt – deferral adjustment	*-321.214*	*-321.214*	*-321.214*	*-321.214*	*-321.214*
Difference between AGA and Education estimate of PAYG 2022-23 receipts	*1,233.451*	*1,233.451*	*1,233.451*	*1,233.451*	*1,233.451*
Unwind the discount	*1,787.709*	*1,787.709*	*1,787.709*	*1,787.709*	*1,787.709*
Actuarial gains	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*
Movement in yield curve from 2022 to 2023	*-1,799.996*	*-1,799.996*	*-1,799.996*	*-1,799.996*	*-1,799.996*
Closing Balance as at 30 June 2023	**49,808.537**	**50,660.105**	**49,211.366**	**53,516.792**	**48,450.959**
Impact of further VET re-credits	*-142.532*	*-142.532*	*-142.532*	*-142.532*	*-142.532*
Adjusted Closing Balance as at 30 June 2023	**49,666.005**	**50,517.572**	**49,068.834**	**53,374.260**	**48,308.426**